

**R.W. DAVIES**

**THE INDUSTRIALISATION  
OF SOVIET RUSSIA 4**

**CRISIS AND  
PROGRESS IN THE  
SOVIET ECONOMY,  
1931-1933**



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SOVIET ECONOMY, 1931–1933**



*By the same author*

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THE INDUSTRIALISATION OF SOVIET RUSSIA 4

# CRISIS AND PROGRESS IN THE SOVIET ECONOMY, 1931–1933

R. W. DAVIES

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In memory of my Aunt Ciss  
WINIFRED DEAN  
1898–1992





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## PREFACE

This book deals with economic developments in 1931–1933, a period of devastating crisis. The Soviet authorities desperately sought to achieve the over-ambitious industrial plans adopted in the course of 1929–30. In 1931 alone capital investment increased by 20 per cent or more, and reached more than double the 1928 level. Non-agricultural employment increased by as much as 30 per cent in 1931 – the most rapid expansion in any single year. The expansion of the industrial sector placed an immense strain on resources. Many more mouths were clamouring for food, which the state sought to squeeze from a reluctant peasantry and an agriculture in decline. In spite of the hypertrophy of the industrial sector, the great projects of the first five-year plan were not completed on schedule, and the production plans were not achieved. And in the agricultural year 1931/32 the state failed to obtain from agriculture the increase in supplies which was required for food, fodder, industrial raw materials and export.

These failures led to major shifts in policy. In the summer of 1932, investment and production plans were drastically cut, and the year 1933 saw a return to more realistic planning. On September 12, 1933, Stalin wrote to Molotov accepting the Gosplan proposals for the 1934 plan:

I agree that capit[al] investment should not be fixed at more than 21 milliard rubles for 34, and that the growth of industr. output should not be more than 15 per cent. That will be better.<sup>1</sup>

This marked the end of the era of Utopian planning – at least for the time being.

Even before this revolution in policy, major modifications were made, in both concept and practice, to the model of the socialist economic system which had prevailed in 1930 (on which see

<sup>1</sup> Cited in *Kommunist*, 11, 1990, 105–6.

vol. 3, pp. 477–84). Mini-reforms in 1931 were succeeded by major reforms in 1932. In the post-Soviet writings of Russian economists and historians, the Stalinist economic system is usually characterised as a ‘command-administrative economy’ (a term first popularised by Gorbachev) or a ‘command-repressive economy’. It is certainly the case that the 1930s saw a general movement, albeit by fits and starts, to a more centralised and more repressive system. In the course of 1931–3 the labour camps were greatly expanded, and acquired a definite economic role. But – in spite of purges and terror – the political system was more complicated and more flexible than its image in the traditional ‘totalitarian hypothesis’. And as a result of the reforms of 1931–3 the Soviet economic system – under Stalin and after – permanently embodied several important features which are absent from the ‘command-administrative’ model. Thus money played a significant if subordinate role in Soviet state socialism; and ‘economic accounting’ was posed as a subsidiary goal to every economic unit. Labour was controlled not only by administrative orders but also through wage incentives; there was a ‘quasi-market’ for labour. The authorities decided that most food and consumer goods would be made available to wage-earners on a retail market, albeit at fixed prices, rather than through administrative rationing. And peasants and collective farms acquired limited legal rights to sell food on the ‘kolkhoz market’ at prices formed by supply and demand. This was a command system, but one with certain indispensable market and quasi-market features.

These changes in policy and system were insufficient, and came too late, to prevent the devastating famine of 1932–3, in which millions of peasants died. All mention of the famine was banned from the Soviet press, but its grim consequences silently loomed over every aspect of life. Agriculture and the famine will be the subject of the next volume in this series, *The Years of Hunger: Soviet Agriculture and the Famine, 1931–1933*. Dr Stephen Wheatcroft, Director of the Centre for Russian and Euro-Asian Studies, University of Melbourne, will be joint author of this volume; his expertise will be invaluable.

While I was engaged in research on the present volume, the Soviet Union collapsed, an event which is certainly as significant

for world history at the end of the twentieth century as the Bolshevik revolution was at its beginning. The downfall of Soviet state socialism was not anticipated by specialists on Soviet affairs, and like other historians of the Soviet period I have naturally been impelled to reconsider my view of the Soviet past.

The inherent defects of the Soviet economic system had already emerged in the early 1930s, and have long been a commonplace in Western histories of this period. In the previous volume I described the neglect of quality and of the needs of the customer, the fettering of initiative and the discouragement of risk, and above all the inhibitions on new production and new technology. These characteristic negative features of the Soviet system had already emerged in 1930 as consequences of the sellers' market and the strong central controls over industry (see vol.3, pp. 485–6). Perhaps even more significant was the profound agricultural crisis of the early 1930s, the consequences of which still haunted the Soviet countryside fifty years later.

But I would hesitate to profit from the advantages of hindsight by jumping to the conclusions that these inherent defects of the system were insurmountable, and that the fate of the Soviet economic system was already settled by the Stalin revolution of the early 1930s. In spite of its weaknesses, the Soviet economy of the 1930s displayed an industrial dynamism which contrasted sharply with the Great Depression in the capitalist world. In the last months of 1933 the Soviet capital goods industries began their rapid expansion; in the course of the second five-year plan the Soviet Union became a great industrial power. Soviet industry produced modern armaments which played a major part in the defeat of Nazi Germany; and after the second world war Soviet industry and science enabled the USSR to become – for a time – one of the two world super-powers. The present and subsequent volumes seek to show how the economy acquired both its dynamism and its inherent defects. But a study of the economy of the 1930s cannot hope to disclose the reasons for the downfall of Soviet communism, for several reasons. First, that downfall was at least partly due to new factors which emerged after 1945: the ability of the capitalist world to initiate and launch new technological revolutions; the inability of the Soviet leadership – under both Brezhnev and Gorbachev – to reform the economic system; and fatal above all perhaps was the decision of the Soviet leaders – like Ivan Grozny, Peter the Great and Nicholas II – to



embark on military competition with powerful Western neighbours, placing an immense strain on the relatively backward Soviet economy. Moreover, political and social factors – including the role of the party, the nomenklatura, and the secret police – may have played an even more important role in the collapse of the system than its economic weaknesses; and these factors are dealt with in these volumes only as background to the economic factors. I hope none the less that these volumes may provide information and analysis which contribute to our understanding of the collapse of Soviet Communism.

Since I completed the previous volume, many important Russian archives have become accessible to scholars. These include the protocols of the Politburo in the former party archives (RTsKhIDNI), the decrees and papers of Sovnarkom and its committees in GARF (formerly TsGAOR), and the materials of Gosplan and TsUNKhU in RGAE (formerly TsGANKh). For all these archives the opisi (finding aids) have also been available. I am most grateful to E. A. Tyurina, S. V. Somonova, D. Babichenko, G. V. Gorskaya, L. P. Kosheleva and L. Rogovaya for their friendly assistance. E. Danielson of the Hoover Institution provided valuable material from their Trotsky archive, and I again drew on their records of American Engineers in Russia.

Many colleagues have provided advice and assistance. I am most grateful to Dr Oleg Khlevnyuk for his valuable help; Melanie Ilić prepared the Bibliography and Index and assisted in other ways. I should also particularly mention Pierre Broué, Julian Cooper, who provided material on capital investment, V. P. Danilov, the late Vladimir Drobizhev, Mark Harrison, Jonathan Haslam, Hiroaki Kuromiya, Arfon Rees, Nicholas Werth, Stephen Wheatcroft and Stephen White. Betty Bennett worked unsparingly on the preparation of numerous drafts of the manuscript; as soon as a typescript was complete, new Russian archive material became available. My wife Frances continued to provide great support and encouragement.

The work was facilitated by the successive grants of the British Economic and Social Research Council for the Birmingham projects on Soviet economic and social history. These enabled the

employment of Mrs Bennett as project secretary and of Ms Ilić as part-time research associate; provided travel money; and supported the 'SIPS' seminars (Soviet Industrialisation Project Seminars) at which I presented preliminary findings on several occasions.

*February 1995*

R. W. DAVIES

## CHAPTER ONE

# THE 1931 PLAN

The 1931 plan embodied the profound contradictions at the heart of Soviet economic policy. Its official title was 'national-economic plan (control figures)'. This new designation indicated its presumed ability to manage economic development decisively and accurately – previously the annual planning document was simply known as 'control figures'. But in fact this was the most arrogant and unrealistic of all Soviet annual plans.

Its goals were set out in resolutions of the plenum of the central committee of the party in December 1930 and of the Central Executive Committee of Soviets (TsIK) in January 1931. These boldly characterised 1931 as the 'decisive year' of the five-year plan, in which 'the construction of the foundation (fundament) of the socialist economy will be completed'; they also called for 'fulfilment of the five-year plan in four years'. This famous slogan, which had already appeared many thousands of times in the press, was now enshrined in a government document for the first time.<sup>1</sup> In this spirit, industrial production was planned to increase by as much as 45 per cent in the single year 1931, and investment in the socialised sector of the economy by 70 per cent, from 10 to 17 milliard rubles.<sup>2</sup> The core of the investment programme was the increase in industrial investment from 4.28 to 6.62 milliard rubles; of this total, over four-fifths was allocated to Group A industries (capital goods industries).<sup>3</sup> The plan triumphantly proclaimed that, in contrast, investment in United States' industry amounted to only 3 milliard rubles in 1929, and owing to the economic crisis had declined to a mere 2–2.5 milliard in 1930.<sup>4</sup> This claim, which very considerably underestimated US industrial investment, reflected the widespread

<sup>1</sup> *KPSS v rez.*, iii(1954), 74–82 (December 17–21); SZ, 1931, art. 60 (January 8–10).

<sup>2</sup> Investment in the private sector was expected to remain constant at about 1.3 milliard rubles (calculated from data in *Narodno-khozyaistvennyi plan 1931* (1931), 20, 90).

<sup>3</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 90, 100–2; these figures exclude regional power stations.

<sup>4</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 23.

conviction in Soviet party circles that the advanced capitalist countries could be overtaken within a few years.<sup>5</sup>

The high targets were made to appear realistic by specious procedures which were now routine. The plan assumed that efficiency would improve dramatically. Thus as much as half of the increase in pig-iron production would result from improved utilisation of existing blast-furnaces.<sup>6</sup> A leading metallurgist later admitted that in the 1931 plan 'all the technical indicators for the iron and steel industry were based on optimum conditions of work, and were far closer to what was theoretically possible than to even the best actual achievements'.<sup>7</sup> The 1931 plan also assumed that resources would be concentrated to an unprecedented extent on the completion of crucial projects.<sup>8</sup> In Vesenkha, as many as 495 out of the 812 industrial units under construction in 1931 would be completed in the course of the year.<sup>9</sup>

The plan also proposed to continue the financial stringency of the last quarter of 1930, when firm limits had been placed on currency issue. The December plenum of the central committee stressed the need for 'strictest financial discipline and the regime of economy', and called for 'a decisive struggle with the underestimation of the role and significance of the financial system'.<sup>10</sup> Grin'ko, recently appointed People's Commissar for Finance, vigorously criticised economic agencies at every level for their contemptuous attitude to financial targets.<sup>11</sup> Financial equilibrium in turn depended on greatly improved costs and productivity. Productivity of labour in Vesenkha-planned industry must increase by as much as 28.0 per cent, while wages would rise by only 6.7 per cent; this would be a major factor in the reduction of production costs by 10 per cent.<sup>12</sup> Construction costs in industry were to be reduced by 12 per cent.<sup>13</sup> Following

<sup>5</sup> For a comparison of US and Soviet investment in this period, see vol. 3, p. 93.

<sup>6</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 30.

<sup>7</sup> *Sovetskaya metallurgiya*, 2, 1932, 80 (Tseitlin).

<sup>8</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 33.

<sup>9</sup> *Ibid.* 98–111.

<sup>10</sup> *KPSS v rez.*, iii (1954), 80. The financial section of the resolution was drafted by Grin'ko (RTsKhIDNI, 79/1/540, 37).

<sup>11</sup> *Leninskii plan* (1969), 173.

<sup>12</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 60, 92. In 1929/30 industrial costs were reduced by 7 per cent as compared with the planned 11 per cent (*ibid.* 13).

the precedent of October–December 1930, the plan insisted that currency in circulation would not increase in 1931.<sup>14</sup>

The plan cautiously acknowledged that financial equilibrium would be particularly difficult to achieve:

In the 1931 plan the achievement of the qualitative indicators has acquired an unprecedentedly unique significance . . . So far we have directed the initiative and efforts of the proletarian public mainly towards quantity: produce so much pig iron, so many machines. The task of fulfilling qualitative indicators has been posed rarely and not so decisively. A decisive breakthrough is required here.<sup>15</sup>

In providing finance for the 1931 plan, a very heavy burden was placed on the state budget. The five-year plan approved in the spring of 1929 had assumed that an increasing share of investment would be financed by the profits of the economy, and a decreasing share by the state budget. In contrast, the 1931 plan admitted with unusual frankness that the budget would be of 'great importance' in the redistribution of financial resources.<sup>16</sup> The revenue of the state budget was accordingly planned to increase by some 5,000 million rubles (45 per cent); of this increase 3,000 million rubles would come from turnover tax, primarily on foodstuffs (including alcohol) and consumer goods, and a further 500 million rubles from an increase in loans raised from the population.<sup>17</sup> The production of spirits was planned to increase by 48 per cent, and would provide as much as 38.7 per cent of the revenue from turnover tax.<sup>18</sup>

<sup>13</sup> SZ, 1931, art. 60; this figure does not appear in the Gosplan volume on the 1931 plan, but in the resolution of the December plenum it refers specifically to industrial construction (*KPSS v rez.*, iii (1954), 97).

<sup>14</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 82.

<sup>15</sup> *Ibid.* 24. 'Qualitative indicators' referred to cost and productivity indicators, in contrast to 'quantitative indicators' of the amount produced.

<sup>16</sup> *Ibid.* 82.

<sup>17</sup> Estimated by the present author from data in *ibid.* 160–1; the gross revenue and expenditure of transport have been netted out.

<sup>18</sup> *Ibid.* 80, 97. In September 1930, Stalin wrote to Molotov 'It is necessary, in my opinion, to increase (*as much as possible*) the production of vodka. False shame must be discarded, and the aim must be openly and frankly to increase to the *maximum* the production of vodka' (*Stranitsy istorii* (1989), 222 (Lel'chuk)).



The financial provisions were enshrined in the 'unified financial plan and unified state budget of the USSR for 1931', approved by TsIK together with the national-economic plan at its session of January 8–10. The unified financial plan, incorporating the resources of the banks and the profits of economic organisations as well as the state budget, was approved as a governmental document for the first time. In hailing this enhanced status for the unified financial plan as a major step forward in the comprehensive planning of the economy, the TsIK decree impartially assigned first priority both to the fulfilment of the economic plan and to financial discipline.<sup>19</sup>

On January 13, a few days after TsIK had approved the annual plan, Sovnarkom adopted the plan for the first quarter, January 1–March 31, 1931.<sup>20</sup> Henceforth the adoption of the quarterly plan by the government became a regular practice, designed to facilitate closer central control over the economy. Quarterly credit and currency allocations had long been subject to the approval of Sovnarkom; the quarterly plan also included investment allocations for the main sectors of the economy. The January–March plan sought to maintain the financial stringency of the previous quarter, providing for the withdrawal of 800 million rubles from circulation. This was the quiet season for agricultural activity and building work, in which some currency was normally withdrawn from circulation. But this was a far larger amount than in any previous year; in the first quarter of 1930 currency in circulation had actually risen by over 100 million rubles.<sup>21</sup>

The account which follows will show that throughout 1931 economic performance lagged far behind both the quantitative and the qualitative targets of the plan. This failure began the painful process of teaching the Soviet leaders to moderate their ambitions. But when the plan was adopted it was presented in the

<sup>19</sup> SZ, 1931, art. 61 (January 10, 1931).

<sup>20</sup> GARF, 5446/57/14, 2–8 (art. 2s). Preliminary versions of the annual and quarterly plans were approved by Sovnarkom on January 1 (EZh, January 19, 1931); the presidium of Vesenkha approved the annual and quarterly control figures for industry two days later, on January 3 (SP VSNKh, 1931, No. 1, pp. 2–8; RGAE, 3429/1/5249, 1). While the main figures of the annual plan were published, the quarterly plan was secret.

<sup>21</sup> For currency circulation in previous years, see Carr and Davies (1969), 976; and vol. 3, p. 536.

press, with abundant enthusiastic commentaries, as a precise and unchallengeable programme. In previous years, the preparation of the annual control figures had always involved fierce and protracted public or semi-public wrangles between government departments. In the debate on the first control figures for 1925/26, Gosplan proposals were strongly resisted by Narkomfin and effectively overturned in favour of a slower pace of industrialisation.<sup>22</sup> In 1926/27 Gosplan pre-empted sceptical opposition by itself advocating restraint, but was fiercely criticised from the Left.<sup>23</sup> In 1927/28, relatively moderate industrial targets proposed by Gosplan were increased on the insistence of Vesenkha.<sup>24</sup> The party authorities intervened in all these discussions at crucial stages, but a firm policy did not yet predominate in the Politburo. The discussion of the 1928/29 control figures, first at the Politburo and then at the November 1928 plenum of the central committee, was the occasion on which the Right were decisively defeated by Stalin and his supporters.<sup>25</sup> In 1929 the discussion of the 1929/30 control figures between government departments was dominated by the fierce campaign against all attempts to restrain the pace of industrialisation, but a muted debate nevertheless occurred in public (see vol. 3, pp. 179–87).

In the preparation of the 1931 plan, however, all disputes between government departments took place in secret. And the main report on the 1931 plan submitted by Gosplan to the government was shorter and less informative than the annual volumes of control figures published in the previous three years. Moreover, unlike all the previous volumes, which were freely available to the public, it was classified as 'not for publication'.<sup>26</sup>

<sup>22</sup> See Carr (1958), 500–8.

<sup>23</sup> See Carr and Davies (1969), 277–86, 812–14.

<sup>24</sup> See *ibid.* (1969), 293–302.

<sup>25</sup> See *ibid.* 814–22.

<sup>26</sup> *Narodno-khozyaistvennyi plan na 1931 god : kontrol'nye tsifry* (1931), 287 pages as compared with the 665 pages of the control figures for 1929/30. The main text and accompanying tables of this 'report of Gosplan to the Council of People's Commissars' was prepared in late December 1930, presumably after the central committee plenum, but its more detailed tables show only the planned targets for the special quarter, and were evidently prepared sometime in November. The report, issued in 1,200 copies, is marked 'not for publication (ne podlezhit oglasheniyu)', but a copy has been available outside the Soviet Union for many years, and was apparently acquired by the US government at the time. Selected but substantial tables from the report were published in PKh, 12, 1930, 336–83.

The public process of planning was henceforth concerned solely with how to reach or exceed plans which had approved by the party after discussions behind baize doors.

The strain placed on the economy by the vaulting ambition of the party leaders was obvious to the planners, and even to the leaders themselves. The 1931 plan submitted by Gosplan to the government conceded that the industrial production target was 'extremely difficult' to achieve.<sup>27</sup> In spite of all the efforts of Gosplan, the crucial balance for rolled steel showed a deficit of at least half-a-million tons.<sup>28</sup> At the party central committee in December, Kuibyshev, while admitting that the metal balance was 'extremely tense', declared that 'this deficit is acceptable, because by pressure for a more economical consumption of metal and by bringing every possible reserve into play this bottleneck can be overcome'.<sup>29</sup> But an unpublished report of Gosplan revealed that a great deal of pressure for more economical consumption had already been applied by this time. Gosplan claimed that the shortfall of rolled steel would nevertheless amount to nearly two million tons, calculated as follows (million tons):

Maximum possible production	6.33
Claims by users	11.4
Claims agreed by Gosplan	8.24
Gap (8.24–6.33)	1.9 <sup>30</sup>

Consequently, Gosplan insisted that 'the absolute minimum acceptable' import of rolled steel in 1931 was 850,000–900,000 tons as compared with 590,000 tons in 1930. Even this would leave consumers short of one million tons; Gosplan unconvincingly proposed to narrow this gap by extensively substituting bricks for metal throughout the building programme.<sup>31</sup> The proposal to import rolled steel was evidently accepted by the

<sup>27</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 33.

<sup>28</sup> *Ibid.* 30.

<sup>29</sup> Kuibyshev, v (1937), 36.

<sup>30</sup> This figure excludes quality rolled steel; total rolled steel production was planned at 6.7 million tons.

<sup>31</sup> *K dokladu Gosplana SSSR o narodnokhozyaistvennom plane na 1931g – perechen' balansov* (n.d.), unpaginated; from internal evidence this mimeographed report was probably prepared in December 1930 or January 1931.

government. In February Gosplan submitted a further iron and steel balance to STO, which showed that 7.17 million tons of rolled steel were available for distribution, including imports of 0.87 million tons. But claims still amounted to 8.77 million tons, so that the needs of transport and industry could be met only by cutting the allocation to municipal economy, housing cooperatives and agriculture below the 1930 level.<sup>32</sup> Sovnarkom approved this tense iron and steel balance on February 21.<sup>33</sup>

The greatly expanded capital investment plan was nevertheless insufficient for the many projects which had been approved in the course of 1930. In iron and steel, for example, investment had to be concentrated on a small group of enterprises; several major projects were postponed.<sup>34</sup> And many high-priority projects received financial allocations which were insufficient to meet their programme. Even the crucial Kharkov tractor factory, due for completion as early as July 1, 1931, was in considerable difficulty. The estimate of its total costs, approved in 1930 at 119 million rubles, was already tight: following firm instructions from STO, it was substantially lower than the cost of the Stalingrad factory, of which it was a modified replica.<sup>35</sup> About 30 million rubles were spent in 1930; and the organisation responsible for constructing the factory accordingly put in a claim for 72 million rubles in 1931.<sup>36</sup> The construction manager, Svistun, pointed out that 'all building which does not affect the starting-date and normal work of the factory has been transferred to 1932 in view of the savage reduction of the allocations for 1931'.<sup>37</sup> But the eventual reduction proved even more savage than Svistun anticipated. At the end of 1930 the total estimate for the whole project was suddenly cut from 119 to 89 million rubles. Svistun described this as a 'completely unrealistic sum',<sup>38</sup> but the 1931

<sup>32</sup> *Metall*, 7-8, 1931, 107-12 (I. I. Spivak); see also *Sovetskaya metallurgiya*, 5-6, 1932, 305, 308-14 (Spivak).

<sup>33</sup> GARF, 5446/57/14, 55-8 (protocol no.6). For further changes in the balance, see Table 9.

<sup>34</sup> PKh, 1, 1931, 28 (Mednikov).

<sup>35</sup> RGAE, 7620/1/619, 3, 18 (report by Svistun, prepared in March 1931).

<sup>36</sup> RGAE, 7620/1/112, 271-3; this is an 'explanatory note' to the control figures for the construction for 1931, prepared by Svistun (undated, probably end of 1930); for the expenditure in 1930, see *ibid.* 256-7.

<sup>37</sup> RGAE, 7620/1/112, 273.

<sup>38</sup> RGAE, 7620/1/619, 18.

allocation was nevertheless cut to a mere 46 million rubles.<sup>39</sup> Fierce disputes about the allocation continued throughout the first six months of 1931.<sup>40</sup> The Chelyabinsk tractor factory, due for completion in May 1932, was in an even worse position. In the 1931 plan it was allocated only a nominal 10 million rubles of the 194 million rubles due to be spent on its construction.<sup>41</sup> Eventually this allocation was substantially increased (see p. 41 below), but the tractor corporation VATO later acknowledged that 'the delay in the approval of the control figures for 1931 placed the site at the end of 1930 and beginning of 1931 in a state close to conservation'.<sup>42</sup>

Although the investment plan did not cover the cost of the planned projects, its rate of increase was so large that the planners had great difficulty in balancing the supply and demand for machinery, even on paper. Before 1931 Vesenkha merely fixed production targets for machinery in value terms, supplementing this with earmarked orders compelling factories to supply specific items of machinery to priority consumers. Otherwise the engineering corporations and trusts decided their own production and sales plans. But the strength of the competing claims in the 1931 plan compelled Vesenkha to draw up for the first time an annual national balance for capital equipment.<sup>43</sup> Machinery output was planned to expand by over 80 per cent.<sup>44</sup> But claims for industrial and transport equipment exceeded the planned output by 64 per cent, and had to be cut drastically.<sup>45</sup> The methods used were crude; the scheme was variously described as a first experiment which had 'opened a new phase in planning the engineering industry' or as a premature exercise in which both production and distribution plans were too vague.<sup>46</sup>

<sup>39</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 114; RGAE, 7620/1/112, 225–6.

<sup>40</sup> See the reports and correspondence in RGAE, 7620/1/112, 212–66.

<sup>41</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 114.

<sup>42</sup> RGAE, 7620/1/356, 42 (decree of March 22, 1932, on 1931 annual report from site).

<sup>43</sup> *Metall*, 2–3, 1931, 4–8.

<sup>44</sup> Estimated from data in *Narodno-khozyaistvennyi plan 1931* (1931), 93 (listed items for general and agricultural machinery, vehicles and tractors, shipbuilding and electrical engineering).

<sup>45</sup> Khmel'nitskaya, ed. (1931), 554–8; these figures, in 1929/30 prices, do not include imports.

<sup>46</sup> *Metall*, 2–3, 1931, 19 (Spektor).

Similar troubles beset planners in every industry and sector of the economy.<sup>47</sup> In previous years the control figures had been optimistic, but their goals were generally within the bounds of possibility. But the 1931 plan was based on the entirely unfeasible revised targets for the five-year plan adopted by the XVI party congress, at a time when the capacity reserves of earlier years had been exhausted in many industries, and stocks of materials were low. Even daring assumptions about efficiency failed to obviate an unprecedented lack of coherence in the plan.

How far the high targets were openly resisted by industrial managers is not known. In spite of the continued fierce campaign against the party Right wing and the bourgeois specialists, some resistance certainly occurred. The chief assistant to the non-ferrous metals corporation apparently objected to the plan to produce 150,000 tons of copper in 1931, and was dismissed.<sup>48</sup> A leading official reported to the presidium of Vesenkha a 'lack of faith in the rates of growth approved by the party' among some senior administrators and mine managers in the Donbass coal industry.<sup>49</sup> The head of the oil industry corporation acknowledged that 'many people are bewildered' because the increase in capital investment in the 1931 plan was much smaller than the proposed increase in production.<sup>50</sup> The engineering industry noted 'a certain amount of perplexity among leading personnel at a number of factories'; 'in many instances a large amount of energy was directed to proving that the targets could not be fulfilled'.<sup>51</sup> But for the moment such conservatism was shouted down and swept aside by Ordzhonikidze and the large group of former Rabkrin officials who now dominated Vesenkha.

<sup>47</sup> See Zaleski (1971), 163–6, for further examples.

<sup>48</sup> Barmine (1938), 234–5; Alexander Barmine claims that Serebrovsky, head of the non-ferrous metals industry, while publicly defending this target, 'knew perfectly well' that it could not be achieved. His dismissed assistant, Shakhmuradov, favoured a target of 100,000 tons. In fact copper production, 44.5 thousand tons in 1929/30, was only 44.3 thousand tons in 1931, 53 thousand tons in 1933 and 75 thousand tons in 1935 (*Promyshlennost'* (1936), 25); it first exceeded 150 thousand tons in 1940 (see Nutter (1962), 420).

<sup>49</sup> ZI, January 4, 1931 (S. Lobov).

<sup>50</sup> *Pervaya* (1931), 87 (Ganshin, Soyuzneft'); investment had previously increased at the same rate as production, but in 1931 production was planned to increase by 35 per cent, investment by only 10 per cent.

<sup>51</sup> RGAE, 3429/1/5242, 45–6 (report of Soyuzsredmash to the presidium of Vesenkha for its sitting of June 28, 1931).

Unhesitating optimism about the plans was apparently shared by all the party leaders close to Stalin. Addressing the IX Komsomol Congress, Kaganovich boldly announced that ‘the end of the five-year plan and the first years of the new one will give us a gigantic thrust forward which will show the whole world that the hour is not far off when we shall catch up and surpass the most advanced country – the United States of North America’. ‘Socialism will be victorious . . . You will be the masters of the whole world!’<sup>52</sup>

<sup>52</sup> EZh, January 22, 1931.

## CHAPTER TWO

### THE INDUSTRIAL CONFERENCE, JANUARY 30–FEBRUARY 4, 1931

The first major occasion on which the new leaders of Vesenkha presented themselves in public was the ‘First All-Union Conference of Employees (rabotniki) of Socialist Industry’, held in Moscow from January 30 to February 4, 1931.<sup>1</sup> The conference, convened in the hall of the House of Trade Unions in which the Industrial Party trial had taken place two months previously, was attended by over 700 industrial officials and factory managers, mainly party members of long standing.<sup>2</sup> The sole item for discussion was ‘The control figures of Vesenkha-planned industry for 1931 and the tasks of economic managers’. The conference differed radically in content and style from the preceding public discussions about the economy. Financial discipline and cost reduction had already been stressed by the central committee plenum in December.<sup>3</sup> In his major opening speech at the conference, Ordzhonikidze took this emphasis much further. While wholeheartedly supporting the quantitative targets of the plan, he also called for a fundamental reform of the supply system in industry, so that financial incentives would play a major role. Centralised distribution must be supplemented by direct contracts between supplying and consuming factory, firmly based on *khozraschet* and on the ‘material responsibility of the contracting parties’:

<sup>1</sup> The decision to convene the conference was taken by the Politburo, on Ordzhonikidze’s proposal, on December 30, 1930, and formally approved by the presidium of Vesenkha on January 3 (RTsKhIDNI, 17/3/809 – decision confirmed by sitting of January 7; RGAE, 3429/1/5243, 1); it was originally variously called a ‘conference of representatives of enterprises’ and a ‘conference of employees of industrial enterprises’. Its proceedings were extensively reported in the daily press; a report was published as *Pervaya vsesoyuznaya konferentsiya rabotnikov sotsialisticheskoi promyshlennosti* (1931).

<sup>2</sup> *Pervaya* (1931), 1; Il’in, *Bol’shoi konveier* (1934), 138–9 (this is a fictionalised but more or less factual account of industrial developments in this period). For the location of the conference, see *Pervaya* (1931), 75.

<sup>3</sup> See p. 2 above. In the same month, in a note to Ordzhonikidze, Stalin emphasised the importance of cost reduction and one-person management (RTsKhIDNI, 558/1/2992, 6, *cit.* Khlevnyuk (1993)).



Why not arrange it as follows: after Vesenkha has found out that there is so much metal and it's not enough, there's nothing you can do, you have to cut down some corporation, one gets so much metal, another gets so much, another so much. Then they allocate this metal among their factories. After this the director of the metal-working factory concludes a contract with the director of the iron and steel works, in which it says that you must give me so much metal of such-and-such a shape, such-and-such a product mix at such-and-such a time, and I must pay you so-and-so for it. If you supply me everything on time in accordance with the contract, you will get the appropriate payment; if not, we will talk in other terms. If you don't meet the obligations you have taken on, I won't pay you, the bank won't pay you on my behalf any more, and you, dear comrade, will have to have a very hard think about how to pay your wages, how to carry on the work at your factory.

Elsewhere in his speech Ordzhonikidze returned to the theme of *khozraschet* and financial controls, and announced that a substantial part of the financial provision for investment would be made available only if production costs were reduced in the relevant industries:

The reduction of production costs must be at the centre of attention of all the work of factory managers and the factory community. So far we have not paid enough attention to this question. This [sc. 'last'] year we did not reduce costs to the planned extent. There wasn't enough money, and we squeezed more than a milliard rubles out of the bank. This year that will no longer happen, and it must be clearly understood that if we do not obtain 1,590 million rubles by reducing costs, this will mean that capital construction will be reduced.

Ordzhonikidze coupled this stress on economic accounting with a firm insistence on the need to enforce the principles of one-person management in accordance with the central committee resolution of September 5, 1929. The factory manager must not be subject to interference from party cell or factory committee, though he should strive to work in harmony with them; his rights in relation both to his superiors in the industrial corporation, and

to his suppliers, would be maintained by strengthening khozraschet throughout the industrial system. Ordzhonikidze also displayed a markedly less hostile and uncompromising attitude to the 'bourgeois specialists' than had been prevalent in the past eighteen months. He emphasised that cadres were in short supply: while it was necessary to be on one's guard because 'a considerable number were in the enemy camp', 'it would be absolutely wrong if we could not distinguish the honest specialists who work with us from the rubbish', especially as thousands of specialists had turned away from traitors such as Ramzin since the Industrial Party trial. After a mere two months as head of Vesenkha, Ordzhonikidze was already beginning to turn from being a scourge of the specialists into their most effective protector.<sup>4</sup>

In the course of a lively and often heated discussion, senior Vesenkha officials recently transferred from Rabkrin and factory managers of long standing equally lamented the pervading over-centralisation and bureaucracy, and confirmed with striking examples the extent to which the drive for higher output had thrust aside considerations of quality and finance. The former Trotskyist I.N. Smirnov failed to sing the new tune. Implicitly rejecting Ordzhonikidze's hopes of dismantling the centralised system of supplies, he tactlessly if realistically proposed to bring order out of chaos by the establishment of the kind of central supply agency which operated successfully during the civil war, and introducing a firm priorities' system.<sup>5</sup> This attempt to revert to War Communism offered an obvious target for abuse of the politically vulnerable Smirnov.<sup>6</sup>

On the fourth day of the conference, February 2, Molotov, in his new role as chairman of Sovnarkom, strongly endorsed Ordzhonikidze's support for khozraschet, thus making it clear that this was not just a personal eccentricity of the new chairman of Vesenkha:

<sup>4</sup> Ordzhonikidze's speech is reprinted in Ordzhonikidze, ii (1957), 257–83; he repeated his point about the specialists in his concluding remarks (*ibid.* ii (1957), 287–8); see also Bailes (1978), 147.

<sup>5</sup> *Pervaya* (1931), 48–9 (I.N. Smirnov, from the building organisation for the Saratov combine-harvester factory).

<sup>6</sup> For criticism of Smirnov, see *ibid.* 104 (M.M. Kaganovich); for Smirnov and the Left Opposition, see Carr (1971), 99.

The correct conduct of *khozraschet*, of so-called commercial principles, must in present conditions be of decisive importance for improving the management of industry from bottom to top.

Condemning Smirnov, Molotov pointed out that the supply system of War Communism had been based entirely on a strictly centralised plan of specific military orders:

It was impossible to pay much attention to profits and losses, and consequently to costs of production. *Khozraschet* did not exist.

For the present stage in Soviet development, however, Molotov, like Ordzhonikidze, firmly insisted that *khozraschet* must be strengthened and extended. He took it for granted, however, that it was a transitional phenomenon, derived from NEP, and due to be eliminated when the last stage of NEP was completed. This dictum on an important point of Marxist economic theory was to cause much confusion and controversy (see pp. 61, n.208 and 140 below), and indicated that in a longer perspective Molotov did not entirely share Ordzhonikidze's full-blooded enthusiasm for *khozraschet*.<sup>7</sup>

In his final speech to the conference on February 4, Ordzhonikidze somewhat adjusted the delicate balance between *khozraschet* and growth in favour of growth:

Our programme for this year is not an easy one – you know this better than I do, because all of you have had to experience this on the spot, but we must carry out the programme this year whatever happens.

The five-year plan had been increased, and then accelerated so that it would be completed in four years and in certain industries even in three or three-and-a-half years. But it was essential to press ahead because of the capitalist encirclement and the class struggle within the country:

Comrades, you and I do not of course want war, you and I do not intend to attack anyone, but everyone round us is preparing for war, especially for war against the USSR . . .

<sup>7</sup> I, February 12, 1931.

We shall only save ourselves from this to the extent that we develop rapidly, and increase our strength more and more.<sup>8</sup>

After Ordzhonikidze's speech, Stalin arrived in the hall. Stalin's unscheduled speech with which the conference concluded became the most famous of all his statements about industrialisation; its role in Soviet history was analogous to the part played by Churchill's 'blood, sweat, toil and tears' speech in Britain during the second world war. Stalin insisted on the inviolability of the 1931 plan, particularly the provision to increase industrial production by 45 per cent:

With a passionate effort of will it is possible to achieve anything, to overcome all obstacles.

It is sometimes asked whether the pace can be reduced a bit, and the speed of development restrained. No, this is impossible, comrades! The pace must not be reduced! On the contrary, as far as it is within our powers and possibilities, it must be increased. Our obligations to the workers and peasants of the USSR demand this of us. Our obligations to the working class of the whole world demand this of us.

To slacken the pace means to lag behind. And those who lag behind get beaten. And we do not want to be beaten. The history of old Russia was a history of being continuously beaten because of her backwardness. She was beaten by the Mongol khans. She was beaten by the Turkish beks. She was beaten by the Swedish feudal lords. She was beaten by the Polish and Lithuanian pans. She was beaten by the British and French capitalists. She was beaten by the Japanese barons. Everyone beat her because she was backward. Because of military backwardness, cultural backwardness, the backwardness of the state, the backwardness of industry, the backwardness of agriculture. She was beaten because it was profitable to do this and it could be done with impunity. . . . That is the law of the exploiters – beat and rob the backward and the weak. The jungle law of capitalism. You are backward, you are weak – and therefore you are in the wrong, therefore you can be beaten and enslaved. You are powerful, therefore you are right, therefore we must handle you carefully.

<sup>8</sup> Ordzhonikidze, ii (1957), 284–301.

That is why we must no longer lag behind.

In the past we did not and could not have a fatherland. But now we have overthrown capitalism and we, the people, hold the power, we have a fatherland and must defend its independence. . . . There is no other way. That is why Lenin said on the eve of the October revolution: 'Either death, or catch up and overtake the advanced capitalist countries.'

We are 50–100 years behind the advanced countries.<sup>9</sup> We must close this gap in ten years. Either we achieve this, or they will do us in.

According to Stalin, the objective conditions for this achievement existed: ample natural resources; a government willing and able to utilise them; the mass support of workers and peasants; a planned economy, free from economic crisis and unemployment, the incurable diseases of capitalism; a unified coherent party. But it was also necessary to be able to utilise these possibilities properly, and here matters were not so favourable. The Shakhty and Industrial Party trials had shown that Bolsheviks had not mastered technology sufficiently to prevent widespread wrecking by the class enemy. Stalin insisted that real one-person management was possible only if Bolshevik managers mastered production and its technology, and its economic and financial aspects.

If the capitalist countries were to be overtaken in a maximum of ten years, Bolsheviks must 'stop the rotten attitude of non-interference in production'. 'Technology in the period of reconstruction decides everything.' 'Bolsheviks must master technology . . . . There are no fortresses which a Bolshevik cannot conquer.' With technology mastered, 'we will attain rates of development of which we do not at present dare to dream'.<sup>10</sup>

Stalin's powerful speech, with its novel appeal to Russian patriotism as well as revolutionary enthusiasm, had a strong impact on the delegates: according to a favourable observer, 'Stalin literally opened a valve through which the steam could be

<sup>9</sup> In his speech at the conference Stalin crudely estimated the gap as simply 100 years, but more accurately modified this in the published version (*Stranitsy* (1989), 225 (Lel'chuk)).

<sup>10</sup> Stalin, xiii (1951), 29–42; this speech appeared in *Pravda* on the following day, February 5, 1931, and was printed in the conference report at the end of the rest of the proceedings.

released, and showed what to do so that the train could go on its way.<sup>11</sup> Stalin's speech inspired many Soviet citizens, party and non-party, in the remorseless hard work to build up industry in the ensuing months and years. When its prediction of mortal danger proved accurate ten years and four months later, it acquired a prophetic quality; it inspired the Soviet people throughout the years of bitter suffering of the second world war.

But in the context of February 1931 its function was less straightforward. Stalin's analysis did not differ in principle from Ordzhonikidze's and Molotov's. They all defended the 1931 plan, and argued that efficient management was the key to success. No evidence has been forthcoming that at this time Ordzhonikidze differed from Stalin about the feasibility of the 1931 plan. Yet the thrust of the three speeches was quite different. Ordzhonikidze and Molotov both placed much more emphasis than Stalin on *khozraschet*. Ordzhonikidze actively sought to find new less centralised ways of managing the economy, in which economic incentives would play a greater role. His proposals for improving the economic mechanism were in large part frustrated (see pp. 61 and 260–70 below). But he was groping towards greater flexibility in the economic mechanism and more realistic economic policies. Stalin's speech, however, was almost exclusively directed towards justifying the rates of growth of the plan; if the economy was not working well, it was simply because its Bolshevik managers had not mastered the available techniques and technology. And in Stalin's speech there was no hint of the more flexible attitude to the bourgeois specialists displayed by Ordzhonikidze.<sup>12</sup>

<sup>11</sup> Il'in (1934), 143–50; *1933 god* (1934), 104–9.

<sup>12</sup> For the change in Stalin's attitude to the specialists behind the scenes at this time, however, see p. 46 below.

## CHAPTER THREE

# THE STRUGGLE FOR THE PLAN: JANUARY–JUNE 1931

### (A) ECONOMIC DEVELOPMENT

#### (i) *Crisis, January–February*

By the time of the industrial conference, industry was already in severe crisis. The official statistics acknowledged that Vesenkha production fell by 12.8 per cent in January and a further 6.2 per cent in February. This was partly the normal decline to be expected in mid-winter, and partly a reaction to the great push of the October–December quarter. But the decline was much greater than in previous years.<sup>1</sup> Nearly all major industries were affected, especially coal and iron and steel. Coke production in January fell by as much as 61.1 per cent,<sup>2</sup> a decline without precedent since the civil war.

A Gosplan review of these two months openly admitted ‘negative trends in the work of certain basic industries’, and indicated that scepticism about the plan was still widespread:

Opportunists of all kinds will undoubtedly try to use the unfavourable conjunctural data as an argument against ‘the impossible pace’. Petty-bourgeois fainthearts and ‘critically thinking persons’ will flap about in search of new roads to follow, and these are bound to lead away from the general line of the party.<sup>3</sup>

The severe transport crisis at the beginning of 1931 exacerbated the problems of industry. Owing to the remorseless production drive of the previous two years, stocks of fuel and

<sup>1</sup> *Itogi VSNKh* (1932), 46–7; for production in previous years, see EO, 3, 1930, 178–9. Here and later the seasonal timber, brick and peat industries have been excluded from monthly and quarterly figures.

<sup>2</sup> *Osnovnye pokazateli*, 1933 (1934), 36–7.

<sup>3</sup> NPF, 3–4, February 1931, 6 (editorial); the journal was edited at this time by K. Rozental’, who was close to Kuibyshev.

raw materials were exceptionally low at the end of 1930. Delays in railway freight often made the difficult situation catastrophic. By February 1931, the number of goods wagons loaded per day had fallen to the lowest monthly average since May 1929 (see Table 10). According to the party journal:

Transport did not cope with freight; the iron-ore mines accumulated mountains of ore, which the blast-furnaces were waiting for; mines were weighed down with huge stocks of coal which were needed by the factories; finished products piled up at the factories.<sup>4</sup>

In the Ukrainian iron and steel works, stocks were first measured in months, 'then in weeks, then in days, and now in hours'. By March 5 one major works had only four hours' stock of coal; the atmosphere was one of 'absolute lack of confidence in tomorrow'.<sup>5</sup>

The crisis on the railways followed a long period of neglect. Throughout the second half of the 1920s, investment in rolling stock and track was squeezed in order to provide resources for industry. By the end of 1930, the stock of freight locomotives and goods wagons was only one-third greater than in 1913, but freight carried had more than doubled.<sup>6</sup> And the production of rails was only half the 1914 level, even though the track was used more intensively and new lines were under construction.<sup>7</sup> By the

<sup>4</sup> B, 15, August 15, 1931, 3 (editorial).

<sup>5</sup> ZI, March 18, 1931 (Khavin), describing the Dzerzhinsky works.

	1.1.1914	1.1.1931
Stock of		
freight locomotives: th. <sup>a</sup>	14.7	14.7
: th.t. <sup>a</sup>	126.2	170.3
Stock of		
goods wagons: th. <sup>a</sup>	446.7 (1913)	504.8
: million tons		
capacity <sup>a</sup>	6.9 (1913)	9.2
Freight carried: million tons <sup>b</sup>	132.4 (1913)	238.2 (1930)
th.m.t.-km <sup>b</sup>	65.7 (1913)	133.9 (1930)

<sup>a</sup> *Zheleznodorozhnyi transport* (1970), 134–5. This is a Gosplan report.

<sup>b</sup> *Nar.kh.* (1932), 194–5.

<sup>7</sup> Rail production in thousand tons: 660 (1914), 225 (1926/27), 281 (1927/28), 300 (1928/29), 332 (1929/30) (*Metall*, 7–8, 1931, 6). Imports were negligible throughout.



autumn of 1930 the party had decided in principle that major capital investments on the railways could no longer be postponed, and even condemned opposition to new investment as 'Rightist'.<sup>8</sup> But this decision had no immediate practical consequences. Even elementary repairs and replacements were skimped as compared with before the war. The attempt to rationalise and accelerate repair by introducing Japanese methods (so-called 'Japanisation') was largely ineffective.<sup>9</sup> In February 1931, 27 per cent of locomotives were out of use as compared with 17.3 per cent in 1913; and an exceptionally large number broke down in operation.<sup>10</sup> Railway sleepers were replaced less frequently, and in 1930 46 per cent of new sleepers were made from untreated timber.<sup>11</sup>

Railway experts, and party leaders responsible for transport, had given ample warning of the dangers. In 1930, a special commission of Narkomput', headed by Sulimov, an experienced old Bolshevik, spent several months in the United States, and its findings formed the basis for comprehensive proposals for the reconstruction of the railways.<sup>12</sup> A member of the commission warned that 'the danger is becoming entirely palpable that transport may become a "bottleneck" for the entire economy, a brake capable of holding back the process of industrialisation'.<sup>13</sup>

A drastic reorganisation of railway administration in 1930 added confusion to strain. 'Depersonalised manning', in which locomotives were given to the first available crew, was successfully practised in the United States when spare rolling stock and good repair facilities were in ample supply. But in the Soviet Union these advantages were absent, and the introduction of this system resulted in a sharp decline in the care with which

<sup>8</sup> See, for example, P, October 4, 1930 (editorial); the bureau of the party cell of Narkomput' was replaced after it had rejected the fundamental reconstruction of transport as 'Trotskyist' (P, November 21, 1930 – Tverskoi). For the debate on these issues, see Hunter (1957), 45–6, 296.

<sup>9</sup> For 'Japanisation', see P, February 21, July 18, 1930, May 15, 1931; EZh, May 15, 17, September 5, 1930.

<sup>10</sup> *Zheleznodorozhnyi transport* (1970), 134.

<sup>11</sup> *Ibid.* 133.

<sup>12</sup> P, June 23, 1930.

<sup>13</sup> B, 14, July 31, 1930, 49 (Dokunin); for a similar warning see I, June 18, 1930 (Belousov).

locomotives were handled.<sup>14</sup> According to Soviet accounts, many engine-drivers left their jobs during 1930 because of their dislike of the new system.<sup>15</sup> The campaign against 'bourgeois specialists' in 1929-31 also seriously disrupted administration. It was carried out with particular vigour on the railways: by June 1931 the transport division of the OGPU had removed 4,500 persons from the railways, including 1,300 engineers and senior engineers, and 2,000 middle managers such as stationmasters.<sup>16</sup> But the fundamental problem was the strain of the great increase in freight resulting from the expansion of industry.

(ii) *Partial recovery, March-June*

Following desperate efforts to extract the railways from their crisis, the number of goods wagons loaded per day rose steadily, and in May reached 51,525, higher than the June 1930 peak (see Table 10). In March, production of Vesenkha industry almost returned to the level of December 1930.<sup>17</sup> In the same month oil output reached the daily and monthly equivalent of the 1932/33 segment of the optimum variant of the five-year plan approved in April 1929.<sup>18</sup> Accordingly, on March 27 *Pravda* proudly proclaimed that the oil industry had completed the five-year plan in 2½ years. A few days later Stalin congratulated oil workers and officials; this was the first of a series of similar

<sup>14</sup> The case for reorganisation was presented in EZh, March 5 (Blagonravov), 29, 30, 1930, P, March 15, 1930 (report of Rabkrin investigation), and the case for 'depersonalised manning' in EZh, March 11, 1930 (Koshel'kov, Glazunov). Later fierce criticisms of these arrangements (e.g. P, July 11, 1931 (Rukhimovich), B, 7, April 15, 1931, 47-8 (Dokunin)) are biased by their strong tendency to blame bad organisation for the existing difficulties, but seem plausible. Limited experiments with depersonalised manning in 1927 apparently improved the efficiency with which locomotives were used.

<sup>15</sup> See Kuromiya (1988), 243; Rees (1994), 26.

<sup>16</sup> RTsKhIDNI, 17/2/479, 88 (Andreev's co-report to the plenum of the party central committee, June 1931). In the associated purge of state agencies carried out by Rabkrin, 20.2 per cent of those Narkomput' officials who had been examined by June 1930 were dismissed or demoted, as compared with 14.6 per cent in Narkomfin and 8.6 per cent in Vesenkha (*Chistka* (1930), 22).

<sup>17</sup> *Itogi VSNKh* (1932), 46-7.

<sup>18</sup> P, March 27, 1931; production in March was 1.81 million tons, the plan for 1932/33 was 21.7 million. In 1929/30 the plan for 1933 was increased to 46 million tons and this target was restated in the celebratory article in ZI, April 1, 1931.

messages to sections of industry.<sup>19</sup> The following month saw the completion of the first Soviet-manufactured blooming mill at the Izhora factory near Leningrad, with an annual capacity of one million tons. The mill was constructed in nine months, apparently a world record. It was a duplicate of the German Demag design in use at Magnitogorsk, but according to Soviet sources the drawings were prepared by Soviet engineers without foreign help. The industrial newspaper hailed the construction of the mill as ‘a powerful blow against dependence on foreign countries’.<sup>20</sup>

The improvement in industrial production in March was not sustained. In each of the months April, May and June production was lower than in March, and in the April–June quarter it was only slightly higher than in October–December 1930.<sup>21</sup> In consequence, labour productivity also declined. Summing up the results of the first five months of 1931, Kuibyshev described the ‘considerable lag’ in production and construction and the ‘extremely unsatisfactory’ qualitative indicators (i.e. cost and productivity indicators) as ‘very alarming occurrences’.<sup>22</sup>

### *(iii) Costs and finance, January–June*

While productivity declined, wages continued to rise; in consequence, costs of industrial production, construction and rail transport all increased. This meant that the budget and the State Bank had to make available additional funds not provided

<sup>19</sup> *Soch.*, xiii (1951), 45 (message dated March 31); three days later *Pravda* published his message to the electrical engineering factory Elektrozavod congratulating it in fulfilling the plan in  $2\frac{1}{2}$  years (*ibid.* 46).

<sup>20</sup> *ZI*, April 24, 1931; *P*, May 12, 1931: the mill was completed on April 28. Though planned to be installed in 1931, it was not in fact installed and working in the Makeevka works in the Ukraine until June 1933 (*Ek.zhizn'* (1961), 289). Sutton (who curiously refers to Makeevka as ‘McKeevsky’) claims that the mill was ‘designed and duplicated’ with the help of the US company United Engineering, but the sources he cites do not refer to the Izhora factory (Sutton (1971), 70 and ch. 9).

<sup>21</sup> *Itogi VSNKh* (1932), 46–7; *Osnovnye pokazateli*, 1933 (1934), 36–9.

<sup>22</sup> Kuibyshev, v (1937), 118 (report to Moscow party activists, June 19, 1931). Although productivity rose somewhat more rapidly than wages in April–June, this was not sufficient to compensate for the wages/productivity gap in the previous three months.

for in the plan. In January–March 1931, currency in circulation was planned to decline by as much as 800 million rubles (see p. 4 above), but in fact it increased by 87 million rubles (see Table 24).<sup>23</sup> Rumours circulated in the foreign community in Moscow that the Soviet authorities were secretly releasing currency notes in excess of the official issue;<sup>24</sup> similar rumours recurred in later years. But even the official figures indicated that the currency plan had been placed in jeopardy.

Narkomfin proposed to correct the deficiencies of the January–March quarter by withdrawing currency from circulation in April–June, normally a period of net currency issue.<sup>25</sup>

On April 15, the Politburo extensively discussed the cash plan of Gosbank for April–June 1931.<sup>26</sup> Three days later Sovnarkom approved the national-economic plan for April–June, which provided for a net currency reduction of 466 million rubles.<sup>27</sup> To this end severe restrictions were imposed on credit: an official told the All-Union Financial Conference at the beginning of July that in May and June, for the first time in eighteen months, the State Bank had not issued ‘a kopek’ more than the credit plan.<sup>28</sup> The financial plan was brought roughly into balance by seeking additional sources of taxation. Prices of consumer goods were increased, particularly in the countryside, resulting in increased revenue from turnover tax (see p. 63 below). Postal charges and

<sup>23</sup> In January 1931, the French Ambassador reported ‘a shortage of paper money which has never previously been seen in the USSR’, and a recrudescence of the shortage of coin (Herbette to Briand, January 17 and 26, 1931, MAE, Europe 1930–1940, vol. 1039, 11–12, 23). For seasonal currency issues in the 1920s, see Carr and Davies (1969), 773, and table 44, p. 976.

<sup>24</sup> In March 1931 the Moscow correspondent of the *Chicago Daily News* submitted to the US State Department a photograph of four treasury notes all bearing the same number; a Soviet State Bank official, when challenged, claimed that the numbering machine was broken. The correspondent did not regard this as convincing evidence of cheating, as it was ‘a clumsy and unnecessary device which was sure to be discovered’ (US State Department, 861.00 11469). According to a British observer in Leningrad, ‘packets of notes with a single number are not uncommon’ (D. W. Keane, January 31, 1931, in BDFA, IIA, x (1986), 208).

<sup>25</sup> ZI, April 1, 1931 (R. Ya. Levin, deputy People’s Commissar for Finance).

<sup>26</sup> RTsKhIDNI, 17/3/821; nine people took part in the discussion, including Kalmanovich (head of Gosbank), Mikoyan and Ordzhonikidze. For the cash plan, see p. 49 below.

<sup>27</sup> GARF, 5446/57/14, 167–75 (art. 66s).

<sup>28</sup> FSKh, 19, July 10, 1931, 22 (Mar’yasin).

passenger rail fares were also raised.<sup>29</sup> New taxes were introduced.<sup>30</sup>

As a result of all these measures, currency in circulation declined by 88 million rubles in the first two months of the quarter, April–May 1931. But this imposition of financial stringency resulted in cash shortages, and, as in the autumn of 1930, managements were unable to pay their workers in full.<sup>31</sup> As early as February 28, 1931, a note in the files of the Sovnarkom secretariat recorded that wage indebtedness amounted to 206 million rubles.<sup>32</sup> The problem was dealt with by the Politburo on several occasions in April and May, and was the subject of several secret Sovnarkom decrees in May.<sup>33</sup> The decree of May 11 proposed that wage indebtedness should be eliminated by June 15; but as late as July 5 the indebtedness continued, and the Politburo resolved that part of the Sovnarkom reserve fund should be used for wages.<sup>34</sup> The need to eliminate the wage debt, together with substantial increases in capital expenditure in the summer building season, resulted in a sharp increase in currency issue in June.<sup>35</sup> The struggle to contain inflation had broken down.

## (B) THE DRIVE FOR DISCIPLINE

### (i) *Mobilisation*

As in the summer and autumn of 1930 (see vol. 3, chs 9, 11), party leaders and economic officials asserted that the fundamental

<sup>29</sup> FSKh, 21, July 30, 1931, 2; *Otchet . . . 1931* (1932), 214; SZ, 1931, art. 254 (dated May 21, on postal charges).

<sup>30</sup> Rural and urban cultural levies (*kul'tsbor*), SZ, 1931, arts. 34, 35 (dated January 9, 13); turnover tax on cinemas, SZ, 1931, art. 188 (dated April 13); housing levy, SZ, 1931, art. 238 (dated May 23).

<sup>31</sup> For the autumn of 1930, see Davies (1989), 431–2, 437.

<sup>32</sup> GARF, 5446/82/1, 242–1.

<sup>33</sup> For the Politburo see RTsKhIDNI, 17/3/823 (April 30), 17/3/825 (May 15). The Sovnarkom decrees are GARF, 5446/57/15, 13–15 (art. 83s, dated May 11), 22–3 (art. 89s, May 17), 28 (art. 94s, dated May 25).

<sup>34</sup> RTsKhIDNI, 17/3/834.

<sup>35</sup> For monthly currency circulation in April–July, see *Osnovnye pokazateli*, January–June 1932, 177.

cause of economic difficulties was inadequate leadership and discipline.<sup>36</sup> The 1931 plan, unable to allocate adequate investment to the railways, declared that 'in view of the considerable shortage of rolling stock, it is particularly important to mobilise party, managerial and trade-union organisations in transport to secure the genuine fulfilment of the tense utilisation coefficients for rolling stock which are planned in the control figures'.<sup>37</sup> An Appeal 'On Railway Transport' from Sovnarkom and the central committee on January 15 announced that, in order to cope with the 'serious difficulties with freight', railways, regions, depots and stations would again be substantially reorganised; it instructed local party and soviet organisations to devote as much effort to the railway directives as to major political campaigns such as the grain collections. It also decided that on a number of lines 'depersonalised manning' of locomotives would be replaced by 'paired' or 'triple' manning (by two or three drivers), so that specific drivers were personally responsible for each locomotive.<sup>38</sup> During the next few weeks the Politburo discussed the railways on several occasions.<sup>39</sup>

On February 25, Sovnarkom resolved to introduce paired manning throughout the railway system.<sup>40</sup> According to Rukhimovich, at the Politburo Stalin 'very fiercely, like a party leader can, attacked Narkomput' and Rukhimovich in particular in a one-hour speech because we have been slow to introduce paired manning'. In spite of what Rukhimovich described as 'huge opposition' within Narkomput', paired manning was forced through by plenipotentiaries of the party central committee within a few weeks.<sup>41</sup> According to the press, this return to the more traditional arrangement was an important factor in the recovery of the railways in March, but an

<sup>36</sup> See, for example, NPF, 3-4, February 1931, 6 (editorial).

<sup>37</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 52.

<sup>38</sup> SZ, 1931, art. 81; most of the Appeal is reprinted in *Direktyvy*, ii (1957), 231-9.

<sup>39</sup> RTsKhIDNI, 17/3/814 (February 25, item 5), 17/3/818 (March 30), 17/3/819 (April 4, item 1), 17/3/820 (April 10), 17/3/827 (May 25, item 9).

<sup>40</sup> SZ, 1931, art. 131.

<sup>41</sup> RTsKhIDNI, 17/2/479, 149 (report to June 1931 central committee plenum).

unpublished Gosplan report also acknowledged the part played by the improvement in the weather.<sup>42</sup>

Meanwhile in the coal industry a central committee resolution, also dated January 15, called upon industrial, party and trade-union organisations in the Donbass to 'reorganise all their work fundamentally, mobilising the activity of the workers . . . and sternly resisting all the manifestations of opportunism which have appeared among certain groups of managers and in a number of party organisations'. It despatched final-year students, skilled workers who were also party members, and party, government and trade-union officials to deal with the crisis.<sup>43</sup>

### *(ii) Control of labour*

The drive to strengthen managerial control over the urban labour force, a major feature of the special quarter, was reinforced during the first six months of 1931. A Gosplan memorandum prepared in December 1930 characteristically stressed that 'former methods of controlling the labour market must be replaced by planned distribution and rational utilisation'.<sup>44</sup> On January 23, the railway crisis evoked a decree of TsIK and Sovnarkom, 'On Responsibility for Crimes Disorganising the Work of Transport', which added a new clause (17<sup>3</sup>) to existing legislation on state crimes:

Violation of labour discipline by transport workers (violation of traffic rules, poor-quality repair of rolling stock, etc.), if this violation involves or could involve damage to (or destruction of) rolling stock, track and train, or accidents with people, or delayed despatch of trains or ships, or accumulation of empty goods wagons at unloading places, or hold-ups to wagons and ships – shall be punished by up to ten years deprivation of freedom, or, if clearly malicious in character, by the highest measure of social defence [i.e. the death penalty] and confiscation of property.<sup>45</sup>

<sup>42</sup> B, 10, May 31, 1931, 5 (editorial). The Gosplan report is reprinted from the archives in *Zheleznodorozhnyi transport* (1970), 131.

<sup>43</sup> 'On the Donbass', *Direktyuy*, ii (1957), 229–31.

<sup>44</sup> RTsKhIDNI, 79/1/540, 33 (prepared by Bineman).

<sup>45</sup> SZ, 1931, art. 44.

This was unprecedentedly savage. By treating labour offences as state crimes, it enabled the authorities to impose long periods of imprisonment for inattentive work – obviously almost any faulty work on the railways might be regarded as capable of delaying the trains. A few months later, in a ruling applicable throughout the economy, the Supreme Court declared that carelessness resulting in damage to machinery could be regarded as a crime punishable with prison or exile.<sup>46</sup>

In response to the high level of labour turnover, which continued almost unabated, the authorities imposed further legal restrictions on the movement of labour. Narkomtrud decreed that workers who left their jobs without permission more than once in a period of twelve months, or violated labour discipline in various specified ways, should be regarded as ‘deliberate disorganisers of production’, and barred from working in industry or transport for six months.<sup>47</sup> The Ukrainian party central committee castigated workers leaving the coal mines as ‘deserters from the front of socialist construction’, and urged coalminers to take on voluntarily a formal obligation to remain in the mines.<sup>48</sup> In March, on a proposal from Stalin, the Politburo declared, not for the first time, that workers at the bench should not be sent to take part in agricultural and other campaigns.<sup>49</sup>

Great efforts were made to recruit workers to priority sectors where labour was particularly scarce, using the labour exchanges and ‘orgnabor’, the system of recruitment of labour from collective farms. For the major sites, specific quotas were laid down by the authorities. Thus a central committee resolution instructed Narkomtrud to supply Magnitostroi with 16 thousand workers in April–June and a further six thousand in July–September.<sup>50</sup> Another resolution instructed the trust responsible for constructing the Nizhnii-Novgorod vehicle works to ‘recruit 13,000 building workers, of which 5,000 are to be transferred from those being trained by the Nizhnii-Novgorod labour department, and 8,000 are to be contracted for in the Nizhnii-

<sup>46</sup> *Cit. Friedman* (1933), 218 (May 1931).

<sup>47</sup> Decree of January 18, 1931 (I, January 19, 1931). For the decisions at the end of 1930, see vol. 3, pp. 419–22.

<sup>48</sup> ZI, March 16, 1931 (resolution of March 14).

<sup>49</sup> RTsKhIDNI, 17/3/816 (dated March 11); for the application of the decision to the railways, see Rees (1994), 42–3.

<sup>50</sup> *Iz istorii* (Chelyabinsk, 1965), 83–4 (dated April 5).



Novgorod region'.<sup>51</sup> In the coal industry the Ukrainian central committee sought to recruit members of miners' families as well as former miners who had returned to their villages; it called for the establishment of direct links between mine and collective farm.<sup>52</sup> The Politburo agreed to postpone the military service of young miners in the Donbass.<sup>53</sup> In industry generally, skilled workers dismissed on account of their age were encouraged to return to their factories.<sup>54</sup>

Sporadic efforts were also made to direct labour compulsorily to sectors where it was in short supply. Thus on January 16 Narkomtrud decreed that skilled personnel who had worked on the railways at any time in the previous five years should report for work on the railways within five days; directors of enterprises and other organisations were required to release them from their present employment.<sup>55</sup>

Other legislation sought to enforce better discipline at work. In February, a decree of VTsIK and Sovnarkom of the RSFSR renamed the 'comradely courts' at factories 'comradely production courts'. These voluntary or spare-time courts, composed of shock workers elected at general factory meetings, could impose small fines on undisciplined workers, or recommend their dismissal from the factory or temporary expulsion from the trade union. The purpose of the courts was to 'secure maximum public initiative in the struggle with violators of labour discipline'; offences specifically mentioned included lateness, absenteeism, drunkenness, leaving one's job without good cause, systematic carelessness with socialist property, spoiling production in excess of the approved norms, spreading false information, minor thefts, and hooligan behaviour not warranting criminal prosecution.<sup>56</sup> On June 3, 1931, a decree of TsIK and Sovnarkom ruled that henceforth workers would be held materially responsible for purloining, losing or 'deliberately' damaging special clothing or tools; the sums concerned should be collected from wages at

<sup>51</sup> P, April 24, 1931.

<sup>52</sup> ZI, March 16, 1931 (resolution of March 14).

<sup>53</sup> RTsKhIDNI, 17/3/825 (May 15, item 34).

<sup>54</sup> RTsKhIDNI, 17/3/817 (March 25, item 20), and 17/3/818 (April 5, item 43).

<sup>55</sup> I, January 18, 1931; the occupations subject to the decree were listed. Enterprises working for defence were exempted from the decree.

<sup>56</sup> SU, 1931, art. 160 (dated February 20).

source, up to a maximum of 25 per cent of the wage. The same decree also authorised compulsory transfer of workers for periods of up to one month, both within a factory and between factories in the same town, providing there was no loss of average earnings.<sup>57</sup> While all these decrees substantially increased the disciplinary powers of the authorities, the provision that compulsory transfers should not entail a loss of average earnings exemplifies the caution with which the delicate question of the compulsory direction of labour was still being handled.

The harsh legislation of the winter of 1930–1 was not very effective. Labour was scarce, and managers desperate for labour, in violation of the legislation, signed on ‘disorganisers of production’. And in practice most workers could change jobs at will. At Magnitogorsk, although the maximum number of free workers employed on the site in 1931 was 38,700, the turnover was so high that in the course of the year 116,700 new workers were taken on. Magnitogorsk, unlike many other building sites and factories at this time, had its own recruitment offices in many regions of the USSR, from the Western region to Central Asia. Even so, 52 per cent of its new workers simply turned up spontaneously at the site. And of the 103,302 workers who left in the course of the year, only 30,755 were officially registered as having departed; the remainder simply left the site.<sup>58</sup>

In this chaotic environment, the attempts to plan the distribution of labour on a national scale were not taken seriously. When the collegium of Narkomtrud met on January 20 to discuss the ‘operational plan for the supply of labour to new factories in 1931’, only three out of 37 industrial and other corporations bothered to send representatives, and only one had sent in its claim for labour.<sup>59</sup> Narkomtrud also proved too weak to handle the recruitment of labour to building sites and timber cuttings; in consequence, as in the previous year, this responsibility was formally delegated to the industries concerned.<sup>60</sup>

<sup>57</sup> SZ, 1931, art. 257.

<sup>58</sup> RGAE, 4086/2/119, 20–5.

<sup>59</sup> ZI, January 21, February 1, 1931.

<sup>60</sup> ZI, March 5, 1931, reporting STO decision of February 26; this decision was followed by a more detailed decision of STO dated March 3, 1931, reprinted in S. G. Pass, *O verbouke rabochei sily v derevne* (1933), 47–8 (I owe this reference to Professor Shiokawa).

To those responsible for the planning of labour, the introduction of labour books, proposed at a Narkomtrud conference in November 1930 (see vol. 3, pp. 422–3), seemed more urgent than ever. In an obviously inspired campaign, the Kalinin engineering factory, Moscow, which was the ‘patron’ of Narkomtrud, proposed in an open letter that the labour book should be a ‘production passport’ showing ‘how the worker conducted himself at previous places of work, where he worked and why he left’. It should also record skill, discipline, absenteeism, earnings, transfers and promotions. Other factories passed similar resolutions.<sup>61</sup> On January 17, 1931, Narkomtrud ruled that when employed persons left their job on their own initiative (*samovol’no*), the reason for this was to be recorded in their wage books (*raschetnye knizhki*) and in the labour lists (*trudovye spiski*).<sup>62</sup> The wage book was a simple document prepared separately for every individual in every factory, and normally retained by the factory management.<sup>63</sup> The intention of the new measure was presumably that the wage book from previous employment should be shown at the labour exchange when registering for new employment. But most vacancies were filled directly by the factory, so managements eager to take on labour could in practice ignore the wage book from the previous place of work. In February, following this interim measure, Narkomtrud submitted to TsIK a draft decree on labour books which followed the lines of the resolution of the Kalinin factory; the draft had been approved by the Central Council of Trade Unions.<sup>64</sup> The influential Kraval’, who had been transferred from Vesenkha to Narkomtrud in the previous November, was the most prominent supporter of this measure. No criticism of it seems to have been published. But within a few weeks the issue silently disappeared from the press. Whether the scheme was too unpopular, or was believed to be administratively too complicated, is not known.<sup>65</sup>

<sup>61</sup> The letter was published in I, January 14, 1931; see also VTr, I, 1931, 81; ZI, December 13, January 7, February 12, 1931.

<sup>62</sup> ZI, February 16, 1931.

<sup>63</sup> I, January 14, 1931.

<sup>64</sup> The labour book was to show for each enterprise and establishment: date of starting work; type of work; wages, penalties and rewards; whether in shock brigades or socialist emulation; inventions and rationalisation proposals (and associated rewards); date of release from job, and why (ZI, February 12, 1931 – Kraval’).

This far-reaching attempt to control labour was not revived until 1938.

(iii) *Forced labour*

The spring of 1931 saw the consolidation and expansion of the forced labour system. Forced labour was already used for industrial purposes in the early 1920s.<sup>66</sup> At first it was employed on a relatively small scale; the total number of all kinds of prisoners in the spring of 1929 was approximately 190,000, and only a minority of these were confined in concentration camps controlled by the OGPU.<sup>67</sup> In 1929 the authorities, concerned with the cost of the prison system, resolved to use prisoners far more widely for useful labour. On June 27, 1929, the Politburo resolved that all persons sentenced to confinement for three or more years should be transferred to concentration camps managed by the OGPU, renaming them 'corrective labour camps'. New OGPU camps should be established in remote areas for colonising and developing their natural resources. Prisoners with lesser sentences – one to three years' confinement – would work in agricultural or industrial colonies managed by the republican People's Commissariats of Internal Affairs (NKVDs).<sup>68</sup> In April 1930, the camps of the OGPU were placed under its Chief Administration of Camps (Gulag);<sup>69</sup> in December, the republican NKVDs were abolished and prisoners serving for less than three years were transferred to the republican People's Commissariats of Justice.<sup>70</sup>

From the autumn of 1929 onwards the population of the camps

<sup>65</sup> For the internal passport, which served some of the functions of a labour book, see p. 290–1 below.

<sup>66</sup> See Carr (1971), 359–60, 373.

<sup>67</sup> See data in SS, xxxiii (1981), 287 (Wheatcroft).

<sup>68</sup> RTsKhIDNI, 17/3/740, 6, *cit. Svobodnaya mysl'*, 13, 1992, 75 (Khlevnyuk).

<sup>69</sup> SZ, 1930, art. 28 (dated April 7); and see SS, xxxii (1981), 287 (Wheatcroft).

<sup>70</sup> SZ, 1930, art. 640 (decree of TsIK and Sovnarkom dated December 15). The abolition of the republican NKVDs followed an attempt by the NKVD of the RSFSR to retain some of the prisoners serving more than three years in its colonies, about which Stalin wrote to Molotov on September 7, 1930: 'Tolmachev, who is completely degenerate, is trying it on. Syrtsov is a bit involved too, and Rykov is using him. I think the decision of the Politburo should be carried out, and the NKVD should be closed down' (*Svobodnaya mysl'*, 13, 1992, 76 (Khlevnyuk)).

greatly increased. Many 'kulaks', private traders and 'bourgeois specialists' were arrested and sentenced to confinement in labour camps. By mid-1930, prisoners in OGPU camps were already engaged in timber cutting and hauling, coal mining and the construction of railways and chemical factories (including the large chemical works at Berezniki).<sup>71</sup>

The first large-scale project to be undertaken primarily with forced labour was the Belomor canal from the White Sea to Moscow. According to the site organiser the proposal to undertake the construction was made by Stalin; it was approved in principle by STO in June 1930.<sup>72</sup> On April 18, 1931, STO formally resolved that the canal was to be constructed by the OGPU using prison labour; the task was an immense one, as the canal had to be completed in a mere 20 months (August 1931–April 1933) over a distance of 227 kilometres on difficult territory and in bad climatic conditions, almost entirely with manual labour.<sup>73</sup> After many vicissitudes the canal was eventually opened in June 1933.<sup>74</sup> The project was retrospectively publicised as an outstanding example of the ability of the OGPU to rehabilitate criminals and class enemies through honest labour.<sup>75</sup> Some 140,000 people were said to be employed on the site.<sup>76</sup> An unknown number perished in the appalling conditions of the construction.<sup>77</sup>

<sup>71</sup> *Svobodnaya mysl'*, 13, 1992, 75–6 (Khlevnyuk).

<sup>72</sup> VKA, 5, 1933, 87 (Firin); *Svobodnaya mysl'*, 13, 1992, 76 (Khlevnyuk). The canal was eventually named after Stalin (SZ, 1933, art. 295).

<sup>73</sup> Gorky *et al.*, eds. (1935), 28–9; this followed a Politburo decision of February 10 (RTsKhIDNI, 17/3/813). Molotov had already reported to the Congress of Soviets in March 1931 that some work on the canal had already been undertaken, and that it would be completed in the course of two years (*6 s'ezd* (1931), No. 1, 22–5).

<sup>74</sup> See the celebratory article in *Komsomol'skaya pravda*, summarised in BDFA, IIA, xi (1986), 171 (Strang to Simon, June 20, 1933); see also SZ, 1933, art. 295 (dated August 6).

<sup>75</sup> Notably in *Belomorsko-Baltiiskii kanal imeni Stalina* (1932); the English-language version is M. Gorky, L. Auerbach and S. G. Firin, eds, *The White Sea Canal* (London, 1935).

<sup>76</sup> For the number employed, see VKA, 5, 1933, 90–1 (Firin). On August 4, 1933, 72,000 prisoners were released or awarded reduced sentences for their part in constructing the canal (SZ, 1933, art. 294).

<sup>77</sup> For one of many accounts by ex-prisoners see BDFA, IIA, xi (1986), 204–5 (recorded by T. C. Rapp, July 22, 1933). The report noted that 'women had to work on exactly the same basis as the men'.

In 1930 a new branch was added to the forced labour system when large numbers of 'kulaks' and Nepmen, with their families, were peremptorily despatched into compulsory exile; a second major drive to remove kulaks from the villages was associated with the renewed collectivisation drive at the beginning of 1931. These exiles were known as 'special settlers (spetspereselentsy)', and were at first the responsibility of the regional soviets. But on July 1, 1931, a Sovnarkom decree transferred to the OGPU 'the administration and management of all special settlers, and the economic utilisation of their work both by contracts with industrial and agricultural organisations and by the direct organisation of various enterprises'.<sup>78</sup> In the following month a further decree instructed Narkomzem to allocate land to special settlers 'with the aim of fully utilising the labour force and attaching them to their places of settlement, particularly in order to create permanent cadres in the timber industry of Siberia, the Urals, the North, etc.'. <sup>79</sup> Nearly a quarter of a million families assigned to work in industry were to receive land by the end of 1932.<sup>80</sup> The Politburo established a commission on the special

<sup>78</sup> GARF, 5446/57/15, 81–3 (art. 130ss); the Russian historian Ivinskii refers to an earlier decree, dated May 20, 1931, which initiated these arrangements (*Soyuz*, 36, 1990). The dekulakisation campaign of 1931 will be discussed in vol. 5.

<sup>79</sup> GARF, 5446/57/15, 165–74 (art. 174ss).

<sup>80</sup> The exiled kulak families to whom it was planned to allocate small land allotments were divided geographically as follows (in thousands):

Leningrad	7.0
Urals	119.8
Far North	38.7
Western Siberia	(21.9)
Eastern Siberia	22.3
Far East	1.4
Yakutia	1.
Kazakhstan	26.3
Other	(c.7.)
Total	245.4

(Trifonov (1975), 376–7, citing the archives; figures in brackets were estimated by the present author from Trifonov's data). A further 72,600 families were allocated to sovkhosy and special agricultural artels.

settlers, and the question was frequently on its agenda throughout 1931.<sup>81</sup>

From the spring of 1931 the OGPU contracted out substantial numbers of special settlers to work at mines, factories and building sites which were primarily manned with free labour.<sup>82</sup> Frankfurt, in charge of the Kuznetsk project, reported that in June 1931 'several thousand' former traders, owners of workshops and kulaks were sent to his site, in spite of his objections. The prisoners had to build their own temporary housing before starting work.<sup>83</sup> At Magnitogorsk, the use of forced labour is first recorded for July 1931, when special settlers amounted to 5,407 out of 44,154 building workers. The maximum number employed in 1931 was 10,919, or 24.2 per cent of the building labour force.<sup>84</sup> Forced labour was also employed in the construction of the Chelyabinsk tractor factory and at Dneprostroi.<sup>85</sup> The American engineer Littlepage, who had worked in the non-ferrous and precious metals industry since 1927, reported that his

<sup>81</sup> See, for example, RTsKhIDNI, 17/3/809 (decision by correspondence on compulsory labour in the timber industry, January 7); 17/3/814 (decision by correspondence on working conditions in the timber regions, February 20); 17/3/839 (decision by correspondence of July 28 on the special settlers), 17/3/845 (special settlers discussed at session of August 30, item 8, introduced by Postyshev). The commission is referred to in 17/3/852 (decision by correspondence of October 5).

<sup>82</sup> On July 31, 1931, the commission on dekulakisation resolved to allocate 68,000 'kulak' families to industry: 14,000 to Vostokostal', 5,000 to the construction of the Nizhnii-Novgorod automobile works, 4,600 to Tsvetmetzolto, 13,500 to the coal industry and 31,000 to the peat industry (*Istoriya otechestva* (1991), 181 – Gorinov and Doshchenko).

<sup>83</sup> Frankfurt (1935), 167–72; the total number of building workers at Kuznetskstroï rose from 17 thousand in December 1930 to 50 thousand in October 1931 (*Byli industrial'nye* (1970), 240); whether these figures include forced labour is not stated.

<sup>84</sup> <i>Date (probably end-month)</i>	<i>No. of special settlers</i>	<i>Total number of building workers</i>
July	5407	44154
August	9216	46222
September	10919	45171
October	9036	44198
November	8275	41367
December	8019	40685

(estimated from data in RGAE, 4086/2/119, 20–1, 27; the terms 'special settler' and 'non-cadre worker' were in this case used interchangeably).

<sup>85</sup> Chamberlin (1934), 52–3.

first contact with the use of ex-kulak labour in the mines was in 1931, when several trainloads of men, women and children arrived at the copper mines in the northern Urals, after having been transported 2,000 miles from their villages.<sup>86</sup>

Elsewhere special settlers were organised into independent economic units. Thus a Sovnarkom decree of December 28, 1931, envisaged that 'within a few years' 216,000 special settlers would be located in agricultural, timber and artisan enterprises in the inhospitable Siberian region of Narym; it insisted that within two years they would be self-sufficient in grain, fodder and vegetables.<sup>87</sup>

By the end of 1931 nearly one million people were employed in economic activity in labour camps or as special settlers. The OGPU camps contained 269,000 prisoners (see Table 18); in addition, prisoners with sentences of less than three years worked in the labour colonies of the republican People's Commissariats of Justice. The number of special settlers, including family members, amounted to 1,317,000 persons (see Table 18); this probably included over half a million working adults.<sup>88</sup>

All the legislation and statistics on forced labour were classified as top secret, and accurate information has been available only since the opening of the archives in the late 1980s. This was a sensitive issue: Stalin introduced a resolution on '“Compulsory labour” in the Soviet press' approved by the Politburo on March 11, 1931.<sup>89</sup> In 1930 and 1931 the Western press frequently printed material on the use of compulsory labour in the Soviet economy, particularly in the timber industry, and called for the boycott of Soviet timber exports. At the VI Soviet congress in March 1931, Molotov, while admitting that prisoners were used in railway and highway construction and mining, and on the Belomor canal, strongly denied that prisoners were used to obtain timber for export.<sup>90</sup> The Soviet press published carefully worded

<sup>86</sup> Littlepage and Bess (1939), 82–3.

<sup>87</sup> GARF, 5446/57/16 (art. 292ss).

<sup>88</sup> In the plan for the Narym region, 85,000 of the 216,000 special settlers were designated as 'full workers' (about 40 per cent) (GARF 5446/57/16 – art. 292ss).

<sup>89</sup> RTsKhIDNI, 17/3/816; the resolution was approved by correspondence.

<sup>90</sup> *6 s'ezd sovetov* (1931), no. 1, 22–5. For accounts of the Western press campaign and the Soviet replies, see *Memorandum*, No. 1 (May 1931); Coates (1945), 362–70; Dallin and Nicolaevsky (1947), 217–30.



accounts of the successful and humane rehabilitation of criminals and others through socially useful labour. Thus in July 1931 an article by Maxim Gorky in *Pravda* enthusiastically described a labour colony for hardened criminals located in a former monastery at Lyubertsy near Moscow; it combined a poultry farm and a footwear factory. According to Gorky, 'the labour colonies organised by the OGPU collegium are of the most profound significance' and deserve 'the most profound attention and special study'.<sup>91</sup>

Imprisoned specialists were frequently employed in manual labour, or on technical work remote from their own specialism. But some scientists and engineers imprisoned during the campaign against wrecking in 1929–31 were employed on research, development and design work in their own fields, under OGPU control. On May 15, 1930, Vesenkha and the OGPU issued a joint circular 'On the Utilisation in Production of Specialists Condemned for Wrecking', signed by Kuibyshev and Yagoda. The circular announced that 'specialists deserving confidence' could undertake 'experimental work', normally on the premises of OGPU and its agencies.<sup>92</sup>

The first important experimental organisation of this kind was the Central Design Bureau (TsKB) at the Menzhinsky aircraft factory in Moscow, established in 1930; the Bureau was responsible to the Technical Section of the OGPU. It was headed by Grigorovich and Polikarpov, who with other pre-revolutionary specialists had been imprisoned for wrecking. The TsKB was staffed both by prisoner-engineers and by engineers who were at liberty. One of the free engineers, the aircraft designer Yakovlev, later commented that 'the organisation was overstaffed and senseless, the expenditure great and the results small; only Polikarpov worked brilliantly'. The prisoners were eventually released but continued to work in the TsKB.<sup>93</sup> A similar design office, the technical bureau of the OGPU transport department, was established for the design of locomotives in 1930. In the spring of 1931 it completed the design of the new

<sup>91</sup> P, July 14, 1931.

<sup>92</sup> Viktorov (1990), 169.

<sup>93</sup> Yakovlev (1967), 96. The TsKB, which consisted of a number of separate design bureaux combined under its auspices in the spring of 1930, had a staff of 300 at the end of 1930, rising to 500 in the autumn of 1931 (Shavrov (2nd edn. 1978), 408–9; Lewis (1979), 135).

20-ton FD locomotive (named after Feliks Dzerzhinskii, head of the Cheka-GPU from 1917 until his death in 1926); this was approved by the June 1931 central committee plenum and later became a standard model.<sup>94</sup> The first Soviet blooming mill (see p. 22 above), completed in May 1931, was designed by a Special Design Bureau (OKB) under the leadership of engineers arrested by the OGPU for their alleged involvement in the Industrial Party.<sup>95</sup> The Belomor canal itself was designed by an OKB located at OGPU headquarters on the Lubyanka, employing 120 prisoners.<sup>96</sup>

The prisoner research establishment, or *sharaga*, later the central theme of Solzhenitsyn's novel *The First Circle*, became a permanent feature of Soviet science during the Stalin period.

(iv) *Against sabotage*

In the first few months of 1931, the campaign against saboteurs and wreckers continued almost unabated. On January 21, 1931, the seventh anniversary of Lenin's death, the industrial newspaper printed two previously unpublished and conveniently topical letters of Lenin. The first demanded that railway officials responsible for delays should be put on trial for procrastination. The second supported the GPU in its investigations of the activities of hostile scientists in the Committee of Inventions, and called for a political trial to expose them.<sup>97</sup> The young economist Nikolai Voznesensky, later the head of Gosplan, argued in one of his first articles that there was a division of labour on the economic front between those responsible for 'theoretical and practical wrecking in technological-economic institutes', and such people as the 'pseudo-marxist' economist Rubin, whose function was to 'distract the attention of communist economists from concrete economic issues', protected by the Marx-Engels Institute.<sup>98</sup> In the same month a vigorous article by the party

<sup>94</sup> See Westwood (1982), 88–9, 163.

<sup>95</sup> P, May 23, 1931 (Ordzhonikidze).

<sup>96</sup> Gorky *et al.*, eds. (London (1935)), 11.

<sup>97</sup> ZI, January 21, 1931.

<sup>98</sup> B, 1, January 15, 1931, 71; see also the attack on Blyumin, a pupil of Rubin's (later an orthodox Stalinist), for 'Menshevik ideas' and for acting as an apologist for bourgeois economics, by Pashkov and Pil'meister, B, 3, February 15, 1931, 90.

official primarily responsible for supervising the natural sciences asserted that wrecking was found in the natural sciences as well as in the social sciences. In the natural sciences the ‘forces of dialectical materialism are incomparably weaker’; examples of wrecking could be found in thermal and high-voltage technology, economic geography, microbiology, ichthyology, decisions about railway location and mathematics.<sup>99</sup>

These sallies formed part of the prelude to two major political trials. On February 10, 1931, a number of prominent scholars were found guilty of participating in a monarchist plot to overthrow the regime, and sentenced to terms of imprisonment.<sup>100</sup>

The climax of the campaign against the bourgeois specialists was the ‘Trial of the Counter-Revolutionary Menshevik Organisation’, held from March 1 to 9, 1931. The trial was very carefully prepared at the highest political level. On February 24 the Politburo established ‘a commission to lead the Menshevik trial’; and on the following day a discussion at a full meeting of the Politburo on the ‘trial of the Mensheviks’ was opened by Stalin.<sup>101</sup> On March 5, while the trial was proceeding, a further Politburo session resolved to publish a collection of materials on ‘International Menshevism and Intervention’.<sup>102</sup>

Those prosecuted included Groman from Gosplan, A.M. Ginzburg, A.L. Sokolovskii and V.G. Volkov from Vesenkha, M.P. Yakubovich, L.B. Zal’kind and M.I. Teitel’baum from Narkomtorg, V.V. Sher and B.M. Berlatskii from the State Bank, K.G. Petunin from the consumer cooperatives, I.I. Rubin and A. Ya. Finn-Enotaevskii, both well-known economists, N. N. Sukhanov, the historian of the revolution, and V.K. Ikov, a journalist. Witnesses who appeared at the trial included the economist and prominent Narkomfin official Kondratiev, as well as two of the defendants at the Industrial Party trial.<sup>103</sup> Bazarov, whose arrest was announced with Groman’s in September 1930

<sup>99</sup> B, 2, January 31, 1931, 74–81; the author was Kol’man, a Communist émigré from Czechoslovakia (see vol. 3, p. 142).

<sup>100</sup> *Pamyat’* (Paris), iv (1981), 482–3; other articles in this journal fully describe the background to this trial.

<sup>101</sup> RTsKhIDNI, 17/3/814, item 4; see also 17/162/9, 137; the decision of February 24 was taken by correspondence.

<sup>102</sup> RTsKhIDNI, 17/3/815, item 34; the item was introduced by Postyshev.

<sup>103</sup> *Protsess kontrrevolyutsionnoi organizatsii men’shevikov* (1931).

(see vol. 3, p. 407), did not appear; he remained in prison or camp, and died in 1939. The defendants were accused of forming a secret 'Union Bureau' of the Menshevik party early in 1928; the Menshevik Bureau, like the Industrial Party, engaged in economic wrecking primarily by preparing and advocating pessimistic plans. But they were also alleged to have attempted to bring about armed insurrection and an internal uprising, for which purpose they cooperated with the Industrial Party, and with Mensheviks abroad, as well as with the Toiling Peasants' Party (TKP), headed by Kondratiev and Yurovsky.

The accused were found guilty, and were sentenced to between five and ten years' imprisonment.<sup>104</sup> Many pages of all Soviet daily newspapers were devoted to the trial in the first fortnight of March; following the precedent of the Industrial Party trial, the account of the proceedings thrust aside all other political and economic news. After the trial, its lessons continued to be driven home in the press. Gorky vigorously condemned 'all the criminals, those condemned and those who await their turn to appear at the court of the working class', and declared that those sentenced were guilty not only of direct wrecking, but also of 'sowing doubt, despondency and panic around themselves while freely moving among Soviet citizens and party members':

This activity is also criminal, it is also 'wrecking', but already as it were of a moral kind. It is a game of lowering the spirits of people who, not sparing their strength, and living in difficult material conditions, are working for a great cause of world significance.<sup>105</sup>

The functions of the trial could hardly have been exposed more clearly.

Other accounts of wrecking on the railways and elsewhere published at this time offered scapegoats for current troubles. Thus an 'organisation' at the Kazan goods station, headed by a former nobleman, was accused of sending valuable goods to Vladivostok instead of Kazan, of despatching goods wagons without documents, and of sending almost empty sealed wagons over vast distances; between October 1930 and January 1931,

<sup>104</sup> *Ibid.*

<sup>105</sup> P, April 10, 1931.

35 wagons had completely vanished.<sup>106</sup> Similar trials were reported in local publications. In a three-day trial in Yaroslavl', the head of a rail depot and six of its staff were accused of a criminal attitude to the repair of locomotives, 'bordering on wrecking'; the chief culprit, who was a party member although he had allegedly been found guilty of sabotage in 1919, was sentenced to five years' imprisonment.<sup>107</sup> Many credulous citizens continued to be persuaded that sabotage at all levels was a major cause of the disruption of the economy.

### (C) REVISION OF THE PLANS

The economic difficulties did not lessen the determination of the Politburo. In January 1931, the second collectivisation drive was launched; the number of households in kolkhozy exceeded 50 per cent by April.<sup>108</sup> This was deemed to have secured the 'completion of the construction of the foundations of socialism' promised by the 1931 plan. On June 19, Kuibyshev condemned 'Right-wing opportunists' who concluded from the failures of January–May that the pace must be reduced:

*we have all the prerequisites for the fulfilment of the national-economic plan for 1931 . . . Not one step backwards in the fulfilment of the production programme!*<sup>109</sup>

In the attempt to achieve the major objectives of the annual plan, the Politburo even increased many targets. The joint Sovnarkom and central committee Appeal about the railways, issued on January 15, 1931, substantially increased the planned

<sup>106</sup> P, May 13, 1931; the investigation team of 21 persons, *Pravda* alleged, had itself been under the control of the wreckers.

<sup>107</sup> *Severnnyi rabochii*, March 23, 1931; and see the further case in *ibid.* March 24, 1931.

<sup>108</sup> These developments will be dealt with in vol. 5.

<sup>109</sup> Kuibyshev, v (1937), 118, 122–3. The financial journal admitted that 'recently individual voices have been heard both in the Soviet administration and inside our party to the effect that the failures in the first half of 1931 will make it necessary to pose the question of re-examining the annual plan' (FP, 3–4 [June or July] 1931, 21 – Genkin).

production of goods wagons, and the wages of engine-drivers, stokers and highly skilled repairmen.<sup>110</sup> In the coal industry, another major bottleneck, the wages of skilled miners were increased by 20 per cent, and a further 117 million rubles was allocated to capital investment.<sup>111</sup> The acrimonious dispute about the Chelyabinsk tractor factory was resolved by increasing its allocation from 10 to 60 million rubles.<sup>112</sup> For iron and steel, the most troublesome of all troublesome industries, the investment allocation and the production plan were both drastically increased.<sup>113</sup> In March, a high-level Sovnarkom 'commission on the industrial plan for 1931', chaired by Molotov and including Stalin and the most important People's Commissars, resolved to increase investment in Vesenkha from 5,500 to 6,270 million rubles.<sup>114</sup>

Official spokesmen confidently asserted that these measures would ensure the fulfilment of the original optimum five-year plan in 1932 and the revised targets of the XVI party congress in 1933.<sup>115</sup> With unprecedented promptness, in February 1931 Gosplan embarked on the preparation of the 1932 annual plan.<sup>116</sup> On May 11, its Central Planning Bureau proposed to the Gosplan presidium that in 1932 national income should increase

<sup>110</sup> For the Appeal, see p. 25 above. The annual plan (*Narodno-khozyaistvennyi plan 1931* (1931), 52) set the production of goods wagons at 40 thousand (presumably in 2-axle units), but according to the Appeal, it was to reach 60 thousand (in 2-axle units) (in fact only 21,175 were produced – see Zaleski (1971), 333). A further Appeal on river transport, dated February 5 (SZ, 1931, art. 82; *Direktivy*, ii (1957), 240–8), called on Vesenkha to give priority to the shipbuilding plan.

<sup>111</sup> On wages, see *Industrializatsiya, 1929–1932* (1970), 598 (Politburo resolution of February 10); on investment, see Zaleski (1971), 170, n. 52.

<sup>112</sup> RGAE, 3429/1/5243, 103 (decree of Vesenkha presidium dated March 3); ZI, April 4, 1931. An additional 9.3 million rubles was allocated to the construction of the Siberian combine-harvester and agricultural machinery factory (SP VSNKh, 1931, art. 110 (Vesenkha order of February 25, 1931)).

<sup>113</sup> SZ, 1931, art. 130, dated February 25; for the problems of the iron and steel balance for 1931, see pp. 6–7 above.

<sup>114</sup> For the commission see GARF, 5446/82/7, 85–75 (decision of March 24); the proposal was approved by STO early in April (ZI, April 4, 1931). See also FSKh, 2, 1932, 5, and the quotation from Kuibyshev in Zaleski (1971), 170: the plan was eventually increased to 6,400 million rubles.

<sup>115</sup> See, for example, PKh, I, 1931, 28 (Mednikov), on the iron and steel plan.

<sup>116</sup> RGAE, 4372/29/109, 118–19 (Central Planning Bureau session of February 3).

by 41 per cent and Vesenkha-planned industrial production by as much as 50 per cent, even more rapidly than in the 1931 plan.<sup>117</sup> At the plenum of Gosplan of the USSR a few days later, the Gosplan of the Russian Republic boldly proposed to increase this figure to 68 per cent. The USSR Gosplan felt impelled to offer a mild objection to this target as displaying ‘a tendency to exaggeration’ and a ‘wrong approach’; and was supported by the plenum.<sup>118</sup>

The reaction of Stalin and the Politburo to the railway crisis provides a characteristic example of the prevalent combination of tough pragmatism and naive Utopianism. They sought to solve the immediate crisis by administrative pressure, by evoking enthusiasm, and by better organisation, and better conditions for the workers – but at the same time they stressed the need for a vast programme of modernisation. Sovnarkom established a commission on the reconstruction of rail transport, headed by Molotov, which was extremely active.<sup>119</sup> In May, Rukhimovich presented a far-reaching long-term programme, involving the renovation of track, the introduction of heavy goods wagons and locomotives, and a modern system of braking, coupling and line management – and the extensive electrification of the railways.<sup>120</sup> According to Rukhimovich, many people opposed electrification, but it was promoted by ‘the impassioned participation of comrade Stalin’.<sup>121</sup> When the plenum of the party central committee met from June 11 to 15, one of the three items on the agenda was ‘railway transport and its next tasks’; the main report was by Rukhimovich, the co-report by Andreev on behalf of Rabkrin. On the immediate proposals for large-scale reconstruction, Rukhimovich was relatively cautious, stressing that it depended on the ability of industry to produce the equipment; and he argued that only a few lines could be electrified in the near future in view of the resources available.<sup>122</sup> Andreev, on the other hand, enthusiastically insisted that the Soviet Union, unlike

<sup>117</sup> RGAE, 4372/29/90, 8 (report by K. Rozental’).

<sup>118</sup> RGAE, 4372/29/73, 707–5, 419, 174 (the plenum met from May 11 to 16).

<sup>119</sup> See its materials in GARF, 5446/82/7, 28–4.

<sup>120</sup> For Rukhimovich’s report to Gosplan, see P, May 17, 1931, PKh, 5–6, 1931, 10–21.

<sup>121</sup> RTsKhIDNI, 17/2/479, 149.

<sup>122</sup> *Ibid.*, 85, 87.

the capitalist countries, could jump to the higher stage of electrification and dieselisation, and advocated the transfer of a 'considerable part' of the rail network by the end of the second five-year plan.<sup>123</sup> The resolution of the central committee plenum decided that 3,690 kilometres of track should be electrified as soon as 1932–3.<sup>124</sup> Some efforts were made to put the reconstruction plan into immediate effect.<sup>125</sup> But other claims on capital investment took precedence.<sup>126</sup> The railways continued to be starved of resources, and senior railway officials continued to complain about the lack of investment. In the next few years the railways staggered from crisis to crisis, until a massive investment in rolling stock and track was made possible by the great expansion in iron and steel output in 1934 and 1935.

In the optimistic atmosphere of the first six months of 1931, the second five-year plan (1933–1937) was frequently on the agenda of the Politburo,<sup>127</sup> and Gosplan embarked on its preparation. In February, a writer in the industrial newspaper indignantly condemned the Communist power expert Flakserman for assuming that the production of iron and steel would be a mere 30 million tons in 1938 and would not reach 50 million tons until 1943 or even 1948.<sup>128</sup> On May 11, Kuibyshev, in a report to the plenum of Gosplan, announced that the last year of the plan, 1937, would see the 'completion of the construction of socialism' (the foundations of socialism having already been constructed in 1931 . . .). This would require the production of at least

<sup>123</sup> *Ibid.* 90.

<sup>124</sup> *Direktiv*, ii (1957), 278–90; see also p. 66 below.

<sup>125</sup> See, for example, the decree of Sovnarkom dated June 27 accelerating the placing of orders for foreign and home-produced capital equipment for the new Lugansk locomotive factory, so as to complete its construction by October 1, 1932; engineers and foremen were to be sent to the United States to study its powerful locomotives and order the equipment (GARF, 5446/57/15, 72–3 (art. 122s)).

<sup>126</sup> As early as June 28, a Sovnarkom decree delayed the electrification programme from 1932–3 to 1932–4, and slightly reduced the length of line to be electrified (SZ, 1931, art. 292).

<sup>127</sup> See RTsKhIDNI, 17/3/817 (March 20), 17/3/818 (April 5, item 33), 17/3/820 (April 10), 17/3/821 (April 15, item 5), 17/3/822 (April 25, item 17), 17/3/829 (June 7).

<sup>128</sup> ZI, February 10, 1931 (Z. Rakoshi); Flakserman's reply, in ZI, February 26, 1931, ignored the question of metal production.



60 million tons of pig-iron.<sup>129</sup> These remarkable achievements would be accompanied by such an advance in labour productivity that the normal working day could be reduced from seven to six hours.<sup>130</sup>

Gosplan devoted much effort at this time to even more far-reaching plans. A conference on the 'general electrification plan', a revision of the 10–15-year Goelro plan, was held in May 1931 on the eve of the Gosplan plenum. It was attended by 700 people and heard 49 reports, many of them technically interesting, all of them wildly unrealistic.<sup>131</sup>

#### (D) SIGNS OF REFORM

While administrative pressure and the campaign for strict discipline predominated in these months, simultaneously cautious but significant measures anticipated the mini-reform which would be presented by Stalin in his speech of June 23.

##### (i) *The neprerывka reconsidered*

The *neprerывka* (see vol. 3, pp. 252–4) is a continuous working week in which there is no fixed rest-day; factories and offices operate every day, and workers have four or five days on and one day off. For nearly two years the Soviet press uncritically supported its universal introduction. It undoubtedly resulted in a greater use of industrial capacity in 1929/30, and contributed substantially to the increase in production in that year (see vol. 3, p. 254). But the *neprerывka* was often introduced unnecessarily. In

<sup>129</sup> PKh, 4, 1931, 3–14; not surprisingly, the figure is omitted from the version of this report printed a few years later in Kuibyshev, v (1937), 95–112. Another version of the report was published in P, May 13, 1931, and two versions are located in the Gosplan archives (RGAE, 4372/29/72).

For other very high targets proposed at this time see Zaleski (1980), 108, where the available figures have been carefully assembled from a variety of sources. For a collection of Gosplan memoranda on the second five-year plan in which the pig-iron plan for 1937 is successively reduced from 120 to 72 to 60 to 25 million tons, see RGAE, 4372/31/133.

<sup>130</sup> RTsKhIDNI, 79/1/556, 12 (this file is dated by the archivists 'July 1932', but internal evidence shows that it was written in the early months of 1931).

<sup>131</sup> See Zaleski (1980), 109–15.

the textile industry, and in many engineering factories, the problem was not shortage of capacity but shortage of materials, so no benefit was obtained by opening the factory on rest-days. Moreover, in many factories technicians, supervisors and skilled labour were scarce; in consequence, when the *nepreryvka* was introduced equipment was simply left idle.<sup>132</sup> And many factories worked only one shift per day: machinery could have been used more intensively by introducing an extra shift, without the complications of the *nepreryvka*.<sup>133</sup>

In those cases where the *nepreryvka* did result in a much greater use of capacity, so that the factory was working for two or three shifts on every day of the week, other formidable problems arose. Machines had to be transferred from shift to shift, and the resulting lack of personal responsibility led to frequent breakdowns. With a three-shift system, machinery was in use for 21 hours every day, and there was not enough time for regular servicing. A survey in the Narkomtrud journal showed that 'stoppages of machine tools have become a universal and frequent occurrence, and are on the increase'.<sup>134</sup> Labour officials struggled to design time-tables in which workers would always remain in the same group, and definite groups of workers would be responsible for particular machines, but this proved impossible.<sup>135</sup>

On February 5, 1931, the Politburo discussed 'distortions of the *nepreryvka* at enterprises', but no immediate action was taken.<sup>136</sup> In April, following Ordzhonikidze's visit to the Stalingrad tractor factory, Vesenkha resolved that the factory should switch temporarily to a six-day interrupted week (five working days, one rest-day, for the whole factory), and that this arrangement

<sup>132</sup> VTr, 2, 1931, 37 (B. Fal'k).

<sup>133</sup> The 'shift coefficient', the average number of shifts worked in industry, rose from 1.45 per day in 1926/27 to 1.60 in 11 months of 1929/30, but owing to the reduction in the length of the working day the number of hours the average factory worked per day did not increase (VTr, 3-4, 1931, 51-2 (Dubner)) (for the definition of the shift coefficient, see vol. 3, p. 84, n. 100).

<sup>134</sup> VTr, 2, 1931, 37-9 (Fal'k); these were attributed partly to lack of skilled labour, partly to inadequate repair.

<sup>135</sup> See vol. 3, p. 253. One author conceded that the problem could be solved by introducing a 7½-hour or 8-hour rather than a 7-hour day, but rejected this as 'politically incorrect and harmful' (Al'do, in VTr, 2, 1931, 43-8). Further discussion of these problems appears in VTr, 3-4, 1931, 49-81 (Dubner).

<sup>136</sup> RTsKhIDNI, 17/3/812 (item 13).

should also be used in the Nizhnii-Novgorod vehicle works and the Kharkov tractor factory in their first year of operation.<sup>137</sup> This was the first cautious public step towards the return to the interrupted week.<sup>138</sup>

(ii) *The specialists*

The anti-specialist campaign reached its climax with the Menshevik trial in March. But behind the scenes the approach to the specialists had already begun to change. On January 4, the director of a major iron and steel works, in a letter to Stalin, complained about party interference. Stalin noted to Ordzhonikidze, 'I think there are grounds for this complaint'.<sup>139</sup> The Politburo concurred, and resolved that directors of factories of all-Union significance should not be removed without the agreement of both the party central committee and Vesenkha.<sup>140</sup> Following this episode, Stalin, in preparing his speech of February 4 to the industrial conference, crossed out or softened passages hostile to the specialists and to economic managers who supported them.<sup>141</sup> On February 20, a further top-secret decision of the Politburo revealed anxiety about the scale and effect of the anti-wrecking campaign by calling for a statement from the OGPU on 'how many people have been arrested in wrecking cases, and who they were, and what it is proposed to do with them further'.<sup>142</sup>

In the open press, even before the Menshevik trial, some articles in the industrial newspaper already reflected a more tolerant attitude.<sup>143</sup> On March 11, two days after the end of the

<sup>137</sup> SP VSNKh, 1931, art. 268 (order of April 30). This followed a Politburo decision about the Stalingrad factory on the same day (RTsKhIDNI, 17/3/823).

<sup>138</sup> Even before any criticism of the *nepreryvka* was publicly voiced, the relaxation of the campaign resulted in a decline in the proportion of workers involved from 72.9 per cent on October 1, 1930, to 69.2 per cent on January 1, 1931 (*Predpriyatie*, 8 (April), 1931, 34; VTr, 2, 1931, 39 (Fal'k)).

<sup>139</sup> RTsKhIDNI, 558/1/5243, 4, 1; I am indebted for references 139 and 141 in this paragraph to Dr Khlevnyuk.

<sup>140</sup> RTsKhIDNI, 17/3/811 (decision of January 20).

<sup>141</sup> RTsKhIDNI, 558/1/2960, 7, 9, 23.

<sup>142</sup> RTsKhIDNI, 17/162/9, 139 (decision no. 9/25).

<sup>143</sup> For articles in ZI calling for a bolder attitude to innovation, and criticising the absence of 'technical leadership' in industry, see Bailes (1978), 149–51.

trial, the Politburo resolved to rehabilitate alleged wreckers working at the Stalingrad Tractor Factory.<sup>144</sup> Then on April 11 the new approach was authoritatively endorsed by Molotov at the first All-Union Conference on the Planning of Scientific Research. On April 8, before the Politburo had approved this change of line, the unfortunate Bukharin, who organised the conference as head of the scientific research sector of Vesenkha, made an opening statement, otherwise a pioneering contribution to science policy, in which he uncompromisingly asserted: '*The physical or moral guillotine awaits wrecking in our country. Either with the working class or against it – there is no third position.*'<sup>145</sup> Molotov, speaking three days later, began his remarks by a conventional attack on wreckers. But he also insisted that as a result of Soviet successes, especially the collectivisation of agriculture, 'vacillations among scientific and technical personnel . . . are now coming to an end', and hopes of foreign intervention had also faded. It was essential to permit 'bold initiative and the right to take a certain risk in scientific work'; a distinction must be made between the evil intent of a wrecker and the justifiable risk of a scientist or a technologist. Molotov even advocated a 'a comradely style' in criticising successful specialists who did not accept the Marxist-Leninist scientific method; they must be '*won over*' by slow stages.<sup>146</sup>

Kuibyshev did not refer to the issue in his speech at the conference, but at the Gosplan plenum a month later he brusquely interrupted when Vaisberg, a notorious scourge of the specialists, complained that the leading engineer Aleksandrov had omitted 'social factors' from his theory of location:

*Kuibyshev.* That's much more an invention of your imagination than the real situation as far as cde. Aleksandrov is concerned.<sup>147</sup>

<sup>144</sup> RTsKhIDNI, 17/3/816, 10.

<sup>145</sup> P, April 9, 1931. A Politburo decision about the conference, prepared by Stalin and Molotov, is recorded in the Politburo minutes (RTsKhIDNI, 17/3/820). It is dated April 9, the day after the conference began, and the day after Bukharin's opening address.

<sup>146</sup> P, April 14, 1931. On Molotov's speech, see Graham (1967), 186–7.

<sup>147</sup> RGAE, 4372/29/72, 406 (May 11–13); for Vaisberg, see vol. 3, p. 120. For Aleksandrov, senior designer of Dneprostroi, see Carr and Davies (1969), 432, 583, 898–900, 907–8.

Publications in the industrial press subsequent to Molotov's speech were even more conciliatory. Established specialists were henceforth described as 'old specialists' rather than 'bourgeois specialists'. On April 18, Mezhlauk criticised the practice in the Donbass of employing old specialists primarily as consultants, and insisted that they should be returned immediately to normal work.<sup>148</sup> A few days later, a strongly worded article from Kuznetskstroï, entitled '*Risk is a Risky Matter!*', attacked the local industrial procurator for attempting to bring wrecking charges against the head of a machine shop, an old Bolshevik. It also reported cases of unjustified prosecution of young Soviet engineers without consultation with the management; the result had been a sharp decline in initiative.<sup>149</sup> On May 20, after a report by Stalin, the Politburo decided to halt the trial of the head of a blast-furnace shop.<sup>150</sup> Two days later, the People's Commissariat for Justice of the RSFSR despatched a circular to its officials criticising the incautious arrest of specialists and managers.<sup>151</sup> On the following day, May 23, Ordzhonikidze praised the former 'wreckers' responsible for the construction of the first Soviet blooming mill as 'technical creators of a great accomplishment', and promised that Vesenkha would ask the government to release and reward them as soon as the mill was installed and working.<sup>152</sup> On June 3, the Politburo prohibited the police and the procuracy from interfering in the work of factories in Stal', the steel corporation, and withdrew the official representatives of the OGPU from its factories. Simultaneously, it resolved to improve the food supply and housing for the engineering and technical staff of Stal'.<sup>153</sup> And, perhaps most significant of all, the expected public trial of Kondratiev and the TKP did not take place. But the 'leaders' of the TKP remained in prison, and the Soviet press continued to refer to them as guilty of wrecking and counter-revolution, together with the leaders of the

<sup>148</sup> ZI, April 21, 1931 (conference of ore-miners).

<sup>149</sup> ZI, April 30, 1931 (Starov).

<sup>150</sup> RTsKhIDNI, 17/3/826, 2.

<sup>151</sup> See Bailes (1978), 151, n. 27; circular signed by Vyshinsky. Bailes does not include Molotov's speech in his otherwise valuable account, which is therefore chronologically somewhat askew.

<sup>152</sup> P, pp. 22 and 37, May 23, 1931; and see pp. 22 and 37 above.

<sup>153</sup> RTsKhIDNI, 17/3/828, 32–3.

Industrial Party and the Mensheviks.<sup>154</sup> The milder attitude to the specialists did not constitute an admission that the previous harsh policy had been mistaken.

(iii) *Khozraschet*

The monetarist policy of the first five months of 1931 (see pp. 3–4, 23–4 above) was coupled with a renewed insistence on the importance of *khozraschet*, powerfully reinforced by Ordzhonikidze's speech to the industrial conference (see pp. 11–12 above).

The credit reform of 1930 had enabled lavish provision of finance to enterprises and the virtually automatic settling of accounts between customers and producers (see vol. 3, pp. 320–8). In the first few months of 1931 the new emphasis on *khozraschet* led to a series of decrees drastically modifying the credit reform. On January 2, the quarterly credit plans were supplemented by monthly and quarterly 'cash plans', specifying the net cash to be made available to each economic unit.<sup>155</sup> Two further Sovnarkom decrees, dated January 14 and March 20, required that henceforth the issue of short-term credit should be strictly limited to the amounts prescribed in the annual and quarterly credit plans prepared by the State Bank and approved by Sovnarkom.<sup>156</sup> This restored the practice of the 1920s.<sup>157</sup> These decrees also ruled that the State Bank should not issue credits automatically on the basis of the plan, but only to the extent that contracts were actually fulfilled. It must not, as a rule, transfer payments from the customer's to the producer's account unless the customer notified the bank that it accepted the goods as conforming to the contract.

<sup>154</sup> The TKP was an émigré organisation with a regular journal, *Vestnik krest'yanskoi Rossii*, published in Prague. This, like other émigré journals, had clandestine correspondents in the USSR at this time, but no serious evidence of conspiracy involving prominent Soviet officials was ever produced. A. L. Vainshtein, who was accused of associating with the TKP, told me in 1963 that he first heard of this 'organisation' from the lips of his interrogator.

<sup>155</sup> SZ, 1931, art. 38.

<sup>156</sup> SZ, 1931, arts. 52, 166; the first decree proposed the measures should come into effect on April 1, the second delayed implementation until May 1.

<sup>157</sup> See Carr and Davies (1969), 726–9.

These new arrangements were obviously incompatible with the simplified accounting procedures introduced in 1930, which placed all the financial resources of each economic unit in a single account (*kontokorrent*) for the unit. This made it almost impossible for the State Bank to trace the transactions of enterprises, including its own loans. Accordingly, on July 23 a Sovnarkom decree ruled that every economic unit should be allocated its own ‘working capital’ (*oborotnye sredstva*) to cover a minimum stock of materials, production in progress and finished goods; short-term credit from the State Bank should be available to cover temporary needs such as the value of goods in transit to customers. The *kontokorrent* would be replaced by a current account (*raschetnyi schet*); debts to the bank would be recorded in a separate account.<sup>158</sup>

The complex arrangements introducing the new system were not completed until towards the end of 1931 (see p. 91 below). But the State Bank immediately hastened to exercise its enhanced powers. In March, its Leningrad branch temporarily closed the accounts of several factories which had exceeded their credit limits, including the Putilov works; this forced them to economise, to sell their production more quickly and to sell their surplus materials.<sup>159</sup> At a party conference in Nizhnii Novgorod, Grin’ko admitted that important sites and factories such as the Nizhnii-Novgorod vehicle factory and Krasnoe Sormovo could not be auctioned off if they failed to balance their books, but insisted that alternative methods such as model courts could be used to bring pressure on management to exercise economy. Less important enterprises such as cooperatives could be sold at auction if necessary.<sup>160</sup> But such forays against uneconomical enterprises were sporadic. In the first six months of 1931, State Bank credits to industry once again exceeded the plan.<sup>161</sup>

The restoration of the rights of customers over their own current accounts was designed to facilitate the contract system advocated by Ordzhonikidze (see pp. 11–12 above), which

<sup>158</sup> SZ, 1931, art. 316.

<sup>159</sup> ZI, March 17, 1931; in *Predpriatie*, 9, May 1931, 3, the Vesenkha journalist Birbraer argued that it was appropriate in the event of a financial breakdown for the bank to delay the payment of wages ‘for a certain period of time’.

<sup>160</sup> FSKh, 12, April 30, 1931, 9 (speech of April 3).

<sup>161</sup> FSKh, 21, July 30, 1931, 1.

would enable the attenuation of the centralised distribution of production. But Ordzhonikidze's scheme did not work.<sup>162</sup> This was partly due to the hasty confusion in which it was introduced. But in the conditions of 1931 it was in any case Utopian. Production plans were so exaggerated that supplies were simply not available in the allocated amounts, so that it was impossible to make realistic contracts. And the more fundamental problem, which persisted even when plans became more realistic, was that success in financial terms was far less important to corporations and their factories than the drive to fulfil the production plan. As a Magnitogorsk official put it:

However great the material responsibility of the supplying factory might be for not fulfilling the contract, the necessity of avoiding a break in production will compel the consumer factory to seek the necessary materials from other sources by every possible means.<sup>163</sup>

This point was understood by Ordzhonikidze, who acknowledged that the abolition of direct distribution must necessarily involve a considerable strengthening of *khozraschet*.<sup>164</sup> But in 1931 many enterprises, particularly in basic industries such as coal and steel, were working at a loss, and depended on subsidies for their survival. And all enterprises were governed by the legislation of September 1930 which imposed a flat-rate deduction to the state budget of 81 per cent of planned profits; the deductions were paid by the corporation and not by the enterprise (see vol. 3, pp. 433–4). This increased the extent to which capital investment was financed through budget allocations, and further reduced the profit incentive.

The first flimsy efforts to strengthen financial incentives were undertaken in the spring of 1931. In March the Politburo resolved 'to re-examine the existing system of relations between

<sup>162</sup> For the elaborate legislation on supplier–customer contracts adopted at this time, see SZ, 1931, art. 109 (dated February 8); SP VSNKh, 1931, art. 164 (dated March 25); I, March, 28, 1931; RGAE, 3429/1/5249A, 42. By April in the Moscow region only 433 out of a possible 12,500 contracts had been signed (ZI, April 21, 1931). For the practices actually followed in 1931, see Lokshin (1933), 86, and Shkundin (1931), 49–50.

<sup>163</sup> ZI, March 15, 1931 (Dukarevich, speaking at a meeting of the Business Club).

<sup>164</sup> ZI, March 19, 1931 (reply to discussion at Vesenkha presidium, March 18).



the budget and economic agencies from the standpoint of making the expenditure of all economic agencies directly dependent on their internal accumulations, partly by leaving the overwhelming part of their own accumulations at their disposal'.<sup>165</sup> On May 3, a Sovnarkom decree ruled that corporations receiving allocations from the state budget for investment should be subject to a deduction from profits to the budget of only 10 per cent, the remainder being allocated to capital investment, working capital and the Welfare Fund.<sup>166</sup> On June 9, a strongly worded decree of STO criticised the Industrial Bank for issuing grants automatically in accordance with the plan, irrespective of the course of construction and the quality of the work, and insisted that, in future, capital investment allocations, like short-term credit, should be made available to industry only in accordance with the actual fulfilment of tasks and contracts, and within quarterly limits specified in the capital construction plans.<sup>167</sup>

These decrees were significant for their intentions rather than for their immediate results. Profits continued to be handled by the corporation rather than the factory, and the central authorities did not permit the crucial capital investment programmes of the major corporations to suffer from their failure to achieve the planned level of profits. The new regulations were subject to the more powerful injunction that, as the Narkomfin journal put it, 'the financial system had the task of securing the capital construction plan of industry for the first six months of 1931, whatever happened'.<sup>168</sup>

<sup>165</sup> Cited from the archives, with no date, in *Leninskii plan* (1969), 175. In a speech of April 3, Grin'ko referred to a recent resolution which switched over to profit as a major source of investment finance (FSKh, 12, April 30, 1931, 9).

<sup>166</sup> SZ, 1931, art. 205; for further details see Davies (1958), 220–1.

<sup>167</sup> SZ, 1931, art. 275.

<sup>168</sup> FSKh, 21, July 30, 1931, 1. Other attempts to strengthen khozraschet included the financial reform of the railways. Until 1931, following pre-revolutionary practice, the total income and expenditure of the railways formed part of the state budget. A decree of STO dated April 30, 1931, transferred the railway system to khozraschet arrangements similar to those in state industry; only income net of the costs of current operation formed part of budgetary revenue (SZ, 1931, art. 214). The authors of the reform hoped that as a result of the consequent greater attention to railway income 'the difference between planned and actual cost will be the main indicator of successful economic activity' (EZh, February 9, 1931). But the decree was not put into effect until July 1 (*Otchet . . . 1931* (1932), 214), and so could not affect financial results in

*(iv) Wage policy*

With the growing emphasis on *khozraschet*, wage policy received much more attention from the authorities. In 1930, as in previous years, the growth of wages was restricted by substantial cuts in job-rates in the form of increases in output norms; but otherwise relatively little attention was paid to wages (see vol. 3, pp. 267–72). The long-standing policy of ‘pulling up (*podtyagivanie*)’ the wages of low-paid industries and ‘equalising (*vyravnivanie*)’ the wages of low-paid workers was not enforced. Pursued actively in the 1920s by Tomsy and the old leadership of the trade unions in the interests of greater social equality, the tough party leaders around Stalin saw wage equalisation as entirely irrelevant to the needs of rapid industrialisation.<sup>169</sup> But for the moment no alternative policy had replaced it. The stern new labour legislation of the special quarter paid little attention to wages: exhortation, direct orders and sanctions predominated as means for controlling the labour force. In the inflationary conditions of 1930, monetary incentives through differentiated wages seemed to be of minor importance.<sup>170</sup> Material incentives took the form of improved housing, extra holidays and better rations (see p. 60 below).

In its short section on wages, the 1931 plan displayed a delicate ambiguity about wage differentiation:

In planning wages we have placed the main emphasis on those industries which have decisive importance for the fulfilment of the five-year plan in four years. In planning the growth of average wages in Vesenkha-planned industry by 6.7 per cent, we increase wages for workers in the coal industry by 16.8 per cent, in metallurgy by 11.6 per cent.<sup>171</sup>

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the first six months of 1931. Moreover, according to a Gosplan report for the whole of 1931, prepared early in 1932, ‘in fact the position on almost all the lines remains exactly the same as before the transfer to *khozraschet*’ (*Zheleznodorozhnyi transport* (1970), 140).

<sup>169</sup> For the equalisation policies, see Bergson (1944), 186–7; Carr and Davies (1969), 529–34.

<sup>170</sup> Exceptionally, in October 1930, the Ukrainian central committee, after a visit from Molotov, recommended that in the coal industry wages should be restructured so as to interest workers in higher labour productivity, fuller mechanisation and improved skills (P, October 5, 1930).

<sup>171</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 60.

While the plan advocated ‘pulling up’ wages in key industries and difficult areas, nothing was said about the differentiation of wages within each industry.

The annual campaign to increase output norms was launched early in 1931.<sup>172</sup> In some industries, norms were increased substantially – in the Ukrainian coal industry by as much as 20 per cent.<sup>173</sup> But on the whole the campaign was pursued with less success than in previous years, and in the first six months of 1931 wages rose more rapidly than productivity for the first time since 1927. This was partly because the revision of norms was much delayed, partly because the rate fixers set basic wages higher than in 1930 on the optimistic assumption that productivity would continue to increase.<sup>174</sup>

From the beginning of 1931, a series of decisions increased the wages of skilled workers in priority sectors of the economy. Wages of engine drivers and stokers were increased by amounts varying between 8 and 20 per cent,<sup>175</sup> and the wages of ‘leading trades’ in the coal industry by an average of 20 per cent.<sup>176</sup> Thus the policy of greater equalisation between skilled and unskilled, pursued successfully by the trade unions since 1926, was superseded almost without public challenge. An article in the party journal,

<sup>172</sup> ZI, February 24, 1931; the campaign was to be completed by April 1.

<sup>173</sup> ZI, April 17, 1931.

<sup>174</sup> The basic wage as determined from the official wage scale in each industry was in practice supplemented by numerous more or less standard bonus payments (*prirabotki*) of various kinds which had accrued over the years. When the wage agreements were drawn up in 1931, the practice was apparently widespread of abolishing a substantial part of the bonus payments and incorporating an equivalent sum into the basic wage, which then became available to both piece workers and time workers (see *Predpriyatie*, 10, May 16–30, 1931, 47). This practice was not officially authorised: it was condemned early in the campaign at a session of the AUCCTU by Veinberg, its secretary (ZI, February 24, 1931). When productivity declined in the first three months of 1931, the higher basic wage was not affected. For a previous incorporation of bonus payments into the basic wage, this time officially approved, see Carr and Davies (1969), 534–6.

<sup>175</sup> SZ, 1931, art. 81 (dated January 15); this clause is omitted in the version of the decree published in *Direktivny*, ii (1957), 231–9. The wages of skilled workers in river transport were increased following a decision of February 5 (SZ, 1931, art. 82).

<sup>176</sup> *Industrializatsiya, 1929–1932* (1970), 598 (Politburo decision of February 10). On March 11 the Politburo adopted a further decision on increasing miners’ wages (RTsKhIDNI, 17/3/816).

reporting a survey of factories, defended production collectives and communes which had eliminated 'unhealthy antagonism between workers resulting from extreme and not always correct differentiation of wages'.<sup>177</sup> But this was a lone voice. At the VI congress of soviets in March, Molotov forthrightly condemned 'crude levelling (nivellirovka)' as 'entirely petty-bourgeois' and alien to Leninism.<sup>178</sup>

The relative merits of piece work and time work were more contentious. The amount of piece work, which markedly declined in 1929/30, remained more or less constant in the winter of 1930-1.<sup>179</sup> But experiments with time payments continued in the iron and steel industry and in conveyor-belt factories such as Stalingrad (see vol. 3, pp. 271-2); and received favourable publicity. In February 1931, major articles in the journals of Narkomtrud and of the factory directors supported the experiments in the Petrovsky and Lenin iron and steel works, which between them produced 12 per cent of Soviet pig-iron. In the Petrovsky works the experiment was successfully extended. The authors claimed that time payments were appropriate wherever good organisation was more important than individual effort:

As our industry goes over to a higher degree of organisation, as it masters technological and labour processes and the development of socialist forms of labour, the piece-work system will give way to another system, mainly one of time-based fixed payment.<sup>180</sup>

1931 must become the break-through year in the question of *forms of payment* of labour, transferring the centre of attention of leading enterprises and product groups to time pay.<sup>181</sup>

<sup>177</sup> B, 4, February 28, 1931, 31 (Markus).

<sup>178</sup> 6 s<sup>1</sup>ezd (1931), No. 1, 27.

<sup>179</sup> The proportion of piece work amounted to 55.5 per cent of total hours worked in industry in August 1930 and 56.5 per cent in February 1931, as compared with the peak figure of 60.3 per cent in August 1929 (*Trud* (1932), 49).

<sup>180</sup> *Predpriyatie*, 3-4, February 1931, 18-9 (Gliksman).

<sup>181</sup> VTr, 2, 1931, 23-4 (Mokhson) (for discussion). Another article, however, claimed that collectively-paid progressive piece work had been successfully introduced at the Rykov iron and steel works (*Trud*, April 27, 1931 - Luk'yanov, for discussion).

The traditional hostility to piece work was sharply expressed in a memorandum to Ordzhonikidze dated February 19, 1931, which declared that ‘piece work is not merely harmful because the quality of the work deteriorates, but is also, in the words of Karl Marx, a “sweating system”, which is impermissible in our country’.<sup>182</sup>

The supporters of piece work, however, insisted that the apparent success of time work was due to the heavy concentration of training, explanatory work, rationalisation measures and skilled norm setters at the works where the experiment was being conducted. When they compared two shops in the same conditions, time payments proved to be more costly than payment by the piece.<sup>183</sup> Like the protagonists of time work, the protagonists of piece work insisted that their own system was appropriate to more modern forms of factory organisation.<sup>184</sup>

Much attention was devoted to experience in the United States. But no simple conclusion could be drawn. The American coal engineer Charles E. Stuart, consultant to the Soviet industry since 1927, apparently recommended the extension of piece work and bonuses for good work in the coal industry.<sup>185</sup> On the other hand, the use of time work in the Stalingrad factory was strongly influenced by the practice in the Ford plant on which it was modelled.<sup>186</sup> The balance of the economic evidence indicated that both systems should be continued in Soviet industry: piece work should predominate in industries which required physical effort, while time work should continue in factories with a regular work rhythm, such as Stalingrad and the main shops in the iron and steel industry.

<sup>182</sup> GARF, 5446/82/1, 263–2. The unsigned memorandum, which has found its way into the correspondence files of Molotov’s secretariat, was criticising the output norms in force in the building industry.

<sup>183</sup> VTr, 6, 1931, 21 (Vladimirov), 14–16 (Sokolov); the latter study was made at Elektrozavod, Moscow.

<sup>184</sup> Compare *Predpriyatie*, 3–4, February 1931, 18 (Gliksman) and VTr, 6, 1931, 24 (Vladimirov).

<sup>185</sup> Friedman (1933), 273–4; Stuart had been working with Vesenkha on questions of management of the coal industry for some months, and his conclusions about piece work may well have been known to the authorities earlier in the year. For Stuart’s technical assistance agreements with the USSR, see Sutton (1971), 90–1.

<sup>186</sup> See P, June 27, 1931 (Dubner and Mushpert).

But the party authorities decided that the use of wages as a major economic incentive required the universal introduction of piece work. In February, a joint Sovnarkom and central committee Appeal recommended that workers in river transport should be paid by the ton-kilometre.<sup>187</sup> Piece work was henceforth the order of the day. Sheboldaev later claimed that the regional party committee in the North Caucasus had taken the initiative as early as March–April 1931 for ‘a decisive move towards straight and progressive piece rates’.<sup>188</sup> In April the sixth of the Ordzhonikidze’s 22 recommendations for the ailing Stalingrad factory proposed that wages should be increased and that ‘equalisation (*uravnilovka*)’ should be abolished.<sup>189</sup> On May 5, ‘the transfer of workers to piece work’ appeared on the Politburo agenda; a Politburo commission on wage questions was established under Postyshev to re-examine the whole system of wage scales with a view to introducing piece rates.<sup>190</sup>

Whether piece payments should be awarded to individuals or to groups of workers was not yet agreed. Some authors defended collective payment in the crucial processes in the iron and steel and tractor industries where continuous production prevailed.<sup>191</sup> On the basis of the experience at the Stalingrad factory, an article in *Pravda* proposed that the type of technology involved should determine whether piece payments were paid to individuals, to brigades or to whole collectives.<sup>192</sup> But others, while acknowledging that support for collective piece payments was ‘very widespread’, insisted that only individual payments enabled the

<sup>187</sup> SZ, 1931, art. 82 (dated February 5), VTr, 6, 1931, 18 (Vladimirov). A new and more extensive piece-work system was adopted for the railways by a decree of the collegium of Narkomput’ dated April 13 (I, April 16, 1931).

<sup>188</sup> Sheboldaev (Rostov, 1934), 13 (speech of January 28, 1932).

<sup>189</sup> SP VSNKh, 1931, art. 268 (dated April 30). At this time piece rates were used for only 17.7 per cent of all its workers, and were not used at all in the main assembly shop; some Komsomol work groups shared all wages equally (P, June 27, 1931 – Dubner and Mushpert).

<sup>190</sup> RTsKhIDNI, 17/3/823; Kuz’mín (1976), 146. On May 10, a decree on the consumer cooperatives proposed that the wages of their workers should be ‘a percentage of turnover’ (*Direktivy*, ii (1957), 277); for other aspects of this decree see pp. 61–2 below.

<sup>191</sup> VTr, 6, 1931, 23–4 (Vladimirov); NPF, 2, 1931, 23 (Kalistratov).

<sup>192</sup> P, June 27, 1931 (Dubner and Mushpert).

earnings of each worker to be related directly to individual output.<sup>193</sup>

Voices were also raised in favour of 'progressive' piece rates, which increased the amount paid per unit of output once the standard output norm was exceeded.<sup>194</sup> They were widely introduced in the Urals iron and steel corporation Vostokostal' in May 1931: according to its annual report, at that time 'progressive payments were seen in some plants as the only factor to eliminate all production failures'. Considerable increases in productivity were achieved at some Vostokostal' factories. But the results were unexpected. Unskilled workers were more energetic in fulfilling their norms than skilled workers, so the differences in pay between them were not increased but reduced.<sup>195</sup>

By June 1931 the necessity for some kind of piece work was an almost unassailable dogma. The advocates of time payments were denounced as 'anti-party and anti-Leninist'; and 'equality' was even condemned as a 'demagogic device of the Mensheviks' which would help the kulaks in view of the existence of petty-bourgeois tendencies among workers new to factory life.<sup>196</sup>

#### *(v) Retail trade*

If wages were to act as a powerful incentive and as an instrument for the control of labour, wage earners must be able to buy goods with their earnings. Yet in 1930 workers acquired most of their food and consumer goods in state or cooperative shops at low fixed prices. In spite of the dearth of goods in the shops, at the beginning of 1931 retail prices in urban cooperative trade were slightly lower than in 1928, having been reduced by 3 per cent in the course of 1930!<sup>197</sup> Essential goods were rationed; others were

<sup>193</sup> PE, 6, 1931, 24–6 (Yampolskii).

<sup>194</sup> ZI, February 24, 1931 (speech by trade-union official); NPF, 7, April 1931, 22 (Yurisov).

<sup>195</sup> RGAE, 4086/2/22, 73–4. The system was also introduced at the Magnitogorsk building site in the same month (RGAE, 4086/2/119, 7).

<sup>196</sup> VTr, 6, 1931, 16, 19; these articles may have been written *after* Stalin's speech of June 23, but this is not certain.

<sup>197</sup> *Tovarooborot* (1932), 134–5; the price index (1928 annual average = 100) was 102.5 on January 1, 1930, 99.3 on January 1, 1931.

available sporadically in the 'closed shop' of the factory or establishment. In addition, some food products and consumer goods were purchased on the free market, at prices which were considerably higher than the fixed prices in the state sector, and were relentlessly increasing. The free market supplied a fairly small share of urban consumption, but absorbed a substantial part of urban purchasing power (see vol. 3, pp. 303–4).

At the end of 1930, the authorities remained firmly convinced that centralised distribution and product-exchange would become increasingly important as the construction of the socialist society proceeded. This belief was reflected in the renaming of Narkomtorg, the People's Commissariat for Trade, as Narkomsnab, the People's Commissariat for Supply, in November 1930. In December 1930 the resolutions of the central committee plenum avoided the word 'trade' altogether. The resolution on consumer cooperation spoke in terms of 'supply (snabzhenie)', and demanded that 'the trading soul (torgasheskii dukh) should be rooted out of the work of consumer cooperation'.<sup>198</sup> It instructed cooperatives to give priority to key sectors and to place their main emphasis on the expansion of the closed shops. In a passage that was remarkable, at this late date, for its Utopian spirit, the resolution also advocated a radical shift to communal catering:

Cooperatives face the task of gradually shifting food supply from individual consumption to communal catering, in view of the decisive successes in the economic construction of the USSR, the growth in the cultural level of the mass of the people, and the involvement of members of working families in production in view of the complete abolition of unemployment. This is the first prerequisite for 'transition from petty isolated domestic economy to large-scale socialised economy' (Lenin).

In their reports after the plenum, party leaders also assiduously avoided the word 'trade'. Kaganovich, deploring the fact that workers had to obtain 'up to a quarter' of their food on the private market, announced that the role of 'centralised supply'

<sup>198</sup> *KPSS v rez.*, iii (1954), 86–9 (resolution of December 21). The resolution on meat and vegetables also dealt with their 'supply' (*ibid.* 82–6, also dated December 21).



would increase in 1931.<sup>199</sup> The 1931 plan also referred to 'supply', 'consumer cooperation' and 'exchange and distribution' rather than trade.<sup>200</sup> Party economists also claimed that in the relationship between the socialist sector and individual peasants trade was already being replaced by 'commodity exchange'.<sup>201</sup> In practice, while 'bazaar' trade (free-market trade) by peasants selling their own products was tolerated, re-sale of goods, even on a petty scale, was prosecuted as 'speculation'.<sup>202</sup>

Planned distribution was not of course a system of equal shares for all: the authorities used rationing and closed distribution as a quasi-wage-system, rewarding those in responsible posts, and the skilled and the hard-working. In April 1931, a joint instruction of AUCCTU, Narkomsnab and Tsentsosoyuz 'On Preferential Supply to Shock Workers' provided that special ration cards should be issued to shock workers at the closed shops for periods of one month; clothing and other goods, and extra supplies of food, would be distributed to shock workers by a priority system. Sanctions were also introduced for 'absentees without due cause', whose rations could be reduced or even withdrawn altogether.<sup>203</sup>

Such incentive measures in kind both reflected and encouraged the declining role of money wages as an incentive. But even while they were being introduced, someone somewhere high up in the counsels of the Soviet government evidently began to re-think the whole question. In February, an editorial in *Pravda* called for the 'basic reconstruction of trade',<sup>204</sup> and in March the VI Congress of Soviets briefly but dramatically criticised 'the underestimation of the significance of Soviet cooperative trade, which is required to serve as a powerful lever to secure and accelerate the pace of industrialisation and collectivisation'.<sup>205</sup>

<sup>199</sup> I, December 30 (Kaganovich); Kaganovich's only use of the word 'trade' was when he quoted Stalin's statement at the XVI party congress that the cooperatives held 'an almost monopoly position in trade'.

<sup>200</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 22, 56–7, 90.

<sup>201</sup> *EZh*, January 27, 1931 (Ignatov); for the previous discussion on this theme, see vol. 3, ch. 5.

<sup>202</sup> See, for example, the report of prosecutions for the re-sale of kerosene, *Rabochaya Moskva*, February 6, 1931, cited in BDFA, IIA, x (1986), 216.

<sup>203</sup> *Trud*, April 7, 1931. Shock-workers' ration cards were first introduced in 1930. For further details see Filtzer (1986), 96–9, and Russell (1987), 339–42.

<sup>204</sup> *P*, February 19, 1931.

<sup>205</sup> *Direktivy*, ii (1957), 250.

The expression 'Soviet trade' was henceforth in general use; but what did it mean? No-one yet ventured to suggest that trade or money would be features of a fully socialist society: it was still taken for granted that the completion of the construction of socialism would involve going over to 'direct product-exchange' and a moneyless economy.<sup>206</sup> But this goal was now seen as more remote. Butaev, one of the rapporteurs on consumer cooperation to the central committee plenum in December 1930, suggested in the spring of 1931 that money and Soviet trade would still remain after the completion of the building of the *foundations* of socialist economy (though not presumably when the construction of socialism was complete).<sup>207</sup> Voznesensky stressed that product-exchange would obtain only under 'developed socialism (*razvernutyi sotsializm*)'; meanwhile, trade, money and *khozraschet* must be strengthened.<sup>208</sup>

At first the practical implications of the resurrection of the term 'Soviet trade' were very limited, and the press took it for granted that the rationing system was an inherent part of Soviet trade.<sup>209</sup> But on May 10, 1931, an Appeal of Sovnarkom, the central committee and Tsentrosoyuz 'On Consumer Cooperation' admitted that the elimination of private trade would not lead immediately to direct product-exchange but instead to the 'all-round development of Soviet trade', and proposed a radical new direction for trade policy:

Abolish the practice of rationing industrial consumer goods, temporarily retaining rations for individuals only for certain commodities which are in very short supply.

<sup>206</sup> See, for example, PE, 4-5, 1931, 153-9 (discussion at the Communist Academy on March 26); B, 9, May 15, 1931, 38 (Voznesenskii).

<sup>207</sup> PE, 4-5, 1931, 155 (my italics - RWD).

<sup>208</sup> B, 9, May 15, 1931, 38. Voznesensky followed Molotov (see p. 14 above) in treating *khozraschet* within the socialist sector as a feature of NEP and not of the socialist sector as such. He argued that exchange within the socialist sector was not an exchange of commodities, because there was no market for labour or for products within the socialist sector. The socialist sector utilised the monetary form, because it would be impossible to have simultaneously both an economy in kind of the socialised sector and a money economy of the petty commodity sector; but for the socialised sector the money form was only a form of supervision and record-keeping (i.e. *khozraschet*) and a form of pressure on the petty-bourgeois sector (i.e. trade) (*ibid.* 34-5).

<sup>209</sup> See, for example, EZh, April 23, 1931 (Ryl'skii).

Abolish the practice of iron-cladding industrial consumer goods (except in the case of timber cutting and floating, fisheries, and fur, egg and butter collections), and also abolish sale of them by coupons (orderly), retaining sale by coupons temporarily only for clothing (suits, overcoats) and footwear, the coupons to be valid for a limited period (10 days).<sup>210</sup>

There were weighty pragmatic reasons for abolishing the rationing of industrial consumer goods. With the deterioration of the supply situation, by the beginning of 1931 the authorities were frequently unable to provide ordinary urban consumers with full allocations of the large range of rationed consumer goods. Such goods as were available were often diverted to shock workers in key industries.

Even before the Appeal of May 10, 1931, the authorities sought to absorb the vast excess of purchasing power by increasing retail prices in state and cooperative trade. This was also a sharp shift in policy. A year previously, in preliminary discussions of the financial plan for 1930/31, leading financial officials proposed to increase retail prices of non-rationed goods, and to extend the unrationed sale at much higher 'dual' or 'commercial' prices of part of the available supply of rationed goods. At the collegium of Narkomfin in May 1930, some speakers proposed that dual prices should be introduced for a wider range of goods, enabling 'hundreds of millions of rubles' to be absorbed.<sup>211</sup> In spite of the objections of official Narkomfin representatives, the conference eventually resolved that '*an important lever in obtaining resources from the non-working and better-off groups of the population must be the further extension of the practice of higher prices*'.<sup>212</sup> But the 1931 plan, drawn up at the end of 1930, was remarkable for its almost complete silence about retail prices;<sup>213</sup> and in practice urban retail prices of cooperative trade were not increased at all at the beginning of 1931, and rural retail prices increased only slightly.<sup>214</sup>

<sup>210</sup> *Direktivny*, ii (1957), 273–8; 'coupons' were issued by management to enable workers to buy goods from the factory shop.

<sup>211</sup> EZh, May 28, 1930 (statements by representatives of Central Black-Earth region and Belorussian SSR).

<sup>212</sup> EZh, May 29, 1930 (Narkomfin spokesmen), June 14, 1930 (resolution).

<sup>213</sup> See *Narodno-khozyaistvennyi plan 1931* (1931).

<sup>214</sup> See tables in *Tovarooborot* (1932), 131–7.

On February 15, 1931, however, the Politburo resolved that the retail price of vodka was to be increased and that the prices of certain industrial goods were to be increased in key agricultural areas.<sup>215</sup> Ten days later, the Politburo also resolved to increase the prices of finished clothing in towns.<sup>216</sup> On the following day, February 26, a secret Sovnarkom decree increased the rural prices of textiles, finished clothing, footwear, kerosene and *makhorka* by amounts varying between 20 and 65 per cent. The decree frankly revealed its fiscal objective by estimating that this would yield an extra 757 million rubles in the course of 1931.<sup>217</sup> Following the decree, between March 1 and June 1, according to the official index, rural retail prices in cooperative trade increased by 30 per cent and urban prices by 7.5 per cent, mainly owing to the increased prices of industrial consumer goods.<sup>218</sup> These increases, introduced without any publicity, were accompanied by a significant expansion in 'commercial trade' – unrationed sales of food in state shops at high prices.<sup>219</sup> In May and June, to encourage small-scale production, income tax on individual artisans was substantially reduced.<sup>220</sup> Restrictions on individual traders were also somewhat relaxed.<sup>221</sup>

In spite of the price increases, the industrial consumer goods which were removed from the ration by the May 10 Appeal remained in very short supply. Sometimes the shortages were ameliorated by the stealthy reintroduction of informal systems of rationing, but often the abolition of rationing merely introduced a large element of luck into the distribution system.<sup>222</sup>

<sup>215</sup> RTsKhIDNI, 17/162/9, 133 (item 17).

<sup>216</sup> RTsKhIDNI, 17/3/814 (joint item no. 12).

<sup>217</sup> GARF, 5446/57/14, 69 (art. 32).

<sup>218</sup> *Tovarooborot* (1932), 131–7.

<sup>219</sup> Malafeev (1964), 167; *Tovarooborot* (1932), 118, 120; Friedman (1933), 455.

<sup>220</sup> SZ, 1931, arts. 237, 279 (May 23, June 17); the prices for artisan products continued to be fixed by the state.

<sup>221</sup> According to a surprising report from a British Embassy official, a large private pastry-cook's shop was opened in Stalino, and was crowded with wives and families of officials; he commented that 'this revival of NEP was most unexpected' (Greenway, Memorandum, June 27, 1931 – BDFA, IIA, x (1986), 318). Stalino was an industrial town in the Donetsk basin (formerly named Yuzovka, after the Welsh metallurgist Hughes).

<sup>222</sup> In the exceptional case of perfumes and cosmetics, price increases resulted in a glut on the market, and prices were reduced again later in the year (*Otchet . . . 1931* (1932), 155).

Food rationing remained intact. But the young economist Gatovsky strongly hinted in the party journal that rationing would eventually be abolished for food as well as industrial consumer goods.<sup>223</sup> The decision to move towards the abolition of rationing was now openly linked with the requirement that money wages should acquire a firm value backed by a choice of goods. Gatovsky pointed out that incentive payments were impossible if goods were planned as specific rations allocated in advance.<sup>224</sup> While the need to abolish all rationing was henceforth a firm principle, it remained entirely unclear how long it would take, or how it could be accomplished in face of the vast excess of purchasing power in both town and country.

<sup>223</sup> B, 11, June 15, 1931, 43; he wrote that food rationing was 'so far [*sic*] absolutely necessary to the struggle against speculation'.

<sup>224</sup> B, 11, June 15, 1931, 40.

## CHAPTER FOUR

# STALIN'S CONDITIONS FOR INDUSTRIAL DEVELOPMENT

The new trends in policy were reflected unevenly in the pronouncements of party leaders in May and June 1931. Kuibyshev's report to Gosplan on May 11 remained entirely committed to impossibly ambitious long-term plans (see pp. 43–4 above), and paid no attention to the role of financial indicators in planning.<sup>1</sup> During the discussion, Petrov, who was responsible for the preparation of economic balances (see p. 262 below), pointed out that general units of measurement, and economic analysis of the plans, were essential for *khozraschet*.<sup>2</sup> Even Vaisberg, notorious protagonist of purposive planning, commented that 'we have no all-embracing generalising measure except value, and if this measure did not exist another generalising measure would be created'; the right course was to measure jointly by the ruble and in physical terms.<sup>3</sup> In his reply to the discussion, Kuibyshev modified his initial position:

I received a couple of notes which revealed that some listeners got the completely mistaken impression that I contrast the plan in kind and in material terms to checking by the ruble. This is incorrect. *The plan must become a plan in material terms and a plan in*

<sup>1</sup> Three months earlier, in a speech to the presidium of Gosplan, he had already criticised the lack of 'serious, carefully thought-out and checked plans' which were 'technologically and economically literate'. In this context he made his famous declaration that 'our plans so far suffer from a superfluous, if one may put it like this, "statistical-arithmetical" deviation, the absence of a clearly presented technical idea' (P, March 3, 1931 (speech of February 27)). This passage has frequently been quoted (usually only in part) as proof that Kuibyshev was opposed to the use of statistical methods in planning. This is an over-simplification: Kuibyshev was objecting to the vagueness of plans drawn up by simple arithmetical calculations. More accurate material balances, and central plans for technological development prepared with the participation of engineers and scientists, eventually became a major feature of Gosplan practice under Kuibyshev.

<sup>2</sup> RGAE, 4372/29/72, 422, 420 (May 12).

<sup>3</sup> *Ibid.* 405 (May 12).

*kind (plan dolzhen byt' i materializovan i naturalizovan), and this does not merely not deny, on the contrary, it presupposes, that supervision by the ruble must be strengthened.*

He added, however, that the plan should be 'as much in kind as possible', and complained that the Balance of Equipment, presented solely in ruble terms, was a 'complete disgrace . . . I call it playing the ruble figures game'.<sup>4</sup> The final published version of his report moved still further towards emphasis on the ruble, as it included only the sentence in italics above, without the surrounding qualifications.<sup>5</sup> It also omitted a sentence critical of planning in value terms in which appeared in the *Pravda* version: 'Planning only in rubles, without a material-technical content, must be eroded from our practice.'

When the central committee plenum met from June 11 to 15, the new approaches to the economy were reflected sporadically and rather thinly in the proceedings and resolutions. The resolution on the spring sowing and the harvest campaign insisted that the kolkhozy should use piece payments 'for all work without exception'.<sup>6</sup> The resolution on the railways praised paired manning, and included a brief paragraph on the 'unique importance of the introduction of khozraschet in transport'. But it also endorsed a programme for the modernisation and eventual electrification of the railways, requiring a substantial increase in capital investment in 1932 and 1933.<sup>7</sup> The overwhelming impression conveyed by the plenum record is that the party was unshakably committed to the high targets of the 1931 plan and to running the economy by mobilisation and exhortation.

<sup>4</sup> *Ibid.* 296–5 (May 12) (my italics – RWD).

<sup>5</sup> PKh, 4, 1931, 8. This sentence did not appear in *Pravda* of May 13. It was added in Kuibyshev's handwriting to the preliminary version of the report in the Gosplan archives, preceded by the further sentence: "'Ruble" planning alone is now obviously inadequate' (RGAE, 4372/29/72, 652; these sentences are both included in the retyped version on l. 679).

<sup>6</sup> KPSS v rez. iii (1954), 94–100; this resolution will be discussed in the following volume.

<sup>7</sup> KPSS v rez., iii (1954), 100–13; see also p. 42 above. The programme incorporated proposals made by Rukhimovich at the plenum of Gosplan in May (P, May 17, 1931; PKh, 5–6, 1931, 10–21) and endorsed by the Politburo on May 25 (see KPSS v rez., iii (1954), 103, and RTsKhIDNI, 17/3/827). The plenum also discussed the municipal economy of Moscow and the USSR as a

A major 'conference of business managers' was held in Moscow on June 22–23, a week after the plenum dispersed. The conference, unlike the preceding industrial conference in January, which was convened by Vesenkha, took place under the auspices of the party central committee and was attended by all the members of the Politburo. Stalin was present on both days (in January he was present only at the end of the final day). The conference was addressed by Kuibyshev, Ordzhonikidze, Tsi-khon, Grin'ko, Mikoyan, Postyshev and Molotov, by the heads of major corporations, and by senior trade union officials. Apart from Stalin's concluding speech, the proceedings were not published, but are available in the archives.<sup>8</sup>

The conference consolidated the recent trends in economic policy, but they remained ambiguous and contradictory. The main speakers admitted fairly frankly that the industrial plans for 1931 had not been fulfilled so far. But they also insisted that the 1931 plan still remained entirely realistic, and proposed to

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whole; its proceedings and resolution on this were a mixture of optimistic realism about town planning with Utopian aspirations to prevent large towns from growing too rapidly and concentrate investment in peasant areas so as to 'bring nearer the final elimination of the contradiction between town and country'. See also p. 77 below. The resolution is in *KPSS v rez.*, iii (1954), 113–26; Kaganovich's report to the central committee is in P, July 4, 1931. For the verbatim report of the discussion, see RTsKhIDNI, 17/2/479, 151–99.

In his report of June 19 on the plenum to the Moscow party, Kuibyshev claimed that it was now more difficult to attract labour to the towns owing to the success of collectivisation, criticised equalisation (*uravnitel'nost'*) in wage policy, which reduced incentives to improve skill, drew attention to the 'many cases' in which the uninterrupted production week resulted in 'depersonalisation', and declared that the solution lay in 'the organisation of labour and production – in other words [*sic*] in *khozraschet*'. According to Kuibyshev, economic links, and verification and supervision by the ruble, must be strengthened; depersonalisation must be eliminated; and proper incentives to work must be provided. This speech appeared in P, June 25, 1931, and was published after Stalin had delivered his June 23 speech (see pp. 70–5 below); the published text of Kuibyshev's speech was therefore very likely to have been influenced by his knowledge of Stalin's as yet unpublished speech.

<sup>8</sup> The stenogram, which is located in Ordzhonikidze's personal files, consists of two typewritten volumes: RTsKhIDNI, 85/28/7, i–ii; the conference was officially 'The conference in the CC CPSU (b) of business managers of Vesenkha and Narkomsnab'. The published version of Stalin's speech appeared in P, July 5, 1931, and in Stalin, *Soch.*, xii (1949), 51–80. On July 15, the Politburo resolved not to publish the stenogram of the proceedings (RTsKhIDNI, 17/162/10, 119 – item 4).



fulfil it by a combination of exhortation, mobilisation and economic incentives.

Kuibyshev, who spoke first, had less to say about economic incentives than the other Politburo members who addressed the conference. His main concern was to lament 'the very distressing results of the past five months' and to call for the complete achievement of the 1931 plan. Industrial production had increased by only 7 or 8 per cent, and building work had reached only 60 per cent of the plan; fulfilment of the 1931 plan would require an increase of production by as much as 70 per cent (!) in the July–September quarter.<sup>9</sup>

Ordzhonikidze called more soberly for greater realism in planning. He strongly criticised those who, in order to avoid charges of opportunism, 'agree to any plan which is proposed':

A most unseemly joke is going the rounds: propose what plan you like, we will all agree to whatever plan you like (*Laughter*).

But Ordzhonikidze's apparent moderation was vitiated by his insistence that the 1931 plan must be completely fulfilled:

Do you think that failure to fulfil the plan provides strong support for the general line of the party? (*General laughter*). . . The central committee. . . wants to warn you that in the second half of the year we expect our industry to fulfil the plan . . . At the end of the year [we will then] say to the whole world: 'the whole world is suffocating from the general crisis, but the economy of our Soviet land has grown by tens of per cent'.

Unlike Kuibyshev, Ordzhonikidze, following the line of his speech at the January conference, strongly stressed the importance of financial discipline. 'Last year none of us counted our money, everyone decided that henceforth money would be annulled', and industry took 1,500 million rubles from Gosbank. Now all that was over; managers must count every kopek. Ordzhonikidze also emphasised the now familiar theme of the importance of wage incentives:

<sup>9</sup> RTsKhIDNI, 85/28/7, i, 8–33.

How often has comrade Stalin cursed us and said we should put an end to the disgrace of equalisation (*uravnilovka*), when we are supposed to have communism already, and labourers and highly skilled workers can get the same – a worker loading a blast-furnace at an iron works and someone who is doing lighter work can get the same.<sup>10</sup>

Postyshev, chairman of the Politburo commission on wages, and Tsikhon, People's Commissar for Labour, strongly endorsed the importance of piece work. According to Tsikhon, the evidence that the Politburo commission had received showed that the worker often did not know how his wage was calculated, so that 'piece work is depersonalised', even though the essence of *khozraschet* was that the worker should know what he could earn.<sup>11</sup> Postyshev strongly attacked collective piece work:

Cde. Stalin at one time very firmly raised the point that wages are a lever which must provide an incentive for each individual worker. . . But this lever fails to provide an incentive and no-one is concerned about it.<sup>12</sup>

Both Ordzhonikidze and Grin'ko drew attention to the importance of the new decree according to which allocations to a corporation would depend on its success in fulfilling its own financial plan (see pp. 51–2 above); Grin'ko complained that the decree had as yet rarely been put into practice, because 'a kind uncle in the person of the CC or Sovnarkom in most cases covers the gap'.<sup>13</sup> More broadly, Molotov complained of 'little success' with *khozraschet*: 'this principle must be inculcated into the working masses'.<sup>14</sup>

Another major theme of the conference was the position of the specialists. Ordzhonikidze, again referring to Stalin for support, insisted that specialists must not be treated as 'second-grade people', and demanded an immediate end to the situation in which 'policemen are the bosses of the enterprises'. Postyshev

<sup>10</sup> RTsKhIDNI, 85/28/7, i, 112–41.

<sup>11</sup> *Ibid.*, i, 159–62.

<sup>12</sup> *Ibid.*, ii, 94–100.

<sup>13</sup> *Ibid.*, i, 138, ii, 22–3.

<sup>14</sup> *Ibid.*, ii, 167.

called for engineers to be protected from demagogues and provocateurs; workers' attitudes to specialists, which remained from the days of wrecking, must be 'demolished'. Molotov, pointing out that nearly half the specialists in the Donbass had been fined, reported a Politburo resolution objecting to the frequency with which charges were brought against specialists.<sup>15</sup>

At the end of the conference, Stalin, who had frequently interrupted the speakers with comments, made his famous speech which became known as 'A New Situation – New Tasks of Economic Construction'. The speech exists in two versions: the original form in which it was delivered at the conference, preserved in the archives, and the revised version which was published two weeks later. Both versions combine a strong emphasis on completely fulfilling the plan with statements about the new conditions for industrial development. Both versions make the same major points. But the original version of the speech is much more populist in form, and looser in construction. Here I shall take the revised published version as the main text, as this became a key Soviet economic document, frequently cited until Stalin's death over twenty years later, and beyond; significant differences from the original version will be indicated.<sup>16</sup>

Stalin's speech did not offer fresh policy prescriptions; it was rather a comprehensive summary of policy changes which had been discussed in the previous six months, and had often already been approved. Stalin argued that 'the conditions for industrial development have changed fundamentally in the recent period, and a new situation has been created, requiring new methods of leadership'. But the leaders of the lagging industries, especially coal and metallurgy, were continuing to work in the old way, and this was why they had failed to fulfil the plan. Stalin set out six new 'conditions (*usloviya*)' for industrial development.

Firstly, the labour force. Unemployment and economic differentiation in the countryside, resulting in poverty and fear of hunger, had now been abolished, and rural conditions had improved. As a result, the countryside was no longer a 'wicked stepmother' to the peasant, and spontaneous migration to the

<sup>15</sup> *Ibid.*, i, 135–6 (Ordzhonikidze), ii, 100 (Postyshev), ii, 160 (Molotov).

<sup>16</sup> The published version appears in Stalin, *Soch.*, xiii (1951), 51–80; where the original version is cited below, specific archival references are given.

towns had ceased. Henceforth, labour for industry could be obtained only by 'organised recruitment' through contracts with the kolkhozy. Moreover, labour shortage meant that mechanisation of labour was essential if the rate of growth of the economy was to be maintained. In the original version of his speech, Stalin added that the peasant 'now has the kolkhoz, and there they will not let him die of hunger'. This meant that he was only prepared to go to first-class factories. The present arrangements for recruitment from the kolkhozy did not work. The People's Commissar for Labour 'writes a law that so many thousand persons should be thrown into the breach, but no-one throws them (*General laughter*)'.<sup>17</sup>

Secondly, wages. In view of the gigantic scale and complex machinery of contemporary Soviet industry, labour turnover was no longer tolerable; it had become 'the scourge of production'. Stalin insisted that turnover was the result of "'leftist" equalisation in wages'. Unskilled workers were not interested in improving their skills, and saw themselves as mere 'temporary residents' of the factory; skilled workers changed jobs in search of a factory where their skills would their proper value:

To get rid of this evil, equalisation (*uravnilovka*) must be abolished and the old wage system must be smashed. . . . It is intolerable that a blast-furnace worker in the iron and steel industry should earn the same as a sweeper. It is intolerable that an engine-driver should earn the same as a clerk. . . . Anyone who designs a wage system on the 'principles' of equalisation, without taking into account the difference between skilled and unskilled labour, is breaking with Marxism, is breaking with Leninism.

An increase in their wages would retain the 'leading groups of workers' in factories, and unskilled workers would be encouraged to become skilled: 'to economise in this matter would be a crime'.

<sup>17</sup> RTsKhIDNI, 85/28/7, ii, 173-5. The need to switch to planned recruitment of labour from kolkhozy had been advocated for some time in Narkomtrud and Narkomzem. A memorandum to Kuibyshev on the 1931 plan declared that spontaneous *otkhod* should be replaced by contracts between the major industries and the kolkhozy; this would be 'an organic part of all the planned work of the kolkhozy' (RTsKhIDNI, 79/1/540, 33ob. - Bineman). See also vol. 2, pp. 163-7, and pp. 26-7 above.

Moreover, even though much had been done to improve housing and supplies for workers, further improvements were necessary in order to attach them permanently to their factories.

In his original speech, Stalin posed the question of wages and wage equalisation even more bluntly. The badly paid blast-furnace worker, he pointed out, 'works in the fire and after every flux he has to swallow a bucket of water; . . . you save kopeks on such things, and don't count the millions you are losing'. Engine drivers and their assistants could get almost double in Vesenkha, and so we had to almost double their wages to prevent them quitting the railways. 'The old wage-scales should go to the devil', and the pay of key groups should be increased 30–50 per cent:

Workers understand socialism to mean that his [*sic*] material position will be improved. . . . Socialism is the systematic improvement of the position of the working class, and [without this] he will spit on your socialism.<sup>18</sup>

Thirdly, the organisation of labour. Labour must be organised so that productivity would rise continuously, but many enterprises suffered from 'depersonalisation (*obezlichka*)', lack of responsibility both for work and for tools and machinery. Depersonalisation was 'an illegitimate companion of the *nepreryvka*', due to its over-hasty introduction. Either the results of the *nepreryvka* must be improved, or, as at Stalingrad, it should be temporarily abandoned in favour of a six-day interrupted week. 'Our managers understand all this quite well. But they are silent. Why? Obviously because they fear the truth.'

Fourthly, the production and technical intelligentsia of the working class.<sup>19</sup> Now that new centres of industry were being established in the Urals, Siberia and Central Asia, managerial staff must be trebled or quintupled. '*The working class must create its*

<sup>18</sup> RTsKhIDNI, 85/28/7, ii, 176–82.

<sup>19</sup> There were only five, not six, conditions in the original speech. Point four dealt with the 'lack of technical cadres' as a whole. The question of the new young intelligentsia from the working class merely appeared in the summary at the end; the phrase 'a ruling class must have its own intelligentsia' was not uttered as if it was Stalin's own, but approvingly cited by Stalin from Ordzhonikidze's speech (RTsKhIDNI, 85/28/7, i, 135 (Ordzhonikidze), ii, 187–92, 198–9 (Stalin)).

*own production-technical intelligentsia*. . . No dominant class has every managed without its own intelligentsia.' The doors of higher education had been opened to worker and peasant youth. Experienced skilled workers must also be promoted: 'give them the chance to improve their knowledge and create the right environment for them, not sparing the money'. Many of them were not party members, but they should also be promoted to leading posts: 'our policy is certainly not to turn the party into a closed caste'.

Fifthly, signs of a turn among the old production and technical intelligentsia. According to Stalin, the situation a couple of years ago was that 'most of the old technical intelligentsia continued to work more or less reliably', but 'the most qualified section of the old technical intelligentsia was poisoned with wrecking'.<sup>20</sup> But now the capitalist elements in town and country had been destroyed, the grain difficulties had been overcome, great successes had been achieved by the collective and state farms, and hopes of intervention 'so far at least, have been a house built on sand'; moreover, 'the conduct of the active wreckers at the well-known trial in Moscow was bound to discredit and actually did discredit the idea of wrecking'. So a section of those who used to sympathise with the wreckers had turned to the side of Soviet power. While wreckers would continue as long as classes and the capitalist encirclement continued, they were now small in numbers. Soviet policy must therefore shift from 'destruction' to a policy of 'attention and care'.

Sixthly, *khozraschet*. The capital accumulation of young capitalist states was assisted with foreign loans, but loans had been refused to the Soviet Union; it therefore had to begin industrialisation with accumulation from light industry, agriculture and the budget. But agriculture in its period of reconstruction now required financial assistance from the state, and light industry and the budget were not inexhaustible. Hence heavy industry, especially engineering, must also contribute to accumulation. But in fact in many enterprises costs had started to rise:

<sup>20</sup> According to the original version, 'half the old technical intelligentsia vacillated' in 1927, 1928 and 1929; in 1929 they believed that *kolkhozy* were 'an adventure', and that 'we Bolsheviks were without doubt leading the country to famine and destruction' (RTsKhIDNI, 85/28/7, ii, 189-91).

Owing to uneconomical management the principles of *khozraschet* have been completely disrupted in many enterprises and economic organisations. . . In many enterprises and economic organisations the concepts 'regime of economy', 'reduction of non-productive expenditure', 'rationalisation of production' have long gone out of fashion. They evidently reckon that the State Bank will 'give us the money we need anyway'.

Instead '*khozraschet must be introduced and strengthened*'.

Stalin's criticism of the past neglect of *khozraschet* was put even more strongly in the original speech. In 1930, he complained, 'we had to resort to currency issue'. This could legitimately be used to a certain extent, but if it was taken too far 'everything could be disrupted'. Henceforth currency issue must cease, and must not even be a subject of conversation. In 1930 'there was no *khozraschet* and money was given to everyone right and left, and so it was very difficult to say last year how far costs were reduced (*Voice*: "Correct")'. In fact, Stalin added, warming to his theme, when proper estimates were made for the present year 1931, it turned out that costs were rising – 'I think costs rose last year as well'.<sup>21</sup>

In the final section of his speech Stalin discussed the changes in methods of leadership which the new conditions for industrial development would require. Above all, managers must manage concretely and in a business-like fashion. To this end the huge corporations must be broken up, and management of them by collegia must give way to the personal management of a chairman and a few deputies; the remaining members of the collegium must be sent to the factories.

In his peroration, Stalin made it clear that his advocacy of these new methods of economic management had not modified his conviction that the 1931 plan must be carried out in full:

Some philistines near the party assert that our production programme is unrealistic and cannot be fulfilled. This is

<sup>21</sup> RTsKhIDNI, 85/28/7, ii, 192–6. According to the official figures, industrial costs declined by 6.9 per cent in the economic year 1929/30, but increased in October–December 1930 (see vol. 3, p. 351, n. 26, and p. 436).

something like Saltykov-Shchedrin's 'wise gudgeons' who are always ready to surround themselves with a 'desert of stupidity'.

Some enterprises and industries had overfulfilled their plan, so the others could do so as well.

The published version of the closing section of Stalin's speech did not convey the ruthlessness with which he insisted at the conference itself on the unconditional fulfilment of the plan. According to the original version, Stalin told the assembled managers:

You must have no doubts in this matter. The party will make no concessions. We will give a thrashing (*sech'*) to those people who start to whisper once again that the plan is failing. We will give them a thrashing in the party meaning of the word. (*Laughter.*)

Drive away all these 'wise men', so-called wise men, who talk to you about realistic plans and so on. We know what these 'realistic' plans are (*Laughter*).

Reality – that's you and us! If we want to work in a new way, we shall achieve everything. If we do not want to work in a new way – no 'realistic' plans will save us! We shall thrash them! (*Applause.*) What's that applause for? Because we want to thrash? (*Laughter, Applause.*)

After Stalin sat down, Molotov from the chair closed the conference with the words 'The fulfilment of the plan is obligatory'.<sup>22</sup> The new methods of management were thus clamped firmly fastened within the impossibly high targets of the 1931 plan.

Stalin's diagnosis had other obvious weaknesses. Spontaneous migration from the countryside had certainly not ceased; for many years it remained the main means of recruiting labour for the towns and building sites. While a high level of turnover had recently developed among skilled as well as unskilled workers, and this might have in part been due to inadequate pay differentiation, the basic cause of the rise in turnover was the

<sup>22</sup> RTsKhIDNI, 85/28/7, ii, 207–8.



deterioration in housing conditions and food supplies. Although Stalin offered the hand of friendship to the old specialists, he continued to take it for granted that the major wreckers who had been tried were guilty as charged: this was a suspended sentence, rather than a rehabilitation.<sup>23</sup> Stalin's account of the sources of accumulation was oversimplified, and he offered no serious explanation of the decline in importance of *khozraschet*. His proposal to break up large corporations was unworkable without restoring the *glavki* in charge of each industry, and in their absence was to cause much disruption. His various proposals were not linked together into a coherent reform within the framework of the administrative system, of the kind which was eventually adopted piecemeal in 1932–6. Thus he said nothing about prices, wholesale or retail, or about 'Soviet trade' and its relationship with wages and *khozraschet*. The silence about trade was broken a month later: on July 23 he spoke at a sitting of the Politburo at which officials from consumer cooperatives and state trading organisations were present, and 'posed the task of developing the retail network as one of the main tasks of Soviet trade'.<sup>24</sup> But these laconic remarks left all the major issues relating to 'Soviet trade' unresolved.

Stalin's speech of June 23 was nevertheless a landmark in the development of Soviet economic policy and the Soviet economic system. It gave his seal of approval to economic and social concepts which had previously been handled with great circumspection. The transition to socialism would henceforth involve greater attention to wages, costs, *khozraschet* and trade than had seemed appropriate a few months previously. It would also involve much greater economic and social inequality.

<sup>23</sup> Articles hostile to those arrested in 1929–30 continued to appear: see for example the condemnation of Bazarov, Maslov and Mints as wreckers for their writings about labour questions in VTr, 7, 1931, 12–17 (Kheinman).

<sup>24</sup> See PE, I, 1932, 51; Stalin, *Soch.*, xiii (1951), 404; this speech has not been published. The conference, held on July 22–23, was described in the Politburo minutes as a session of the Politburo 'together with representatives of party, cooperative and economic organisations'; 428 representatives attended (RTsKhIDNI, 17/3/838).

## CHAPTER FIVE

### REFORMS AND PLANS, JULY–DECEMBER 1931

#### (A) THE POLITICAL CONTEXT

In August 1931 a despatch by the British chargé d'affaires in Moscow drew attention to the 'less feverish' atmosphere in the Soviet Union: '*détente* in internal affairs' was accompanied by 'a similar *détente* in foreign relations'.<sup>1</sup> He added that in internal affairs, moves to reconcile the 'bourgeois specialists' had been accompanied by a general temporary relaxation: 'the G.P.U. is being overhauled and . . . for the moment people breathe more freely'. The German Ambassador even concluded that 'the second wave of the revolution, the second drive towards socialisation, is now spent, and . . . the country will be allowed to take breath before the next drive is organised'.<sup>2</sup> The relaxation was symbolised by the appointment, on Stalin's authority, of I.A. Akulov, a former deputy chairman of Rabkrin, as first deputy chairman of the OGPU, where he was for the time being senior to Yagoda.<sup>3</sup> Akulov had a reputation of fair-mindedness and relative moderation.

The summer of 1931 also saw a move away from the domination of Soviet cultural and intellectual life by militant marxists. In June 1931, the central committee plenum condemned "'left"-opportunistic phrase-mongers, who put forward all kinds of fantastic (*prozhekterskie*) proposals (compulsory elimination of individual kitchens, artificial introduction of communes for joint living, etc)'.<sup>4</sup> In August, a Politburo resolution strongly

<sup>1</sup> Strang to the Secretary of State for Foreign Affairs, August 25, 1931 (BDFA, IIA, x (1986), 349–50).

<sup>2</sup> Cited by Strang, BDFA, IIA, x (1986), 350.

<sup>3</sup> SZ, 1931, vol. ii, arts. 182–5, dated July 31. Stalin proposed the decision on OGPU personnel changes at the Politburo session of July 25 (RTsKhIDNI, 17/3/838 and 17/162/10, item 3).

<sup>4</sup> See pp. 66–7, note 7 above; for earlier party criticism of experimental town-planning schemes, see vol. 3, pp. 152–3. Khrushchev was similarly accused of *prozhekterstvo* over 30 years later. The plenum proceedings and resolution themselves displayed Utopian aspirations to prevent large towns from growing rapidly and to concentrate investment in peasant areas so as to 'bring nearer the final elimination of the contradiction between town and country'. The most notable practical decision of the plenum was that the construction of the Moscow Metro, one Utopian scheme which was realised, should begin in 1932.

condemned ‘attempts to make the so-called “project method” the foundation of all school work; these attempts, resulting from the anti-Leninist theory of the “withering-away” of the school, have led in practice to the destruction of the school’. The resolution called for more attention to general education in schools, so as to prepare ‘fully literate people, who have mastered the foundations of knowledge properly’.<sup>5</sup> This marked the end of the sometimes wild experimentation of previous years, and the beginning of a return to formal syllabuses and teaching methods; the Institute of Methods of School Work was closed, and Shulgin, its director and the principal advocate of ‘the withering-away of the school’, repudiated his own doctrine. In the following year, it was decided to reintroduce Grades VIII–X of the secondary school, abolished in 1930, and the 1932/33 school year also saw the introduction of standard school textbooks.<sup>6</sup> But in the long term the repudiation of the excesses of militant marxism did not lead to a relaxation of party influence on intellectual life; instead, it provided an opportunity for strengthening autocratic party control.

In international affairs, the contrast between the sectarian policies of Comintern and the realism of Narkomindel was particularly obvious. At the XI Plenum of IKKI in May 1931, Manuilsky, while admitting that the danger of fascism was increasing, claimed that ‘the growth of fascism is preparing the victory of communism’, and repeated the familiar Comintern strictures on Social-Democracy as ‘Social-Fascism’, and as the ‘main social support of the bourgeoisie’. He also condemned at length the doctrine that ‘fascism of the Hitler type is the main enemy’, and its corollary that bourgeois democracy should be regarded as the ‘lesser evil’.<sup>7</sup> In 1931 the German Social-Democrats were applying their own variant of the doctrine of the ‘lesser evil’ by supporting the dictatorial Right-wing government of Chancellor Brüning. The German Communist Party, prompted by Stalin and Molotov, demonstrated its repudiation of the doctrine by its notorious decision to support the Nazis in

<sup>5</sup> *KPSS o kul'ture, prosveshchenii i nauke* (1963), 351–60; the resolution, dated August 25, was first published in P, September 5, 1931.

<sup>6</sup> Fitzpatrick (1979), ch. 10, esp. pp. 220–30. Grade VIII was re-established from September 1932.

<sup>7</sup> P, May 11, 1931.

the Prussian referendum of August 1931 directed against the Social-Democratic provincial government.<sup>8</sup>

Revolutionary sectarianism was encouraged by the desperate plight of world capitalism. On May 11, the collapse of the Austrian Kreditanstalt bank launched the European financial crisis; in September, following the collapse of the Labour government, Britain abandoned the gold standard. The annual review of the British Royal Institute of International Affairs described 1931 as 'annus terribilis'. The German communist Heinz Neumann, writing in the Soviet party journal, announced 'the collapse of the whole social order, the downfall of the whole capitalist system', and called for 'the open storming of the whole system'.<sup>9</sup>

But in a world in chaos the arguments for *détente* were as persuasive as the arguments for supporting revolutionary upheaval. Soviet foreign policy in the summer of 1931 strongly emphasised coexistence, and the British Ambassador in Moscow characterised this as 'a new tendency' – 'as great a departure' as Stalin's 'Dizzy with Success'.<sup>10</sup> On June 24, the Soviet–German treaty of 1926 was renewed, and on the same day a non-aggression pact was signed with Afghanistan. Three weeks later, the mutual trade embargoes between France and the Soviet Union were cancelled, and on August 10 France initialled a non-aggression pact with the USSR.<sup>11</sup> Protracted Soviet–Chinese negotiations about the sale of the Chinese–Eastern railway continued throughout the summer.<sup>12</sup> This world-wide diplomatic effort to ease the tense Soviet relations with the capitalist world was the first substantial fruit of Litvinov's appointment as head of Narkomindel a year previously.<sup>13</sup>

<sup>8</sup> See Carr (1982), 26, 40–3, VI, 9, 1989, 9 (Firsov); the referendum, which called for new elections, was defeated.

<sup>9</sup> B, 18, September 30, 1931, 18, 34.

<sup>10</sup> Ovey's despatches of June 30 and July 27, 1931 (Woodward and Butler, eds. (1958), 213–16).

<sup>11</sup> See Haslam (1983), 64–8; French ratification of the pact had to await the similar agreement with Poland, initialled on January 26, 1932 (Carr (1982), 44). For the trade embargoes, see vol. 3, p. 407.

<sup>12</sup> *Dokumenty vneshnei politiki*, xiv (1968), 787–9. The Soviet treaty with Lithuania was also renewed, and commercial and naval agreements were concluded with Turkey.

<sup>13</sup> Lunacharsky told Ovey that these efforts were a personal initiative by Litvinov, with Stalin's support (Woodward and Butler, eds. (1958), 213).

The prospects for peaceful coexistence were suddenly disrupted by the Japanese invasion of Manchuria on September 18, 1931. The invasion immediately posed a threat to the Chinese Eastern Railway. But it was also the first major aggression by a fascist power, and heralded – though few realised this at the time – the fascist threat to world civilisation which led to the uneasy wartime alliance of Stalinist Russia and the parliamentary democracies. The Soviet Union had some warning of Japanese aggressive intent. In March 1931 the Japanese military attaché in Moscow sent a telegram to the General Staff in Tokyo, which was intercepted by Soviet intelligence, denigrating Soviet military capacity and calling for ‘a speedy war with the Soviet Union’.<sup>14</sup> In Manchuria, powerful and threatening Russian émigré organisations were supported by the Japanese. The Soviet Union was far too weak militarily and economically to take positive action against Japan.<sup>15</sup> But the alarm of the Politburo was reflected in its top-secret decisions, on proposals by Stalin and Molotov, both to maintain ‘strict neutrality’ on the Chinese Eastern Railway, and to instruct Narkomindel to prepare a reply to ‘the false information and provocative statements of the Japanese, disseminated in abundance in the press’.<sup>16</sup> On November 22, the Politburo established an authoritative commission ‘to propose a number of essential measures resulting

<sup>14</sup> See Haslam (1983), 73; the Japanese ambassador in Moscow sympathised with this approach.

<sup>15</sup> For Soviet policy towards Japan at this time, see Haslam (1983), ch. 7. According to the French Embassy in Moscow, the poor state of the Russian railways, which was ‘a real obstacle to the realisation of all plans for mobilisation and military concentration’, played its part in the decision of the Japanese to invade Manchuria in 1931. A commission of Japanese engineers working on the Moscow–Kazan’ railway line, one of the arteries of the Trans-Siberian, explained privately that they had drawn ‘reassuring conclusions for their government from the point of view of a possible intervention of the USSR in the conflict which has developed since then between China and Japan’ (Conty (Gérant l’Ambassade) to Briand, October 13, 1931 (MAE, Europe 1930–1940, URSS, vol. 1065, 149)). The French ambassador ironically commented that ‘one month precisely before the launching of the Japanese advance in Manchuria they found it necessary to rest immediately, to leave and to return later to complete their contract’ (Dejean (Ambassador) to Briand, December 8, 1931 (MAE, Europe 1930–1940, URSS, vol. 1065, 167 and 167ob.)).

<sup>16</sup> RTsKhIDNI, 17/162/11, 49 (decisions by correspondence of November 11 and 13, nos. 34/2 and 43/11).

from the present international situation'.<sup>17</sup> The dangerous situation soon led to substantial changes in Soviet economic plans (see pp. 113–16 below).

In Soviet internal affairs, the relaxation of the spring and summer of 1931 was violently disturbed in October by Stalin's malevolent letter to the journal *Proletarskaya revolyutsiya* inveighing against prominent Marxist historians. The letter inspired a well-publicised search in every sphere of intellectual life for what Stalin termed 'smugglers of Trotskyism'.<sup>18</sup> A few weeks after its publication, an article in *Pravda* by a group of young marxists, including Borilin, Voznesensky and Partigul, indiscriminately attacked marxist economists of various persuasions who had been prominent in the debates of the 1920s. They accused Preobrazhensky of 'open Trotskyist revision of Marxist theory', Varga of 'Luxemburgist errors', and Strumilin of 'Right-wing opportunism'.<sup>19</sup> On December 5, 1931, on the authority of the Politburo, in an uncompromising demonstration of militant determination to wipe out the old world, the colossal Church of Christ the Redeemer on the banks of the river Moskva, built between 1839 and 1883 to commemorate the Russian victory over Napoleon, was demolished by high explosives, with the intention of replacing it by an even more grandiose and triumphant Palace of the Soviets.<sup>20</sup>

<sup>17</sup> RTsKhIDNI, 17/162/11, 68 (decision by correspondence no. 23/1); the members were Stalin, Molotov and Kaganovich; Ordzhonikidze was added on December 28 (*ibid.* 111).

<sup>18</sup> For Stalin's letter, published as 'Some Questions Concerning the History of Bolshevism' in *Proletarskaya revolyutsiya*, 6 (113), 1931, and B, 19–20, October 31, 1931, see *Soch.*, xiii (1951), 84–102; for a commentary on the background, see Barber in *SS*, xxviii (1976), and in *Past and Present*, lxxxiii (1979), 141–64.

<sup>19</sup> P, December 24, 1931.

<sup>20</sup> The Palace of the Soviets was an item on the Politburo agenda on May 25 (RTsKhIDNI, 17/3/827, item 53), June 10 (17/3/829, item 31) and June 30 (17/3/833, item 18). Its location was approved on June 5 (17/3/828), and a decision on allocating resources to it was approved by correspondence on September 30 (17/3/851). The new building was never completed; its site was eventually occupied by an open-air swimming pool, opened in 1960.

In Leningrad in December 1931 the church 'Salvation on the Waters' was demolished by high explosives to enable the expansion of the 'Marty' shipyard (formerly the Admiralty Yard). The church had been constructed in commemoration of the Battle of Tsushima, in which the Russians were defeated by the Japanese in May 1905. (*Voprosy istorii estestvoznaniya i tekhniki*, 3, 1992, 90–3 – Tsvetkov.)

## (B) ATTEMPTS AT ECONOMIC REFORM

Soviet economic policy and practice in the months between Stalin's speech of June 23, 1931, and the XVII party conference at the end of January 1932 were similarly confused and contradictory. On the one hand, Stalin's endorsement of new methods of management encouraged franker discussion of economic difficulties, and the search for economic reform. In the aftermath of Stalin's speech, the authority and status of the specialists were improved, and the differentiation of wages within industry increased. On the other hand, in accordance with the other main theme of Stalin's speech, pressure to fulfil the 1931 plan intensified, and economic difficulties accordingly multiplied. The last three months of 1931 were characterised by inflationary pressures and general tension throughout the economy. Thus in foreign policy, internal policy and economic development there was a coincidence between the two phases of relaxation (May–September) and tension (October–December).

*(i) The specialists*

On July 10, a few days after the publication of Stalin's speech, no fewer than four decisions were adopted relating to the specialists. First, a top-secret resolution of the Politburo significantly if temporarily curbed the powers of the OGPU. It ruled that no specialist was to be arrested by the OGPU without the agreement of the commissariat; disputes were to be referred to the central committee. More generally, persons detained for political crimes could not be held for more than two weeks without questioning, and could not be held under investigation for more than three months. Henceforth, all death sentences were to be referred to the central committee.<sup>21</sup>

Secondly, a secret Politburo resolution sought simultaneously to confirm the improved status of the old specialists, to encourage young specialists and to strengthen one-person management.<sup>22</sup>

<sup>21</sup> RTsKhIDNI, 17/162/10, 108 (decision of July 10, no. 1/13). The decision also stated that party members working in the OGPU could not be arrested without the knowledge and sanction of the central committee.

<sup>22</sup> A copy of the resolution, 'On the work of technical personnel in enterprises and on the improvement of the living conditions of engineering and technical personnel', marked 'Secret; not for publication', is in the Smolensk archives

The resolution called upon heads of enterprises and establishments, and party and trade union organisations, to 'strengthen the authority of engineering and technical personnel and to bring about the complete achievement in practice of the rights and obligations of engineers in managing production'. Moreover, all concerned should allow engineers to take 'production risks'; unsatisfactory consequences were to be treated merely 'as a failure, subject to technical and economic examination solely by the managers of enterprises and corporations' – i.e. they were not to be subject to examination by the judicial authorities or the OGPU. The resolution also called for the appointment of engineering and technical personnel to managerial posts. While insisting that 'it is particularly necessary to support young specialists', it also authorised the re-examination of cases in which specialists had been sentenced to compulsory labour for faults in work or for violation of labour legislation; this re-examination was to be carried out by special commissions in which representatives of the bureaux of the engineering and technical sections of the trade unions participated. Engineering and technical personnel were to be granted the same rights as workers in respect of rations, housing, rest homes and the rights of their children to higher education, and were to be allocated additional housing space when studying to improve their qualifications. Finally, the following clauses were to operate 'throughout the USSR':

- a) forbid organs of the police, of criminal investigation and of the procuracy to interfere in the production activity of the factory and to investigate production matters without special permission from the management of enterprises or higher authorities;

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(WKP 162, 63). Its main provisions are translated, but with several errors, in Fainsod (1958), 318–20, where it is wrongly dated June 10. Bailes (1978), 151–2, also wrongly dates it June 10, and assumes that it was endorsed by the June plenum of the central committee; however, like other resolutions described as 'of the central committee', it was evidently simply a Politburo decision, and there is no evidence that it was discussed at the June plenum. The opening clause of the resolution announces that it 'approves the following proposals of Vesenkha USSR', thus indicating that the initiative came from Ordzhonikidze's commissariat.



- b) consider the presence of official representatives of the OGPU at enterprises to be inexpedient;
- c) forbid party organisations to cancel, correct or delay the operational instructions of the managements of factories.<sup>23</sup>

By the third decision of July 10, the Politburo released specialists who had been arrested in the iron and steel and coal industries; Ordzhonikidze and Menzhinsky were instructed to agree a list of those to be released. This decision also cancelled a decree of STO which had obliged the OGPU to arrest specialists who were responsible for wasting fuel.<sup>24</sup>

The fourth decision, an unpublished decree of the presidium of TsIK, proposed by Ordzhonikidze, amnestied 'designers and all engineers and technicians sentenced to various measures of social defence and now working conscientiously in the Central Design Bureau' of the aircraft industry (see p. 36 above).<sup>25</sup> Other reports of amnesties for engineers and scientists also relate to this time.<sup>26</sup> On August 5, soon after Akulov's appointment to the OGPU (see p. 77 above), the Politburo discussed the employment of former wreckers in the non-ferrous metal corporation, and also 'the early release of former wreckers on the basis of Narkomput' and OGPU lists'.<sup>27</sup> These measures were mainly carried out without publicity, but articles and speeches appeared in the press which emphasised in general terms the loyalty of most of the old technical intelligentsia.<sup>28</sup> The number of cases against specialists

<sup>23</sup> These clauses were repeated from the resolution of June 3, which referred only to Stal' (see p. 48 above).

<sup>24</sup> RTsKhIDNI, 17/162/10, 109 (decision no. 18/39).

<sup>25</sup> Dubinskii-Mukhadze (1963), 341.

<sup>26</sup> See Lampert (1979), 57.

<sup>27</sup> RTsKhIDNI, 17/3/840 and 17/162/10, items 3 and 4; both items were introduced by Stalin. On September 15, the Politburo again discussed the use of released former wreckers in rail transport (RTsKhIDNI, 17/3/848 and 17/162/11, 7, item 1), and on September 20 a further group of engineers was released to work in Vesenkha (RTsKhIDNI, 17/162/11, 10 – item 14).

<sup>28</sup> See, for example, P, July 28, 1931 (Il'in); for other examples see Lampert (1979), 56. However, the sentences on the leading historians Platonov, Tarlé and Got'e, accused of participating in a monarchist plot, were confirmed on August 8, 1931 (see VI, 5, 1989, 129 – Vrachev). In October 1932, Tarlé was recalled to Moscow to advise Bubnov, People's Commissar for Education of the RSFSR, on reorganising history teaching (*Novaya i noveishaya istoriya*, 4, 1990, 45 – Chapkevich).

brought under criminal law drastically declined.<sup>29</sup> Further decrees provided for radical improvements in the rights and conditions of engineers and technicians.<sup>30</sup>

(ii) *Wage differentiation*

The rejection of equalisation was embodied in an elaborate joint decree of Vesenkha and the AUCCTU dated September 20, which introduced new wage scales in the metallurgical and coal industries.<sup>31</sup> The decree dealt with the three major issues discussed earlier in the year. First, the general level of wages was 'pulled up' in both these key industries. The new scales substantially increased the average basic wage for all grades of workers. These increases were not dependent on improved performance, as existing norms of output were to remain unchanged for one year.

Secondly, differentiation of earnings between skills markedly increased. In metallurgy, the ratio between the highest and the lowest grade in the 8-grade basic wage scale was increased from 2.8:1 to 3.7:1. In the coal industry, the complex 27-grade scale was replaced by an 11-grade scale. While the ratio of the highest to the lowest grade in the new scale was only 4.67:1, as compared with 5:1 in the old scale, the lower grades in the old scale had been little used in practice. The increase was greater for

<sup>29</sup> See Lampert (1979), 101. The press continued, however, to report occasional cases of wrecking (see, for example, *Severnyi rabochii*, August 15, 1931, on 'obvious wrecking' by the management of the 'Krasnyi Perekop' factory).

<sup>30</sup> For example, SZ, 1931, art. 322 (TsIK decree dated August 1); art. 402 (decree of Commission of Fulfilment of September 28 on unsatisfactory fulfilment of the resolution of July 10 and decree of August 1); the decree of September 28 praises the industrial newspaper for its timely campaign about this question. Legislation providing improved rations and housing for specialists had already been approved – without much practical effect – in 1930 (see Lampert (1979), 142, and 178 n. 14).

<sup>31</sup> *Trud*, September 23, 1931; the new scales were in force from October 1. See also B, 17, September 15, 1931, 48–58 (Leibman); for a summary of the decree in English, see Schwarz (1952), 148–52. The Politburo heard a report from the Postyshev commission on wages on July 25, and discussed the matter again on July 30 (RTsKhIDNI, 17/3/838, item 9, and 17/3/839, item 2).

underground workers than for surface workers. The wages of engineering and technical personnel, from foreman upwards, were also sharply increased.

Thirdly, the decree provided for a far more extensive use of progressive piece rates than had been advocated in the public discussion. Progressive rates were introduced for key trades in the coal industry and for all production workers in metallurgy. In coal, all production in excess of the norm was paid at higher rates; all production more than 20 per cent in excess of the norm received 80 per cent above the basic rate. In metallurgy, the gradation was even steeper. All production in excess of only one-third of the norm was paid at a higher rate; all production in excess of the norm was paid at double the basic rate. Similar decrees introduced progressive piece rates in the coke industry and iron mining, and 'for all mass work' in building.<sup>32</sup> Engineering and technical workers received substantial bonuses for overfulfilment of the plan, starting at 50–60 per cent of their basic salary.

The decree of September 20 also increased the powers of foremen (*desyatniki*) in the coal industry. Henceforth they had the right to appoint their own charge-hands (who had so far been elected by the men in some mines) and to dismiss workers; the present foremen would ultimately be replaced by 'Master-foremen for the mines (*gornye mastera*)' trained at special schools.<sup>33</sup>

The reforms immediately improved the relative as well as the absolute level of wages in coal and metallurgy. The iron and steel industry rose from 11th place in 1930 to 4th place in November 1931, the coal industry from 19th place to 7th place; between the June–September quarter and November 1931, the average daily wage in iron and steel increased by 24.1 per cent and in coal by 27.2 per cent, as compared with 11.3 per cent for Vesenkha as a whole.<sup>34</sup>

<sup>32</sup> For coke and iron mining (decrees of September 5 and 28), see Schwarz (1952), 148–51; for building, see SP VSNKh, 1931, art. 498 (order of July 31). For the wage reform in the chemical industry at the end of 1931, see *Formirovanie* (1964), 224 (Lel'chuk).

<sup>33</sup> These would be the equivalent of 'Steigers' in the German industry, according to B, 18, September 30, 1931, 47 (Izrailovich).

<sup>34</sup> *Itogi VSNKh* (1932), 91–4.

The share of piece work in the coal industry increased between June and November from 57.0 to 67.1 per cent of the total number of hours worked. In the iron and steel industry, however, where the support for time work had been much stronger, the share of piece work hardly changed; it rose from 62.5 per cent in June to 63.6 per cent in September, and declined slightly to 63.3 per cent in November.<sup>35</sup> In Vesenkha as a whole, piece work increased only from 59.9 per cent in June to 61.6 per cent in November.<sup>36</sup> Evidently much remained to be done before the spirit of the wage reforms spread throughout industry.

From the summer of 1931 onwards, the principle that wages should be paid to individuals rather than to groups of workers was an almost inalienable dogma. In the coal industry, collective piece work was henceforth to remain only for certain specified trades, and in these cases earnings were to be distributed differentially in accordance with the grades of the workers within the group.<sup>37</sup> In practice, however, collective methods of payment proved difficult to eliminate: in a number of iron and steel works collective payment to brigades still amounted to as much as 60–70 per cent of all piece work at the end of 1931.<sup>38</sup> In the building industry, where the ‘artel’ form of labour organisation was traditional, nearly 80 per cent of workers were still organised in brigades which were paid collectively: in the major building trust Soyuzstroï only 2.9 per cent of workers were paid individually, and 15.1 per cent by an intermediate system in which workers were divided into small groups (zven’ya) of 3–5 persons.<sup>39</sup>

In those production communes and collectives which still remained the equal division of wages was widespread.<sup>40</sup> The only detailed study of the work of production communes and collectives carried out in 1931 indicated that they were more

<sup>35</sup> *Ibid.* 95.

<sup>36</sup> *Ibid.* 97.

<sup>37</sup> *Trud*, September 23, 1931 (decree of September 20).

<sup>38</sup> *Trud* (1932), 50.

<sup>39</sup> *Ibid.* 55.

<sup>40</sup> In May 1931, 22.8 per cent of the 461 communes and collectives covered by a Gosplan survey divided earnings equally, 56 per cent on the basis of the number of hours worked, and only 13.8 per cent paid differentially according to the grade of the workers (*Partiinoe stroitel'stvo*, 15–16, 1931, 17). On the communes and collectives generally, see Russell (1987), 275–86, and SR, xlv (1986), 76–84 (Siegelbaum), and vol. 3, pp. 261–7.

efficient than shock brigades.<sup>41</sup> But the authorities were extremely hostile to these forms of labour organisation. In the spring of 1931, the North Caucasus regional party committee resolved to abolish them;<sup>42</sup> elsewhere, they were criticised and harassed without being banned outright. The proportion of industrial workers belonging to production communes and collectives declined sharply between April and October 1931; many of them were apparently replaced by 'khozraschet brigades' (see pp. 91–2 below). Some communes and collectives, however, continued an uneasy existence for a time; they still included 14,000 workers in the Leningrad region alone at the beginning of 1932.<sup>43</sup>

The immediate effect of these measures was to add considerably to the financial burdens of industry and of the state budget (see p. 111 below). Their more lasting effect was to enhance the authority in production, the social status and the material conditions of specialists, and of managerial personnel generally. The measures also sought to increase economic differentiation within the working class. Their guiding principle was the use of material incentives to better performance provided by higher wages rather than the primarily moral incentives provided by socialist emulation. They strongly favoured piece work in which workers were paid for their individual results rather than for collective effort. Taken together, these measures initiated a significant shift in the social structure of Soviet industry, and in the social atmosphere.

### *(iii) Personal responsibility*

In his speech of June 23, Stalin argued that 'depersonalisation' was partly due to the existence of large unwieldy industry-wide

<sup>41</sup> See *Partinoe stroitel'stvo*, 15–16, 1931, 14–15 (Samueli), reporting a study of Elektrozaovod covering January–April 1931; the key data are reproduced in SR, xlv (1986), 78 (Siegelbaum).

<sup>42</sup> Sheboldaev (Rostov, 1934), 13; according to Sheboldaev, this decision 'went against the stream' and 'met with a certain opposition'.

<sup>43</sup> See Russell (1987), 285. In a speech of January 28, 1932, Sheboldaev again condemned production communes as 'that worst form of petty-bourgeois equalisation' (Sheboldaev (Rostov, 1934), 13); and Shvernik strongly criticised them at a special session of the AUCCTU on March 11–12, 1932 (Vdovin and Drobizhev (1976), 170).

corporations managed by committees, and proposed that they should be broken up and reformed.

By the time of Stalin's speech, the break-up of the corporations established at the end of 1929 had in fact already been under way for nearly a year. It continued much more rapidly after the speech; by September 1931 as many as 85 corporations and 23 trusts had been established under the presidium of Vesenkha of the USSR.<sup>44</sup> But this was a futile exercise. It soon proved necessary to reintroduce administrative bodies for each industry directly under the Vesenkha presidium to manage groups of corporations – i.e. to restore the *glavki*. In September and October 1931, *glavki* were established for the metallurgical, machine-building and fuel industries.<sup>45</sup> The restoration of the *glavki* was contrary to the spirit of Stalin's speech, and of the administrative reform pressed forward by Rabkrin eighteen months earlier. In spite of this formidable opposition, the traditional structure of Soviet industry, established during the civil war and continued in modified form during NEP, re-emerged piece-meal in the course of 1930–3. This is a significant example of an administrative structure which proved more powerful than a dictator.

Stalin also attributed lack of personal responsibility to the inefficient operation of the *neprerывka*. Within a few months of his speech, policy towards the *neprerывka* underwent a far more dramatic reversal than he had indicated. On August 28, a decree of the Vesenkha presidium abolished the *neprerывka* in all cases where three-shift working was impossible owing to lack of materials. Factories working two shifts should go over to a six-day 'interrupted week', i.e. with one day in six regularly a holiday for the whole factory; factories working only one shift should go over to an eight-day week. This meant that the *neprerывka* was retained only in those factories working three shifts, and even here the decree prohibited arrangements which resulted in frequent changes of shift, and insisted that all workers should have permanent work places and be attached to particular

<sup>44</sup> SP VSNKh, 1931, art. 618, dated September 10, lists them; all the changes are listed chronologically in the SP VSNKh.

<sup>45</sup> SP VSNKh, 1931, issues no. 43, 45, and 47 (decrees of presidium of Vesenkha dated September 11 and 13, and Vesenkha order no. 686, dated October 8).

equipment.<sup>46</sup> Then on November 21, a Sovnarkom decree permitted commissariats and other establishments to go over to a six-day week, with the 6th, 12th, 18th, 24th, and 30th of the month a holiday throughout the USSR; the *nepreryvka* was henceforth compulsory only in institutions such as shops and canteens and in transport and municipal services.<sup>47</sup>

These measures, in line with Stalin's speech of June 23, were described as a mere temporary suspension of the *nepreryvka*. But in fact they sounded its death-knell. A Narkomtrud report, reviewing the results of 1931, declared that 'the *nepreryvka* with workers moving from shift to shift reduced its advantages to nothing and disorganised the work of many enterprises'. The report still claimed that the *nepreryvka* was the ideal system. But it would be viable only if the working day was organised into three shifts of 7½-hour days; this would enable a maximum of four brigades to work on each group of machine tools, thus avoiding 'depersonalisation'. By the beginning of 1932 this system was in use only in a minority of enterprises; in many factories the *nepreryvka* had already been replaced with the regular six-day week.<sup>48</sup> During the next couple of years the six-day week was introduced in most factories where the production process was not continuous, and remained in effect until it was replaced by the seven-day week in 1940. The *nepreryvka* continued to operate, however, in many coal mines and other enterprises where production was continuous.<sup>49</sup>

<sup>46</sup> RGAE, 3429/1/5247, 29–30.

<sup>47</sup> SZ, 1931, art. 448; March 1 was declared a holiday as February was a short month. An order of November 30 promptly put these arrangements into effect for the central staff of Vesenkha (SP VSNKh, 1931, art. 810).

<sup>48</sup> *Trud* (1932), 42–4. The 'four-brigade time-table' was in use for 24.2 per cent of workers in the tractor and vehicle industry and 11.5 per cent in agricultural engineering, and for 24.2 per cent of Leningrad and 24.3 per cent of Ural workers. For an account of the different systems in use in the Nizhnii-Novgorod region at the beginning of 1932, see *Istoriya industrializatsii* (Gor'kii, 1968), 161–9; they included both the *nepreryvka* (using both the four-brigade three-shift and the three-brigade four-shift systems) and the six-day interrupted week.

<sup>49</sup> It was retained in large parts of the coal, oil, ore, iron and steel and chemical industries, but almost completely eliminated in the engineering and textile industries (see data in *Trud* (1936), 80; on July 1, 1935, 25.8 per cent of all workers still worked the *nepreryvka*).

*(iv) Khozraschet*

Throughout the second half of 1931 the party authorities and economic commissariats struggled to modify the credit reform and restore the importance of khozraschet. It was not until October 21 that a joint Appeal of Sovnarkom and the central committee proudly announced:

Work has now been completed on calculating the working capital required by economic agencies and on elaborating a system of credit in which bank credits are paid back after a fixed term. From November 1, unified accounts (*kontokorrenty*), in which 'own' and 'loaned' capital were depersonalised, are to be abolished.<sup>50</sup>

Three weeks later, on November 12, a decree of the presidium of Vesenkha attempted to accelerate the movement for transferring all shops (departments – *tsekhi*) within factories to khozraschet. All shops throughout industry were to be transferred by January 1, 1932, and each shop was to be an 'independent intra-factory unit'. The shops would receive 'work orders (*naryady-zakazy*)' from the factory management, including qualitative as well as quantitative indicators. Contracts with other shops, and with the factory administration, would set out mutual obligations. Shops would not have their own accounts in the bank – they were not legal entities – but the success of their work was to be determined by a comparison of financial estimates and results, and they were to retain part of its savings.<sup>51</sup> These provisions were rather vague; much was left to local initiative.

The new status of khozraschet was also emphasised by the decision to place the main emphasis in socialist emulation on voluntary 'khozraschet brigades'; these were the subject of a joint decree of Vesenkha and the trade unions in September 1931.<sup>52</sup> Unlike shops transferred to khozraschet, whose structure and procedures formed a formal part of the regular administration of the factory, the designation of a brigade as a 'khozraschet brigade' was notionally an informal arrangement, undertaken with the

<sup>50</sup> SZ, 1931, art. 419; see also decree of STO dated October 29 (SZ, 1931, art. 433).

<sup>51</sup> SP VSNKh, 1931, issue no. 50.

<sup>52</sup> The decree, dated September 11, was published in SP VSNKh, 1931, issue no. 47.



support of the management on the initiative of the workers in the brigade. But the procedures closely resembled those for the shop of which the brigade formed a part. The khozraschet brigade, following the pattern of a shop on khozraschet, was to receive a work order (*naryad*) from the management including qualitative as well as quantitative indicators; on this basis the brigade would agree a 'khozraschet contract' with the management, embodying counter-plans put forward by the brigade. The brigade would receive bonuses amounting to between 20 and 60 per cent of the savings from overfulfilment of the indicators set by the management, and these would be distributed in proportion to the skills of the individual members of the brigade, and the quantity and quality of their work. The khozraschet brigades thus had the dual function of encouraging the attention devoted to khozraschet by the enterprise, and of providing a stronger material inducement to workers to improve their productivity. According to a Vesenkha report, by January 1, 1932, as many as 25.2 per cent of all workers in Vesenkha industry belonged to these brigades.<sup>53</sup>

In spite of these elaborate provisions, and the great attention devoted to them in the industrial press, the campaign for khozraschet was largely ineffective in the second half of 1931. Management at every level was preoccupied with the fulfilment of the annual plan; and the planning agencies gave far more attention to the plans in physical terms than to the financial plans. The Central Planning Bureau of Gosplan, for example, devoted several sessions to Dubner's proposals for planning factory work in terms of machine-tool hours and factory hours, but no discussion about khozraschet is recorded in its minutes.<sup>54</sup> The higher authorities occasionally exhorted factory managers to pay attention to khozraschet, but with little result. The head of the financial sector of the iron and steel *glavk* sent a letter to the director of a major iron and steel works urging him 'to carry out khozraschet not just formally but in substance'. But when the director found that the letter lacked any specific advice, he 'laughed loud and long'.<sup>55</sup> The pressure for the annual plan led

<sup>53</sup> *Itogi VSNKh* (1932), 103–4; the brigades are further discussed on p. 307 below.

<sup>54</sup> RGAE, 4372/29/109, 55–9 (June 26), 16 (July 10), 4 (October 18).

<sup>55</sup> ZI, May 23, 1932 (Erman – referring to Genak, director of the Tomsy (Makeevka) works).

to substantial cost increases which disrupted the financial plans (see pp. 99, 100 below). A Vesenkha order signed by Pyatakova condemned as 'intolerable' the low level of financial contributions by corporations to their own investment programmes, and urged the Industrial Bank to control these payments much more closely;<sup>56</sup> but this order had no effect. Addressing the XVII party conference in January 1932, Ordzhonikidze bluntly declared: 'In recent years khozraschet has almost completely vanished.'<sup>57</sup>

In spite of these unpropitious circumstances the authorities continued to explore new ways of encouraging khozraschet. In each industry complicated payment arrangements were evolved between the corporations (or the re-emerging *glavki*) and their enterprises with the objective of offering a price for output which would encourage financial efficiency. In the steel industry, corporations were enjoined to adopt prices for individual types and grades of output which would encourage their enterprises to produce items which were needed by the national economy, but which were technically difficult to manufacture, such as high-quality steel. At the same time prices paid to factories for second-grade steel were reduced so as to discourage its production.<sup>58</sup> Such arrangements, sometimes quite ingenious, were vitiated not only by the weakness of the financial pressures on factory directors but also, in the basic heavy industries such as coal and iron and steel, by the fact that they were now working at a loss and received subsidies. Behind the scenes Gosplan proposed that transfer prices should henceforth fully cover 'planned cost and the amount of accumulation fixed in the plan'; this implied that state subsidies to heavy industry would be abolished. On October 27 the Politburo agreed that transfer prices should in future be arranged so that enterprises with average production costs for the industry concerned should make a profit.<sup>59</sup> This radical decision, which would involve substantial increases in the prices of basic industrial goods, was not carried out in practice. At the end of

<sup>56</sup> SP VSNKh, 1931, art. 598 (dated September 1).

<sup>57</sup> Ordzhonikidze, ii (1957), 352.

<sup>58</sup> Shkundin, i (1931), 66-7; for prices paid for inputs, designed to maintain quality and reduce transport costs, see *ibid.* 63-6.

<sup>59</sup> *Leninskii plan* (1969), 175; *Industrializatsiya, 1929-1932* (1970), 606; no date is given for the Gosplan proposal. An item on methods of determining industrial transfer prices, costs and profits is listed in the Politburo minutes for October 25 (RTsKhIDNI, 17/3/856, item 12).

1931, in spite of these strenuous exertions at every level from the Politburo to the brigade, *khozraschet* remained a slogan rather than an achievement.

(v) *‘Soviet trade’*

The increase in state retail prices, and the extension of commercial socialised trade at higher prices (see p. 63 above), seem to have moderated inflationary pressure on the retail market.<sup>60</sup> Urban free-market prices for food increased much more slowly in the second half of 1931 than in the same period of 1930 (see Table 25(b)). Visitors to Moscow in the summer of 1931 reported that queues for goods were smaller than at the same time in the previous year.<sup>61</sup> But free-market prices began to rise again in the last two months of the year. The goal of achieving a balance of supply and demand on the retail market, so that rationing could be abolished, was as far away as ever.

‘The Development of Soviet Trade and the Improvement of Supplies to Workers’ was discussed at length at the plenum of the party central committee which met from October 28 to 31, 1931. Mikoyan presented the main report, with co-reports from Rabkrin and Tsentrosoyuz.<sup>62</sup> In his report Mikoyan advocated

<sup>60</sup> Monthly and quarterly retail trade statistics for 1931 have not been available, so how far the supply of consumer goods improved in the course of the year, or whether it improved at all, is not clear. According to the official returns, the production of consumer goods by Vesenkha industry increased substantially, from 3,545 million rubles in January–June to 4,077 million in July–December 1931, measured in 1926/27 prices (*Itogi VSNKh* (1932), 44), or by 15 per cent. But these figures exaggerate the overall increase in supplies. Production of consumer goods by small-scale industry almost certainly declined during this period. In any case, the figures exclude foodstuffs which were now the responsibility of Narkomsnab. Sales of foodstuffs at fixed prices to the urban population seem to have declined in per capita terms. Even the supply per person per month from the 22 most important closed workers’ cooperatives declined for four out of seven listed commodities (see p. 235 note 26 below).

<sup>61</sup> Strang to Secretary of State for Foreign Affairs, August 25, 1931, reporting his own observations and information from Major Glyn, MP, who previously visited Moscow in August 1930 (BDFA, IIA, x (1986), 349–50).

<sup>62</sup> The stenographic report of this item is in RTsKhIDNI, 17/2/484, 36–83. Mikoyan’s report appears on ll. 36–46, and his reply to the discussion on ll. 80–3. Immediately before the plenum, the Politburo discussed ‘distortions in trade’ and a report of the Price Committee (see p. 96 below) on ‘the reduction [*sic*] of retail prices’ (RTsKhIDNI, 17/3/855 (session of October 20, item 1), and 17/3/856 (session of October 25, item 12a)).

'the introduction of real emulation between trading systems' as the only way to avoid monopolisation, and called for decentralisation, with local trade agencies being made responsible for trade within their district. And, following the line of the resolution of May 10, 1931 (see pp. 61–2 above), he insisted that consumer rationing was a temporary system due to shortages:

Such rationing is not a socialist ideal, and it would be good to get rid of it as soon as we have enough goods.

In spite of these reformist declarations, Mikoyan's report, and the thrust of the discussion which followed, were conservative in their practical implications. He insisted that price reform must be kept within strict limits. While conceding that the existing multiplicity of prices was 'not an ideal system', he strongly criticised the interpretation of the slogan 'Soviet trade' as an encouragement to 'speculative trade'. He castigated trading organisations which charged higher prices than those fixed by the state, or sold goods at higher commercial prices when they were intended to be sold at fixed prices. He also firmly rejected proposals, which were to become official policy in May 1932 (see pp. 209–17 below), to permit kolkhozy to trade at free-market prices once they had carried out their obligations to the state:

There are attempts to transfer collective-farm trade to commercial prices. This is not in the least acceptable; it contradicts the policy of the party, price policy . . . If we allowed this, the planned state collections would be disrupted, goods would flow to the private market at higher prices, and there would be no possibility of the planned supply of workers with products when there were goods on the commodity market at higher prices.

Finally, it would disrupt the kolkhozy.

The resolution approved by the plenum followed the line of Mikoyan's report. It condemned 'mechanical distribution of commodities' and 'lack of real care for the consumer', and called for the expansion of retail trade by sovkhosy, kolkhozy and the industrial cooperatives as well as by the normal state and cooperative trading agencies. It also stressed the importance of auxiliary food production by factories, and of samozagotovki

(‘collections on own account’) from local resources by trading agencies, particularly for consumers on ration Lists 2 and 3 (for the ration Lists, see pp. 177–9 below). But its central thrust was that retail trade should continue to take place at low prices, and in prices and quantities which were firmly under the control of the state. It again condemned the ‘recrudescence of the Nepman spirit’ in state and cooperative trade, manifested in ‘the crude violation of price policy, fascination with commercial trade, inflation of prices and a drive for high profits’. Priority must be given to ensuring ‘supplies of the agreed rations’, and to an increase in public catering. Commercial trade by the state must be confined to special shops on a list approved by STO. The resolution stipulated that prices in state commercial shops, ‘in accordance with the policy of constantly reducing prices’, must be reduced by 30 per cent. Trade by kolkhozy and sovkhozy should take place only ‘on the basis of Soviet price policy’; to ensure this ‘the same system for control of trade shall operate in relation to kolkhoz trade as exists for cooperative trade’.<sup>63</sup>

The effect of the provisions about commercial trade was that the gap between supply and demand on the retail market, and between free-market and official prices, remained or even widened. Commodities became scarce, and had to be informally rationed, in the new state commercial shops as well as in the traditional trade network.<sup>64</sup> The provisions about the prices to be charged by kolkhozy negated any possibility that either kolkhozy or peasants would display any enthusiasm for ‘collective-farm trade’, given the huge gap between these prices and the ‘speculative’ prices available from the more or less legal trade on the free market.

Institutional arrangements at this time also reflected the determination of the authorities to maintain low fixed prices throughout the retail system. On October 11, Sovnarkom established a high-level Price Committee attached to STO and under the chairmanship of Molotov. It was responsible for the wholesale and retail prices of both agriculture and industry and

<sup>63</sup> *KPSS v rez.*, iii (1954), 131–4.

<sup>64</sup> According to a report in the State Department files, goods disappeared from the commercial shops after prices were reduced before the November celebrations of the anniversary of the revolution; some commercial shops were then closed down (US State Department, 861.00 11487).

for transfer prices; and one of its main aims was 'eliminate the remnants of speculation by private traders'.<sup>65</sup> Subsequently Sovnarkom established a State Price Inspectorate attached to Rabkrin, together with a network of regional inspectorates, with the function of 'checking the implementation of Soviet price policy'.<sup>66</sup> The purpose of both Price Committee and Inspectorates was not to initiate price changes which would narrow the gap between supply and demand, but to maintain the present level of official prices, or even to reduce them. In this spirit a *Pravda* editorial condemned retail price increases directed to restoring 'equivalent exchange' between town and country, or to achieving 'spontaneous equilibrium' of supply and demand; these were Right-wing opportunism. Prices of rationed goods and the fixed prices of retail trade were 'basic', and must be firmly controlled by the state; the role of prices in state commercial shops must be 'extremely limited'. The party had always regarded the reduction of prices as the main task of Soviet price policy; and further price reductions must take place in the future.<sup>67</sup>

### (C) THE STRUGGLE FOR THE PLAN

In their desperate effort to fulfil the 1931 plan, the authorities silently abandoned the restraints which had been imposed upon industry since the autumn of 1930. Factories and building sites were permitted to recruit large numbers of additional workers,

<sup>65</sup> SZ, 1931, art. 415; the committee included Grin'ko (Narkomfin), Zelenskii (Tsentrosoyuz), Kalmanovich (State Bank), Kuibyshev (Gosplan), Mikoyan (Narkomtorg), Ordzhonikidze (Vesenkha), A. Postnikov (Narkomput'), Rozengol'ts (People's Commissar for Foreign Trade), Rudzutak (Rabkrin), Shvernik (trade unions) and Yakovlev (Narkomzem). The Politburo had approved the establishment of the committee on September 26 (RTsKhIDNI, 17/3/851, item 2), and agreed its membership by correspondence on October 1 (17/3/852); it further discussed the work of the committee on October 10 (17/3/853, item 16).

<sup>66</sup> SZ, 1931, art. 450 (decree of November 20).

<sup>67</sup> P, December 4, 1931. For a description of the first stages of the work of the Price Committee, see EZh, November 26, 1931.

using all available channels.<sup>68</sup> In Vesenkha industry, the number of workers increased by 6.4 per cent in July–September and a further 7.8 per cent in October–December 1931, twice as rapidly as in the equivalent quarters of 1930.<sup>69</sup> In building, the number of workers increased rapidly throughout the summer and autumn, and remained high in November and December, months in which the onset of the Russian winter usually brought about a sharp decline (see Table 17). The labour force on the railways increased in a similar fashion.

The average wage increased substantially in this period, so the wage bill rose even more rapidly than the size of the labour force. Even in the low-priority consumer goods industries the average wage increased by 1.8 per cent in July–September and 3.2 per cent in the following two months, in spite of a slight decline in productivity. In the capital goods industries, wage increases were even more rapid, and greatly exceeded the increase in labour productivity, particularly in the coal and iron and steel industries (see p. 86 above).

It was taken for granted that relative changes in wages could be achieved only by increasing wages in priority sectors, not by reducing wages paid elsewhere. A mere fourteen years after the workers' revolution, it would have been unthinkable to reduce money wages. Shvernik, head of AUCCTU, complaining that the wages paid in an industry were relatively too high, remarked in passing: 'obviously we could not reduce wages'.<sup>70</sup> This contrasted sharply with the capitalist countries, where money wages were cut by the pressures of the market and the sharp axes of Ministers of Finance. 1931 was the year of the notorious 'Geddes' axe' in Britain, which reduced the pay of civil servants. Paradoxically, in the Soviet Union a wage reform carried out in the name of economic efficiency resulted in large uneconomical wage increases. Stalin's injunction that it would be a crime to economise in the struggle against wage equalisation (see p. 71

<sup>68</sup> A decree of TsIK and Sovnarkom cancelled the decision of December 1930 that all labour should be recruited and allocated via the labour departments of Narkomtrud; the recruitment of labour at the factory gate, which never ceased in practice, was again legalised (SZ, 1931, art. 385, dated September 13).

<sup>69</sup> *Itogi VSNKh* (1932), 79; these figures are for workers; they exclude junior ancillary personnel (MOP) and apprentices.

<sup>70</sup> *XVII konf.* (1932), 109.

above) was dramatically realised. But in conditions of acute shortages and declining food production, the reduction in real wages was far more drastic than in the capitalist West. Even the substantial money wage increases in coal and metallurgy improved real wages for no more than a few months.

The unplanned growth of money wages was a major factor in the rapid rise in industrial costs in the last quarter of 1931. According to the official figures, costs in Group A industries, 2.1 per cent above the 1930 average level in April–June 1931, increased to as much as 10.0 per cent above the 1930 level in October–December.<sup>71</sup>

In spite of all these difficulties, industrial production substantially expanded. In August 1931, after the crisis at the beginning of the year, production of Vesenkha industry exceeded the record level of December 1930 for the first time. It continued to increase in the remaining months of the year; producer and consumer goods increased at approximately the same rate. According to the official figures, production in October–December 1931 was as much as 26.1 per cent above that of the special quarter of 1930.<sup>72</sup> Coal, electric power, and iron and steel all shared in this expansion. But even at the end of 1931 production of iron ore, and of crude and rolled steel, had not recovered to the level of the peak months of 1930.<sup>73</sup> The coal industry was particularly successful. It avoided the usual summer decline in production: labour was retained at the mines by a mixture of material inducement and semi-compulsion, assisted by the poor harvest of

<sup>71</sup> The preliminary estimates, which are substantially lower than the final figures (see p. 110 below), are reported as follows in *Materialy po kachestvennym pokazatelyam* (1932), 5–7 (1930 annual average = 100):

	Jan.–Mar.	Apr.–June	July–Sep.	Oct.–Dec.	Whole Year
Group A	104.9	102.1	104.3	110.0	105.5
Group B	101.6	100.5	100.8	102.6	101.4
All Vesenkha industry	103.4	101.4	102.7	106.9	103.7

<sup>72</sup> *Izlogi VSNKh* (1932), 46–7. The increase amounted to 8.4 per cent in the July–September quarter and a further 13.7 per cent in October–December. These official figures exaggerate the rate of increase, particularly in the case of consumer goods.

<sup>73</sup> *Ibid.* 36–44.



1931 which made the villages less attractive than in the previous year.<sup>74</sup> Coal production increased rapidly from October onwards, and in December was 19.7 per cent higher than in the same month of 1930 (see Table 7(a)).

Capital investment in industry also increased rapidly in July–September, and continued at the same level in October–December in spite of the onset of winter. This determined effort to maintain the level of investment during the winter months repeated the experience of the special quarter of 1930, and reflected the extreme urgency with which the building programme was being pressed ahead. In July–December 1931, money expenditure on industrial investment was 48.5 per cent greater than in the same period of 1930.<sup>75</sup>

The official report of Gosplan for 1931 attributed the great improvement in industrial performance in October–December 1931 to the first successes of the application of Stalin's directives of the previous June.<sup>76</sup> The new approaches certainly had some positive effect. Increased production in the coal and iron and steel industries was partly due to the influx of labour following the wage increase on October 1. The improved status of the specialists, and the vigorous campaign against 'depersonalisation' of the handling of machinery, were no doubt also helpful. But, as we have seen, attempts to strengthen *khozraschet* were almost completely ineffective. Much of the expansion was the result not of new approaches, but of familiar campaign methods coupled with large injections of additional money into the system. Throughout 1931, the sessions of the presidium of Vesenkha and the orders issued by Vesenkha were almost entirely concerned with such matters as the allocation of money and materials and the recruitment of labour for priority projects;

<sup>74</sup> On August 21, Sovnarkom postponed the military conscription of coal industry workers (class of 1909) for one year (GARF, 5446/57/15, 186 (art.179s)).

<sup>75</sup> *Itogi VSNKh* (1932), 115–20; these figures cover 98 per cent of investment in Vesenkha industry, including electric power, and are for 'the value of work actually carried out', which, unlike 'monetary outlays', excludes increases in stocks and advance payments on building contracts and for capital equipment and materials not yet delivered. Like almost all investment figures they are in current prices, and therefore do not allow for cost increases.

<sup>76</sup> *Industrializatsiya, 1929–1932* (1970), 275.

khozraschet and economic incentives hardly ever appeared on the agenda.<sup>77</sup>

In the autumn of 1931 the poor performance of the railways again threatened to disrupt the industrial economy. After the recovery of April–June, freight traffic declined slightly in July and August, and in September was still below the June level.<sup>78</sup> At the plenum of the central control commission in July, Andreev, following the classic Rabkrin–Central Control Commission diagnosis, attributed the difficulties to poor organisation rather than to lack of resources:

There is nothing objective here. It can be said boldly: if depersonalisation had not existed, if transport officials had been more agile and shown more initiative, if they had abolished depersonalisation earlier, and had not carried out a reform which depersonalised the *apparat*, we would certainly not have had the difficulties which occurred last winter.<sup>79</sup>

On September 30 and October 1, the work of Narkomput' was again considered by the Politburo and Sovnarkom, and a brusque decree declared that it was 'inadequate and unsatisfactory'; 'it is necessary to replace the leadership of Narkomput' immediately'.<sup>80</sup> Rukhimovich, his deputies and eight members of the collegium of the commissariat were forthwith dismissed, and, following the now traditional pattern, Andreev was transferred from Rabkrin to the post of People's Commissar for Transport with the task of putting into practice the optimistic recommendations of Rabkrin.<sup>81</sup> The close ties between Rabkrin and the OGPU were reflected in the appointment of G. I. Blagonravov,

<sup>77</sup> For Vesenkha orders see SP VSNKh, 1931. The agenda of the presidium of Vesenkha are available for various sessions in 1931 (see, for example, RGAE, 3429/1/5242, covering June 28 to August 28). The presidium was overwhelmingly preoccupied with questions of supplies, plans and priorities. Khozraschet was rarely mentioned – the item on the agenda for July 18 on the transfer of shops to khozraschet (*ibid.* l. 88) was a rare exception.

<sup>78</sup> *Osnovnye pokazateli*, 1933, 104; *Zheleznodorozhnyi transport* (1970), 131 (Gosplan report for 1931).

<sup>79</sup> P, July 18, 1931.

<sup>80</sup> SZ, 1931, art. 408. For the Politburo decision, and the further measures taken by the Politburo at this time, see Rees (1994).

<sup>81</sup> For these personnel changes, see SZ, 1931, pt. ii, arts. 217–23, 237–40, dated October 2, 4, 7, 9, 14). Rudzutak was appointed head of Rabkrin and the party central control commission.

head of the transport sector of the OGPU, as a deputy People's Commissar of Narkomput'.<sup>82</sup>

With the new leadership in place, rail transport was the first item on the agenda of the central committee plenum of October 28–31, 1931.<sup>83</sup> In his report Andreev emphasised, as he had before his appointment, that the failure of the railways was due to the inadequate use of locomotives and goods wagons, and the poor preparation for the autumn and winter season. But, assuming the mantle of the disgraced Rukhimovich, he also complained that supplies from industry had been wholly inadequate. In the first nine months of 1931, Vesenkha had produced only 26 per cent of the goods wagons planned for 1931, 59 per cent of the locomotives, and a mere 35 per cent of the rails. The stock of fuel, normally equal to 45 days' supply, had fallen to 26 days in 1930 and now amounted to a mere 18 days. He was interrupted by a contrite Ordzhonikidze:

[*Andreev*] We will not drag transport out of its difficulties if it is not strengthened by industry. . .

*Ordzhonikidze.* We'll help, we'll help. Whatever there is, we'll give you.

Ordzhonikidze rashly promised to double the supply of rails and goods wagons in 1932, and increase the supply of locomotives by 50 per cent. As for the longer-term plan of reconstruction adopted at the central committee plenum in the previous June (see pp. 42–3 above), Andreev reported that Narkomput' had not yet worked out a specific plan. In the discussion, the Ukrainian representative acidly pointed out that 'the old leadership of Narkomput' did not carry out the decision of the central committee on reconstruction and new construction on the main sections of the Ukrainian railways, and the new leadership of Narkomput' has not yet made that shift which is necessary if the requirements of Ukrainian industry are to be satisfied.'<sup>84</sup>

<sup>82</sup> See Rees (1994), 51–2.

<sup>83</sup> The stenographic report of this item is in RTsKhIDNI, 17/2/484, 3–35. Andreev's report appears on ll. 3–13, and his reply to the discussion on ll. 34–5. For his report along similar lines, delivered to the railways workers' *aktiv* of the Moscow party after the plenum, see *Gudok*, November 16, 1931.

<sup>84</sup> RTsKhIDNI, 17/2/484, 33 (Terekhov).

With the increased attention devoted to the railways as a result of the plenum, the amount of freight they carried substantially increased in October and November, the first two months after Andreev's appointment. But this was followed by a further decline in December.<sup>85</sup> Like Ordzhonikidze and the other Rabkrin leaders who took over ailing sectors of the economy, Andreev soon found that the basic trouble was lack of resources rather than poor organisation.

<sup>85</sup> *Osnovnye pokazateli*, 1933, 104–5.

## CHAPTER SIX

### 1931 IN RETROSPECT

#### (A) CAPITAL INVESTMENT

Reviewing economic developments in 1931, a leading official of the central statistical agency frankly stated that '*the entire increase in the national income in 1931 went into accumulation*'; consumption declined in absolute as well as relative terms.<sup>1</sup> Investment in the socialised sector of the economy, measured in current prices, increased by over 50 per cent (see Table 2); Western estimates suggest that, in view of the rise in investment costs, the increase in real terms was about 20 per cent.<sup>2</sup>

This further rise in investment, after the very large increases in 1929 and 1930, placed an enormous strain on the economy. But it was a far smaller increase than the 80 per cent in real terms envisaged in the 1931 plan.<sup>3</sup> The authorities were desperately anxious to complete the major projects in spite of this smaller total, and investment was concentrated to an unprecedented extent on the capital goods (Group A) industries, where it increased by over 90 per cent, measured in current prices (see Table 2). In consequence, the investment plans of every other

<sup>1</sup> *Materials* (1985), 96 (article by A. Petrov). In this year of very poor agricultural performance, consumption undoubtedly declined to a greater extent than the official statistics revealed.

<sup>2</sup> According to official figures, investment costs, including both building work and capital equipment, rose by 2.6 per cent in 1931 (see gross investment figures in current and 1928 prices in *Materials* (1985), 414–21). But according to the most careful Western estimate, gross investment in fixed capital, which increased by 53 per cent in terms of current prices, increased by only 20 per cent in 1928 prices; this implies that investment costs rose by as much as 28 per cent (Moorsteen and Powell (1966), 388, 391; these figures exclude capital repair). According to a Soviet estimate published in 1934, investment costs increased by 12.7 per cent (*Nashe stroitel'stvo*, 7, 1934, 298 (Bagdat'ev)). According to Soviet national income data in 1928 prices, 'real accumulation' increased by 43 per cent, while consumption declined by 2 per cent (see Table 1(b)).

<sup>3</sup> The plan proposed an increase of 70 per cent in current prices, together with a reduction of 12 per cent in industrial building costs, and an unstated reduction in the cost of equipment.

sector of the economy were cut drastically. Even so, the full Group A programme could not be realised. On June 1, the authorities cancelled all allocations to 613 of the 1,659 'above-the-limit' projects under construction in the capital goods industry, in the hope of ensuring that the remaining 1,046 projects, and particularly the 518 industrial enterprises due for completion in 1931, received adequate funds.<sup>4</sup> Krzhizhanovsky characterised 1931 as 'a year of shock methods of work in our industrial construction', and compared the 'vast army' of the building sites with 'a frontal military attack by proletarian columns'.<sup>5</sup>

These measures did not succeed. By the end of 1931 many of the key projects lagged far behind the plan. Thus in the iron and steel industry, in spite of huge investment, only a quarter of the number of new furnaces planned for 1931 were actually brought into operation.<sup>6</sup>

## (B) INDUSTRIAL PRODUCTION

Lacking sufficient new production facilities, and subjected to the immense strain of the investment programme, industry was utterly unable to fulfil its production plans. According to official

<sup>4</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January-June 1932, *Stroitel'stvo*, 10; a 'total allocation' to the 1,659 projects of 3,086 million rubles was cut to a total allocation to the 1,046 projects of 1,945 million.

<sup>5</sup> RTsKhIDNI, 85/29/21, 9 (memorandum to Ordzhonikidze for his report to XVII party conference).

<sup>6</sup> The following table, compiled from data in *Sovetskaya metallurgiya*, 2, 1932, 80-1, 86, compares plan and results for newly constructed furnaces and rolling mills completed in 1931:

	Number		Production in 1931 (th.tons)	
	Plan	Actual	Plan	Actual
Blast-furnaces (pig-iron)	15	4	1261	270
Open-hearth furnaces (crude steel)	34	8	1097	125
Rolling mills (rolled steel)	5	3	303	26

This lag occurred even though nominally the value of completed units transferred to the industry amounted to 345 million rubles as compared with the plan of 214 million.

figures, the production of large-scale industry increased by only 23 per cent, half the planned 45 per cent, and a lower rate of growth than in the previous year (see Table 5(a)); and this rate of growth was exaggerated.<sup>7</sup> The production of small-scale industry, planned to increase by 7.5 per cent, almost certainly declined in 1931.

In spite of the efforts devoted to the iron and steel industry, it suffered the most conspicuous failure (see Table 7(c)–(e)). The new furnaces produced only a fraction of their planned output (see note 6 above). But simultaneously the production from existing furnaces declined.<sup>8</sup> This was primarily due to the shortage of materials, labour and other resources, which were directed to the large number of new furnaces under construction. Thus in the Southern iron and steel industry fire-resistant bricks were reallocated to the new furnaces, so normal repair work could not take place at the existing plant. Machine shops at existing works were overloaded with priority orders for the new works, so that repairs took longer and had to be undertaken more frequently.<sup>9</sup> And materials received from other industries had themselves been produced under the strain of the rush for higher production. Fuel was poorer in quality, the iron content of ore was lower, and the phosphorus and sulphur content higher; and some blast-furnaces had to use stocks of discarded poor-quality ore which had accumulated over a quarter of a century. The irregular supply of ore, and its high moisture content, in turn damaged the furnace linings, so that unplanned repairs had to be undertaken.<sup>10</sup>

<sup>7</sup> For factors leading to an upward bias in production statistics, see vol. 3, pp. 382–4, and Davies, Harrison and Wheatcroft, eds. (1994), 30–3, 138–41.

<sup>8</sup> The following table compares plan and results for existing plant in 1931 (thousand tons):

	<i>Plan</i>	<i>Actual</i>
Pig-iron	+ 1675	– 381
Crude steel	+ 2054	– 517
Rolled steel	+ 1835	– 528

(*Sovetskaya metallurgiya*, 2, 1932, 80–1 – Tseitlin).

<sup>9</sup> *Sovetskaya metallurgiya*, 2, 1932, 84 (Tseitlin); RTsKhIDNI, 85/29/15, 87, 90 (data for Ordzhonikidze's report to XVII party conference).

<sup>10</sup> RGAE, 4086/2/22, 1–27 (explanatory memorandum to report of Vostokostal' for 1931); *Materialy po kachestvennym pokazatelyam* (1932), 26–8.

An equally serious problem for the existing iron and steel industry was the transfer of high-quality labour to the construction sites and the new factories. At the most senior level, Bardin and Gugel' were moved from the Ukrainian iron and steel industry to Kuznetsk and Magnitogorsk.<sup>11</sup> Engineers and managerial staff were also relocated in large numbers. As a result of these transfers, together with the arrest of many 'bourgeois specialists', large iron and steel works in Ukraine for a time had neither a chief engineer or heads of production shops.<sup>12</sup> According to Ordzhonikidze, the 'most fundamental cause' of the failure of the iron and steel plan in 1931 was the 'tremendous shortage of engineering and technical workers'.<sup>13</sup> Skilled workers also transferred in large numbers. In the Urals corporation Vostokostal', a 'considerable proportion' of skilled blast-furnace workers left for new sites and for other work; skilled work had to be undertaken by 'completely untrained labourers, or by workers who have just come from the collective farms, and have never seen an iron works'.<sup>14</sup> Book-keepers and record-keepers were also moved to the new sites from established industry, often by using compulsory powers.<sup>15</sup>

The failure of the iron and steel industry affected the rest of industry. To cope with the shortage of rolled steel, imports were more than doubled, a rare example of plan overfulfilment; but total steel available increased by only 8 per cent, instead of the planned 50 per cent. Even high-priority consumers, including defence, were allocated less steel than planned; the steel allocation for other industries, and other sectors of the economy, was cut far more drastically.<sup>16</sup>

Other industries were more successful. The production of fuel and power, and of the chemical and engineering industries,

<sup>11</sup> Bardin (1936), 3-4, 92, 112-15; SP VSNKh, 1931, art. 52 (dated January 26). Bardin was transferred in January 1929, Frankfurt in June 1930, and Gugel' in January 1931.

<sup>12</sup> *Sovetskaya metallurgiya*, 2, 1932, 83-4 (Tseitlin).

<sup>13</sup> Ordzhonikidze, ii (1957), 355 (report to XVII party conference).

<sup>14</sup> RGAE, 4086/2/22, 4-5, 26.

<sup>15</sup> See, for example, RGAE, 4086/2/25, 37 (appendix to annual report from the Magnitogorsk works for 1931, signed by chief book-keeper).

<sup>16</sup> See Table 9 below. For the reduction in the allocation to the railways, and to roofing iron, see also RGAE, 4372/29/67, 113 (Lauer at Gosplan presidium, December 13, 1931).



increased substantially (see Tables 5–7). The engineering industries mastered the production of tractors and vehicles, and of a range of electrical products not previously manufactured in the USSR. But throughout industry the quality of output declined. An official report acknowledged ‘the worsening quality of engineering products’, and an even sharper decline in the quality of industrial consumer goods and foodstuffs.<sup>17</sup> And even according to official figures, the losses from spoiled production and grade deterioration rose from 6.6 to 10.1 per cent of the value of all industrial production.<sup>18</sup>

### (C) LABOUR AND LABOUR PRODUCTIVITY

The desperate effort to achieve the over-ambitious production plans resulted in an increase of the number of persons employed in large-scale industry by 29 per cent, and in building by as much as 57 per cent (see Table 15(a)). Employment in almost every sector, including education and health, grew substantially. The scale of this expansion in a single year has neither precedent nor successor in Soviet history.

In industry, the number of apprentices, ancillaries, white-collar workers and engineers and technicians increased particularly rapidly.<sup>19</sup> The number employed in each category rose in the course of 1931 by 45–60 per cent, as compared with an increase in the number of manual workers by 21 per cent (see Table 16(a)). The additional manual workers employed in industry were largely unskilled. According to an official report:

Skilled labour freely available for employment was completely absent, and so additional labour came, apart from factory schools and various courses, from the recruitment of labour from collective farms, from the families of workers (especially

<sup>17</sup> *Industrializatsiya, 1929–1932* (1970), 307, 315, 322, 323.

<sup>18</sup> *Materialy po kachestvennym pokazatelyam* (1932), 23, 54.

<sup>19</sup> The increase was attributed to the rise in technical and design staff concerned with new production processes, the increase of clerical and administrative staff due to the organisation of planning departments and *khozraschet* at the shop level, and ‘inability to organise the work of statistical and planning personnel’ (*Materialy po kachestvennym pokazatelyam* (1932), 22–3). Even taking account of all these factors, the increase is astonishingly high.

women), from war and labour invalids, and from people simply hired at the factory gate.<sup>20</sup>

Even in industrial Leningrad, 59.8 per cent of the new members of industrial trade unions in 1931 were former peasants.<sup>21</sup>

As a result of the influx of new workers into the industrial towns, together with the deterioration and disorder in food supplies, the conditions of life of the established working class sharply declined in 1931. In Ukrainian iron and steel plants poor conditions led blast-furnace workers to down tools:

Those working in hot trades . . . complained that a day's ration was only enough for two meals. Even rationed goods were received irregularly, there were queues in the shops. The factory canteens were badly equipped, crowded and did not have enough crockery.<sup>22</sup>

Accommodation, already poor, deteriorated. The position was even worse on the building sites in new areas. At Magnitogorsk, where the population rose from 55,000–60,000 to 175,000 in the course of 1931, the number of meals per worker declined. So did the number of medical visits, in spite of outbreaks of illness owing to 'confined conditions in the barracks, dirt, insanitary conditions in the area around the barracks, and filthy toilets'.<sup>23</sup>

Absenteeism without due cause sharply increased.<sup>24</sup> This reflected a general deterioration in labour discipline. The 'Vostokostal' corporation ordered culprits to be deprived of their rights to use special shops, transferred to lower rations and 'even dismissed'.<sup>25</sup> At Magnitogorsk the site management reported 'refusal to carry out orders of the administration'.<sup>26</sup> Labour

<sup>20</sup> *Materialy po kachestvennym pokazatelyam* (1932), 13; report prepared by TsUNKhU.

<sup>21</sup> *Rabochie Leningrada* (1963), 176 (Dzeniskevich).

<sup>22</sup> Gershberg (1971), 68–9.

<sup>23</sup> RGAE, 4086/2/119, 8, 26 (conjunctural survey from Magnitogorsk covering 1931 and January 1932); the level of meals and visits at the beginning of the year was in each case restored by December 1931.

<sup>24</sup> *Materialy po kachestvennym pokazatelyam* (1932), 14; the increase was from 1.6 days a year in 1930 to 2.07 in 1931.

<sup>25</sup> RGAE, 4086/2/22, 63–4 (annual report of Vostokostal'). The caution of the latter phrase reveals the dilemmas of industrial management faced with severe labour shortage.

<sup>26</sup> RGAE, 4086/2/119, 29.

turnover remained very high, in spite of the incentives and penalties introduced to keep workers at their jobs (see Table 19).

The influx of unskilled workers into the labour force, the poor conditions, and the production difficulties already described, resulted in a decline, or at best a stagnation, in labour productivity. Even according to the official record, daily output per manual worker declined by 4–5 per cent in the chemical, coal and iron and steel industries. It was only the rise in productivity in a small number of industries, such as tractors and vehicles, that resulted in an increase in daily output per worker in industry as a whole of 2.7 per cent.<sup>27</sup> And if productivity is calculated in terms of the total industrial labour force, rather than manual workers alone, it declined by at least 7 per cent even according to official statistics. In most industries increases in production were obtained entirely by increasing the number employed. The report to the Central Planning Bureau of Gosplan on the results of the 1931 plan admitted the 'largely extensive character of the development of industry'.<sup>28</sup> Industrial growth was more labour-intensive than at any other time in Soviet history.

#### (D) COSTS AND FINANCE

All Soviet plans, ever since the mid-1920s, assumed that both production costs and building costs would be reduced, and that the savings would finance a large part of capital investment. In 1930 and 1931 these plans broke down. Costs began to rise in 1930 (see p. 74 above). In 1931, according to the official record, industrial production costs increased by 8 per cent.<sup>29</sup> The increase was much greater in the basic industries: 31.4 per cent in coal, and 25.8 per cent in iron and steel. Cost reductions were recorded only in the newer engineering industries, where high-

<sup>27</sup> *Materialy po kachestvennym pokazatelyam* (1932), 50; these figures are based on the annual accounts for all-Union heavy and light industry. An earlier estimate, including all Vesenkha industry, claimed that output per worker per day increased by 4.1 per cent (*Itogi VSNKh* (1932), 88–9).

<sup>28</sup> RGAE, 4372/29/119, 79 (Guberman).

<sup>29</sup> *Materialy po kachestvennym pokazatelyam* (1932), 43–5; this figure is for the average annual factory cost of comparable production in the all-Union industry of Narkomtyazhprom and Narkomlegprom (i.e. former Vesenkha industry excluding timber), and is based on the annual accounts.

cost small-scale production was being replaced by lower-cost mass production.<sup>30</sup>

The cost increases resulted from two main factors. First, for the first time since 1927 wages increased more rapidly than productivity; the average wage of a manual worker increased by 15.6 per cent, while annual productivity even according to official figures increased by no more than 4 per cent.<sup>31</sup> This accounted for 50 per cent of the cost increase. Secondly, overheads increased very rapidly. The increase in the number of non-manual employees, together with the rise in their average wage, accounted for a further 33 per cent of the increase in costs.<sup>32</sup>

Costs increased even more rapidly in other sectors, and for similar reasons. Costs of rail transport were some 15 per cent higher than in the economic year 1929/30.<sup>33</sup> In capital construction for industry, according to official estimates, costs increased by as much as 15.3 per cent.<sup>34</sup>

As a result of the failure of the costs reduction plan, the state budget lost revenue due from profits in the socialist sector amounting to 1,624 million rubles, while allocations from the budget to the economy for investment and current purposes exceeded the estimates by 3,149 million rubles (see Table 22). Very large revenues were therefore required in excess of the estimates. Yet the main source of budgetary revenue, turnover tax, was under severe threat owing to the inadequate production of the light and food industries, which bore the main burden of the tax. The gap was covered by increasing the rates of tax and imposing 'budget surcharges' in excess of the normal tax, with a corresponding increase in retail prices (see p. 63 above). In addition, 'commercial trade' at higher prices by state trading agencies was expanded, and the margin was transferred to the

<sup>30</sup> *Ibid.* 45. In an extreme case, the cost of production of a tractor at Stalingrad was 7,173 rubles in 1930, when production was just starting up, and fell to 4,076 rubles in 1931. Excluding the vehicle and tractor industry, even in the engineering industries costs rose by 1.4 per cent. (*Ibid.* p.9.)

<sup>31</sup> *Itogi VSNKh* (1932), 88–93; these figures are for Vesenkha industry.

<sup>32</sup> *Materialy po kachestvennym pokazatelyam* (1932), 10–1, 21–3, 48–9.

<sup>33</sup> Costs per ton-kilometre were 0.9 kopeks in 1929/30 (*Zheleznodorozhnyi transport* (1970), 99, a Narkomput' report cited from the archives) and 1.04 in 1931 (*Otchet . . . 1931* (1932), 215).

<sup>34</sup> *Stroitel'naya promyshlennost'*, 7 (September), 1933, 14 (Dik).

budget. In these operations the tax on spirits (primarily vodka) was by far the most important source of revenue, increasing by 125 per cent as compared with 1929/30 (see vol. 3, table 22; and table 22(a) in this volume). In 1929, the five-year plan had proposed that revenue from vodka should be reduced, but this aspiration was annihilated by the fiscal requirements of rapid industrialisation.

An additional large increase in revenue was obtained by more than doubling the state loans collected from the personal incomes of the population. Smaller sums came from a supplement to personal income tax in the form of a housing tax, from increases in postal charges, and from the transfer of revenue from local budgets to the central budget.

This increase in budgetary revenue achieved a nominal budget surplus. But it did not avoid the need to create a hidden budget deficit by issuing short-term bank credits outside the budget, which were covered by currency issue. The 1931 plan stipulated that there should be no net currency issue in 1931, but in the outcome currency in circulation increased by 25–30 per cent (see Table 24). The effort to maintain a stable currency had failed in face of the voracious demands of the plan.

### (E) THE DEFENCE SECTOR

The shift of resources towards the defence sector was taken much further in 1931. On January 10, a 1931–3 ‘calendar plan’ for the Red Army was approved by the Revolutionary Military Council (RVS).<sup>35</sup> In the same month the Politburo approved a significant revision to the guidelines for the Red Army five-year plan, to the effect that the army should be numerically not equal to but ‘superior to our probable adversaries in the most important theatre of war’.<sup>36</sup>

Immediate defence needs also received greater attention. The planned allocation to the People’s Commissariat for Military and Naval Affairs (Narkomvoenmor) for capital construction was

<sup>35</sup> *50 let* (1968), 197.

<sup>36</sup> *Istoriya vtoroi mirovoi voyny*, i (1969), 258; for the previous guidelines see vol. 3, p. 448.

more than double the expenditure in 1929/30.<sup>37</sup> This soon had practical results. According to British Embassy reports, in the North 'much work has been put in at fortifying the territory between Lake Ladoga and the sea', while in Kharkov 'barracks were going up on all sides, and the aviation fields had recently been greatly extended and the number of hangars increased'.<sup>38</sup>

The 1931 plan also envisaged an increase of as much as 125 per cent in the production of armaments.<sup>39</sup> This was far greater than the increase planned for any other industry, except vehicles and tractors. Capital investment in the armaments industry was planned to increase by 83 per cent, reaching nearly twice the amount planned for the vehicle and tractor industry.<sup>40</sup> Far-reaching plans for expanding tank production, which hardly existed before 1930, came before the Politburo on several occasions in the first few months of 1931.<sup>41</sup>

These ambitious plans were slow to take effect. Following its rapid expansion in 1930, armaments production hardly increased at all in the first nine months of 1931.<sup>42</sup> In the summer of 1931, however, the growing tension with Japan (see pp. 80–1 above) impelled the authorities to increase armaments production immediately. After the interception of the notorious Japanese telegram of March 4, the Politburo considered detailed aspects of relations with Japan on four occasions between March 11 and

<sup>37</sup> The expenditure of Narkomvoenmor on construction in 1929/30 amounted to 89 million rubles (estimated from RGAE 4372/91/1824, 56–5; the same source, on l. 51, gives an alternative figure of 105 million rubles). The capital investment allocation to Narkomvoenmor in 1931 was 200 million rubles (GARF, 5446/57/15, 100–5).

<sup>38</sup> Keane, Memorandum (Leningrad), January 31, 1931; Greenway, Memorandum, June 27, 1931 (BDFa, IIA, x (1986), 209, 316).

<sup>39</sup> According to RGAE, 4372/91/871, 99–8 (a Vesenkha report on the armaments industry in 1931), the planned military production for 1931 was 787 million rubles, as compared with 350 million in 1930. The plan was later reduced to 760 million, owing to a cut in the plan for small arms. These figures exclude tanks and shipbuilding.

<sup>40</sup> Capital investment amounted to 219 million rubles in 1930 (RGAE, 4372/91/871, 67; this figure excludes tanks and shipbuilding). The plan for 1931 amounted to 400 million rubles (GARF, 5446/57/15, 100–5; the coverage is not stated).

<sup>41</sup> RTsKhIDNI, 17/3/810 (sitting of January 10, 1931, referred from November 30, 1930); 17/3/814 and 17/162/9, 140, 151–6 (decision of February 20); 17/3/822 and 17/162/10, 15 (decision of April 20).

<sup>42</sup> RGAE, 4372/91/871, 99–8.

May 10.<sup>43</sup> Then on June 11, Uborevich, deputy People's Commissar for Military and Naval Affairs and Head of Armaments in the Red Army, was transferred to the Belorussian military district and was replaced by Tukhachevsky,<sup>44</sup> and Baranov, head of the Red Army air forces since 1924, was transferred to the presidium of Vesenkha, where he was placed in charge of the aircraft industry.<sup>45</sup> In view of Tukhachevsky's disputes with Stalin about defence in the previous three years (see vol. 3, pp. 443, 446–7), his appointment was a startling move; and within a few months it was followed by changes in armaments policy.<sup>46</sup> In August 1931, STO finally approved a long-debated programme for tank production in 1931–3, which became known as the 'big tank programme'. This involved the large-scale production of tanks not previously manufactured in the USSR, including the T-26 medium tank (based on the Vickers 6-ton model), the T-27 machine-gun carrier (based on the Vickers Carden-Lloyd model), and the track-wheeled BT (based on the 10-ton United States Christie).<sup>47</sup> The Japanese

<sup>43</sup> RTsKhIDNI, 17/3/816 (decision of March 11); 17/3/818 (decision of March 30); 17/3/820 (decision of April 10); 17/3/824 (decision of May 10, no. 8/21). The decisions appear in the *osobyie papki* (RTsKhIDNI, 17/162/9, 162; 17/162/10, 2, 7, 33).

<sup>44</sup> *50 let* (1968), 196; Egorov, an old crony of Stalin's on the south-western front at the time of the advance on Warsaw in 1920, replaced Shaposhnikov as Chief of Staff, perhaps in order to act as a counter-weight to Tukhachevsky.

<sup>45</sup> SP, 1931, art. 415 (dated July 2); ZI, September 6, 1933; according to a Soviet account, this appointment was made after Baranov, following a trip abroad, successfully proposed to the Politburo that the Soviet Union should acquire foreign licences and technical assistance for the development of aircraft engines (*Byli industrial'nye* (1970), 112; this chapter was written by the aircraft-engine designer A. G. Charomskii).

<sup>46</sup> Tukhachevsky's appointment has not been explicitly associated with a change in armaments policy by Soviet military historians; in *Marshal Tukhachevskii* (1965), 207–8, it is linked to the decision to expand the training of commanders and military engineers.

<sup>47</sup> See Cooper (1976), 13; Tupper (1982), 13–5, 359–60; VIZh, 12, 1964, 6; 8, 1968, 106–7. A special commission headed by Khalepskii, head of the Administration for Motorising and Mechanising the Red Army, and including Budnyak, senior official of Vesenkha, visited the US and UK at the end of 1929 to purchase tank designs. It secured permission from the British Board of Trade for the USSR to purchase 15 medium tanks, 26 Carden-Lloyd Mark VI machine-gun carriers, eight Carden-Lloyd amphibious tanks and 15 Vickers-Armstrong six-ton tanks; permission for production on licence was granted for most models (Milson (1971), 34). Following several discussions at its sessions the

invasion of Manchuria in September further strengthened the determination to increase Soviet military preparedness. On October 1, Sovnarkom substantially increased the investment allocation to the armaments industry.<sup>48</sup> Then on October 17, Sovnarkom established a Committee of Reserves attached to STO;<sup>49</sup> this was responsible for centralising stock-piling in preparation for a war emergency. Its chair was Kuibyshev, senior Politburo member and head of Gosplan, with Yagoda, deputy head of the OGPU, as his deputy; members included G. D. Bazilevich, secretary of the Defence Commission of Sovnarkom. In the course of October, the Politburo devoted close attention to the Committee.<sup>50</sup> The main state stocks of grain were transferred to the Committee, and Sovnarkom approved an elaborate programme for a seven-fold increase in state stocks of consumer goods during 1932.<sup>51</sup>

Following these alarms, armaments production increased by as much as 75 per cent in October–December 1931, and investment in the armaments industry by 36 per cent. In 1931 as a whole, owing to the slow start, armaments production increased by 68 per cent as compared with the plan of 125 per cent.<sup>52</sup> But this was a far more rapid expansion than in either Group A industry as a whole or the machinebuilding–metalworking group of industries. The production of tanks, artillery and small arms all increased

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Politburo approved on February 20 a quite detailed tank programme, including provisions for civilian factories to be ready to convert to tank production in the event of war (RTsKhIDNI, 17/162/9, 140, 151–6 – no. 35/51; see also 17/162/9, 57, 61 (November 5, item 8) and *ibid.* 86 (November 30, 1930, decision 19/27).

<sup>48</sup> GARF, 4372/57/16, 30 (art. 212ss).

<sup>49</sup> SZ, 1931, art. 421.

<sup>50</sup> RTsKhIDNI, 17/3/856 (session of October 25, item 13). Before the establishment of the Committee, Molotov introduced a report on it at the Politburo (RTsKhIDNI, 17/3/853 – session of October 10, item 16; 17/3/854 – session of October 15, item 10).

<sup>51</sup> GARF, 5446/57/16, 53 (art. 222ss, dated October 19, on grain stocks); *ibid.* 94–102 (art. 247ss, dated November 18, on consumer goods). The value of stocks of consumer goods was to increase from 45 million rubles on January 1, 1932, to 350 million on October 1. Stocks would then include 6.5 million pairs of footwear, 8,000 million cigarettes, 350,000 tons of salt, and 130,000 tons of sugar. The decree of November 18 noted that stocks of imported copper and other materials had been accumulated since 1927/28 on the basis of government decisions.

<sup>52</sup> RGAE, 4372/91/871, 99–8, 67.



substantially (see Table 6(c)). In 1931, 278,000 manual workers were employed in the armaments industry, as against 176,000 in 1930.<sup>53</sup> This was a very substantial workforce, amounting to 29 per cent of the total number of workers in the machinebuilding-metalworking and chemical (Group A) industries of Vesenkha.<sup>54</sup> The total number employed in the aircraft industry almost trebled.<sup>55</sup>

Capital investment in the armaments industry almost reached the planned figure, and exceeded investment in 1930 by 74 per cent.<sup>56</sup> Investment in the military aircraft industry more than trebled.<sup>57</sup> Investment in civil aviation also rose sharply;<sup>58</sup> civil aviation was frankly described by Kuibyshev as a '*base for defence in the event of the emergence of military action*'.<sup>59</sup>

For some time before 1931, plans had been drawn up in Narkomvoenmor, in association with Vesenkha, to prepare civilian factories for immediate transfer to military production in the event of war. In 1931, 'Variant No. 10' of the mobilisation plan included 150 major civilian enterprises. The plan assumed that in wartime major engineering factories would completely, or almost completely, cease civilian production; the list included new factories such as Uralmashzavod, the Stalingrad tractor factory and the new engineering factory under construction in Kramatorsk, and established factories such as Krasnoe Sormovo.

<sup>53</sup> RGAE, 4372/91/1824, 33.

<sup>54</sup> For workers employed in Vesenkha industry, see *Itogi VSNKh* (1932), 68–79.

<sup>55</sup> RGAE, 4372/91/1824, 11. The increase was from 21,100 in 1930 to 59,900 in 1931, while manual workers increased from 14,500 to 36,300.

<sup>56</sup> RGAE, 4372/91/871, 67; the figures for investment (unlike production) are in current prices, and therefore make no allowance for the increase in costs.

<sup>57</sup> According to one set of figures, it increased from 29 million to 105 million rubles (RGAE, 4372/91/871, 67); according to later figures, the increase was from 27 to 112 million (RGAE, 4372/91/1824, 11). On October 15, 1931, the Politburo decided to construct an aviation combine in Kharkov (RTsKhIDNI, 17/3/854).

<sup>58</sup> According to the head of civil aviation, Gol'tsman, it increased from 30 million rubles in 1930 to 130 million rubles in 1931 (P, February 9, 1933); according to later figures it increased from 35 to 81 million rubles (*Sots. str.* (1935), 494–7). The plan for 1931 was 150 million rubles (ZI, February 21, 1931). Civil aviation was not administratively part of the defence industries, and it received a separate budget allocation.

<sup>59</sup> ZI, February 21, 1931 (address to First USSR Conference on Civil Aviation).

Medium-sized and smaller factories would produce small weapons, shells and explosives in large quantities. In wartime some two-thirds of all shell production and over 80 per cent of 76mm large artillery pieces would be produced by civilian factories.<sup>60</sup>

To prepare for this conversion, considerable investments were undertaken in civilian industry in addition to the capital investment in the armaments industry proper already discussed.<sup>61</sup> In the 1931 plan, some 100 million rubles were allocated to these purposes.<sup>62</sup> Substantial 'narrow defence measures' were also undertaken on railways, waterways and roads, and in the communications system.

Expenditure on defence from the state budget sharply increased in 1931. According to the published returns, expenditure on Narkomvoenmor amounted to 1,113 million rubles in 1929/30 and increased to only 1,288 million in 1931 (see vol. 3, table 23(b); and table 22(a) in this volume). But this figure was announced in consequence of a Politburo decision to conceal the expansion of Soviet defence expenditure from the World Disarmament Conference then meeting in Geneva.<sup>63</sup> According to archival data, expenditure on Narkomvoenmor in 1931 actually amounted to 1,790 million rubles; this increase was almost entirely due to a rise in the expenditure on military purchases (*zakazy*), primarily of armaments, and on construction work.<sup>64</sup> Expenditure on construction work (airfields, barracks,

<sup>60</sup> RGAE, 4372/91/769, 40–28 (Gosplan report dated January 10, 1931).

<sup>61</sup> A Gosplan report dated November 17, 1930, delicately commented that 'work of a narrow defence character, which at the same time has general economic significance and consequences, takes place through the general allocations (limity)' (RGAE, 4372/91/769, 24).

<sup>62</sup> A report dated March 4, 1931, lists allocations amounting to 107 million rubles; the corporations listed do not include the vehicle and tractor corporation VATO, responsible for tank production, or shipbuilding (RGAE, 4372/91/769, 59–49); another report dated January 10 lists allocations amounting to 93 million rubles (*ibid.* 31–29); these include permission to import items valued at 14 million rubles. Actual expenditure amounted to 99.5 million rubles (excluding VATO) (*ibid.* 90).

<sup>63</sup> See SS, xlv(1993), 580–3 (Davies).

<sup>64</sup> RGAE, 4372/91/1824, 56–51. The published figure for 1929/30 also appears in the archival data; according to a report to Molotov in January 1935, it was more or less accurate (apart of course for expenditure under other budget heads listed above (GARF, 8418/10/148, 5)).

etc.), amounting to 260 million rubles, substantially exceeded the plan of 200 million rubles, and was 2½ times as large as in 1929/30. Substantial increased expenditures on defence also took place under other budget heads. The most important was the allocation to 'other industry' as part of the 'national economy' item of the budget. 'Other industry' was a euphemism for 'armaments industry', and covered both investment and current expenditure such as subsidies; expenditure increased from 130 million rubles in 1929/30 to 587 million in 1931.<sup>65</sup> While the size of the Red Army did not increase substantially in 1931, there was an increase unprecedented in peace-time in the resources allocated to the purchase of armaments, to military construction, to investment in the armaments industry and to investment in civilian industries for military purposes.

#### (F) FOREIGN TRADE IN CRISIS

Under the impact of the world economic crisis, the terms of trade for Soviet exports, which consisted primarily of agricultural goods, continued to worsen. In real terms, Soviet exports increased in 1931 by about 11 per cent, while imports increased by some 14–18 per cent. But in terms of foreign-trade rubles exports *declined* by as much as 21.7 per cent, while imports increased by 4.4 per cent.<sup>66</sup> In an endeavour to improve the balance of trade, the export of gold and precious metals, not included in the official export figures, was substantially increased. But even when these items are included, export measured in foreign-trade rubles still declined in 1931 by over 10 per cent.<sup>67</sup> Prospects of further increases of Soviet exports were bleak. In 1931, with the world crisis in its most devastating phase, additional tariff barriers, and credit and import restrictions, were imposed by every capitalist country in the hope of protecting its economy from further decline. By the time of the

<sup>65</sup> See *Otchet . . . na 1929/30* (1931), 84; and Table 22(b) this volume.

<sup>66</sup> For imports, the increase in a Soviet index in real terms is 14.3 per cent, and in Dohan's index in 1927/28 prices is 18.7 per cent; the increase in terms of weight in tons was as much as 24.8 per cent. See SR, xxxv, 606–8 (Dohan); Dohan and Hewett (1973), 27, 78–9; *Sots.str.* (1934), 386–9.

<sup>67</sup> See SR, xxxv (1976), 606–7 (Dohan); *Memorandum*, iv (1932), 13.

new harvest, the Soviet government was finding it extremely difficult to sell grain, even at sharply falling prices.<sup>68</sup> In any case, the export of agricultural products was constrained by the pressure of Soviet internal demand, made more acute by the decline in livestock and the poor grain harvest.

Absolute priority in imports was afforded to the capital goods industries, and imports of steel and machinery for these industries increased substantially. The import of rolled steel amounted to 1,289,000 tons, an increase of 120 per cent as compared with 1930, and 48 per cent above the plan.<sup>69</sup> But imports of almost all foodstuffs and consumer goods, and of materials for their production, were still further reduced, as was the import of machinery for the food and light industries. The balance of payments was in even greater disequilibrium than the balance of trade. Invisible expenditure on foreign technical assistance and on interest on foreign credits greatly increased. Exports covered only 67 per cent of the cost of imports plus invisibles. The gap was partly covered by gold exports. These greatly exceeded gold production, and therefore resulted in a substantial reduction in Soviet gold stocks.<sup>70</sup> Even so the foreign debt increased by some 50 per cent in the single year 1931.<sup>71</sup> The debt was held in short-term credits, some two-thirds of which had to be renewed annually insofar as the debt was not paid off with foreign earnings. But in 1931 international credit was in crisis, and the size of the Soviet trade deficit further discouraged the provision of

<sup>68</sup> Strang despatch to Henderson, August 16, 1931 (BDFA, IIA, x (1986), 337); to cut costs, grain was exported in cheap Greek tramp steamers.

<sup>69</sup> *Vneshnyaya trgovlya* (1960), 310; for the 1931 plan see p. 7 above.

<sup>70</sup> Gold production was estimated at 28.5 tons (valued at 37 million foreign-trade rubles), gold exports at 89 tons (115 million rubles) (Memorandum by G. P. Paton, October 31, 1932 – BDFA, IIA, 183–5; Dohan (1969), 843, 853). An unknown amount of gold was also obtained from Soviet citizens, churches and museums.

<sup>71</sup> SR, xxxv (1976), 606–7 (Dohan), citing Soviet sources. The debt rose from 470 million rubles on January 1, 1929, to 1,400 million on December 31, 1931. These figures may include contingent liabilities (credits to cover goods exported but not yet sold, plus the value of orders firmly placed abroad but not yet executed), as foreign debt including these liabilities was estimated at 485 million rubles on October 1, 1928, and 1,205 million rubles on October 1, 1931, by E. M. Shenkman, a Soviet émigré with access to unpublished materials (*Memorandum*, iv (1932), 10–11); excluding these liabilities the amounts on these dates were 370 and 855 million rubles.

credit. The Soviet Union was able to increase its trade deficit primarily because it received a large credit from German industrialists in April 1931, guaranteed by the German government.<sup>72</sup> By the end of 1931, half the Soviet external debt of some 800 million rubles was owed to Germany, and due to be repaid in the course of 1932.<sup>73</sup> The German credit carried a penal interest-rate of 25 per cent. Even so the German banks, buffeted by the world financial crisis, requested earlier repayment. A further blow was struck at the Soviet balance of payments by the removal of the pound sterling from the Gold Standard. The consequent devaluation of the pound increased the Soviet debt, because a large proportion of the Soviet current account was held in sterling, while substantial payments were due to American firms in dollars. The Soviet Union had to extend its repayment period, incurring an interest-rate which reached 42 per cent.<sup>74</sup>

In the early months of 1931 the Soviet authorities did not recognise the magnitude of the approaching balance of payments crisis, although the deficit in the balance of trade was extremely substantial. On April 30, 1931, the Politburo drew optimistic conclusions from the desperate anxiety of the capitalist countries to maintain their exports. Following a report by Stalin, it called upon Vesenkha and the People's Commissariat for Foreign Trade to take account of 'the developing prospects for the favourable placing of orders in foreign countries'.<sup>75</sup> But less than three months later, on July 20, the Politburo established a commission to consider 'the foreign currency debt in the first half of 1932'. The commission, convened by Molotov, and including Stalin and Ordzhonikidze, was set the task of securing a 30-million ruble reserve of foreign currency (excluding the gold reserves) by January 1, 1932. To this end it was to re-examine Vesenkha import plans, and to seek to expand exports.<sup>76</sup> Henceforth problems of foreign trade were frequently considered by the Politburo. More stringent controls were imposed on imports. On September 8 the Politburo cancelled an earlier decision to import

<sup>72</sup> *Memorandum*, iv (1932), 9–10; *Dokumenty vneshnei politiki*, xiv (1968), 749.

<sup>73</sup> *Frankfurter Zeitung*, October 22, 1931; *Le Temps*, November 23, 1931, cited in MAE, Europe 1930–1940, vol. 1039, 139–40, 145.

<sup>74</sup> French Embassy in US to Laval, January 28, 1932 (MEA, Europe 1930–1940, vol. 1035, 191–3).

<sup>75</sup> RTsKhIDNI, 17/162/10, 28 (decision no. 9/11).

<sup>76</sup> RTsKhIDNI, 17/162/10, 122 (decision no. 6/26).

quality steel, wheels and axles for railway wagons, and established a commission chaired by Rudzutak to present precise data on future import commitments.<sup>77</sup> On October 25, a Politburo session resolved that 'in view of the fundamentally changed situation for foreign trade, it is absolutely necessary to re-examine, from the point of view of the maximum reduction of import, the supplementary decisions on import made by the Politburo, STO and Sovnarkom'.<sup>78</sup> And on November 20, on a proposal by Stalin, the Politburo resolved that 'everything which is not absolutely necessary' was to be excluded from the import schedule of Vesenkha for October–December.<sup>79</sup>

In spite of these measures, imports in the October–December quarter greatly exceeded exports (see Table 13(d)); and towards the end of 1931, Western banking and governmental circles became increasingly anxious about the viability of the Soviet credit position. In October, the British chargé d'affaires in Moscow reported to the new National government that the Soviet balance of payments crisis, together with the failure of the 1931 plan, would probably lead the Soviet authorities to suspend high-speed industrialisation and collectivisation, and to adopt a 'prudent insular policy' in order to avoid economic boycott.<sup>80</sup> In the same month, the acting French Ambassador in Moscow reported 'a deficit without precedent for the USSR'.<sup>81</sup> Rumours of a forthcoming Soviet debt default, moratorium or even declaration of bankruptcy frequently appeared in the Western press.<sup>82</sup>

<sup>77</sup> RTsKhIDNI, 17/162/11, 3 (decision no. 36/1).

<sup>78</sup> RTsKhIDNI, 17/162/11, 33 (item no. 7).

<sup>79</sup> RTsKhIDNI, 17/162/11, 64 (item no. 5).

<sup>80</sup> Strang to Marquess of Reading, October 6, 1931 (Woodward and Butler, eds (1958), 222); Strang shrewdly remarked that a stable capitalism was a prerequisite of socialism in one country. King George V noted on this document 'a most interesting despatch'.

<sup>81</sup> Conty to MAE, telegram of October 24, 1931 (MAE, Europe 1930–1940, URSS, vol. 1035, 60).

<sup>82</sup> See *New York Times*, December 6, 1931, January 10, 1932, and other sources cited in SR, xxxv (1976), 629–30 (Dohan). The French Sûreté Générale, whose intelligence was often unreliable, reported that a Swiss informant bluntly concluded that 'the suspension of payments by the USSR is inevitable and close at hand' (report dated November 18, 1931: MAE, Europe 1930–1940, URSS, vol. 1050, 112, 116).

Soviet commentators denounced all such rumours indignantly and at length.<sup>83</sup> The more sober Western commentators argued that the debt was not large enough to drive the Soviet Union into a declaration of bankruptcy.<sup>84</sup> But instead of the 'large foreign currency reserve' and 'stabilisation on the foreign trade front' promised in the 1931 plan,<sup>85</sup> at the end of the year the Soviet authorities were faced with a much larger foreign debt and a dangerous and growing instability in foreign trade.

<sup>83</sup> See SR, xxxv (1976), 629, note 74.

<sup>84</sup> See, for example, *Le Temps*, November 23, 1931 (L. Vitin), *cit.* MAE, Europe 1930–1940, vol. 1039, 145. The Polish, Italian, Japanese and German commercial secretaries in Moscow each told their British colleague that a Soviet moratorium was unlikely (BDFA, IIA, x (1986), 377 – Strang to Marquess of Reading, October 27, 1931). In a conversation with the German Consul-General, the British commercial counsellor gained the impression that 'unless there were a total collapse, the German government would not allow a Russian default to become apparent' (Rumbold (Berlin) to Simon, January 6, 1932 – BDFA, IIA, xvi (1992), 4–5).

<sup>85</sup> *Narodno-khozyaistvennyi plan* (1931), 23.

## CHAPTER SEVEN

### THE 1932 PLAN

Western assessments of the Soviet economic prospects for 1932 differed widely. In a widely circulated speech, the British industrialist Leslie Urquhart proclaimed that 'the failure of the five-year plan in its fourth year 1931 enables one to predict an imminent catastrophe for 1932 . . . This crisis will inevitably mean the end of the communist system of economy and the return to some form of private capitalism.'<sup>1</sup> On the other hand the French Ambassador, disturbed by the limited reforms in the second half of 1931, warned his Minister that 'the return to capitalist methods of management bears witness to an effort at normalisation and economic rationalisation which, if it diminished communist theories, on the other hand could favour the consolidation of the dangerous power of expansion of Soviet Russia.'<sup>2</sup>

Within the Soviet Union, the failure to achieve the plan in the course of 1931 confirmed the scepticism of some – and perhaps many – industrial officials and managers about the realism of both the annual and the five-year plan. Fear of persecution inhibited them from voicing their opinions. But Soviet archives nevertheless reveal many cases of objections to unrealistic plans. The widespread scepticism was reflected in the vigorous condemnation of the faint-hearted which appeared in the press. On July 3, 1931, a large headline in the industrial newspaper instructed its readers 'Do not Whisper that the Plan is Unrealistic!'. In November, the party control commission for the Far East roundly condemned 'Right-wing opportunist chatter on the "unreality" of the plan'.<sup>3</sup>

Behind the facade of official enthusiasm, the extravagance of the plans was cautiously modified. On August 11, 1931, in a report to the central committee and Sovnarkom on the second five-year plan, Kuibyshev reduced the pig-iron target for 1937

<sup>1</sup> Speech of December 20, 1931, reported in MAE, Europe 1930–1940, URSS, vol. 1063, 171, 178.

<sup>2</sup> Dejean to Laval, January 30, 1932 (MAE, Europe 1930–1940, URSS, vol. 1035, 199–200).

<sup>3</sup> Unpelev (Vladivostok, 1972), 157.



from 60 to 45 million tons.<sup>4</sup> In the same month, conferences which met under the auspices of the Politburo and Sovnarkom concluded that this reduced figure was still too high, and resolved, 'taking into account the exchange of opinions', to reduce the pig-iron plan for 1937 to a preliminary figure of 25–30 million tons. The delegates prudently decided to seek the opinions of Stalin and Molotov, who were not present. When they reassembled, they endorsed Stalin's relatively modest proposal to adopt 'a precise figure for pig-iron production in the last year of the [second] five-year plan of 25 million tons'.<sup>5</sup> This new figure implied that the plan to produce 17 million tons of pig-iron in 1933 had been silently abandoned.

More or less simultaneously, Ordzhonikidze made careful soundings in Vesenkha about the current iron and steel plan. According to A. S. Tochinskii, an engineer with whom Ordzhonikidze had been acquainted since 1918, sometime in the summer of 1931 Ordzhonikidze suggested in conversation that 'perhaps the plan is not realistic'.<sup>6</sup> After some hesitation Tochinskii replied that there was 'Manilovshchina' in the plans, which were not based on the specific conditions of each works.<sup>7</sup> Tochinskii strongly criticised Ordzhonikidze's former commissariat Rabkrin, which had led the struggle for higher iron and steel targets, and castigated the chief foreign consultant of Rabkrin, Dr Karner, who 'visited factories but saw nothing', and 'pedantically estimated' how much each furnace would yield on the assumption that all the necessary resources were available:

A psychological situation is created; you won't reach the plan, and so you don't care if you get 80% or 60%.

Tochinskii also complained that many of the new leaders of the iron and steel industry had 'no idea how metal was obtained'; they 'led with their vocal chords', but were 'afraid to reveal the real position'. He produced a notebook containing estimates of the possible production of each individual works in the Southern

<sup>4</sup> Kuz'min (1976), 187; for the earlier higher target, see pp. 43–4 above.

<sup>5</sup> *Ibid.* 188, citing archives.

<sup>6</sup> *Byli industrial'nye* (1970), 185–8; see also the account in Bailes (1978), 272–3. Tochinskii's account, written many years later, is naturally biased in his own favour.

<sup>7</sup> Manilovshchina – behaving like Manilov, the dreamy complacent character in Gogol's *Dead Souls*.

industry, and bluntly told Ordzhonikidze that a realistic plan for 1931 would be a mere 5 million tons of pig-iron and 5.5 million tons of steel, 1 million tons less than the previous year. These figures, far lower than the plan, proved to be approximately correct.

Elsewhere unreconstructed enthusiasm for high targets still prevailed. In October an article in *Pravda* by the young Voznesensky, future head of Gosplan, called for a 'crushing blow' against 'philistines close to the party' who used economic difficulties in an attempt to reduce the planned rates of growth. Voznesensky insisted that the rates of growth of pig-iron and coal in 1932 'must not in any way' be based on their failure to fulfil their production programmes so far. In contrast to Tochinskii, he asserted that 'in 1932 about 5 million tons of pig-iron could be supplied solely by the *new* blast-furnaces completed in 1931 and 1932'.<sup>8</sup>

In the outcome, the private discussions between Ordzhonikidze and the specialists exercised only a mildly moderating influence on the plan for 1932. On November 9, an authoritative commission of the Politburo, including Ordzhonikidze, Rudzutak and Voroshilov as well as representatives of Gosplan and Rabkrin, discussed the iron and steel plan for 1932; Tochinskii attended by special invitation. Ordzhonikidze in his report insisted that the plan must be realistic and, according to the later Soviet account, based his proposals on 'figures which he had jotted down in the earlier conversation with Tochinskii'.<sup>9</sup> On the following day, November 10, the Politburo fixed the pig-iron programme for 1932 at 9 million tons.<sup>10</sup> This was a significant reduction as compared with the expectation in the spring of 1931 that production would be 11–11.5 million tons in 1932 and 17 millions in 1933; and Ordzhonikidze later announced that production in 1933 would be only 13–13.5 million tons.<sup>11</sup>

The 1932 plan for iron and steel was nevertheless still extremely unrealistic. It required an increase in production of

<sup>8</sup> P, October 8, 1931.

<sup>9</sup> *Byli industrial'nye* (1970), 188.

<sup>10</sup> *Industrializatsiya, 1929–1932* (1970), 606. The Politburo again discussed the iron and steel plan on November 20 (RTsKhIDNI, 17/3/861, item 13).

<sup>11</sup> Ordzhonikidze, ii (1957), 360 (report to XVII party conference, January 30, 1932).

four million tons in a single year, which Ordzhonikidze admitted or boasted had 'no precedent in the history of the development of the whole of the world economy'.<sup>12</sup> The plan assumed that new blast-furnaces would produce 2.8 million tons, and that the existing furnaces would provide the remainder by improving their coefficient of utilisation from 1.81 in 1931 to 1.43.<sup>13</sup>

The plan for existing works was said to be based on 'most careful analysis for each separate plant', and a utilisation coefficient for each plant appeared in the press (this was presumably a version of Tochinskii's calculations). The planners argued that these coefficients were entirely realistic, because on average they were no higher than the best figures achieved in the Southern industry in particular months of 1930, when average utilisation in the USSR as a whole had been 1.62.<sup>14</sup> Tochinskii had correctly diagnosed the likely outcome in 1931; but his calculations for 1932, in the version of them which survived after scrutiny by Ordzhonikidze and the Politburo, were still over-optimistic.

The provision of the new iron and steel capacity on time proved even more difficult than increasing the output of established plant. Early in December 1931 Sovnarkom issued two secret decrees which stressed 'the extreme lag in iron and steel, which still remains at the level of last year', and called upon industry at large in 1932 to meet 100 per cent of the requirements of the iron and steel projects. In view of the severe restrictions on imports, Sovnarkom called for the 'mobilisation' of the armaments industry as well as civilian engineering factories to manufacture iron-and-steel-making equipment, including items previously not produced in the USSR.<sup>15</sup> In view of the priority

<sup>12</sup> *Ibid.* 319; P, January 5, 1932 (speech of January 1).

<sup>13</sup> Existing blast-furnaces would therefore produce at least six million tons in 1932, as compared with an actual output of five million tons in 1930 and 4.6 millions in 1931, and the 1931 plan of 6.7 million tons. Levin (1932), 48-9; *Sovetskaya metallurgiya*, 2, 1932, 80-1 (Tseitlin).

<sup>14</sup> Levin (1932), 48-9; *Sovetskaya metallurgiya*, 1, 1932, 7 (Tseitlin). The Southern industry as a whole achieved a coefficient of 1.53 in the best three months of 1931.

<sup>15</sup> GARF, 5446/57/16, 132 (art. 268ss, dated December 7) and 133-41 (art. 170s, dated December 9). The iron and steel industry required equipment valued at 660-700 million rubles in 1932, and its import quota was fixed at 90 million rubles.

now being afforded to armaments production, this provision indicates the anxiety of the authorities about the impact of the failure of the iron and steel plan on the rest of the economy.

The Politburo approved the directives on the 1932 plan on December 4, and at the end of the month a session of TsIK approved a decree on the plan.<sup>16</sup> As in the previous year, the plan was not published; instead its main indicators were incorporated in a 140-page booklet by a senior official of Gosplan.<sup>17</sup> The plan as a whole was informed by the optimism which inspired the iron and steel targets. In the lagging industries the rates of growth were even higher than those proposed in the 1931 plan. Thus coal output would increase by 59 per cent; electric power by 56 per cent. The growth planned for state industry as a whole was a somewhat more modest 36 per cent. This was lower than the proposals made in Gosplan earlier in the year (see p. 42 above), and also lower than the 1931 plan of 45 per cent. But it was much higher than the 23 per cent officially achieved in 1931. As in the 1931 plan, the increase in industrial production depended to a large extent on the improvement of labour productivity, which was planned to increase by as much as 22 per cent. The decree on the plan insisted even more firmly than its predecessors that absolute priority was to be afforded to the key capital goods' industries:

The production and construction plans of industries supplying metallurgy, the fuel industry, engineering and transport with capital equipment, raw materials and energy must be arranged so that all needs of these decisive branches of the national economy are satisfied in full.

Capital investment in the socialised sector of the economy as a whole was also planned to increase very substantially in 1932,

<sup>16</sup> *Industrializatsiya, 1929-1932* (1970), 606-7; SZ, 1931, art. 500 (dated December 25). Molotov reported to the Politburo on the 'control figures for 1932' on November 20 (RTsKhIDNI, 17/3/861, item 3), and Sovnarkom adopted a 'directive for the 1932 control figures' on December 13 (GARF, 5446/57/16, 152-7 - art. 281s).

<sup>17</sup> Levin (1932); though it was not sent to the press until April 21, 1932, its indicators were almost entirely in conformity with the TsIK decree on the plan dated December 25, 1931 (SZ, 1931, art. 500); both these documents, as well as the Sovnarkom directive of December 13, 1931, have therefore been drawn upon in this account of the plan.

and to amount to 21 milliard rubles: the increase of 31.1 per cent in current prices represented a real increase of over 40 per cent in view of the planned reduction in investment costs of 10 per cent. As in 1931, investment was to be concentrated on the completion of existing projects. Agricultural production was to expand by 19 per cent. National income as a whole was to increase by 30 per cent, as against the 13–14 per cent actual increase in 1931. The achievement of these targets would secure ‘the complete fulfilment of the five-year plan in 1932’.

But the term ‘fulfilment of the five-year plan’ had shifted significantly in meaning. Although this was nowhere made clear in public, all estimates now assumed that ‘fulfilment’ of the five-year plan no longer required the achievement of the huge targets approved at the XVI party congress in July 1930. Instead, the authorities reverted to the optimum variant of the five-year plan adopted in the spring of 1929. Thus Smilga, reporting to the Gosplan presidium on the 1932 plan, stated that the proposed gross industrial output of 27 milliard rubles in 1932 was equal to the amount proposed in the five-year plan; but this was in fact less than the optimum variant approved in April 1929.<sup>18</sup> Krzhizhanovsky similarly compared the 1932 plan for pig-iron not with the revised five-year plan (17 million tons) but with the optimum variant (10 million tons): on this basis he was able to claim that the five-year plan, though ‘regarded by our class enemies as unadulterated demagogic fantasy’, would be completely achieved in 1932.<sup>19</sup>

In spite of this shift in objectives, the mood of optimism prevailed, and was reflected in the ‘counter-planning’ campaign. Counter-planning emerged during the special quarter of 1930; plans in many factories were increased far above their already unrealistic levels by proposals to use all available spare capacity. These proposals, put forward on the shop floor with strong party encouragement, often bore little relation to the available supplies of materials (see vol. 3, pp. 427–30). In 1931 these procedures

<sup>18</sup> RGAE, 4372/29/67, 15 (sitting of December 13, 1931); the planned gross output for Vesenkha-planned industry in 1932/33 was 30.4 milliard rubles in 1926/27 prices (*Pyatiletnii plan*, i (1930), 131).

<sup>19</sup> RTsKhIDNI, 85/29/21, 1–2, 4 (memorandum prepared for Ordzhonikidze in connection with his report to the XVII party conference); for other aspects of Krzhizhanovsky’s memorandum see p. 105 above.

were much debated. A trade union conference in January claimed that the economic authorities had in practice ignored the specific proposals of the counter-plans; the counter-plans had a 'purely psychological influence' on planning, driving planned rates of growth upwards.<sup>20</sup> At the same conference, a Vesenkha official argued that counter-plans should be constrained by preliminary 'limits', but received little support.<sup>21</sup> Three months later, however, a Gosplan official, while emphasising the revolutionary importance of the active participation of workers in planning, insisted that counter-planning must be regularised:

To mobilise the activity of the masses, while not indicating even for orientation purposes the targets and requirements presented to the industry or the enterprise by socialist construction as a whole, would undoubtedly be mistaken. In a whole number of cases the activity of the workers would have been undertaken to no purpose.<sup>22</sup>

At the Gosplan plenum in May 1931, this view received the authoritative support of Kuibyshev, who rejected the notion of a plan from below separate from the plan from above. Instead, he insisted that counter-planning must be incorporated into the system, and undertaken by planning groups in response to 'figures (nametki) supplied to the factory by the higher planning agency, which must include a raw material and fuel ceiling, and the approximate requirements of the economy for the goods produced by the factory'. Counter-plans should therefore be concerned primarily with productivity, costs, quality and the utilisation of supplies.<sup>23</sup> On August 14, the Politburo, in approving directives for the 1932 control figures, 'pointed out the necessity of basing the compilation of counter-plans on the national-economic plan approved by the government'.<sup>24</sup>

<sup>20</sup> EZh, January 16, 1931.

<sup>21</sup> ZI, January 15, 1931 (Burmistrov); he stressed that he was putting forward a personal view.

<sup>22</sup> NPF, 7, April 1931, 25–6 (Koldobskii); in an earlier article written jointly with Dol'nikov in the Vesenkha journal (PI, 19, October 1930, 12–26), Koldobskii uncritically praised counter-planning.

<sup>23</sup> Kuibyshev, v (1937), 98–9.

<sup>24</sup> *Industrializatsiya, 1929–1932* (1970), 604.

These developments brought the counter-plans under the control of the central authorities. In the crucial case of pig-iron, the severe shortage which would continue even if nine million tons were produced in 1932 led the authorities to favour an increase in the plan. On December 13, the secret Sovnarkom decree on the 1932 plan ambiguously stated that pig-iron production would be '9–10 million tons'.<sup>25</sup> A well-coordinated counter-planning movement was immediately directed towards the achievement of the higher figure. In his report to TsIK on December 23, Kuibyshev urged 'the working class and particularly the workers of the iron and steel enterprises to think about whether the pig-iron plan of 9 million tons can be overfulfilled by means of a counter-plan, so as to give the country 10 million tons'.<sup>26</sup> A week later Ordzhonikidze more firmly announced that 'we are reckoning on a counter-plan from the workers, engineers, technicians and managers in the factories of 10 million instead of 9 million tons'.<sup>27</sup> The board of Stal' and the directors of its factories soon responded with a joint declaration that the 1932 plan was a minimum plan.<sup>28</sup> This declaration, hailed by the industrial newspaper as 'a bill of exchange from the leadership of the whole of the iron and steel industry', must have been regarded with considerable misgiving by those who signed it; at the XVII party conference later in the month Shvernik, actively involved in the counter-planning campaign as head of the trade unions, complained of 'opportunist resistance to the counter-plan by the engineering and technical staff and managers of certain factories', citing some prominent examples.<sup>29</sup> At the conference Ordzhonikidze did not mention the counter-plan in his report, and in his reply to the discussion briefly and ambiguously remarked 'we must give 9 million tons in 1932, and 10 million tons according to the counter-plan'.<sup>30</sup> The conference resolution mentioned only the 9-million-ton target; the final plan document as published simply gave a pig-iron target of '9–10 million tons'

<sup>25</sup> GARF, 5446/57/16, 152–7 (art. 281s).

<sup>26</sup> Kuibyshev, v (1937), 163.

<sup>27</sup> P, January 5, 1932, reprinted in Ordzhonikidze, ii (1957), 319 (speech of January 1).

<sup>28</sup> ZI, January 6, 1932.

<sup>29</sup> *XVII konferentsiya* (1932), 112–3.

<sup>30</sup> Ordzhonikidze, ii (1957), 388.

(repeating the formula in the Sovnarkom decree of December 13), and did not increase the targets for crude and rolled steel.<sup>31</sup> All this indicates considerable unease about the realism of the counter-plan. Nevertheless, the target of ten million tons assumed the status of an official plan. The party publishing house issued a series of pamphlets, with a large circulation, under the general title 'For 10 Million Tons of Pig Iron'; one of them was written by Gurevich, the deputy People's Commissar for Heavy Industry responsible for iron and steel.<sup>32</sup>

The session of TsIK which approved the national-economic plan at the end of December also approved the state budget for 1932, and in doing so abandoned the short-lived experiment of combining all state financial plans into a 'unified financial plan' approved by the Soviet government (see p. 4 above). Grin'ko explained to TsIK that it was essential in the interests of khozraschet to maintain 'a sharp delimitation between budget resources, State Bank credits, and the financial resources of economic organisations'. This would enable budget resources to be strictly controlled by the state, while bank and enterprise resources would be utilised by those controlling them with 'greater flexibility' and 'greater responsibility'.<sup>33</sup> This more or less restored the arrangements which had prevailed before 1930.

State budgetary expenditure reflected the ambitious economic plan, and was planned to increase by 34.7 per cent; two-thirds of this increase was allocated to the national economy. The increase in expenditure was to be met almost entirely by a further major increase in turnover tax, from 10 to 15 milliard rubles, and by an increase in state loans from 3.0 to 4.3 milliard rubles.<sup>34</sup> The proposed growth of turnover tax implied that retail prices would again be increased. In a top-secret decision of December 18, 1931, the Politburo resolved that in connection with the 1932 state budget the price of vodka should again be increased, and that the prices of other goods in cooperative trade should be

<sup>31</sup> Levin (1932), 48.

<sup>32</sup> A. Gurevich, *Zadachi chernoi metallurgii v 1932 g.* (1932), sent to press February 14, 30,000 copies.

<sup>33</sup> *TsIK* 2/*VI*, No. 10, 27; see also Davies (1958), 153-5.

<sup>34</sup> *SZ*, 1931, art. 501; *TsIK* 2/*VI*, No. 10, 28 (expected fulfilment in 1931); the figures were based on the new classification excluding operational expenditures of transport and posts, and were therefore lower than previous figures. See also Table 21.



increased so as to approximate to 'average-commercial prices'.<sup>35</sup> Nevertheless, as in 1931, the decrees on the plan and the budget stressed the importance of financial stability. But on this occasion, with inflationary pressures relentlessly increasing, the authorities prudently refrained from announcing a specific target for net currency issue in 1932.<sup>36</sup>

<sup>35</sup> RTsKhIDNI, 17/162/11 (decision no. 41/2).

<sup>36</sup> Foreign trade and defence aspects of the 1932 plan are discussed on pp. 155–6 and 164–9 below.

## CHAPTER EIGHT

### THE XVII PARTY CONFERENCE, JANUARY 30–FEBRUARY 4, 1932

A month after the 1932 plan and budget had been approved, the XVII party conference met from January 30 to February 4, 1932, and heard reports from Ordzhonikidze about 'the results of industry in 1931 and the tasks for 1932' and from Molotov and Kuibyshev on the 'directives for the compilation of the second five-year plan'. The XVII conference met between the XVI congress of June–July 1930, which was held at a time of reckless optimism in industry and planning, and the XVII congress of January–February 1934, which was dominated by a more sober and realistic self-confidence; and it reflected the ambiguities and uncertainties prevalent at the beginning of 1932. It was low key, disappointing some of the delegates as well as the future historian. Although Stalin was apparently urged to speak by some delegates, he remained almost completely silent. His silence was privately attributed by middle-level party officials to unresolved disagreements within the party about both foreign affairs – especially the difficult question of how to deal with the Japanese threat – and the increasingly troublesome domestic situation.<sup>1</sup> Agriculture, which was rushing towards disaster, did not appear on the agenda.

The discussion on industry added little to the reports on the 1932 plan which had already appeared. Ordzhonikidze passionately insisted that the 1932 plan was realistic and could be overfulfilled.<sup>2</sup> In his reply to the discussion he complained of officials who 'in their heart do not believe in the plan':

<sup>1</sup> See the 'Letter from Moscow' in BO (Berlin), xxviii (July 1932), 4–5, by M. M.; according to *Cahiers Léon Trotsky* (Paris), v (1980), 17n., 'M. M.' was probably I. N. Smirnov. According to M. M., 'after every sitting delegates and visitors were asked – "what did Stalin say?" "Nothing." "Why?" "We don't know, perhaps he will speak later . . ." Towards the end of the conference the delegates themselves were disturbed and began to ask respectfully that the "leader" should speak. But Stalin bluntly refused. This shook up many of them.' The letter claims that 'Stalin did not speak a word'; this was a slight exaggeration – see p. 136 below.

<sup>2</sup> Ordzhonikidze, ii (1957), 381–2.

In some places the attitude is found among officials; well, you have worked out a big plan, but what's the sense in it – you won't fulfil it, you didn't completely fulfil the 1931 plan . . .

If they will not work as required, I will ask the CC [Central Committee] to take these officials as far away from industry as possible.<sup>3</sup>

In their reports on the second five-year plan, both Molotov and Kuibyshev sought to define its place in the development of Soviet socialism. According to the resolution of the conference, the first five-year plan had already assured 'the completion of the construction of the foundations of socialism'.<sup>4</sup> From this starting-point, Molotov assessed the aims of the second five-year plan with characteristic caution. 'We have entered the first, lower phase of communist society (socialism), but this will be far from completion during the second five-year plan'; the 'final victory of socialism' would occur when 'all distinctions between workers and peasants have fully disappeared'.<sup>5</sup> A preliminary version of Kuibyshev's report suggested much more boldly that the object of the second five-year plan was 'the achievement of the *first* phase of communism – developed (razvernutyi) socialism'.<sup>6</sup> At the conference itself he was not so rash, but still declared that 'for the second five-year plan we pose the task of completing the construction (postroenie) of a socialist society in the USSR'.<sup>7</sup>

Both reports discussed the second five-year plan with far more moderation than had been displayed in 1930 and the early months of 1931. Molotov stressed that 'we do not set the task in the second five-year plan of catching up and overtaking the leading capitalist countries in a technical and economic respect

<sup>3</sup> *Ibid.* 387, 389.

<sup>4</sup> *KPSS v rez.*, iii (1954), 149.

<sup>5</sup> *XVII konf.* (1932), 145, 147. Twenty-three years later, on February 8, 1955, Molotov, still cautious, told the Supreme Soviet that the 'foundations of a socialist society have already been built' in the Soviet Union, but in a letter to *Kommunist* dated September 16, 1955, admitted that the implication that 'only the foundations' had been built was 'theoretically erroneous and politically harmful'. In this avowal of error he still confined himself to stating that 'a socialist society has already in the main (v osnovnom) been built in our country' (*Kommunist*, 14, 1955, translated in SS, vii (1955–6), 435–7).

<sup>6</sup> RTsKhIDNI, 79/1/561, 15.

<sup>7</sup> *XVII konf.* (1932), 162.

overall'; the Soviet Union would, however, catch up in a number of branches of the economy, and occupy the first place in Europe in technology.<sup>8</sup> Kuibyshev spoke along similar lines, adding that it was necessary to overtake the advanced countries per head of population as well as in volume of production.<sup>9</sup> The few specific figures for 1937 presented in the resolution and the report were substantially lower than those proposed by Gosplan in May 1931 (see pp. 43–4 above). The pig-iron target, already reduced in August 1931 from 60 million tons to the 'precise figure of 25 million tons' endorsed by Stalin (see p. 124 above), was now reduced further to 22 million tons. Other major targets in physical terms were also reduced, but much less drastically, by one-third rather than two-thirds.<sup>10</sup>

The imbalance in the five-year plan indicators between the more realistic target for iron and steel and the unrealistic targets for other industries meant that the iron and steel available would be wholly inadequate for the needs of the consumers of iron and steel. Delegates at the conference accordingly pressed for the restoration of part of the cut in the iron and steel plan. Khataevich criticised the 'dissonance' between the great tasks of the five-year plan and the pig-iron programme,<sup>11</sup> and Mirzoyan claimed on behalf of the Urals that it could exceed its programme of 6 million tons even if no new iron and steel works were constructed.<sup>12</sup> Molotov impatiently dismissed these claims. He had pointed out in his report that the proposed rate of growth of iron and steel was so rapid as to be 'beyond the powers of capitalist countries', and in his reply to the discussion he brusquely invited the Urals to begin to live up to its claim by carrying out the programme for 1932 in full.<sup>13</sup>

Stalin's only substantial comment in the course of the conference also turned on the shortage of iron and steel, but it was made in a somewhat different spirit. Osinsky, always an enthusiastic advocate of the motor car, complained that the second five-year plan for cars and lorries was too low:

<sup>8</sup> *Ibid.* 154–5.

<sup>9</sup> *Ibid.* 163.

<sup>10</sup> See Zaleski (1980), 108. The actual output of pig-iron in 1937 was 14.5 million tons.

<sup>11</sup> *XVII konf.* (1932), 200.

<sup>12</sup> *Ibid.* 242.

<sup>13</sup> *Ibid.* 152, 265.

[*Osinsky.*] Britain produced 8 million tons of pig iron, and produces 400,000 vehicles. Germany produced 13 million tons and 250,000 vehicles. We intend to produce 22 million tons of pig iron and think of keeping motor vehicles to 3–400,000. This does not fit.

*Stalin.* We consider that the five-year programme is a minimum one. We will also have annual control figures, which will expand the five-year plan year by year. We will also have counter-plans, which will lead to the further expansion of the five-year plan.<sup>14</sup>

This passage was later frequently cited to demonstrate that Stalin believed in flexible planning with fairly modest initial targets. But at the time the thrust of his interjection was to make publicly clear his view that the cut-back in the target for 1937 had gone as far as it should, and that some increase was possible . . .

Another contentious matter at the conference was the relative importance of electrification as against engineering. The resolution on the five-year plan attributed the 'leading role in completing technical reconstruction' to '*Soviet engineering*'. Energy and electrification were merely described as 'a most important element in technical reconstruction'.<sup>15</sup> In his report Molotov complained of 'some comrades' who sought to emphasise that '*only* electrification as such should be considered a leading principle of technical reconstruction'; for his part, Molotov, with appropriate quotations from Lenin, insisted that 'the creation of an up-to-date energy basis. . . will depend primarily and most of all on the development of our engineering industry'.<sup>16</sup> Molotov's barely hidden opponent was Krzhizhanovsky, the author of the Goelro plan and the great protagonist of electrification.<sup>17</sup> At the conference Krzhizhanovsky side-stepped the issue, apart from a veiled remark that 'the socialist energy of the great collective of working people imposes the conscious will of human beings on

<sup>14</sup> *Ibid.* 233.

<sup>15</sup> *KPSS v rez.*, iii (1954), 151–2.

<sup>16</sup> *XVII konf.* (1932), 150–1.

<sup>17</sup> Krzhizhanovsky's biographer describes Molotov's insistence on engineering as the key factor, and adds that Krzhizhanovsky 'could not reconcile himself to the underestimation of the role of electrification . . . This led to disagreements of principle between Stalin, Molotov, and him' (Flakserman (1964), 141–54).

the machine'.<sup>18</sup> But Lomov, a Gosplan official with special responsibility for fuel and power, cited Lenin's famous remark that communism was 'Soviet power plus electrification of the whole country', and insisted that 'the decisive basic task is the reconstruction of the whole economy on the basis of electrification'.<sup>19</sup> This was more a doctrinal than a practical dispute. Molotov pointed out with some justice that 'some comrades underestimate the real substance of this question in their search for formulae': electric power production was planned at 600 per cent of 1932 in 1937, while engineering would reach only 300–350 per cent of the 1932 level.<sup>20</sup> But the defeat of Krzhizhanovsky on this issue was significant. In the spring of 1929, Krzhizhanovsky, Lenin's close associate and long-established head of Gosplan, had switched on the lights on the map of the USSR to show the new power stations which would be constructed during the five-year plan. His defeat symbolised the victory of the new tough party managers over the older generation of Bolshevik planners. It may also have reflected tension between Molotov and Kuibyshev, with whom Lomov had long been closely connected.<sup>21</sup>

The most remarkable feature of the version of the second five-year plan presented at the conference was the extreme boldness of the proposals for consumption, an incongruous contrast to the grim environment in which the Soviet consumer had to live. According to the conference resolution, 'the supply to the population of basic consumer goods including food products must by the end of the second five-year plan increase to at least two-three times the amount at the end of the first five-year plan'.<sup>22</sup> Trebling rather than doubling consumer goods was something of an afterthought: in a draft of Kuibyshev's report the word 'three' was added in pencil.<sup>23</sup> Kuibyshev further increased

<sup>18</sup> *XVII konf.* (1932), 121.

<sup>19</sup> *Ibid.* 183.

<sup>20</sup> *Ibid.* 150.

<sup>21</sup> Lomov and Kuibyshev were both Left Communists in the spring of 1918; Lomov was transferred from Vesenkha to Gosplan with Kuibyshev at the end of 1930. At the conference, Kuibyshev, while repeating that engineering had 'the leading role' in the reconstruction of the economy, also described electric power as 'basic for the whole national economy' (*ibid.* 163, 165).

<sup>22</sup> *KPSS v rez.*, iii (1954), 151.

<sup>23</sup> RTsKhIDNI, 79/1/561, 22; on this document see note 32 below.

the expansion required by interpreting the resolution as meaning that consumption per head of population rather than total consumption would increase two to three times between 1932 and 1937. At a time when hunger was haunting the USSR, he brazenly assured the conference that comparative estimates of consumption per head of major products had shown that 'the Soviet Union will be the most advanced country in the world in its level of consumption, showing all working people what the working class can attain by creating socialism'.<sup>24</sup>

In contrast to these consumption plans, the proposals for investment were modest. 'The extremely rough estimate' for capital investment announced by Molotov for the whole period of the second five-year plan was only 140–150 milliard rubles:<sup>25</sup> as investment was already planned at 21 milliard rubles in 1932 (see pp. 127–8 above), this figure implied a rate of growth of investment of only 11–12 per cent a year, as compared with the 15–25 per cent growth of consumption. These lower rates of growth of investment would have reversed the whole trend from 1928 to 1931. The relative rates of growth of consumer goods and investment now proposed were even far more favourable to consumption than the variant of the first five-year plan approved in the spring of 1929.<sup>26</sup> But the investment estimate, as Zaleski has shown, is incompatible with the high targets for capital goods proposed at the conference.<sup>27</sup>

The mismatch between production and investment, like that between pig-iron and the rest of industry, illustrated the general failure to reach agreement on even the basic parameters of the plan. The proposals submitted to the conference were prepared in a great hurry. A few weeks before the conference, Kuibyshev complained in a note to Stalin and Molotov that Gosplan had not succeeded in receiving any materials from the commissariats

<sup>24</sup> *XVII konf.* (1932), 178.

<sup>25</sup> *Ibid.* 149; see also p. 170 (Kuibyshev); the prices are not stated (see Zaleski (1980), 117).

<sup>26</sup> The optimum variant of the five-year plan proposed that investment in 1932/33, the final year of the plan, should be 257 per cent of the 1927/28 level, in current prices (and a higher level in fixed prices), while the production of Group B industries should be 203 per cent of the 1927/28 level, in 1926/27 prices; real income per head would be about 170 per cent of the 1927/28 level (*Pyatiletnii plan*, i (1930), 131, 136, 164–5).

<sup>27</sup> Zaleski (1980), 127–8.

before it prepared its draft!<sup>28</sup> At the conference Kuibyshev suggested a 'crude estimate' that industrial production as a whole would reach 250 per cent of the 1932 planned level in 1937.<sup>29</sup> But all the indicators for the production of capital goods in 1937 (except pig-iron) were substantially higher than 250 per cent of the 1932 plan; the estimates supplied to Ordzhonikidze for his report indicated that production of Vesenkha-planned industry as a whole should be as much as 412 per cent of the 1932 planned level in 1937.<sup>30</sup> The proposed increase in the production of consumer goods to more than 200–300 per cent of the 1932 planned level was also built on sand. It was much too high to be reconciled with the other proposals in the draft plan: thus the production of grain, the main food input into consumer goods, was planned to increase by only 60 per cent.<sup>31</sup>

The rapid expansion of consumer goods was intended to have far-reaching consequences for the economic system. A draft of Kuibyshev's report claimed that as a result of this expansion '*rationing of commodities and the system of centralised distribution should be abolished in the first years of the five-year period*'.<sup>32</sup> At the conference Molotov was more cautious, merely referring to the creation of the 'prerequisites' for the abolition of rationing during the second five-year plan.<sup>33</sup> The conference resolution did not commit itself to the abolition of rationing even by 1937; it declared that the rapid improvement of supplies would make it possible 'to prepare for the abolition of the rationing of commodities, and to replace the system of centralised distribution by developed Soviet trade'.<sup>34</sup>

The abolition of rationing was envisaged as part of a system of measures which would greatly strengthen the role of *khozraschet*

<sup>28</sup> RTsKhIDNI, 17/3a/101, 1 (dated January 5, 1932) (this reference was kindly supplied by Dr Khlevnyuk).

<sup>29</sup> *XVII konf.* (1932), 162.

<sup>30</sup> RTsKhIDNI, 85/29/16, 10–11; these figures excluded the food industry, which was subordinate to Narkomsnab.

<sup>31</sup> Grain production was planned at 81.5 million tons in 1932 (see Zaleski (1971), 337), and 'at least' 130 million tons in 1937 (*KPSS v rez.*, iii (1954), 153).

<sup>32</sup> RTsKhIDNI, 79/1/561, 34; the underlining is in pencil in the original typescript. This document is not dated in the archive, but can be dated from internal evidence: the size of the plans proposed for particular industries, and various phrases used in both the final report and the document.

<sup>33</sup> *XVII konf.* (1932), 148.

<sup>34</sup> *KPSS v rez.*, iii (1954), 154.



and money. In his report Kuibyshev listed the features centering on 'payment according to work done' which distinguished the contemporary Soviet economy from a fully communist economy, and he condemned past illusions in stronger terms than any previously used by a Soviet political leader:

Communism does not emerge at once; it is a result of the intensive efforts of millions of people liberated from capitalist exploitation. It is therefore impossible to go over now to direct product-exchange, to the abolition of sales, trade, the ruble, etc., etc. For the present stage of socialist construction, for the period of the second five-year plan, such slogans as 'abolition' are merely a Left phrase, undoubtedly anti-Bolshevik in character.

The economic prerequisites of socialism, the first phase of communism, are such that Soviet trade, and the ruble, and khozraschet, necessarily retain their significance.<sup>35</sup>

This statement was a little ambiguous, for it was not entirely clear whether the 'economic prerequisites' of socialism would themselves remain as a constituent part of the fully socialist economy. But it was certainly a step towards the incorporation of money and khozraschet within the socialist system; in contrast, a year earlier Molotov had treated khozraschet within state industry as a reflection of the capitalistic relations still operating outside it (see p. 14 above). Stetsky, head of the agitation and propaganda department of the party central committee, and a former follower of Bukharin, took matters further in his contribution to the debate. He conceded that NEP in the sense of a policy squeezing out and eliminating capitalist elements in the economy would '*fully exhaust itself*' during the second five-year plan, but insisted that NEP in a new form would continue during the second five-year plan and for some time afterwards. This would involve Soviet trade and a 'special kind of Soviet market' between socialist organisations, linked through commodity or market forms. It would also involve the retention of money as a measure of value, and of khozraschet expressed in monetary terms as a means of establishing socialist discipline.<sup>36</sup>

<sup>35</sup> *XVII konf.* (1932), 180.

<sup>36</sup> *Ibid.* 193.

However, this ‘Soviet market’ was evidently still intended to be one in which all trade took place at fixed ‘Soviet prices’. Speaking in the debate, Sheboldaev, now secretary of the North Caucasus regional committee of the party, strongly condemned all trade at free-market prices as incompatible with socialism:

We still have bazaars which are not Soviet but purely private, in almost every village (stanitsa), almost every town, and, I think, in all regions . . .

All of us understand that the usual speculative bazaar supports the remaining elements of capitalism, and in no way assists the retraining of collective farmers – who sometimes [*sic*] trade at these bazaars – into socialists. Not only do these bazaars not make the individual peasant into a socialist, they sometimes prevent him from becoming a collective farmer.<sup>37</sup>

<sup>37</sup> *Ibid.* 210.

## CHAPTER NINE

### REFORMS AMID DIFFICULTIES, JANUARY–JULY 1932

In the first half of 1932 the political situation in the Soviet Union was complex and ambiguous. The repressive campaign launched by Stalin's letter of October 1931 was mitigated by Postyshev's authoritative article in *Pravda*, warning against indiscriminate criticism.<sup>1</sup> And from November 1931 onward a number of former oppositionists were quietly appointed to posts in the economic administration, including Smilga and Preobrazhensky from the Left and A. P. Smirnov and Frumkin from the Right.<sup>2</sup> At this time the Politburo also treated pending political cases with relative leniency. After instructing the OGPU to examine and judge the case of Kondratiev and the 'Toiling Peasant Party', the Politburo decided that the maximum sentence imposed should be eight years, and simultaneously resolved in the case of the 'Ukrainian popular centre' that while it was to be condemned as 'counter-revolutionary', the maximum sentence should also be eight years, and several of the accused should be released, including party members and the well-known Ukrainian historian Hrushevsky.<sup>3</sup> A few weeks later, the Politburo

<sup>1</sup> P, January 11, 1932; Postyshev was a central committee secretary and his statement is likely to have been approved by Stalin.

<sup>2</sup> Smilga, formerly a member of the Vesenkha presidium, was appointed a deputy chairman of Gosplan (SZ, 1931, ii, art. 249, dated November 9); A. P. Smirnov, who was still a member of the Orgburo of the party central committee, was appointed chairman of the new Council of Municipal Economy (SZ, 1931, ii, art. 275, dated December 9). Preobrazhensky was appointed to the collegium of the People's Commissariat of Light Industry (SZ, 1932, ii, art. 67, dated January 29). An exception was the Trotskyist, I. N. Smirnov, who was dismissed from his post as deputy People's Commissar for Posts and Telegraphs (SZ, 1931, ii, art. 258, dated November 26); but even Smirnov, who was still an active clandestine supporter of the Left Opposition, was soon appointed to the post of deputy head of the transport equipment *glavk* (Glavtransmash) of Narkomtyazhprom (see pp. 245–6 below).

<sup>3</sup> RTsKhIDNI, 17/162/11, 127 (session of January 16, item 11), 156 (January 23, item 14), 161 (January 28, item 19). At the session of January 16 'the case of the Kondratiev group' was raised by Stalin, together with a case of 'the group of Saratov biologists', under an item curiously entitled 'On the chemists'.

commuted Bazarov's sentence from solitary confinement to administrative exile (ssylka) 'in view of illness'.<sup>4</sup>

But these relatively conciliatory decisions were accompanied by some harsh and well-published measures, notably the notorious decree of TsIK on February 20, 1932, which deprived 37 émigrés of Soviet citizenship; they ranged from Trotsky and his son Sedov to well-known Mensheviks such as Abramovich, Garvi and Yugov.<sup>5</sup> Religious persecution intensified. Many churches were closed at this time; on February 18 most monks still at liberty were arrested.<sup>6</sup>

The outstanding party act of intervention in intellectual life in 1932, the central committee decision to abolish the Russian Association of Proletarian Writers (RAPP) and replace it by a more broadly-based Union of Soviet Writers, was ostensibly directed against the 'cliquish sectarianism' of RAPP.<sup>7</sup> An unsigned article in *Pravda* condemned the 'naked administrative methods' employed by RAPP and insisted that the writers' union should be 'not an administrative but an ideological and educational organisation'.<sup>8</sup> Discussing the wider implications of the decision about literature, Stetsky, head of the agitprop department of the party central committee, condemned the 'vulgarisation' of marxism in forthright terms.<sup>9</sup> In a significant if minor gesture of reconciliation, the authorities allowed Bukharin

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According to the Military Collegium of the USSR Supreme Court, which rehabilitated Kondratiev in 1987, the OGPU collegium had already resolved on January 26, 1932, two days before the Politburo decision, to sentence Kondratiev, Makarov and Yurovsky to eight years in concentration camps, Chayanov, Doyarenko and Rybnikov to five years, and three others, including the well-known statistician Kafengauz, to three years exile (Kondrat'ev (1993), ii, 600–1). Kondratiev was imprisoned in a former monastery in Suzdal'; on January 17, 1938, he was sentenced to death (*ibid.* ii, 608–9).

<sup>4</sup> RTsKhIDNI, 17/162/12, 7 (session of March 23); however, it rejected his claim that 'he did not participate in the counter-revolutionary activity of the Mensheviks'. For Bazarov, see vol. 3, pp. 119–20.

<sup>5</sup> SZ, 1932, art. 70.

<sup>6</sup> Krasnov-Levitin (1977), 222.

<sup>7</sup> P, April 24, 1932. The Politburo established a 'commission on RAPP' by correspondence on March 8; its members were Kaganovich, Postyshev and Stetskii (RTsKhIDNI, 17/3/875, 11). On April 23 the Politburo approved the resolution, which was introduced by Kaganovich (RTsKhIDNI, 17/3/881, 6, item 2). For the background to these events, see Kemp-Welch (1991), 113–23.

<sup>8</sup> P, May 9, 1932.

<sup>9</sup> P, June 4, 1932.

to publish a collection of his recent economic and literary essays.<sup>10</sup>

But the relaxation was limited in scope. While widening the bounds of permissible discussion in certain respects, it simultaneously quelled the clamorous voices of rival groups of marxists who had provided enthusiastic but eccentric support for the policies of the 'great break-through'.<sup>11</sup> The use by the party of administrative measures against militant marxists underlined and reinforced its claim to the right to act as final arbiter in all disputes. M. M. Prishvin, the sensitive nature writer, welcomed the destruction of RAPP, 'that Cheka over thought and love', but perceptively commented that the central committee resolution was directed not towards the enhancement of the intelligentsia but at rendering it powerless.<sup>12</sup>

In the economy at large, the milder approach to specialists continued; in industry the authority of the factory director was encouraged at the expense of the party organisation. In February the well-known economic administrator Glebov-Avilov, director of the vast new agricultural machinery factory at Rostov, Rostsel'mash, complained to Ordzhonikidze that the party committee of the factory (which had recently been elevated to the status of a district committee) was issuing directives to factory departments, and had even ordered Glebov-Avilov himself to be dismissed. The regional party committee cancelled this decision and dismissed the party secretary. Stalin arranged for Glebov-Avilov's letter to be circulated to the Politburo; and on March 17 the Orgburo strongly condemned the behaviour of the factory party committee as a violation of one-person management.<sup>13</sup> Two weeks later, on April 2, a central committee resolution on the Nizhnii-Novgorod automobile factory condemned, not for the first or the last time, the 'replacement (podmena)' of the economic administration by the party, and the 'anti-specialist tendencies and the baiting of administrative and technical personnel' at the factory.<sup>14</sup>

<sup>10</sup> N. Bukharin, *Etyudy* (1932); the book was sent to production on May 13 and approved for printing on June 2; it was published in 10,000 copies.

<sup>11</sup> See Fitzpatrick, ed. (1978), *passim*.

<sup>12</sup> These remarks appeared in his private diary, not published until 1990 (*Oktyabr*, 1, 1990, 167, 171).

<sup>13</sup> See Khlevnyuk's account in Rees, ed. (forthcoming).

<sup>14</sup> *Spravochnik partiinogo rabotnika*, viii (1934), 475.

Little is known about any divisions of opinion within the Politburo in this period. In the months which followed the XVII party conference, Stalin remained silent in public.<sup>15</sup> In the private discussions in the spring of 1932, he does not seem to have taken the initiative in any of the major reforms; speeches by his close associates frequently praised Stalin's role as innovator in relation to specific economic issues (see pp. 42 above and 242 and 431 below), but seem never to have attributed to him the major reforms of the spring of 1932. Stalin's lack of courage and frankness in face of growing economic difficulties evidently resulted in a sharp decline in his prestige among Soviet officials. A hostile but usually reliable witness reported that his appearance at the Bolshoi Theatre on the occasion of the fourteenth anniversary of the Red Army on February 23, 1932, was met with 'cold silence', and that most delegates at the IX trade union congress in April responded with 'wooden faces' to Shvernik's praise of Stalin.<sup>16</sup> Rumours that Stalin was seriously ill were reported in the foreign press; he took the extraordinary steps of informing the Associated Press correspondent in Moscow that he was well, and permitting an American journalist to photograph him.<sup>17</sup> At the end of April, Stalin's long interview with the German writer Emil Ludwig was published in the party journal.<sup>18</sup> This portrayed him as a thoughtful, realistic but mild head of a collective leadership; and, in sharp contrast to his letter of October 1931, must have encouraged the mood of relaxation.

Stalin's uncertain position permitted – and in view of the difficult economic situation, impelled – some of his colleagues to take the initiative. Neither Molotov nor Kaganovich displayed any inclination to support a major change in policy. At the IX trade union congress in April, Kaganovich uncompromisingly

<sup>15</sup> On Stalin's silence at the XVII party conference, see p. 133 above.

<sup>16</sup> BO (Berlin), xxviii (July 1932), 3–4 (for this letter, see p. 133, note 1 above); when a lecturer at the Electrotechnical Institute claimed that 'the position is improving', a student allegedly replied 'you are as blind as Stalin', a remark which circulated widely in Moscow.

<sup>17</sup> P, April 3, 1932, a reply to a letter of March 25 (see Stalin, *Soch.*, xiii (1951), 388); Abbé (1934). The photograph was taken on April 13. Stalin was present at all the meetings of the Politburo in April and May 1932 (RTsKhIDNI, 17/3/874–885).

<sup>18</sup> B, 8, April 30, 1932, reprinted in Stalin, *Soch.*, xiii, 104–23; the interview took place on December 13, 1931.

insisted 'History has posed the question: either the October revolution and the struggle for socialism to the very end, struggling with all the temporary difficulties on our twisting and difficult path, or back to capitalism.'<sup>19</sup> Molotov claimed complacently at the congress that 'the successes of the achievement of the five-year plan have already brought about considerable improvement in the standard of life (*blagosostoyanie*) of the working class and the toiling peasantry';<sup>20</sup> according to Moscow rumours, he was 'personally opposed to any retreats or relaxations in questions of collectivisation and industrialisation'.<sup>21</sup> But other members of the Politburo were franker and more open-minded. Kirov complained that 'in some places our habit of posing difficult issues directly and squarely has died out', and insisted that the more difficult an issue was, the more sharply it must be posed to the workers.<sup>22</sup> Kalinin enthusiastically welcomed the reforms of May 1932, an attitude entirely consistent with his earlier attempts to defend the interest of the peasants.<sup>23</sup>

The most senior Politburo members concerned directly with the economy, apart from Molotov and Stalin, were Ordzhonikidze, head of Narkomtyazhprom, and Kuibyshev, head of Gosplan. Both Ordzhonikidze and Kuibyshev strongly supported the drive for an increased pace of industrialisation in 1928–29; as head of Rabkrin at that time, Ordzhonikidze was the most prominent of all those pressing for higher targets. In the summer of 1930, Kuibyshev apparently concluded that the industrial targets of the revised five-year plan were unrealistic (see vol. 3, pp. 399–400), and a year later Ordzhonikidze came to share Kuibyshev's unease (see p. 124 above). But we do not know whether Kuibyshev and Ordzhonikidze consistently advocated more realistic plans in the course of 1932. And it is by no means certain that they were opposed by Stalin and Molotov; some evidence shows that Stalin and Molotov were also prepared to

<sup>19</sup> *Devyati . . . s'ezd* (1933), 672.

<sup>20</sup> *Ibid.* 20.

<sup>21</sup> BO (Berlin), xxviii (July 1932), 3 (for this letter see p. 133 n. 1 above).

<sup>22</sup> P, April 22, 1932 (reply to the discussion at plenum of Leningrad town party committee and control commission).

<sup>23</sup> P, June 3, 1932 ('On Soviet Trade'); for the reforms, see pp. 209–25 below; for Kalinin's earlier attitude, see Carr (1971), 60.

accept reductions in the plans (see p. 124). But the evidence that Ordzhonikidze and Kuibyshev encouraged reforms of the management of the economy is rather more firm. Ordzhonikidze began as early as January 1931 to seek more flexibility in the industrial system, almost as soon as he was placed in charge of industry (see pp. 11–13 above); and, as will be shown below, he made it possible for reform-minded members of his staff to advocate their views. Kuibyshev was the member of the Politburo primarily responsible for the sectors of the economy in which the major reforms were carried out; and he welcomed them in strong terms (see pp. 213–14, 242 below).

### (A) THE ECONOMY UNDER STRAIN

The new year began with the announcement of the completion of three of the major capital projects of the five-year plan – the combine-harvester factory at Saratov, the automobile works at Nizhnii Novgorod, and the copper combine at Krasnoural'sk in the Urals.<sup>24</sup> At the end of January the first blast-furnace was started up at Magnitogorsk. This was followed within a few months by the completion of the second blast-furnace at Magnitogorsk and the first two furnaces on the Kuznetsk site: together these four furnaces provided a capacity of over one million tons of pig-iron, out of the 3.5 million tons scheduled for Phase I of the Ural-Kuznetsk combine.<sup>25</sup> Other plants officially opened in the first few months of 1932 included the giant chemical factories at Voskresensk in the Moscow region<sup>26</sup> and at Berezniki in the Western Urals,<sup>27</sup> the first Soviet aluminium factory at Volkhov in the Leningrad region,<sup>28</sup> and Ball-Bearing

<sup>24</sup> ZI, January 1, P, January 2, 1932; *Ek. zhizn' SSSR* (1961), 264, 267; simultaneously a large combine-harvester shop was completed at the Rostov agricultural engineering factory (*ibid.* 267).

<sup>25</sup> The first Magnitorsk blast-furnace started up on January 31 (ZI, February 1, 1932), and the second on June 7 (*God vosemnadtsati. Almanakh shestoi* (1935), 333 (Gugel')); the two Kuznetsk furnaces started up on April 3 and July 17 (*Ek. zhizn' SSSR* (1961), 272).

<sup>26</sup> I, March 16, 1932.

<sup>27</sup> ZI, April 27, 1932.

<sup>28</sup> *Ekonomicheskaya zhizn' SSSR* (1961), 274 (completed May 14).



Plant No.1 in Moscow.<sup>29</sup> But the most exhilarating triumph was undoubtedly the completion of the first stage of Dneproges, described by *Pravda* as ‘the banner of the electrification and the industrialisation of the land of soviets’.<sup>30</sup> Two years previously, meetings attended by twenty thousand building workers declared to the XVI party congress that the power station would be completed six months ahead of schedule, and the first power supplied on May 1, 1932.<sup>31</sup> On April 17, the manager and chief engineer of Dneprostroi reported that ‘the largest turbine in the world has joined the ranks of the machines in operation in the Soviet Union’,<sup>32</sup> and on May 1 the first power was duly supplied as promised.<sup>33</sup>

In this period of Soviet history the concept of ‘start-up’ (*pusk*) of new factories, also known as ‘transfer to operation’ (*vvedenie v stroi*), was attended by much ambiguity. At one extreme, the Krasnoural’sk copper combine celebrated its ‘completion’ on January 1, 1932, but feverish construction continued throughout 1932. In June the director reported that different sections of the combine were only 45–70 per cent complete; rain had flooded the shops, losses were ‘huge’ and labour turnover ‘colossal’.<sup>34</sup> As late as the end of October, ten months after ‘completion’, Serebrovsky, head of the non-ferrous metal industry, reported after visiting the site that the combine still had only a skeleton staff of technicians and workers, and that the plant was not yet fully prepared for production.<sup>35</sup> Virtually no copper was produced at the combine in the course of 1932. At the other extreme, Vinter, the capable and influential manager of Dneprostroi, who earlier had strongly resisted in private the campaign to bring forward the date of completion of the power station to May 1, 1932, now insisted that the official opening of Dneproges should be delayed until the whole power station was complete.<sup>36</sup> All five generators on the first phase of the project were working normally at the

<sup>29</sup> P, March 29, 1932; SP NKTP, 1932, art. 193 (order of March 28).

<sup>30</sup> P, April 1, 1932.

<sup>31</sup> P, June 26, 1930.

<sup>32</sup> P, April 18, 1932.

<sup>33</sup> Yantarov ([Kharkov], 2nd edn, 1935), 79–84.

<sup>34</sup> ZI, June 24, 1932 (Karmashov).

<sup>35</sup> ZI, October 28, 1932; on his visit to the site, see ZI, October 18, 1932.

<sup>36</sup> VI, 11, 1968, 117 (Kostin, engineer at Dneprostroi).

time of the official opening on October 10, 1932.<sup>37</sup> The journal of the Red Directors contrasted ‘“start-ups” for show, when enterprises which were declared to be complete had only just installed their first machine tools’ with the ‘genuine completion’ of Dneproges under Vinter’s ‘brilliant leadership’.<sup>38</sup>

But Dneprostroi was a rare exception. The automobile works at Nizhnii Novgorod managed to produce its first four lorries in time for the XVII party conference after ‘start-up’ on January 1, 1932, but was clearly not ready for production.<sup>39</sup> Production temporarily ceased altogether at the end of March, prompting the replacement and reorganisation of the management of the factory after a visit by Kaganovich and Ordzhonikidze.<sup>40</sup> But the fault did not lie primarily in organisation: every shop was incomplete, and there were no firm arrangements for the supply of metal or of components.<sup>41</sup> A French visitor, though fired with enthusiasm for Soviet industrialisation, acknowledged that the factory did not really start production until May 1, and that even then work was hindered by such elementary troubles as ‘the thick mud encumbered with debris and materials of all kinds’, which lay between the buildings.<sup>42</sup> Production languished for many months. ‘The unfortunate experience of the start-up of the Stalingrad tractor factory, etc.,’ the journal of the Red Directors complained, ‘was not taken into account.’<sup>43</sup> The delays may also have been due to the military tasks imposed on the factory (see pp. 173, 175 and 312 below), which were not mentioned in the press. Improvement was, however, more rapid than at Krasnoural’sk; the Nizhnii-Novgorod factory reached 55 per cent of the planned level in the last three months of 1932.<sup>44</sup>

While the general mood of urgency which engendered these premature starts was undoubtedly shared by many managers and engineers on the sites, the project managers were under strong

<sup>37</sup> *Elektrifikatsiya SSSR* (1966), 93; ZI, October 11, 1932.

<sup>38</sup> *Predpriyatie*, 17 (September), 1932, 4 (Kapustin).

<sup>39</sup> *Ocherki*, ii (Gor’kii, 1966), 246–8.

<sup>40</sup> ZI, April 2 and 3, 1932 (central committee resolution of April 2).

<sup>41</sup> ZI, June 22, 1932 (Vaintsveig), December 22, 1932 (Peshkin).

<sup>42</sup> Friedmann (2nd edn, Paris, 1938), 73–4.

<sup>43</sup> *Predpriyatie*, 13–14, July 1932, 27.

<sup>44</sup> For monthly production figures, see ZI, December 22, 1932 (Peshkin), *Ocherki*, ii (Gor’kii, 1966), 248, *Istoriya* (Gor’kii, 1968), 191; for quarterly planned and actual figures, see RGAE, 7620/1/168, 7.

pressure from the political authorities to start production earlier than they deemed advisable. John Scott, American worker in Magnitogorsk, observed the ‘dishonesty and hypocrisy’ of pretending that unrealistic dates could be reached, which ‘could not but have telling effects on the progress of the work itself and on everybody connected with it’.<sup>45</sup> Gugel’, the manager of Magnitogorsk, described how Ordzhonikidze, after postponement of the initial start-up of the first blast-furnace, due in October 1931, kept asking on the telephone ‘When will you start the blast-furnace?’. When he heard that the start would not be made in time for the celebration of the fourteenth anniversary of the revolution on November 7, but had to be postponed to December, he angrily accused the men on the spot of cheating him.<sup>46</sup> The start-up of Magnitogorsk on January 31 was undertaken in time for the XVII party conference on Ordzhonikidze’s personal authority, in spite of the strong objections of the American consultants on the site.<sup>47</sup> The immediate results were disastrous. The journal of the iron and steel industry reported:

This furnace, started up at the time of the most severe frosts, met with a large number of faults, due to inexperience and inadequate preparation for starting up. The worst difficulties were with the water supply, which was not prepared with sufficient care. The quality of the brick lining was also unsatisfactory . . . At the beginning of the exploitation of the first blast-furnace the cone fell off; it could not be removed from the furnace and had to be put in with the charge.<sup>48</sup>

Heroic efforts following these initial troubles brought the operation of the furnace to full capacity by the end of March; but the success proved only temporary, and it was many months before the first furnace worked regularly at full capacity.<sup>49</sup>

<sup>45</sup> Scott (1942), 72; Scott arrived in Magnitogorsk in September 1932.

<sup>46</sup> *God vosemnadtsatyi. Almanakh shestoi* (1935), 348–9 (Gugel’).

<sup>47</sup> Galiguzov and Churilin (1978), 38; Ordzhonikidze’s approval was given on January 22. A few days previously a special government commission reported that earlier faults had been eliminated (ZI, January 12, 1932). For the American objections see also Hoover, AER, Box 2, R. W. Stuck ms, p. 41.

<sup>48</sup> *Sovetskaya metallurgiya*, 9–10, 1932, 580–1 (Osvenskii); see also Matushkin (Chelyabinsk, 1966), 284–5; *God vosemnadtsatyi. Almanakh shestoi* (1935), 328–9 (Gugel’).

<sup>49</sup> *Sovetskaya metallurgiya*, 9–10, 1932, 580; Matushkin (Chelyabinsk, 1966), 329.

The management of the new factories gradually learned from this experience. The second Magnitogorsk furnace, after a series of alarming explosions on the first day, came into operation on June 7, 1932, somewhat more smoothly and rapidly than the first.<sup>50</sup> The two Kuznetsk furnaces were assimilated even more rapidly.<sup>51</sup> General conditions in remote Kuznetsk were even more difficult than in Magnitogorsk; but the blast-furnaces were somewhat smaller, the American advisers more tactful, and the management, in the persons of Frankfurt and Bardin, longer-established, more experienced and perhaps more independent-minded. As at Magnitogorsk, the first blast-furnace at Kuznetsk was started in spite of the opposition of the American consultants.<sup>52</sup> But the Soviet managers at Kuznetsk succeeded in obtaining some delay. Magnitogorsk and Kuznetsk were scheduled to start simultaneously, but, on Bardin's insistence, the start of the first Kuznetsk furnace was delayed for three months.<sup>53</sup>

The political leadership also began to acquire a certain circumspection. Stalin had sent greetings to the Stalingrad tractor factory on the day of its premature official opening in June 1930 (see vol. 3, p. 251), and to the Nizhnii-Novgorod automobile factory both when building work was completed on November 4, 1931, and when the abortive start-up was announced on January 1, 1932.<sup>54</sup> He also greeted the Saratov combine-harvester factory on the day of its start-up.<sup>55</sup> But in the case of the Magnitogorsk and Kuznetsk works he waited until he believed that their first blast-furnaces had completed their start-up period, and their daily output had already reached planned capacity.<sup>56</sup> Even so, these messages were premature: the blast-furnaces soon fell behind their maximum capacity. Stalin also

<sup>50</sup> See data in Matushkin (Chelyabinsk, 1966), 329, and in *Magnitostroi* (Sverdlovsk-Magnitogorsk, 1934), 116–25; for the explosions see *God vosemnadtsatyi. Almanakh shestoi* (1935), 333 (Gugel').

<sup>51</sup> *Istoriya Kuznetskogo* (1973), 160.

<sup>52</sup> *Ibid.* 150; Hoover, AER, Box 1, J. S. Ferguson ms, p. 22 (written April 30, 1933).

<sup>53</sup> *Istoriya Kuznetskogo* (1973), 147. For the crisis at both factories in the winter of 1932–3, see pp. 363–5 below.

<sup>54</sup> Stalin, *Soch.*, xiii (1951), 103, 124; the first message was signed by Stalin and Molotov.

<sup>55</sup> *Ibid.* 125 (published in P, January 5, 1932).

<sup>56</sup> *Ibid.* 133, 140 (published in P, March 30 and May 24, 1932).

proved over-confident about the future: he optimistically declared in his message to Magnitostroi that in the course of 1932 it would build three more blast-furnaces, an open-hearth furnace and a rolling mill.

In spite of all tribulations and failures, the start-up of these major projects in the first six months of 1932 heralded, albeit with a discordant and uncertain tone, the future transformation of the industrial economy of the Soviet Union. At the IX trade-union congress in April, Pyatakov was able to claim that 1932 would be ‘a notable year . . . the year of starting-up a whole series of huge up-to-date enterprises, giants equipped with the last word in technology’.<sup>57</sup>

But 1932 was also a year of extreme difficulties, culminating in a profound crisis from which the economy did not emerge until the last months of 1933. The year began fairly well. In January, in the midst of the severe Russian winter, building sites succeeded in retaining a higher proportion of the labour force than in any previous year: on February 1, 1932, the number working in the building industry was 95.3 per cent of peak employment in the previous autumn, as compared with 89.6 per cent in 1931 and only 59.5 per cent in 1930 (see Table 17 and vol. 3, p. 529). The seasonal collapse of the building industry seemed to have been in large part overcome. The production of heavy industry in January, while 8 per cent below the level of the previous month, was 38 per cent higher than in January 1931.<sup>58</sup> And in January and February 1932 a vigorous efficiency drive succeeded in reducing the number of workers in large-scale industry by a hundred thousand or so.<sup>59</sup> According to the official record, costs of production in heavy industry in January–March 1932 were some 3 or 4 per cent lower than in October–December 1931.<sup>60</sup>

This apparent good start had many disconcerting features. When the presidium of Gosplan discussed economic developments on March 19, 1932, its spokesman reported that industrial

<sup>57</sup> *Devyatyi . . . s'ezd* (1933), 469.

<sup>58</sup> *Tyazhelaya promyshlennost'* (1934), 7; *Osnovnye pokazateli . . . NKTP*, January–June 1933, 123.

<sup>59</sup> PKh, I, 1932, 115 (Vizhnitser); *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Trud, p. 1.

<sup>60</sup> *Devyatyi . . . s'ezd* (1933), 500 (Pyatakov); according to ZI, June 2, 1932 (editorial), costs in industry as a whole in January–March 1932 were as much as 6.5 per cent lower than in October–December 1931, but this seems unlikely.

labour productivity in January–March 1932 was so far 2.5 per cent lower than in October–December 1931, but wage expenditures and numbers employed had not been reduced.<sup>61</sup> In these circumstances the reported reduction in production costs seems most improbable. At the same Gosplan meeting, the Narkomtyazhprom spokesman claimed that a ‘good start’ had been made on their investment programme in January–March; he was greeted with the utmost scepticism by other members of the presidium, who pointed out that Narkomtyazhprom had spent its investment allocation without carrying out the required volume of work. At Krivoi Rog many building workers were paid, but were idle because of lack of materials. Mezhlauk strongly criticised the ‘purposeless expenditure of money’, though his simultaneous insistence that ‘financial limits must not restrict the actual work’ indicated that serious financial controls were not yet being applied to investment.<sup>62</sup>

In any case the good start was not maintained. It proved increasingly difficult not merely to meet the ambitious investment plan, but even to keep up the previous level. The numbers employed in building rose much more slowly in every month from February to June 1932 than in the same months of the previous three years.<sup>63</sup> While this slow expansion was partly attributable to the success of the industry in retaining its labour during the winter months, it soon proved to be the symptom of more serious difficulties. The building industry had great difficulty in recruiting labour,<sup>64</sup> and faced increasing difficulties in acquiring sufficient building materials and capital equipment. While the numbers employed in building in January–August 1932 were 32.5 per cent higher than in the same period of 1931 (see Table 17), the production of cement increased only by 18 per cent, of glass by 25 per cent and of sawn timber by a mere 3.4 per cent.<sup>65</sup> As a result of the generous provision of investment finance, the gap between finance provided and finance utilised consider-

<sup>61</sup> RGAE, 4372/30/25, 157–6 (Guberman); he also reported ‘considerable delays in the payment of wages in a number of very important industries’.

<sup>62</sup> RGAE, 4372/30/25, 85 (Birman), 82 (Lauer), 66 (Mezhlauk).

<sup>63</sup> On July 1, 1932, the labour force was 14 per cent greater than on January 1, as compared with 51 per cent in 1931, and 154 per cent in 1930 (see Table 17).

<sup>64</sup> *Osnovnye pokazateli*, May 1932, 74–5.

<sup>65</sup> *Ibid.*, August 1932, 50; the availability of construction steel declined (see p. 158 below).

ably widened in January–June 1932. Five branches of the economy were provided with investment allocations of 6,630 million rubles, but used only 3,395 million rubles.<sup>66</sup> Moreover, investment costs in January–June 1932 were at least 19 per cent higher than in 1931.<sup>67</sup> As in 1931, the authorities made desperate efforts to concentrate investment on crucial projects which were newly completed; during the course of January–June 1932 many projects were moth-balled.<sup>68</sup> Nevertheless, Narkomtyazhprom projects to the value of only 1,400 million rubles were completed in this period, far less than planned, and the value of construction in progress rose by 1,500 million rubles.<sup>69</sup>

From April 1932, industrial production stagnated or declined. In June the production of Narkomtyazhprom was lower than it had been in March, and had not recovered to the level of December 1931. The performance of the other three industrial commissariats was even worse.<sup>70</sup> And in April–June 1932, production costs, which were recorded as having fallen in January–March, began to rise again.<sup>71</sup> Gosplan, reviewing industrial production for the first six months of 1932, noted with implicit scepticism that ‘to achieve the annual plan in full, it is necessary to increase the average monthly volume of production in the second six months of the year to 69 per cent above the first six months’.<sup>72</sup>

<sup>66</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, Stroitel'stvo, pp. 2a, 4. The higher figure is for ‘finance provided (finansirovanie)’, the lower for ‘fulfilment (vypolnenie)’, which covers money actually spent, excluding money utilised for stock accumulation, etc. The branches of the economy covered are Narkomtyazhprom, electrical construction, Narkomsnab, Narkomvod and agriculture.

<sup>67</sup> *Industrializatsiya, 1929–1932* (1970), 166, citing *Osnovnye pokazateli*, October 1932, 28–33; according to ZI, October 16, 1932, the increase was 15–20 per cent.

<sup>68</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, Stroitel'stvo, p. 10.

<sup>69</sup> ZI, October 16, 1932; the total increase in the value of construction in progress in Narkomtyazhprom in the whole of 1932 was planned at only 1,800 million rubles.

<sup>70</sup> For incomplete monthly data for January–June 1932, see *Osnovnye pokazateli*, January–June 1932, 39, July 1932, 37, and August 1932, 48; see also P, August 20, 1932 (Birman).

<sup>71</sup> *Osnovnye pokazateli*, August 1932, 60–1.

<sup>72</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, *Promyshlennost'*, p. 2.

The economic difficulties of the first six months of 1932 were primarily the result of the increasing pressures of the industrialisation drive. This was in important respects a repetition of the economic crises of the summer of 1930 and the beginning of 1931 (see vol. 3, ch. 9, and pp. 18–21 above), but the crisis was now more intense. The general difficulties of rapid industrialisation were compounded by several complicating factors: the sudden reduction in imports in response to the balance of payments deficit; the increase in resources and attention devoted to defence; and the further deterioration in food supplies to the towns. Both the balance of payments and food supplies had already been under strain in 1930–1 as a result of the pressures of the vast increases in industrial investment, and the increased expenditure on armaments. But the exacerbation of these difficulties at the beginning of 1932 was unexpected, and perhaps unpredictable. The Japanese invasion of Manchuria in September 1931 impelled the Politburo to give even greater attention to the claims of defence. The decline of agricultural prices on the international market meant that the large increases in grain exports in 1930 and 1931 proved insufficient to secure a positive balance in international trade. The Soviet authorities were ill-prepared for these difficulties, which were far more grave than they had anticipated.

## (B) IMPORT CUTS

The balance of payments crisis made a drastic reduction in imports urgently necessary. The published decrees on the plan and the budget for 1932 did not mention foreign trade. But the published booklet on the 1932 plan (see p. 127 above) announced that '*hundreds of millions of rubles in foreign currency*' must be saved in 1932;<sup>73</sup> and the extent of the proposed import cuts was revealed by the estimate in the 1932 budget that customs revenue would decline from 281 million rubles in 1931 to a mere 120 million in 1932.<sup>74</sup>

Behind the scenes the Politburo at first resolved optimistically that in 1932 'the accumulation of foreign currency' (i.e. the

<sup>73</sup> Levin (1932), 62.

<sup>74</sup> *Otchet . . . 1931* (1932), 4 (for 1931); SZ, 1932, art. 50 (for the 1932 estimates); no significant change had been made in the level of import duty.



excess of foreign exchange receipts over payments) would amount in 1932 to as much as 150 million foreign-trade rubles.<sup>75</sup> The final plan for the balance of payments, approved by the Politburo on January 16, 1932, reduced this surplus to 76 million rubles. The plan assumed that the unfavourable international situation, and the declining terms of trade, meant that exports would be somewhat lower than in 1931. To achieve the planned surplus, imports in 1932 would be reduced to a mere 616 million rubles, as compared with 1,105 millions in 1931.<sup>76</sup> But adequate cuts could not be enforced immediately: the import–export plan for January–March assumed that a small deficit would still remain.<sup>77</sup>

From the beginning of 1932, in a well-publicised campaign, the authorities resumed and reinforced their imperative demands that industry should become more self-reliant. Ordzhonikidze launched the campaign on New Year's Day:<sup>78</sup>

We must construct our own machines, force the development of our own industry, our own engineering. We cannot manage otherwise. This task is more urgent this year than ever before. This year it is a central task of all our industry to reduce imports to the maximum possible extent, and I must frankly say to any manager who is unable to reorient himself that there is no place for him among our managers, who are building their own independent socialist country.

Ordzhonikidze scathingly criticised the knitwear corporation, which insisted that it must import needles if its production was to be expanded:

we are building blooming mills and the most complicated electrical engineering plant, but it turns out that if we don't order some unfortunate needles from abroad everything must be abandoned.<sup>79</sup>

<sup>75</sup> RTsKhIDNI, 17/162/10, 131–2 (session of July 28 and 30, 1931, item 6).

<sup>76</sup> RTsKhIDNI, 17/162/11, 131–54 (item 17). This implied that new orders abroad in 1932 would be extremely small, as most scheduled import payments referred to orders placed in 1931.

<sup>77</sup> RTsKhIDNI, 17/162/11, 159, 164 (Politburo session of January 28, item 12).

<sup>78</sup> Ordzhonikidze, ii (1957), 321–2; apparently Stalin proposed these cuts to the Politburo (P, January 22, 1933 (Kirov)).

<sup>79</sup> Ordzhonikidze, ii (1957), 321–2.

Finding a smart complimentary calendar from a German firm had been placed on his desk, Ordzhonikidze indignantly ordered it to be removed, remarking that the Soviet Union would eventually learn to make such things itself.<sup>80</sup>

The need to reduce imports was again stressed at the XVII party conference. Bukharin noted that 'reduced possibilities on the international market' would increase the 'difficulties of the forthcoming year', and praised the counter-plan of the 'Svetlana' electrical engineering factory which cut its own claim for imports by 95 per cent. M. Kaganovich fiercely condemned as 'simply shameful' the import of small machines such as pumps, compressors and nitrogen apparatus for electric welding, and roundly declared 'We must finish with our dependence on foreign technology.'<sup>81</sup> Kuibyshev was equally forthright about the need to 'attain complete economic independence at all costs'. 'We must be masters of the situation', able to produce everything internally if necessary, so that 'we can buy if we want to, but not buy if we don't want to'. Unlike Kaganovich, however, Kuibyshev recognised that this 'does not mean that our ideal is a closed economy', and acknowledged that 'we shall extend foreign trade links'.<sup>82</sup>

This longer-term perspective was to be disputed for decades to come between the Kuibyshevs and the M. Kaganoviches, but in 1932 the cuts were savage, and Soviet industry was required to produce a wider variety of more sophisticated products even though its supplies of foreign materials and machinery were sharply reduced.

The seriousness of the crisis was reflected in the decision to reduce drastically the relatively minor expenditure of foreign currency on the employment of specialists. From the spring of 1931 onwards, the Soviet authorities sought to revise contracts with foreign specialists and companies so as to limit or prevent the transfer of salaries abroad.<sup>83</sup> The practice was particularly widespread at the beginning of 1932. Many German specialists were unable to accept the revised contracts, not only because of

<sup>80</sup> *Byli industrial'nye* (1970), 180-1 (Peshkin).

<sup>81</sup> *XVII konf.* (1932), 76-7, 104.

<sup>82</sup> *Ibid.* 163-4.

<sup>83</sup> Payart to Briand, May 26, 1931 (MAE, Europe 1930-1940, vol. 1049, 169).

the difficulties of living in the USSR without foreign currency, but also because they would be unable to maintain their families left behind in Germany.<sup>84</sup>

The decision to reduce imports took effect from the beginning of the year.<sup>85</sup> The import of tractors and agricultural machinery virtually ceased at once; the import of chemicals was drastically reduced. The most damaging decision for industry was the reduction of the import of iron and steel from a quarterly average of 406 thousand tons in 1931 to a mere 10 thousand tons in January–March 1932. This very low level of import could not be maintained.<sup>86</sup> A Gosplan report complained that during the first six months of the year imports of iron and steel had been ‘late . . . and insufficient’.<sup>87</sup> The average quarterly import of iron and steel in 1932 eventually amounted to 251 thousand tons, a reduction of 38 per cent. The cuts were particularly severe for construction steel, steel tubes and rails. The plan to replace them by Soviet steel failed. Soviet production of rails even declined in 1932, and the increase in the production of construction steel and steel tubes was hopelessly inadequate. The shortage of construction steel haunted many building sites; the head of Magnitostroi, reporting that work was held up for this reason, bitterly castigated Stal’most, the trust concerned.<sup>88</sup> The original plan to cease all

<sup>84</sup> Austrian workers also had to return in substantial numbers. But by March 1932 only one Frenchman had left for this reason; American citizens, as still tends to happen today, were treated more favourably (Dejean to Tardieu, March 29 and June 23, 1932 – MAE, Europe 1930–1940, vol. 1035, 268–74, 278).

<sup>85</sup> Imports declined as follows (million rubles at current foreign-trade prices):

1931 (monthly average)	92.1		
December 1931	85.2		
January 1932	80.2	April 1932	65.7
February 1932	52.5	May 1932	78.0
March 1932	59.4	June 1932	69.5

Sources: as for Table 13(d) below.

<sup>86</sup> According to a Gosplan report, in the first months of 1932 industry was able to use the metal imported at the end of 1931 (RGAE, 4372/30/25, 159).

<sup>87</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, *Promyshlennost’*, p. 21.

<sup>88</sup> ZI, March 8, 1932 (Gugel’); see also ZI, May 12, 1932 (Frondt). The supply of steel tubes to the oil industry was also drastically reduced in April–June 1932 (ZI, September 9, 1932 – Barinov, Baku).

imports of steel tubes was cancelled, and imports were substantial in both 1932 and 1933.<sup>89</sup>

The initial plan to make large cuts in the import of machinery proved even more difficult to realise. Orders have to be placed many months in advance; many new orders had been firmly placed in 1931. In January–March 1932, purchases classified as ‘machinery and apparatus’ and as ‘electrical machinery and equipment’ were higher than the quarterly average for 1931.<sup>90</sup> The Soviet authorities still sought to obtain fresh credit, and placed new orders for capital equipment when adequate credit was provided. In February 1932, Narkomindel offered to purchase imports valued at £15 million from Britain, on condition that most of the purchases could be covered by a twenty-four months’ credit.<sup>91</sup> This got nowhere. But the need for certain types of new equipment was desperate if the major projects were to be completed. As early as March 8, Narkomtyazhprom decided that the basic rolling-mill equipment for Kuznetsk must be ordered from abroad in July–December 1932.<sup>92</sup> Then on June 15, 1932, a new trade agreement was signed with German industrialists which provided credits varying in duration from 14 to 25 months. Orders for rolling-mill equipment with a capacity of 350,000 tons were placed with German firms.<sup>93</sup> In 1932 as a whole, purchases of machinery and

<sup>89</sup> For the plan to ‘completely exclude’ these imports see ZI, April 3, 1932 (Freidenberg).

<sup>90</sup> BP, xcvi (August–September 1932), 5; these items exclude agricultural machinery, tractors and vehicles.

<sup>91</sup> ‘Our payments on orders placed in other countries’, Krestinsky explained to Bogomolov, Soviet chargé d’affaires in Britain, ‘are so arranged that we can pay for new orders only from 1934 onwards’; Bogomolov complained to the conservative MP Robert Boothby that credits had been reduced from 24–30 months under the Labour Government to 12 months under the Conservatives (*Dokumenty vneshnei politiki*, xv (1969), 125–6, 141–2, 744–5).

<sup>92</sup> RGAE, 4086/2/216, 117.

<sup>93</sup> ZI, June 26, 1932 (editorial); VI, 5, 1977, 73–5. These decisions were taken in spite of the fact that Ordzhonikidze insisted at the collegium of Narkomtyazhprom that nine-tenths of iron and steel equipment must be manufactured in the Soviet Union (ZI, January 21, 1932), and firmly told a Soviet conference of customers and suppliers of equipment for the iron and steel industry that ‘only the most insignificant part of equipment required by the iron and steel industry can be transferred to imports’ (ZI, February 20, 1932).

electrical equipment were higher in terms of tonnage than in 1931, and declined by only 5 per cent in value terms.<sup>94</sup>

While the purchase of industrial equipment declined only slightly in 1932, the levelling-off of imports after eight years of continuous expansion required a substantial reduction in the original industrial plans, which assumed that imports would continue to increase. Even major projects were affected. The Chelyabinsk tractor factory, due for completion in 1932, was originally scheduled to import capital equipment valued at 36 million rubles in the course of the year.<sup>95</sup> In fact its import allocation was cut to 19.8 million rubles, while Soviet factories were instructed to produce additional orders valued at 20 million rubles. The planned production of the factory for 1933 was drastically reduced.<sup>96</sup> But even the amended plan was not realised. By the end of 1932 the orders for imported equipment had been placed, but most had not yet been received, and orders placed within the USSR were valued only at 11 million rubles.<sup>97</sup> In many cases the restrictions on imports did not result in the substitution of Soviet for imported machinery but in the postponement of the completion of the project. On some high-priority projects, however, the damage caused by the reduction in imports was mitigated by the circumstance that construction work was also behind schedule. At Magnitogorsk, when equipment did arrive on time, it had to await the completion of the building work.<sup>98</sup>

Import cuts were brought to bear most harshly on economic units which were of lower priority. Existing factories were far less privileged than the major new projects. In Vostokostal', the Ural

<sup>94</sup> See Table 13(c) and *Sots.str.* (1934), 386–9.

<sup>95</sup> RGAE, 7620/1/356, 48 (prepared by VATO planning sector, March 1, 1932); according to a report prepared by the deputy and technical directors of the future factory, the site had originally proposed to import equipment valued at 48 million rubles in 1932, and this was cut by a Vesenkha commission to 41 million rubles (RGAE, 7620/1/256, 531, dated April 3, 1932).

<sup>96</sup> RGAE, 7620/1/256, 530 (dated April 3, 1932); RGAE, 7620/1/256, 460–1 (undated telegram from Chelyabinsk to Narkomtyazhprom).

<sup>97</sup> Total orders placed for imports amounted to 22 million rubles, 3 million of this in 1931 (RGAE, 7622/1/1449, 91 – report to the Central Start-up Commission of Narkomtyazhprom; RGAE, 7620/1/357, 108).

<sup>98</sup> See ZI, March 8, 1932 (Gugel'), which reports that equipment for seven open-hearth furnaces had already arrived.

iron and steel corporation, existing factories were being reconstructed to produce quality steel. But although the corporation was granted an import allocation for measuring instruments and test apparatus for 1932, all it actually received were a few optical instruments.<sup>99</sup> The sewing-machine trust Gosshveimashina imported some special steels before 1932; it was then transferred to the 'Serp i Molot' factory for its supplies; but by September virtually no steel had been received.<sup>100</sup>

Although imports declined by 31 per cent in the first six months of 1932 the value of exports declined by as much as 38 per cent, and so the gap between imports and exports was not closed (see Table 13(d)). Agricultural exports were beset with a variety of troubles: the decline in production, the growing food crisis at home, the increasing difficulty of finding an external market at a time of world economic crisis, and the continuing deterioration in the terms of trade. The partial failure of the grain collections, and the unexpectedly high seed and food loans, led the authorities to reduce grain exports. In May some grain which had reached Ukrainian ports was diverted from export to provide bread to Moscow and Leningrad.<sup>101</sup> In the outcome, grain exports were reduced in January–June 1932 to only one-half of the amount achieved in the same period of the previous year.<sup>102</sup> The export of most other farm products also declined considerably, due both to inadequate supply and to the difficulty of selling abroad.<sup>103</sup> In

<sup>99</sup> RGAE, 4086/2/43, 93–4 (report of GUMP metallurgy sector on production of quality metal at Vostokostal' factories in 1932, undated).

<sup>100</sup> RGAE, 4086/2/145<sup>a</sup>, 61 (memorandum from deputy head of Glavmashprom to the deputy head of GUMP, Zavenyagin, September 1, 1932); a pencilled note records 'Question will be decided in [word illegible] balances. Main base Ser[p] i Molot, aux. [word illegible] Kr[asnaya] Etna'.

<sup>101</sup> GARF, 5446/57/19, 139 (art. 767/185ss, dated May 21).

<sup>102</sup> The comparisons in the following paragraphs of exports in January–June 1932 with those in January–June 1931 are obtained from the detailed record in *Vneshnyaya torgovlya . . . iyun' 1932g*. The comparison of specific exports has been made with these months rather than with July–December 1931 in order to obviate seasonal factors. Total exports in January–June 1932 were 25 per cent less than in January–June 1931.

<sup>103</sup> On March 16, 1932, the Politburo agreed that caviare, fish and threads which could not be sold abroad should be transferred to the internal market (RTsKhIDNI, 17/3/876, 21).

face of the shortage at home, the Politburo even imposed restrictions on the export of certain consumer goods.<sup>104</sup>

In January–June, in contrast to the decline in agricultural exports, the other traditional major exports – oil, fur and timber – all increased slightly in quantity, in spite of the shortages at home. The Politburo issued a firmly worded instruction, for example, that the timber export plan must be strictly observed; no timber suitable for export must be used within the USSR; and the OGPU must supervise the transport of timber to the frontier.<sup>105</sup> Timber exports increased from 1.76 million tons in January–June 1931 to 1.85 million in January–June 1932, and the proportion of higher-value processed timber was increased at the expense of rough timber. But world prices continued to fall, and the receipts from timber declined from 34 to 30 million rubles. Oil and fur exports suffered a similar fate.

Determined efforts were also made to increase the export of manufactured goods of all kinds, from matches to machines. On April 16, a Politburo resolution ‘On Measures to Secure Exports’ ruled that prices and bonus payments to enterprises should be increased so as to encourage production of export quality.<sup>106</sup> On May 14, Sovnarkom resolved that certain projects should receive priority as ‘shock’ projects on the grounds that the ‘foreign currency effect’ was high in relation to the required investment.<sup>107</sup> These measures continued the long-established policy of encouraging industrial exports. In the first six months of 1932, exports under the heading ‘other industries’ amounted to 61 million rubles as against only 51 million in the same period of 1931, but this was still below the level achieved in the earlier years of the five-year plan.

In 1932 high priority continued to be afforded to the gold industry, which was beginning to provide a major means of financing exports. Gold production was planned at 69 tons in

<sup>104</sup> On March 16, 1932, the Politburo reduced the export plan for consumer goods by 20 million rubles, which was stated to be equal to 369 million rubles (obviously at commercial prices) on the internal market (RTsKhIDNI, 17/3/876, 20, 28–9).

<sup>105</sup> RTsKhIDNI, 17/3/888, 18–22 (dated June 16).

<sup>106</sup> RTsKhIDNI, 17/3/880, 19–21.

<sup>107</sup> GARF, 5446/57/19, 112–15 (art. 713/173ss); specific projects are listed, with currency effect and investment compared in each case.

1932, increasing to as much as 129 tons in 1933.<sup>108</sup> To achieve this ambitious plan, capital equipment and labour were required, and food, shelter and elementary facilities had to be made available in remote areas in which almost nothing was produced. Sovnarkom accordingly allocated 295 million rubles to investment in the gold industry; this included a sum of 100 million rubles in foreign currency, earmarked for the Kolyma goldfields of Dal'stoi.<sup>109</sup> The industry was an insatiable consumer of labour. By 1932 it employed nearly a quarter of a million workers, over half the number employed in the whole of the coal industry. Voluntary labour, in the inhospitable gold-mining areas, was supplemented by forced labour on an increasing scale. On March 20, 1932, Sovnarkom ruled that the OGPU was to supply 2,000 prisoners to Kolyma immediately, and another 20,000 in due course.<sup>110</sup> Food rations were allocated to the gold and platinum industry under a special heading separate from the standard ration Lists. The number of workers supplied with rations rose from 136,000 in April–June 1931 to 227,000 in January–March 1932. Together with white-collar employees and members of families, the total number of persons receiving rations in the industry amounted to 533,000.<sup>111</sup>

The grain allocated to the industry for food and fodder increased from 120,000 tons in 1930/31 to 200,000 tons in 1931/32.<sup>112</sup> But in June 1932, at the end of the agricultural year, Sovnarkom complained that supplies of food, consumer goods and equipment were 'completely unsatisfactory'; in future the gold industry was to be given the same priority as military industry.<sup>113</sup>

In addition to the gold supplied by the mines and the prospectors, gold objects continued to be purchased for sale

<sup>108</sup> GARF, 5446/57/18, 85–95 (art. 234/45s, dated February 28).

<sup>109</sup> GARF, 5446/57/18, 85–95, 138–9 (arts. 234/45s and 372/79ss, dated February 28 and March 20). For Dal'stoi, see p. 172 below.

<sup>110</sup> GARF, 5446/57/18, 138–9. As early as March 14, 1931, Tsvetmetzoloto was allocated 12 million rubles for the settlement of kulak families and others (GARF, 5446/57/14, 83 – art. 40ss).

<sup>111</sup> RGAE, 8040/1/53, 349 (schedule approved by Mikoyan on March 1, 1932). A draft decree dated March 11, 1932, envisaged that in the agricultural year 1932/33 the number of workers would increase to 268,000 and the total number receiving rations to 654,000 (RGAE, 8040/1/61, 165).

<sup>112</sup> *Ezhgodnik khlebooborota*, iv–v (1932), ii, 146–7; [vi] (1934), 70–1.

<sup>113</sup> GARF, 5446/57/19, 199–214 (art. 987/215s, dated June 20).



abroad from citizens, who could use gold to buy food in foreign currency stores. Gold was also confiscated in substantial amounts from churches and from the population.<sup>114</sup> On April 23 the Politburo authorised the export of 75 tons of silver.<sup>115</sup> It also discussed whether to call in silver from the population and to remove silver coins from circulation. In four towns the State Bank retained all silver coins which had been paid in. But the Politburo eventually decided that elsewhere silver coins would be reissued pending the adequate production of nickel coinage.<sup>116</sup>

No precise figures are available for the amount of gold and other precious metals exported; its value has been estimated at over 100 million rubles in both 1931 and 1932, equivalent to 12–18 per cent of the value of other exports.<sup>117</sup>

In view of the decline in agricultural exports, all these measures failed to reduce appreciably the deficit in the balance of payments. Exports declined from 59 million rubles in January 1932 to a miserable 39 million rubles in June, a mere 57 per cent of imports in the same month. The secret plan for the balance of trade and balance of payments in June still showed a substantial deficit.<sup>118</sup> Further drastic cuts in imports were in prospect for the second half of 1932.

### (C) DEFENCE IMPERATIVES

Following the Japanese invasion of Manchuria, even greater attention was devoted to the army and the armaments industries. At the session of TsIK which met from December 22 to 28, 1931, Molotov spoke in strong terms of the 'growing danger of military intervention against the USSR'. Incongruously, the state budget

<sup>114</sup> In 1932 gold purchased from the population was planned at 10.8 tons, equivalent to 16 per cent of planned gold production (RGAE, 5446/57/18, 85–95 – art. 234/45s, dated February 28, 1932). The British Ambassador reported the secret stripping of gold from the churches (Ovey to Simon, January 19, 1932 – BDFA, IIA, xvi (1992), 10–11).

<sup>115</sup> RTsKhIDNI, 17/162/12, 109 (decision by correspondence no. 62/89).

<sup>116</sup> RTsKhIDNI, 17/162/12, 132, 148 (sessions of May 16 and 23, items 9 and 21).

<sup>117</sup> For precious metal exports, see Davies, ed. (1984), 125 (Dohan).

<sup>118</sup> RTsKhIDNI, 17/162/12, 159–62 (Politburo session of June 1, item 50).

for 1932 presented at the session proposed that defence expenditure should decline as a proportion of the total budget.<sup>119</sup> These figures were falsified. On the international stage the Soviet Union was calling for complete disarmament, and it was unwilling to admit the rapid increase in its own expenditure.<sup>120</sup> At the TsIK session, one of the delegates, purporting to take the official figures at their face value, criticised Grin'ko's silence about them, and asked rhetorically 'Are not our expenditures too modest?' He responded to Molotov's reference to the need to squeeze the economy in the interests of the iron and steel industry with the comment that 'we must squeeze very many sectors of the economy, and other needs as well, if we have to do this in the interests of the defence of our frontiers'.<sup>121</sup> In support of the armaments industries, another delegate, Gorbachev by name, drew attention to the extent of Polish, French, United States and Japanese rearmament.<sup>122</sup> Grin'ko merely replied rather lamely that defence strength lay 'mainly' in the development of socialist industry, together with agriculture and culture.<sup>123</sup>

TsIK approved the budget proposals without alteration. The publicly approved figure for expenditure on the People's Commissariat for Military and Naval Affairs (Narkomvoenmor) was 1,278.5 million rubles against the expected expenditure in 1931 of 1,131.9 million.<sup>124</sup> In fact true expenditure in 1931 amounted to 1,790 million rubles (see p. 117 above). The true budget figure planned for 1932 was as much as 4,751 million rubles, over three-and-a-half times the official figure (see Table 22(b)). In addition, Sovnarkom had already approved directives for 1932 on December 13, 1931, before the TsIK session, which allocated 702 million rubles to investment in the armaments industries as compared with 481 million in 1931, and 155 as

<sup>119</sup> Compare figure in SZ, 1931, art. 501 (dated December 28) with data for 1931 in Table 22(b).

<sup>120</sup> For these decisions, see p. 117 above, and SS, xlv (1993), 581 (Davies). This concealment continued until 1934. On the first day of the World Disarmament Conference, February 7, 1932, *Pravda* denounced the vast armaments expenditures of the imperialist powers, insisting that 'the official data are deliberately underestimated' . . .

<sup>121</sup> *TsIK* 2/VI, No. 12, 4-5 (Balakhnin).

<sup>122</sup> *Ibid.*, No.12, 26-9.

<sup>123</sup> *Ibid.*, No. 15, 10-11.

<sup>124</sup> *Ibid.*, No. 10, 33, No. 15, 10.

against approximately 100 million rubles to investment for defence purposes in civilian industry. The directives of December 13 further provided that investment needs for the 'expanded tasks' of aviation should be 'fully satisfied', and that 'production and orders in shipbuilding shall be regrouped so as to secure complete fulfilment of defence tasks' (at that time shipbuilding did not form part of the armaments industry).<sup>125</sup> Thus by the time of the TsIK session a massive increase in the 1932 defence effort was already intended.

The unprecedented interventions from the floor at the TsIK session must have been authorised at a very high level, and foreshadowed further increases in defence expenditure. On December 23, 1931, while the session was in progress, the Politburo established a 'commission to develop measures to reduce the military danger in the Far East'; its members included Molotov, Stalin, Voroshilov, Litvinov and Karakhan.<sup>126</sup> A few days later, on December 28, the day on which the TsIK session closed, the importance of the armaments industries was emphasised by the establishment on the basis of the aviation corporation of a *glavk* for the aviation industry, with the experienced air force commander Baranov as its head.<sup>127</sup>

Early in January 1932, Japanese officials responded to a Soviet offer of a non-aggression pact by open talk about annexing the Soviet Far-Eastern coastline and Kamchatka.<sup>128</sup> This confirmed the Soviet belief that it was urgently necessary to strengthen Soviet military power in the Far East. Molotov told the XVII party conference at the end of January that 'the danger of imperialist attack has considerably increased',<sup>129</sup> and on the occasion of Red Army Day an editorial in the industrial newspaper even claimed that Japanese imperialism's policy of

<sup>125</sup> GARF, 5446/57/16, 152–5 (art.281s) and 5446/8/172, 3 (for 1932 plan); RGAE, 4372/91/1824, 34 and 4372/91/769, 90 (for 1931; the figure for civilian industry is preliminary, and excludes the tractor and vehicle industry).

<sup>126</sup> RTsKhIDNI, 17/162/11, 10, 101 (item 20); *Istoriya vtoroi mirovoi voiny*, i (1969), 277–8. The notional remit of the commission was to examine the results of the interview between Narkomindel and the Japanese Foreign Minister Yoshizawa, on which see Haslam (1983), 79.

<sup>127</sup> Yakovlev (1982), 315.

<sup>128</sup> See Haslam (1983), 80.

<sup>129</sup> *XVII konf.* (1932), 156.

'blood and war' had resulted in an 'extremely alarming international situation, clearly recalling 1914'.<sup>130</sup> In April, Kuibyshev noted 'the real war . . . the war of conquest' which Japan had launched against China, and added that 'we do not know their intentions, but . . . they will attack us sooner or later'.<sup>131</sup> In this alarming context, the Soviet Union, lacking confidence in its own defence capacity in the Far East, continued an extremely prudent policy towards Japan. The British chargé d'affaires in Moscow reported that 'in the present Far Eastern crisis they have, in fact, hitherto shown an almost abject desire to keep out of trouble'.<sup>132</sup> At the same time the Soviet authorities urgently sought to strengthen defence. In retrospect, addressing the plenum of the party central committee in January 1933, Kirov stated that the switch to defence production, which he attributed to the initiative of Stalin, had taken place 'in the past eighteen months [i.e. since approximately July 1931] and especially in 1932'.<sup>133</sup> On the same occasion Stalin claimed that as a result of 'the refusal of neighbouring countries to sign non-aggression pacts with us' and 'the complications in the Far East', it had been necessary to close a number of factories for four months in 1932, in order to reorient them to the production of modern defence weapons.<sup>134</sup>

<sup>130</sup> ZI, February 23, 1932.

<sup>131</sup> RTsKhIDNI, 79/1/554, 1-2, 35-7; the editor of *Izvestiya*, commending this section of the report, added 'I think you should show it to cde. Stalin, because everything goes through him which relates to Japan and to Far Eastern questions.'

<sup>132</sup> Strang to Simon, April 23, 1932 (BDFA, IIA xvi (1992), 74). On March 26, the Politburo informed its plenipotentiary in Tokyo that, on certain conditions, it was willing to recognise the Japanese puppet government in Manchuria and to sell its share in the Chinese Eastern Railway (RTsKhIDNI, 17/162/12, 36, 68 - no. 32/22). On the other hand, on April 17, confronted with Japanese truculence, a further Politburo instruction told its plenipotentiary that 'the Japanese evidently prefer a military alliance with Romania and Poland against the USSR to negotiations with us', and commented bluntly that 'if the Japanese want to deal with us, they will find us; if they don't, so much the worse for them' (RTsKhIDNI, 17/162/12, 107-8 - decision by correspondence no. 24/1).

<sup>133</sup> P, January 22, 1933; in August 1933 Ordzhonikidze spoke of the urgent production of larger quantities of aircraft, large-capacity aero-engines, and tanks, which had taken place in 1932 (Ordzhonikidze, ii (1957), 498-9).

<sup>134</sup> Stalin, *Soch.*, xiii (1951), 180 (report of January 7); see also p. 319 below.

Behind the scenes the Politburo had already been subjected to considerable pressure to increase the provisional allocations to defence. The large reductions in the import plan for 1932 greatly alarmed the armaments industry and the military. In 1931 the import quota (kontingent) for the armaments industry was 35 million foreign-trade rubles, though the actual expenditure by the end of the year was estimated at only 14 million rubles. The initial extravagant claim from Vesenkha for imports in 1932 included 115 million rubles for the armaments industry, plus a further 30 million for the armaments production of civilian industry. Mezhlauk, recently transferred from Vesenkha to Gosplan as a vice-chair, proposed a quota of only 10 million rubles. Unshlikht, also a vice-chair of Gosplan, and responsible for military questions, sent an angry telegram to Kuibyshev claiming that this figure would mean that 'all decrees of the Commission of Defence on the development of war industry (chemistry, armour and tanks, artillery, aviation, navy and communication) will not be achieved on time'. Unshlikht, complaining that the crucial decisions were being taken before he had reported on the defence needs for 1932 to Kuibyshev, insisted that the import quota must be 40 million rubles at a minimum for equipment, plus 14 million for technical supplies; without this allocation, the mobilisation plan could not be carried out as planned by the beginning of 1933.<sup>135</sup> Eventually, the import quota for equipment for the armaments industry was increased only to 15 million rubles.<sup>136</sup>

Unshlikht's alarm about defence expenditure in 1932 was expressed on a broader front by Gamarnik, on behalf of Narkomvoenmor. On December 5, 1931, he complained to Molotov that Gosplan had cut the capital construction allocation to the commissariat below the agreed level.<sup>137</sup> Ten days later, on

<sup>135</sup> GARF, 5446/27/11, 10–18, dated November 29 (?), 1931.

<sup>136</sup> RTsKhIDNI, 17/162/11, 82–3, 87–94 (decision of November 29, 1931, no. 33/1, confirmed by the Politburo session of December 8). Unshlikht criticised the increased import figure, 15 million rubles, in a memorandum to Molotov of December 28, 1931 (GARF, 8418/5/166, 128, 128ob.)

<sup>137</sup> GARF, 8418/5/166, 115–20. The original proposal from the military was 600 million rubles. The sum of 400 million rubles was later agreed between Gosplan and the military, but this was then reduced to 350 million rubles. In due course, as much as 900 million rubles was allocated for military capital construction (see SS, xlv (1993), 593 – Davies).

December 15, Vesenkha complained to Molotov that the reduction of investment in the armaments industries to 702 million rubles would have a disastrous effect, and requested an increase of 150 million rubles.<sup>138</sup> The debate continued after the formal approval of the 1932 plan. On January 4, 1932, Unshlikht with unrelenting persistence, turned his attention to the Politburo decision to restrict investment in the armaments industries, claimed in a memorandum to Stalin and Molotov that it would be impossible to meet the requirements of the mobilisation plan (see pp. 116–17 above), and proposed to increase investment to 758 million rubles.<sup>139</sup> Then on January 14, 1932, the commission of Sovnarkom on the armaments industry, headed by Kuibyshev, recommended that investment in the armaments industries in 1932 should be increased from 702 to as much as 820 million rubles, and that the allocation to defence measures in the civilian economy should be increased from 155 to 255 million rubles.<sup>140</sup> In the same month the Politburo decided to appoint party organisers directly responsible to the central committee at large military factories.<sup>141</sup> Considerable resources were devoted to the tank and aircraft industries forthwith (see pp. 310–12 below). A major expansion of the submarine fleet began in March and April 1932, when the construction of twelve new submarines was started; at that time only thirteen submarines were under construction.<sup>142</sup> On June 22, STO resolved to construct a further twelve submarines specifically for the Far East.<sup>143</sup>

Nor were longer-term needs neglected. In March 1932 Tukhachevsky convened a meeting of rocket engineers with military specialists, stressing the importance of new types of weapons and calling for the strengthening of research and

<sup>138</sup> GARF, 8418/5/166, 109–11 (Pavlunovsky); on December 21 he demanded that this proposal should be examined by a special commission (*ibid.* 114). The allocation to capital investment in the armaments industries was entirely separate from the allocation to Narkomvoenmor for capital construction – for aerodromes, barracks, fortifications, etc.

<sup>139</sup> GARF, 8418/5/166, 47–50.

<sup>140</sup> GARF, 5446/8/172, 3.

<sup>141</sup> *Industrializatsiya SSSR, 1929–1932* (1970), 608 (decision of January 12).

<sup>142</sup> Estimated from Dmitriev (1990), 240–55, where data are given for individual submarines.

<sup>143</sup> Dmitriev (1990), 71; the Naval Forces of the Far East were established as a separate command in 1932.

development in rocketry.<sup>144</sup> A prominent aircraft engineer, complaining that ‘the aircraft industry has lagged in its production processes behind other kinds of industry and contains much of an artisan character’, insisted that during the second five-year plan mass production should be introduced, and industry should develop special aircraft materials, especially high-quality metals.<sup>145</sup>

Work had begun in previous years on the provision of facilities for the immediate production of defence goods in civilian industry, and for rapid conversion to military production in the event of war (see pp. 116–17 above). In 1932 these preparations were much more feverish. Thus in February the Politburo ordered that the Putilov works in Leningrad should participate in the production of the T-26 tank by producing 3,000 sets of running gears. The works ceased turbine production for five months; a special steel-casting shop was built at the factory, and afforded ‘super-priority’ by the central authorities; the factory was allocated 156 million rubles for the cost of conversion.<sup>146</sup> In April the British embassy in Moscow reported that factories in Rostov and Mytishchi (near Moscow) had recently been partly converted to military production.<sup>147</sup> Civilian planning staffs were increasingly diverted to military projects. On June 1, 1932, the Stalingrad tractor factory and the research institute NATI were instructed to design a diesel-powered universal tractor/transporter based on the Carden-Lloyd tankette, under technical conditions approved by the military.<sup>148</sup> More or less simultaneously, the tractor industry began to prepare for the conversion

<sup>144</sup> Romanov (1976), 35–6, 39; the unified rocket research institute was established in September 1933. For an account of rocket research in 1931–3, see Astashenkov (1969), 42–67.

<sup>145</sup> P, May 9, 1932 (Nekrasov, TsAGI).

<sup>146</sup> Kostyuchenko *et al.* (1966), 388–92. The new shop was built following a Narkomtyazhprom order of March 7, 1932: the factory asked for 700 million rubles for the conversion, but Ordzhonikidze pointed out that a new tank factory could be built for the same amount of money. The Putilov factory was later responsible for producing the KV heavy tank.

<sup>147</sup> Haslam (1983), 84, citing Strang’s despatch to Simon (Foreign Secretary).

<sup>148</sup> RGAE, 7622/1/1076, 276–7; this was followed by a decree of STO (see RGAE, 7620/1/133, 83, not precisely dated). On June 6, 1932, the Politburo authorised the Commission of Defence to expend an extra six million rubles of foreign currency to provide a tank base at the Stalingrad factory and facilities to produce an artillery system at Novoe Sormovo (RTsKhIDNI, 17/162/12, 176 –

of most or all of its production during the course of the second five-year plan to caterpillar tractors: military needs dictated the proposed pace and scale of the conversion.<sup>149</sup>

In addition to transferring personnel and materials from civilian to armaments production within civilian factories, many civilian factories were required to supply skilled personnel for new and expanded armaments factories which were rarely mentioned in the press. The AMO works, for example, sent its production manager to the aircraft industry to provide it with the experience of the automobile industry.<sup>150</sup>

Defence needs also affected other sectors of the economy. According to French embassy reports, after the invasion of Manchuria the Soviet authorities gave much greater priority to the improvement of the Trans-Siberian railway. Early in 1932 the Commissariat for War was empowered to plan the complete reorganisation of the line; it decided to double-track it, and to build by-passes where the line could not be double-tracked.<sup>151</sup>

The danger in the Far East was at the centre of Soviet military preparations. Proposals for industrial development in the Far East were treated sympathetically by the Politburo. In January it agreed to the construction of a second cement factory and the maximum development of the coal industry in the Far East, declaring in an unusually lavish message to the military

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decision by correspondence no. 73/27). The report (see Hilger (1953), 246) that a special shop for manufacturing tanks was already under construction at the Stalingrad factory in 1932 does not seem to be correct.

<sup>149</sup> See the discussion reported in RGAE, 7620/1/133, *passim*. On November 25, 1932, the Politburo resolved that the Stalingrad Tractor Factory should go over to the production of Carden-Lloyd caterpillar tractors by July 1, 1934, and that in wartime it should produce 12 thousand Vickers T-26 a year, plus spare parts. By the summer of 1933 it was to be prepared for war-time conversion to tank production by the whole factory. (RTsKhIDNI, 17/162/14, 18–19 – decision by correspondence no. 106/82.)

<sup>150</sup> *Direktor I.A. Likhachev* (1971), 10.

<sup>151</sup> Payart to Tardieu, April 22 and May 22, 1932 (MAE, Europe, 1930–1940, URSS, vol. 1065, 200, 200ob., 201, 204 and 204ob.). By 1932 only the Omsk-Chita section was double-tracked. Payart reported ‘feverish activity’ on doubling the line West of Omsk and East of Chita; the link on the Ussuri from Khabarovsk was also being double-tracked, and the line generally reinforced. On February 16 the Politburo agreed to double-track the line from Chita to Urusha and to construct the Baikal-Amur line as a single track joining the Trans-Siberian at Urusha (RTsKhIDNI, 17/162/11, 178 – item 2).



representative there, Gamarnik, 'inform us how much money you need for this – we shall provide all necessary money'.<sup>152</sup> A month later it established a Far Eastern commission, headed by Gamarnik, and containing representatives of the main commissariats, instructing it to complete its work by the end of April.<sup>153</sup> A further decision called for the establishment of six tank battalions, three tankette battalions and other motorised formations as part of the Far Eastern Army.<sup>154</sup>

In the spring, work started on preparation of a remote armaments base in the Far East. Following the extensive visit of Voroshilov to the Far East in the summer of 1931<sup>155</sup> and the establishment of the integrated Far Eastern construction organisation Dal'stroi directly responsible to STO in November of that year,<sup>156</sup> the commission under Gamarnik decided in February to establish a base for military production in the interior 400 kilometres from Khabarovsk, at the small village of Permskoe on the Amur, which at that time could be reached only by plane or by a river open to goods traffic only in summer.<sup>157</sup> The Amur base was planned to include shipbuilding and aircraft factories. The Politburo despatched Kosarev, general secretary of the Komsomol, to the Far East in March 1932, and following his visit 5,586 young communists were sent to Permskoe in the spring from all parts of the Soviet Union.<sup>158</sup> While work was only in its preliminary stages in 1932 – an extravagant plan to complete the

<sup>152</sup> RTsKhIDNI, 17/162/11, 126 (session of January 16, item 1).

<sup>153</sup> RTsKhIDNI, 17/162/11, 182 (decision by correspondence of February 13, no. 35/15).

<sup>154</sup> RTsKhIDNI, 17/162/11, 193, 196–7 (decision of February 28, no. 37/13).

<sup>155</sup> See Haslam (1983), 72–3.

<sup>156</sup> Unpelev (Vladivostok, 1975), 197.

<sup>157</sup> Zhukov (1966), 228–9; 'the devil himself couldn't get there', Gamarnik remarked. On February 9 a Politburo decision by correspondence resolved that the shipbuilding facility should not be established at Khabarovsk but further North along the Amur because Khabarovsk was too close to the frontier (RTsKhIDNI, 17/162/11, 180 – no. 21/1). On November 13, 1932, the Politburo adopted a schedule for the completion of the Amur shipbuilding factory in two stages, by September 1, 1934, and August 1, 1935 (RTsKhIDNI, 17/162/14, 11 – item 11).

<sup>158</sup> Only a minority withstood the harsh conditions – the number working there fell to 1,300 by October 1932 (*Poznynye istorii*, ii (1970), 326, 331 (Dorodnov)). For a dramatic description of the first settlers' seven-day journey from Khabarovsk to the site through river and storm, see *Stroiteli trekh gorodov* (Khabarovsk, 1967), 23–7.

military factories by the end of the year got nowhere – the new project drew heavily on the scarce enthusiastic manpower of major civilian factories and construction sites, including Dneproges and the new automobile plant in Nizhnii Novgorod, as well as on senior managers and engineers.<sup>159</sup>

Soviet military preparations in the early months of 1932 were frequently noted by Western observers. In February, the French Ambassador reported that in response to the Manchurian events trained reservists had been called up prematurely and military preparations had been intensified in Universities and technical schools.<sup>160</sup> In April, the British embassy reported that defence factories were working at high pressure.<sup>161</sup> In June, the British Ambassador noted that 'the Soviet government are energetically proceeding with their plans for increasing both the strength and the efficiency of the civil and military air forces'.<sup>162</sup> To impress a visiting Turkish delegation, the Politburo anticipated by several decades the arms supplies to the Third World which proved to be one of the long-term tragic triumphs of Soviet central planning. It authorised the presentation to the Turks of five tankettes and two Vickers tanks, with machine-guns, all manufactured in the USSR.<sup>163</sup>

The authorities sought to facilitate the accelerated modernisation and expansion of the armaments industries by large injections of cash. In April their investment plan for 1932 was increased to 1,050 million rubles, while investment for defence purposes in civilian industry was increased to 301 million.<sup>164</sup> Even dizzy increases took place in the quarterly investment allocations. In both the plan for the April–June quarter, adopted on April 16, and the plan for the July–September quarter,

<sup>159</sup> VI, 8, 1982, 8, 85–8; *Stroiteli trekh gorodov* (1967), 39. In May 1932, Narkomtyazhprom appointed Ivanov, former head of the Stalingrad tractor factory, as its plenipotentiary and Kattel' as head of the project (*ibid.* 36).

<sup>160</sup> Dejean to Tardieu, February 28, 1932 (MAE, Europe 1930–1940, URSS, vol. 1035, 228ob.).

<sup>161</sup> See Haslam (1983), 84.

<sup>162</sup> Ovey to Simon, June 21, 1932 (BDFA, IIA, xvi (1992), 96–7).

<sup>163</sup> RTsKhIDNI, 17/162/12, 128–9 (decision by correspondence of May 5, 1932, no. 33/1). A Machine-Tractor Station, two lorries and a motor-bus were also donated to the Turks.

<sup>164</sup> GARF, 5446/1/67, 75–81; 5446/8/172, 3. The date on which the 301 million rubles was approved is not stated; it appears in a document of early July 1932.

adopted on June 17, the investment allocation amounted to an astonishing 57 per cent of the original annual plan and 38 per cent of the revised plan. Allocations for defence purposes to civilian industry increased even more rapidly.<sup>165</sup>

The production plan for the armaments industries was equally ambitious; the final version envisaged that their total production would increase by 126 per cent, and their military production by as much as 175 per cent.<sup>166</sup>

The expansion of defence plans led to large increases in claims on resources. In April 1932, Kuibyshev drew attention to the large claims, amounting to 140,000 workers, received by Narkomtrud from various commissariats for the transfer of labour to East Siberia and the Far East in 1932, and called for their reduction.<sup>167</sup> But by June the claims had escalated to 295,000, of which Kuibyshev accepted 193,000.<sup>168</sup>

Like all Soviet plans at this time, the defence plans were over-ambitious. Thus the 1932 investment plan for the aircraft industry amounted to 397 million rubles, 220 million rubles of which was to be expended in the first six months. But a speaker at a conference in the defence sector of Gosplan pointed out that in January–June only 202 million rubles had been issued, and of this only 148 million rubles had been actually spent. Projects and building contracts were delayed; the industry employed only 37 thousand building workers instead of the planned 67 thousand; and building materials were in extremely short supply. There was

<sup>165</sup> For details see SS, xlv (1993), 598 (Davies).

<sup>166</sup> The proposed gross production of the armaments industry was as follows (million rubles at 1926/27 prices):

	1931 (actual)	1932A (plan)	1932B (plan)
Military production	588	908	1615
Total production	1234	2069	2790

The 1931 figures are in RGAE, 4372/91/871, 99–8; the 1932 plan (A) is in GARF, 8418/5/166, 3 (dated December 26, 1931); the 1932 plan (B) is in RGAE, 4372/91/1050, 217–16 (document dated November 17, 1932). Both years exclude the tank and shipbuilding industries.

<sup>167</sup> GARF, 5446/27/19, 107 (letter dated April 2).

<sup>168</sup> GARF, 5446/27/19, 111–109 (letter to Politburo dated June 3); of these 68,000 had already been transferred, including 38,500 to the military construction administration of Narkomvoenmor.

no chance of completing the large aircraft works in Kazan' by the scheduled date of January 1, 1933.<sup>169</sup>

The plans to adapt civilian factories for defence purposes proved particularly intractable. In the case of the Stalingrad tractor factory, its conversion to the production of small tanks proved to be far more expensive and difficult than originally anticipated; the rapporteur on the tank industry at the Gosplan conference despairingly commented that it might have been better to build a tank factory and adapt it to the production of tractors.<sup>170</sup> The Nizhnii-Novgorod automobile factory was supposed to be capable of producing 12,000 tanks a year by the beginning of 1933; by August 1932 the plan was cut to 6,000, but virtually nothing was accomplished.<sup>171</sup> Following a tour of a number of armaments and civilian factories, a spokeswoman reported that at some factories no 'mobplan' existed, at others it was unrealistic.<sup>172</sup> Both the investment and the production plans for the first six months of 1932 were accordingly underfulfilled.<sup>173</sup>

Although the ambitious plans were not fulfilled, the progress of the armaments industries was nevertheless extremely rapid. Military production in January–June 1932 was 60 per cent greater than in the same period of the previous year, and 20 per cent greater than in the last six months of 1931. The production of Narkomtyazhprom as a whole increased far less rapidly: by 30 per cent as compared with January–June 1931, and only 5 per cent as compared with July–December.<sup>174</sup> The increased priority for defence in these months does not mean that we should take seriously Stalin's statement that increased defence needs were the

<sup>169</sup> RGAE, 4372/91/1050, 117, 105, 103. The small conference, attended by eleven people, was held on August 10, 1932, with Unshlikht in the chair. According to later reports, investment in the aircraft industry amounted to only 203 million rubles in the whole of 1932 (RGAE, 4372/91/1824, 11).

<sup>170</sup> RGAE, 4372/91/1050, 133–1.

<sup>171</sup> *Ibid.* 134, 84–79.

<sup>172</sup> *Ibid.* 90–89.

<sup>173</sup> Investment, planned at 577 million rubles in the first six months of 1932, reached only 758 million rubles in the whole year (see SS, xlv (1993), 598 – Davies). Military production, planned at 1,615 million rubles for the whole year, reached only 402 million rubles in the first six months (RGAE, 4372/91/1050, 217–6).

<sup>174</sup> For military production: RGAE, 4372/91/1050, 217–6; for Narkomtyazhprom production see Table 5(c). The military production figures exclude the shipbuilding and tank industries.

sole factor leading to underfulfilment of the five-year plan for industry. Military production remained a quite small proportion of the total production of heavy industry. But the more rapid expansion of the armaments industries in the first six months of 1932 called upon the most skilled labour, and the most complex materials and machines. The additional claims of defence had exacerbated all other economic difficulties.

#### (D) FOOD SHORTAGES

Since 1929 the search for food had been the daily preoccupation of almost every citizen and a chronic problem for the Soviet authorities. In the first months of 1932 the amount of food available in the towns declined still further, and supplies were far more irregular.

This deterioration was not anticipated by the authorities. After the harvest of 1931 the apparent success of the state collections encouraged some optimism in official circles about future food supplies. The grain collections were somewhat larger than the record level of 1930; and collections of potatoes, vegetables, tobacco and makhorka greatly exceeded the 1930 level. Moreover, with the extension of state control to products previously sold freely on the market, state collections of livestock, butter, poultry, eggs and fish were also substantially higher in 1931. Only in the case of sugar beet had the poor harvest led to a sharp decline in the amount collected.<sup>175</sup> Against this background, the plan for 1932 prepared by Gosplan rashly predicted that agricultural production would increase in 1932 by as much as 19 per cent.<sup>176</sup>

But no favourable conclusion could legitimately be drawn from these developments. The decree on the 1932 plan approved by TsIK cautiously refrained from mentioning the proposed increase in agricultural production, and was also silent about food supplies.<sup>177</sup> The grain harvest of 1931 had in fact been exceptionally poor; as a result of the bumper grain collections, less grain remained at the disposal of the rural population than in

<sup>175</sup> These developments will be discussed in vol. 5.

<sup>176</sup> Levin (1932), 98.

<sup>177</sup> SZ, 1931, art. 500, dated December 28.

any year since the mid-1920s. And the increased collections of meat and dairy products took place against the sombre background of the sharp decline in the number of farm animals of all kinds, which continued throughout 1932. For some years to come, collections of meat and dairy products, and of potatoes and vegetables, would be far below the level attained in 1931.

Meat and dairy collections began to falter from the start of the new year. In January–March 1932, collections of livestock and poultry, fish and eggs were substantially lower than in the same period of 1931. For most items they were even below the level achieved in 1930, when state control of the livestock market was still far from complete. A telegram from Kuibyshev to the republican and regional authorities starkly declared ‘Moscow Leningrad left without any reserves for spring months and current meat supply disrupted.’<sup>178</sup>

Against this background of supply difficulties, the urban population entitled to rations from the state had continued to expand, increasing from 30.4 to 36.7 million in the course of 1931.<sup>179</sup> Subjected to unceasing pressure from the central authorities to fulfil the plan, managers and officials sought to attract more labour by expanding the quota of ration books at their disposal. In the first months of 1932, this clamour for increased quotas was often successful. Quotas supplementary to the quarterly plan were allocated to many major construction projects, including the Magnitogorsk and Nizhnii-Tagil iron and steel works, the Lugansk loco works, the Chelyabinsk tractor factory, and railway construction in the Far East.<sup>180</sup> The total number entitled to rations increased by 3.5 per cent in January–March 1932 as compared with the previous quarter (see Table 12(a)).

Factories and sites sought not merely to acquire a larger quota of rations but also to increase the number of persons within their quota who were entitled to higher rations. At the beginning of

<sup>178</sup> RGAE, 8040/1/21, 243, dated March 10; this is a draft telegram prepared for Kuibyshev’s signature.

<sup>179</sup> See Table 12(a). In addition millions of urban citizens were provided with rations from local supplies; and approximately 24 million persons in agricultural districts were also supplied with grain (producers of industrial crops, peasants working in the timber industry, etc.).

<sup>180</sup> RGAE, 8043/1/53, 219 (art. 61, dated February 5), 246 (art. 72, dated February 9), 313 (art. 100, dated February 25), 357 (art. 114, dated March 1).

1931 rationing was systematised and regularised, and towns and enterprises were divided between four Lists: the Special List; and Lists 1, 2 and 3.<sup>181</sup> The Special List, which was entitled to the largest rations, included all enterprises and institutions in Leningrad, Moscow and Baku, and a number of named enterprises elsewhere. The named enterprises were mainly coal mines, and important iron and steel, chemical, engineering and armaments factories. Most named factories in the Special List were in Ukraine.<sup>182</sup> List 1 included major construction sites, and the many mines and capital goods factories which were not included in the Special List. Other construction sites and the rest of industry appeared on List 2. List 3 was reserved for enterprises and institutions of lower priority which did not appear elsewhere.<sup>183</sup>

Within each List the population was divided into categories; and just as each List received higher rations than the List below it, so each category received a different level of rations. The usual categories were: (1) manual workers and engineering and technical staff (a) 'exploitation' (at existing enterprises), (b) 'building' (engaged in reconstruction or on building sites); (2) white-collar employees and members of families of both

<sup>181</sup> For the relevant decrees see *Byulleten' Narkomsnaba*, 1931, art. 4 (decree of January 13, 1931), *Rabochii klass*, ii (1984), 238 and Bergson (1944), 38–9.

<sup>182</sup> For April–June 1932, the total numbers on the Special List were planned at 9,150,000, of which 4,607,000 were workers; of this total 2,705,000 were in Leningrad, 3,491,000 in Moscow, 522,500 in Baku, and 1,981,000 in Ukraine, leaving only 451,000 elsewhere (RGAE, 8043/1/61, 263–5, document dated April 21, 1932).

<sup>183</sup> Thus railway personnel, including dependents, were divided as follows in January–March 1932 (thousands):

	<i>Total</i>	<i>Manual workers</i>	<i>White-collar; dependents</i>
Special List	570	236	334
List 1: exploitation	1627	741	886
construction	285	240	45
List 2: exploitation	1950	675	1275
construction	295	250	45
List 3:	<u>1244</u>	<u>291</u>	<u>953</u>
	<u>5972</u>	<u>2434</u>	<u>3538</u>

(RGAE, 8043/1/53, 349, approved by Mikoyan on March 1).

manual workers and white-collar employees, also divided into (a) and (b). Within category 1, 'underground workers, and workers in hot shops and those engaged in harmful trades' were singled out for a special ration; within all categories, children under fourteen years were treated separately and relatively favourably.<sup>184</sup>

In many factories and offices allocations of food were also received by canteens, the quantity depending on the number of employees and the List to which they belonged. Canteens were an important supplementary source of food: in 1932 'closed' urban canteens attached to factories, offices and other establishments supplied 7,477 million 'courses (blyuda)', enough for at least eight million people to receive a meal on every working day.<sup>185</sup>

Managers determinedly pressed upon the authorities the case for increasing the number of their employees placed in the Special List or List 1. Between the first quarter of 1931 and the first quarter of 1932, the total number of persons on these two Lists increased from 11.8 to 20.2 million; in the January–March quarter of 1932 the increase amounted to 1.3 million (see Table 12(a)). But it was not sufficient to get your personnel onto the higher Lists. The supply of food was often insufficient to meet the number of rations officially allocated. The worsening food situation greatly exacerbated this problem in the course of 1932. TsUNKhU castigated the 'sharp deviations and variations' in supply in the first four months of 1932 – 'the variations are so sharp that fulfilment of plans varies from zero to one hundred per cent among enterprises allocated to the same List and located in the same area'. According to TsUNKhU, these variations were not due to the flexible use of scarce resources, but were accidental and arbitrary.<sup>186</sup> To ensure that they obtained their full rations in spite of the uncertainties, the 150 key civilian enterprises working for defence (see p. 116 above) received their allocation direct from the centre rather than through the regional supply

<sup>184</sup> RGAE, 8043/1/56, 137; for an illustration, see previous footnote.

<sup>185</sup> *Sovetskaya torgovlya* (1935? [1936]), 137; my estimate assumes that a meal consisted of three courses and that there were 300 working days in a year. In addition 464 million courses were served in 'open' canteens and restaurants in the towns, and 1,622 million in the countryside (1,272 millions in closed and 245 in open canteens), a total of 9,563 million courses in all (*ibid.* 136–9).

<sup>186</sup> *Itogi . . . po torgovle*, January–March and April 1932, 8–9.



agencies. Under pressure from industry, the list of '150' factories was steadily extended.<sup>187</sup>

The factories, construction sites and offices on the four Lists, together with their canteens, were not the only claimants for central food allocations. Special rations were received by managerial staff, the military, foreign tourists, foreign specialists, children's institutions and hospitals, and resorts and rest homes (see pp. 453–5 below). The four Lists, and these special rations, together with the quantities allocated to the 'commercial fund' to be sold off the ration at high prices, all formed part of 'Sales to the Towns'. Other competing claimants formed a group of 'Earmarked Allocations (*tselevye naznacheniya*)'. This group included timber cutting and floating, the peat industry, fisheries and the gold and platinum industry. Allocations were also made to the *sovkhozy* and other agricultural claimants, together with village teachers and village and district officials, and geological research. But practice varied. Usually 'Earmarked Allocations' appeared as a separate main heading. But they also sometimes appeared under the heading 'Village'.<sup>188</sup> This highly misleading classification has led historians to overestimate the proportion of centrally-allocated food supplies which reached the peasantry; apart from grain allocations, the amount was usually minute. In addition to the allocations so far described, further shares of each food product were allocated to industry for processing. Food was also a major item of export.

The decline in food supplies intensified the bitter struggle between these contending priorities. The food allocations for individual rations and for canteen meals were under severe pressure, even in the higher-priority Lists. When the centralised supply of fish products declined in January–March 1932, priority was given to foreign specialists and tourists, to export and to the commercial fund.<sup>189</sup> In the case of butter, supplies on the normal

<sup>187</sup> See for example RGAE, 8043/1/53, 27, 117 (arts. 11 and 33, dated January 26 and 25).

<sup>188</sup> For the classification of timber, peat, fisheries, non-ferrous metals and labour camps and settlements under the heading 'Village', see RGAE, 8043/1/61, 140 (dated February 1932) and RGAE, 8043/1/53, 352–3 (dated March 1, 1932). For the separate classification of 'Earmarked Allocations', 'Village' and 'Town', see GARF, 6759/1/3, 118 (dated July 3, 1932).

<sup>189</sup> See the allocations for October–December 1931 and the three successive variants of the plan for January–March 1932 in RGAE, 8043/1/61, 140 and 8043/1/53, 296.

ration Lists virtually disappeared. In January–March 1932 the allocation to normal rations was reduced from 18.1 to a mere 6.2 per cent of the total, and the allocation to public catering from 4.1 to 1 per cent. In contrast, in spite of the decline in supplies the allocation to exports doubled and the allocation to the commercial fund was fully maintained; and the military, the Far North, the gold and platinum industry and the foreign specialists were all afforded some protection.<sup>190</sup>

The reduction in supplies compelled the authorities to reduce the individual rations.<sup>191</sup> At the beginning of 1932, fish rations were reduced for manual workers on List 1, and ceased altogether for other workers and all dependents on that List; the fish ration on List 2 was abolished for all categories of citizen. At the same time a butter ration was made available only for the children of parents on the Special List and List 1; no butter ration was allocated to other children, or to adults. (See Table 12(b).) During the next few months, rations of several foods were further reduced.<sup>192</sup> In a further effort to adjust rations to supplies, the Politburo resolved that the number of days on which the meat ration was available on the Special List should be reduced from 22 to 15 a month.<sup>193</sup> The local authorities in turn made further drastic cuts in an endeavour to adjust the rations to the shrinking and unreliable supplies. In February many dependents in the Donbass were removed from the ration Lists altogether.<sup>194</sup> By May 1932 the pressure on meat supplies was such that the

<sup>190</sup> See the original and revised plans for January–March 1932 in RGAE, 8043/1/53, 352–3 (art. 112, dated March 1).

<sup>191</sup> For the abolition of rationing of various goods, see p. 206 below.

<sup>192</sup> See Table 12(b) and p. 206 below, and RTsKhIDNI, 17/3/878, 8 (Politburo decision on reducing sugar ration, April 1); *Itogi . . . po torgovle*, January–March and April 1932, 8.

<sup>193</sup> RTsKhIDNI, 17/3/874, 7 (sitting of March 3, item 33). A decision to reduce the individual meat ration for those regularly receiving canteen meals was soon cancelled 'owing to technical difficulties' (RTsKhIDNI, 17/3/874, 7; 17/3/878, 17 – decisions of March 3 and April 1; GARF, 5446/57/18, 100 – art. 547/50s, dated March 5).

<sup>194</sup> See Osokina (1993), 25–6. This was accomplished by means of a 'dependents' ratio' (*norma na semeinost' or koeffitsient izhdiventsev*). Coal miners were deemed to have 1.1 dependents per worker's ration; building workers, who were often living away from or without dependents, only 0.2. Additional dependents were struck off the Lists. The same practice was followed elsewhere. A Narkomsnab memorandum dated April 8–20, 1932, acknowledged that the dependents' ratio for new Ukrainian building sites on List 1 was too low (RGAE 8043/1/61, 261–2).

Politburo decided that in the Red Army and in the OGPU armies meat would be replaced by fish on one day in five for officers and on two days in five for soldiers.<sup>195</sup> Later in the same month Narkomsnab proposed to the Committee on Commodity Funds that the food allocation to the Red Army and others in the defence group should be further cut, and the individual rations reduced accordingly.<sup>196</sup>

With the reduction in nearly all other food supplies, bread was essential to stave off hunger. The slight increase in the grain collections in 1931/32 was accompanied by a reduction in the export of grain; as a result, supplies available for use within the USSR increased. But grain was vitally necessary far beyond the working population of the towns and their dependents. Since 1929 the peasant grain market had everywhere diminished, and in some places it had disappeared altogether. Many peasants and agricultural workers, and their animals, increasingly depended on the state for grain supplies. These rival claims pressed hard upon the available grain. Even at the end of 1931 Narkomsnab announced that it had filled all the allocations of food grains available to it from the 1931 harvest; no further claims could be entertained.<sup>197</sup> In January 1932, the deputy People's Commissar for Supply in Ukraine warned Moscow that he could not provide the increased food for the Dnepr combine which STO had authorised, and so proposed to overspend his total allocation.<sup>198</sup>

The difficulties with the grain balance were compounded by the decision to advance a substantial grain loan to drought-stricken areas for seed, fodder and food, and to reduce the annual grain collection quota.<sup>199</sup> Matters came to a head on March 23, when the Politburo considered and approved the grain-

<sup>195</sup> RTsKhIDNI, 17/3/882, 1, item 4 (session of May 4).

<sup>196</sup> The matter was discussed at the session of the Committee on May 8; the outcome is not known (RGAE, 4372/30/6, 20). At the end of 1932 the large army meat ration – 7.5 kilograms a month – was reduced to 6 kilograms, and in 1933 it was further reduced to 5 kilograms (see Osokina (1993), 80).

<sup>197</sup> See the reference to the decree of December 27, 1931 (art. 1242) in RGAE, 8043/1/53, 110.

<sup>198</sup> His telegram, sent in response to an STO decree of January 27, 1932, complained 'No reserves or manoeuvrable funds at disposal Ukrnarkomsnab [as a result of] big cut our claim first quarter carried out by you' (RGAE, 8043/1/61, 123–5).

<sup>199</sup> These developments will be discussed in vol. 5.

distribution balance for the last quarter of the agricultural year, April–June 1932. To eke out the grain drastic restrictions were imposed.<sup>200</sup> Rations for persons registered on Lists 2 and 3 were reduced, a very severe measure at a time when their rations of other foods had already been reduced or eliminated altogether.<sup>201</sup> Regional party authorities were accordingly informed that their grain supplies from centralised funds would be much smaller in April–June 1932. In the Smolensk region the cuts threatened even basic factories and Red Army units.<sup>202</sup> From the April–June quarter of 1932 onwards the central authorities ceased to determine the number of persons who would receive rations in Lists 2 and 3, or the size of their bread ration. These vital matters were left to the regional authorities to decide in accordance with the amount of grain they received from central and local resources. The centralised rationing system had broken down.

But even the key towns on the Special List were short of food to honour the rations. By June even Leningrad lacked enough wheat flour to get it through the few weeks remaining before the next harvest, and grain mills in the Central Black-Earth region, the North Caucasus, and even the distant Crimea were instructed to devote themselves to processing grain for Leningrad ‘with military speed’.<sup>203</sup>

The authorities were ultimately able to reconcile even these reduced grain allocations with supplies only by drawing on stocks, which declined by over 40 per cent between July 1, 1931 and July 1, 1932. But in spite of the reduction in stocks, food grains allocated to general supply increased by only 13 per cent in 1931/32,<sup>204</sup> while the number of persons receiving food from the ration Lists increased by 25 per cent between the beginning of 1931 and the beginning of 1932 (see Table 12(a)).

<sup>200</sup> Moshkov (1966), 134, citing the party archives; for other Politburo and Sovnarkom decisions on that day, see *Industralizatsiya, 1929–1932* (1970), 610, and pp. 206 and 208, n. 304 below.

<sup>201</sup> RTsKhIDNI, 17/3/877, 40–2; GARF, 5446/57/18, 175–7, art. 439/96s, dated March 26; Moshkov (1966), 134.

<sup>202</sup> Fainsod (1958), 259, citing WKP 167, 37–9. At Dneprostroi the ordinary worker received 400–600 grams of bread a day, ‘gangs of pressed workers’ 200 grams (Strang to Simon, May 4, 1932 – BDFA, IIA, xvi (1992), 82).

<sup>203</sup> GARF, 5446/57/19, art. 1114/222, dated June 26.

<sup>204</sup> See Table forthcoming in vol. 5.

The Politburo wielded the power of the courts and the OGPU in a vain effort to impose order on a rationing system in which claims were burgeoning while supplies were declining. On April 13, it established a commission, including representatives of the OGPU and the judicial system, to prepare ‘a scheme for the organisation of 5–10 trials in various locations in the USSR’:

these [trials] shall treat the organisers of the theft of bread and commodities as enemies of the people, and shall be directed towards a) sentencing them to the highest measure of punishment [i.e. execution], especially Communists guilty of theft, b) sentencing other participants in these thefts (especially communists) throughout the whole USSR to long sentences in concentration camps.<sup>205</sup>

Ten days later, on April 23, a top-secret decision of the Politburo resolved that four trials were to be held in public, in Moscow, Leningrad, Kharkov and Stalingrad; the death penalty was to be imposed.<sup>206</sup> On the same day the Politburo discussed thefts of bread in the Moscow consumer cooperatives, and urged the OGPU ‘to continue to disclose and struggle with speculation and malfeasances throughout the trading system’. Stricter controls were to be imposed on ration cards. Henceforth temporary workers would receive ration cards for only five days, and unemployed persons would be entitled to use ration books for a maximum of one month. The decision added that ‘the experience of Moscow is to be applied to all large centres’.<sup>207</sup>

By this time food shortages in towns and workers’ settlements could no longer be treated as a troublesome but secondary consequence of industrialisation. The report to the Gosplan presidium on the results of the January–March quarter admitted that ‘the Balance for the supply of food is unfavourable’: factories had not received the supplies to which they were entitled, and the price of bread on the free market, important for all consumers in

<sup>205</sup> RTsKhIDNI, 17/3/880, 6; the commission consisted of Vyshinsky, Krylenko, Yagoda, Akulov and Agranov; the proposal was made to the Politburo by Akulov.

<sup>206</sup> RTsKhIDNI, 17/162/12, 108 (item 17); the remaining trials were to be held outside the courts (v vnesudebnom poryadke).

<sup>207</sup> RTsKhIDNI, 17/3/881, 5, 21 (the reports on Moscow were made by Kaganovich, Khrushchev and Agranov).

Lists 1 and 2, had risen by as much as 30 per cent in a single month.<sup>208</sup> The lack of adequate food had become a major hindrance to the progress of industry. This was not an entirely new phenomenon (see, for example, p. 109 above), but food shortages were now a much more persistent and alarming problem. In March 1932 the local authorities warned in a series of urgent telegrams of the 'intolerable position' with bread supplies in the Kuznetsk basin: 'we live in days [;] four days for Kuznetskstroï and two days for Prokop'evsk'.<sup>209</sup> Stalin instructed the West Siberian party secretary not to reduce the supplies to the Kuznetsk project. As a result both the numbers of persons receiving rations and the size of the rations were reduced for all other Siberian industrial enterprises; there was not even enough grain available to make porridge for the increasing numbers of people who were suffering from typhus.<sup>210</sup> In April 1932 the manager of the iron and steel project at Lipetsk complained in an anguished telegram 'Plan construction disrupted Stop Mass Departure Workers I categorically insist immediate full satisfaction our claim'.<sup>211</sup> In the same month when foremen in dairies in Nizhnii Novgorod were taken off centralised supply they responded by 'mass refusal to work'; Narkomsnab feared that the resulting disruption of milk supplies would harm work on building sites and in hazardous factory departments.<sup>212</sup> In a telegram from Kazakhstan, the regional party secretary warned that 'all supply faces catastrophe'; in Karaganda and elsewhere the ration had been reduced by half and dependents had been taken off the ration altogether.<sup>213</sup> Food shortages threatened to

<sup>208</sup> RGAE, 4372/30/25, 146-5 (Guberman reporting to session of March 19).

<sup>209</sup> GARF, 5446/27/9, 107 (Lavrent'ev and Gryadinskii to Postyshev, Kuibyshev and Chernov), 9 (Eikhe and Gryadinskii to Kuibyshev). Both telegrams were despatched towards the end of March; the first referred to an earlier telegram of March 20.

<sup>210</sup> GARF, 5446/27/13, 139-8 (telegram from Eikhe to Stalin, dated June 1). On April 21 and 26, the Politburo allocated a small amount of food grain and fodder to West Siberia from the reserve stocks (RTsKhIDNI, 17/162/12, 108-9, decision no. 37/14, and 114, decision no. 28/4); but this proved inadequate.

<sup>211</sup> RGAE, 8043/1/61, 280 (telegram from Berzin dated April 26).

<sup>212</sup> *Ibid.* 379 (memorandum from Narkomsnab to the Nizhnii-Novgorod regional supply department dated April 25).

<sup>213</sup> GARF, 5446/27/9, 96-3 (Goleschchekin to Kuibyshev, undated [May ? 1932]).

disrupt the military construction programme, including the construction in the Far East developed in response to the Japanese threat. A telegram from Irkutsk to Moscow reported the 'lack of food funds' at the site of a new petrol depot, as a result of which 'Workers have given up work and gone away'.<sup>214</sup> The Krasnoyarsk airport reported 'breakdown of construction threatened' due to inadequate food supplies.<sup>215</sup> At the site of an aircraft factory under construction in the Urals 'whole families' left because they did not receive their bread ration.<sup>216</sup> Sugar factories under construction in the Far East experienced 'serious food difficulties on site'.<sup>217</sup> And the lack of fodder grain also hindered the work of industry. Krzhizhanovskii, then head of the electricity industry, complained that the lack of fodder for horses at the Donbass power stations had resulted in a 'catastrophic situation' which necessitated 'most urgent and energetic measures'.<sup>218</sup>

Experienced foreign observers were shocked by the serious food shortages in the towns as well as the near-famine conditions in large areas of the countryside. The most thorough reports are from the Canadian agricultural expert Andrew Cairns, who travelled extensively in the USSR in May–August 1932. He found that food supplies were adequate only at an occasional high-priority factory such as the Rostov agricultural machinery factory Rostsel'mash. Even in the Stalingrad tractor factory some workers merely received a ration of 800 grams of black bread, and no other rationed food. In Samara, workers on List 2 told Cairns that their rations were hopelessly inadequate for their families because their dependents received nothing but bread on the ration. In Kiev, workers on List 3 received only 200 grams of bread a day, and Cairns observed some of them collecting grass to make soup. A crowd of largely urban workers gathered round him at a Kiev market and told him that 'things had never been so bad, everyone was hungry'. In many places workers did not receive their full bread ration, and often had to queue for their

<sup>214</sup> *Ibid.* 386 (telegram of May 12).

<sup>215</sup> *Ibid.* 385 (telegram of May 13).

<sup>216</sup> RGAE, 4372/91/1050, 91 (report in August 1932).

<sup>217</sup> RGAE, 8043/1/55 (art. 302; Narkomsnab decree of June 16).

<sup>218</sup> Communication to Chernov, responsible for Fodder Committee of STO, dated March 27, 1932 (RGAE, 8040/1/2, 88).

ration for many hours.<sup>219</sup> The Italian vice-consul reported from Kharkov that people began queuing at 9 a.m. for bread rations which were not issued until 6 p.m.<sup>220</sup> In the Lower Volga towns, and in Kiev, the death rate increased sharply in the spring of 1932.<sup>221</sup>

In the spring of 1932, discontent simmered and festered among the urban as well as the rural population. The experienced German journalist Schiller commented:

I am very astonished at the way people talk, they do not seem to care who hears them, I have never heard the people talk so much, so bitterly, or so openly before.<sup>222</sup>

According to a British embassy official, during his tour of Ukraine and Crimea:

The most striking feature of the attitude of the inhabitants with whom I came in contact was their apparent fearlessness, outspokenness and disregard for the authorities. People to whom I spoke would suddenly form in groups, which included members of the local G.P.U., would ask questions about conditions abroad, and freely condemn in one breath the Government, the party and the future of the Soviet Union . . . 'There is nothing to live for!' This was said to me with a G.P.U. officer within 2 yards.<sup>223</sup>

<sup>219</sup> Cairns' reports are in FO 371/16329 N 3843 and N 4888. They are reproduced in Carynnyk *et al.*, eds. (1988), where the observations I have cited may be found on pp. 52, 63, 71, 72, 107, 109, 112, 152 and 185.

<sup>220</sup> Despatch of May 19, 1932, reprinted in *Report* (1988), 397.

<sup>221</sup> The death rate per 1,000 of population, calculated on an annual basis, was recorded as follows:

	<i>Jan.</i>	<i>Feb.</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>July</i>
Lower Volga region urban	21.7	25.0	30.1	33.9	31.0	43.7	47.5
Kiev region urban	16.4	19.3	23.3	26.5	25.4	27.0	28.0

(RGAE, 1562/20/41; I am indebted to Dr Wheatcroft for supplying these figures).

<sup>222</sup> Carynnyk *et al.*, eds. (1988), 40 (May 1932).

<sup>223</sup> Report from Vyvyan, July 1932, reprinted in BDFA, IIA, xvi (1992), 122-3.



This discontent is frequently mentioned in contemporary reports in the Soviet archives. At a conference on labour training held in the spring of 1932, a speaker reported that the struggle with ‘troublemakers (narushiteli)’ was the ‘basic issue’ in all factory training schools; ‘some hooligan trouble-makers infiltrate anti-soviet attitudes’ in the form of jokes and of anti-semitic and anti-soviet slogans.<sup>224</sup> As a result of the bad material situation of the pupils at the ‘Dinamo’ factory school, ‘we see counter-revolutionary slogans every day: beat the Jews, save Russia’.<sup>225</sup>

With the worsening food situation, discontent erupted into active resistance.<sup>226</sup> The émigré press reported strikes in Leningrad, Nizhnii Novgorod and the Urals.<sup>227</sup> In Borisov, in Belorussia, large groups of people broke into the grain stores, and women and children marched to the army barracks.<sup>228</sup> In the Donbass, demonstrations by children demanded bread, shops were pillaged and bread was seized from the bakeries.<sup>229</sup> The most dramatic unrest took place in the Ivanovo Industrial Region, where the textile industry was concentrated. At the beginning of 1932 payments for spoiled production and hold-ups were reduced, and hold-ups increased owing to the lack of raw material. The low earnings which resulted meant that the free market was unattainable for many workers. But in the winter of 1931–2 workers received rations irregularly, and from April 1 the bread ration for 400,000 workers on Lists 2 and 3 was reduced from about 500 to 250–350 grams a day. This was a starvation ration. Soon after this decision, many workers went on strike, and came out on the streets, in the Vichuga, Teikovo, Lezhnevo and Puchezh districts of the Ivanovo region. On April 10, in the Vichuga district, following the arrest of a strike leader by the OGPU, workers beat up the chief of police. They then broke into the OGPU building in search of their comrade, and assaulted the district OGPU chief; the OGPU staff set fire to secret documents

<sup>224</sup> GARF, 5451/16/639, 62 (speech by representative of the ‘Serp i Molot’ factory; the conference apparently took place in April).

<sup>225</sup> GARF, 5451/16/638, 49ob. (statement made at conference on April 14); this was the slogan of the extreme Right before the revolution.

<sup>226</sup> On these events, in addition to the sources cited below, see also Filtzer (1986), 83–4; Shimotomai (1991), 78–9.

<sup>227</sup> SV (Paris), cclxxv (July 23, 1932), 16.

<sup>228</sup> Cited from the archives in *Svobodnaya mysl'*, 17, 1991, 77 (Khlevnyuk).

<sup>229</sup> Cited from the archives in Osokina (1993), 26.

and left the building. Another group broke into party headquarters and assaulted the district party secretary and the trade union chairman. According to a secret official report, an OGPU detachment fired into the air and 'a person in the crowd was accidentally killed by a bullet', after which the crowd dispersed.

Similar events occurred elsewhere. In the Teikovo district about 600 workers set off on a hunger march to Ivanovo, but were stopped by a counter-demonstration organised by the Ivanovo party and Komsomol. The strikes continued for about a week. The Ivanovo leaders, supported by a visit from Kaganovich, took strong counter-measures. On April 14 a decision was approved 'to remove the anti-Soviet elements' in the largest industrial centres of the town.

This did not bring the disturbances to an end. News about the strikes soon reached the workers in the regional capital, the textile town Ivanovo-Voznesensk, famous in revolutionary history because the first workers' soviet was formed there in 1905. At meetings in textile factories the authorities were bitterly criticised. According to the official report, one worker stated that 'the giant factories are needed by those people who want to show off to the whole world, but previously we workers lived well without these factories'. At another factory a female worker called on a group of her colleagues to strike, declaring 'there's socialism for you, there's not enough bread – are the stupid workers going to keep silent much longer'. At a metal factory some workers said 'sometime the swine will pay for their humiliation of the working class; Vichuga began well but finished badly, just because we did not support them'. A handwritten leaflet left at the town's special shop for the élite complained: 'while they shoot at the hungry workers of Vichuga and Teikovo for demanding bread, here the senior communists and the red gendarmes of the GPU fatten themselves, concealed behind curtains'.

Most party members seem to have supported the authorities, but some identified themselves with the strikers. At an Ivanovo factory a party member told the workers 'we have adopted idiotic rates of growth – these rates can destroy the whole revolution'.<sup>230</sup>

<sup>230</sup> The above account is based on a top-secret report and supplementary report dated April 22 and 27, 1932, from the regional party control commission to Rudzutak as head of the control commission (GARF, 374/27s/1988, 93–82, 70–57) and on the account in *Svobodnaya mysl'*, 17, 1991, 77–8 (Khlevnyuk). I am most grateful to Dr N. Werth for providing me with copies of these reports.

According to several reports published in the West the discontent in Ivanovo culminated in a demonstration on or after May 1; one account claimed that workers carried portraits of Lenin and Trotsky, and shouted out against Stalin. Over 100 party members were disciplined for siding with the discontented workers.<sup>231</sup>

The authorities were evidently extremely alarmed by the Ivanovo disturbances. The Politburo addressed a letter to the regional party asserting that they had failed to notice that ‘the remnants of the counter-revolutionary SR and Menshevik parties, and counter-revolutionary Trotskyists driven out of our Bolshevik ranks, and former members of the “workers’ opposition”, sought to establish a base for themselves and organise demonstrations against the party and Soviet power’. Postyshev and Kaganovich hastened to Ivanovo, and hundreds of workers were seized by the OGPU.<sup>232</sup>

Almost nothing about these events appeared in the press. The ninth trade-union congress which assembled from April 20 to 29, in the midst of all these troubles, was the first to be held since the famous eighth congress in the far-off days of December 1928 when Tomskey resigned from the chairmanship of the trade union central council after Kaganovich had been imposed on its presidium by the Politburo.<sup>233</sup> The ninth congress was almost entirely a tame and routine affair. But some discontent rumbled among the delegates. In his speech to the congress Rudzutak announced that Rabkrin had received ‘thousands of letters’ of complaint about the consumer cooperatives, and acknowledged that ‘a vast mass of consumers, a vast mass of workers and collective-farmers, served by bad cooperators and bad traders, are saturated with hostile attitudes (*propitaetsya skvernymi nastroeniyami*)’.<sup>234</sup> Although Rudzutak’s public statement retained the convention that inefficient organisation was responsible for all these troubles, its unusual frankness indicated the tension behind the scenes.

<sup>231</sup> Saunders (1974), citing report by A. Chumakova in SV (Paris), cclxxxiii (November 26, 1932), 15–16; BO (Berlin), xxix–xxx (September 1932), 13 (letter from Moscow dated August 22); Woodward and Butler, eds. (1958), 243 (despatch by Strang dated August 14).

<sup>232</sup> *Svobodnaya mysl'*, 17, 1991, 78 (Khlevnyuk).

<sup>233</sup> See Carr and Davies (1969), 558–60.

<sup>234</sup> *Devyatyi . . . s'ezd* (1932), 189, 193–4.

A few weeks later, on May 31, *Pravda* published an article by Yaroslavsky about the emergency party conferences which were being held in the Ivanovo region. He reported that on April 25 the central party control commission had dissolved the control commissions in the Vichuga, Teikovo and Lezhnev districts. Their faults had included their failure to oppose the 'illegal cancellation of the issue of the February and March food rations to a section of the workers'. Yaroslavsky also castigated the former district party committees, which had been dissolved by the regional party, for their 'criminal lack of attention to supplies for the workers', and their lack of attention to women workers. All this, Yaroslavsky concluded, had created favourable conditions for the work of the class enemy.

Yaroslavsky's article did not mention the strikes and disturbances. But it was far too frank for the Politburo, which on June 7 resolved that it was 'factually erroneous and politically harmful', and expelled Yaroslavsky from the editorial board of *Pravda*.<sup>235</sup>

While exercising their familiar instruments of repression, censorship and exhortation, the authorities were well aware that the sharp deterioration in the economy was at the heart of their troubles. In his address to the trade-union congress Rudzutak admitted that 'bad organisation of trade and bad organisation of workers' supply directly influences labour productivity and the fulfilment of production plans'.<sup>236</sup> Kuibyshev, in an unpublished report of April 1932, noted that 'nominal wages are growing, more and more currency is being issued, but production is growing less rapidly, and this is causing more and more difficulties for the population'. While 'it would be laughable to think that heavy industry could advance without the improvement of the standard of living of the working class' in practice 'the goods famine even seems to be getting worse'.<sup>237</sup> Gosplan, in its confidential summary of the results of the first six months of 1932, circulated in 500 copies, bluntly insisted that 'food supply to the workers throughout [the first six months of] 1932 has

<sup>235</sup> RTsKhIDNI, 17/3/887, 9.

<sup>236</sup> *Devyatyi . . . s'ezd* (1932), 189, 193-4.

<sup>237</sup> RTsKhIDNI, 79/1/554, 12-3, 26; the report was delivered to the Communist University of the Central Committee for secretaries of party cells; a note attached to it was dated April 14; see also p. 167 above.

harmed labour turnover, labour discipline and productivity in a number of sectors of industry, building and transport'.<sup>238</sup>

### (E) ECONOMIC AND FINANCIAL POLICY

In the first six months of 1932 the compilers of economic plans at every level continued to work with the optimistic assumptions underlying the 1932 plan. In spite of the *khozraschet* campaign, planners still treated finance as subordinate to the plan. Confronted with additional demands for investment from heavy industry and elsewhere (see pp. 169 and 173–4 above), the authorities increased the capital investment plan for 1932 from 21.1 to 24.3 milliard rubles; two-thirds of the increase was allocated to Narkomtyazhprom.<sup>239</sup> But even this plan was treated in practice as too modest; investment was generously financed throughout the first six months of 1932. On March 3, for example, the Politburo increased the 1932 investment allocation to the Nizhnii-Tagil railway wagon factory from 50 to 85 million rubles;<sup>240</sup> on May 8, the Politburo, while insisting on 'strict financial discipline', ruled that the volume of finance provided for Kuznetskstroï should 'completely cover the programme of capital work and should eliminate the debt carried forward from 1931'.<sup>241</sup> Such decisions meant that the original allocation for the January–March quarter was overspent. Accordingly in March 1932 a substantial sum was transferred to Narkomtyazh-

<sup>238</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, Trud. This assessment was confirmed by foreign observers. On June 9 a German engineer who worked in a fruit-processing plant in Moscow told Cairns that 'the workers in his factory were very apathetic, especially since their food rations had been reduced', and on the same day an experienced Czech mining engineer who worked in the Donbass in conversation with Cairns 'attributed the low production to the hunger of the miners' (Carynnyk *et al.*, eds. (1988), 72).

<sup>239</sup> See Zaleski (1971), 217; PKh, 1, 1932, 133 (sent to press in May 1932).

<sup>240</sup> RTsKhIDNI, 17/3/874, 16.

<sup>241</sup> RTsKhIDNI, 17/3/883, 41. In March the investment allocation to Magnitogorsk was increased by 53 million to 303 million rubles (RTsKhIDNI, 17/3/874, 20 – Politburo decision of March 3; GARF, 5446/57/18, 106, art. 262/54 – Sovnarkom decree dated March 5), and in May it was increased by a further 5 million rubles (RTsKhIDNI, 17/3/886, 14 – Politburo decision of May 29). In May the investment allocation to the aluminium industry was increased by 45 million rubles (GARF, 5446/57/19, 156–9, art. 813/192s – Sovnarkom decree dated May 26).

prom from its allocation for April–December.<sup>242</sup> The quarterly allocations to investment increased as follows:

Quarter	Date approved	Amount (million rubles)	
		Total	Narkomtyazhprom
January–March	January?	?	2185 <sup>a</sup>
April–June	March 19	?	2550 <sup>b</sup>
April–June	April 16	6796 <sup>a</sup>	3109 <sup>a</sup>
July–September	June	6800 <sup>c</sup>	(2900) <sup>d</sup>
July–September	June 17	7050 <sup>c</sup>	3050 <sup>e</sup>

<sup>a</sup> GARF, 5446/1/67, 75–81.

<sup>b</sup> RGAE, 4372/30/25, 82, 85 (2550 may exclude armaments, in which case comparable figure would be 2950).

<sup>c</sup> RTsKhIDNI, 17/3/889, 13.

<sup>d</sup> Increased by 150 million by Politburo decision of June 17.

<sup>e</sup> GARF, 5446/1/69, 114.

By April the quarterly investment allocation to Narkomtyazhprom amounted to 31 per cent of the revised annual plan, which was itself substantially larger than the initial plan.<sup>243</sup>

While the quarterly investment plans for 1932 were corrected upwards, the quarterly production plans were corrected downwards in response to the lag of production behind the plan; and even the lower targets were far in excess of what was actually achieved.<sup>244</sup> But the need to revise the 1932 plan was nowhere

<sup>242</sup> RTsKhIDNI, 17/3/875, 8 (Politburo decision dated March 5); GARF, 5446/1/66, 137 (art. 266 – Sovnarkom decree dated March 5).

<sup>243</sup> The revised 1932 investment plan for Narkomtyazhprom was 9,995 million rubles (GARF, 5446/1/67, 75–81).

<sup>244</sup> The plans for pig-iron, for example, were revised as follows (thousand tons):

Quarterly average of 1932 plan	2250–2500 <sup>a</sup>
January–March: plan	1750 <sup>b</sup>
January–March: actual	1391 <sup>c</sup>
April–June: Narkomtyazhprom directives, February 10	2200 <sup>d</sup>
April–June: revised plan	1900 <sup>e</sup>
April–June: actual	1580 <sup>e</sup>
July–September: Narkomtyazhprom directives, May 19	2000 <sup>f</sup>
July–September: actual	1558 <sup>e</sup>
October–December: Narkomtyazhprom directives, August 19	1900 <sup>g</sup>
October–December: actual	1644 <sup>e</sup>

<sup>a</sup> Plan for 1932 was 9–10 million tons.

<sup>c</sup> PKh, I, 1932, 129.

<sup>b</sup> PKh, I, 1932, 115.

<sup>f</sup> SP NKTP, 1932, art. 298.

<sup>c</sup> *Osnovnye pokazateli*, 1933, 36–7.

<sup>g</sup> *Ibid.* art. 583.

<sup>d</sup> SP NKTP, 1932, art. 60.

For a discussion of the downward correction of quarterly plans, see Zaleski (1980), 207–9, 215.

publicly admitted. An editorial in the Gosplan journal acknowledged ‘substantial underfulfilment of the plan’ in the first six months, but emphasised that ‘*the annual plan can undoubtedly be fulfilled completely*’.<sup>245</sup>

The increase in investment expenditure above the plan, coupled with the failure to meet either the production or the cost targets, exacerbated financial difficulties throughout the economy. In January–June 1932 budget expenditure on both capital investment and social and cultural measures exceeded the estimate. Budgetary revenue needed to be substantially increased. But direct payments by individuals in the form of taxes and loans were somewhat lower than planned, primarily because the rural population paid less in taxes and contributed much less in loans to the state than the estimate. Profits in industry and other sectors of the economy were also lower than planned. The only remaining course of action was to increase prices. Following the precedent of the spring of 1931, the Price Committee substantially increased prices of industrial consumer goods and food products on February 1, 1932.<sup>246</sup> The transfer prices at which goods left the factory were increased substantially, and retail prices were increased even further – in cooperative trade they rose by 28.8 per cent in the countryside and 31.6 per cent in the towns. This was the first large increase in official urban retail prices; it was the beginning of the end of the provision of cheap rations to the urban population.<sup>247</sup> In an unpublished speech to party activists, Kuibyshev admitted that the price increases were ‘an extremely undesirable measure’, which conflicted with the party policy of reducing prices; he explained that as it was impossible to increase direct taxes or loans, ‘we were compelled to increase prices’ in order to be able to provide finance for capital

<sup>245</sup> PKh, 2, 1932, 7, 14; this issue was sent to press June 16–July 9, 1932.

<sup>246</sup> On January 23 the Politburo ‘approved a resolution on additional budgetary revenue in 1932’ (*Industrializatsiya, 1929–1932* (1970), 608; on January 27 the Price Committee approved a decree ‘On Alterations in Transfer and Retail Prices on Certain Commodities’ (the decree has not been published, but is summarised from the archives in Malafev (1964), 161–2).

<sup>247</sup> *Tovarooborot* (1932), 131–5; see also Table 25(a) below. The retail price of vodka was increased in March (RTsKhIDNI, 17/162/12, 1 – session of March 8, item 11), and textile prices were further increased in April (see the report by KTF dated April 23, and endorsed by the Politburo – RTsKhIDNI, 17/3/882, 18–19).

construction.<sup>248</sup> The silence in the press on such sensitive matters was now almost total. These drastic price increases took place while the XVII party conference was in session, and must have been on everyone's lips in the corridors; but they were not mentioned in the record of the official proceedings.

The substantial gap between the new retail prices and the transfer prices paid to industry enabled the rates of turnover tax to be increased substantially. While retail trade turnover in January–June 1932 was less than planned, the amount collected in turnover tax, 7,525 million rubles, was nearly 60 per cent of the annual plan.<sup>249</sup>

But even these swingeing price increases failed to meet financial requirements. Factories were again unable to pay wages on time, and in March the Politburo agreed 'to prosecute those responsible for wage delays, including heads of branches of Gosbank who claim that they have no cash in hand'.<sup>250</sup> But such threats were ineffective, as in fact banks had no cash available. In order to cover the additional expenditure of the state budget for the January–March quarter, the Politburo instructed Gosbank to make 600 million rubles available in advance from the allocations for April–June.<sup>251</sup> Then in April–June 1932, budget expenditure on heavy industry increased by a further 46 per cent; the increase of this item alone exceeded the increase in turnover tax. The authorities had to resort to currency issue. While currency in circulation declined in January–March 1932, it increased rapidly in April–June (see Table 24). In spite of the additional currency issues, the overdue debts of several industries increased. Some major corporations, including Stal', were again unable to pay wages on time.<sup>252</sup>

Inflationary pressure in the first six months of 1932 was reflected in a dramatic increase in prices obtained by peasants in the urban free markets ('bazaars') for their agricultural

<sup>248</sup> RTsKhIDNI, 79/1/554, 26–7; for this speech, given in April 1932, see p. 191 n. 237 above.

<sup>249</sup> See *Osnovnye pokazateli*, January–June 1932, 149, 175; retail trade amounted to 92 per cent of the plan.

<sup>250</sup> RTsKhIDNI, 17/3/874, 19 (decision of Commission of Fulfilment, approved by Politburo on March 3).

<sup>251</sup> RTsKhIDNI, 17/3/875, 3 (decision of March 8).

<sup>252</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, Finansy, pp. 6–7.



commodities. Food prices rose by 55 per cent between January 1 and May 1 (see Table 25(b)); this was the most rapid increase since the stabilisation of the currency in 1924. In 1931, the sale of food off the ration by the state at high commercial prices led to a considerable reduction in the rate of increase of free-market prices. But in January–March 1932, these sales proved inadequate; and in April–June 1932 state and cooperative supplies to the market at both normal and commercial prices declined.<sup>253</sup> (The situation on the market in the spring of 1932 is discussed further on pp. 205–9 below.)

The public discussion of economic policy in the first six months of 1932 was dominated by the preparation of the draft second five-year plan. Preobrazhensky, temporarily permitted to return to public life, submitted a controversial article 'On the Methodology for Compiling the Genplan and the Second Five-Year Plan' to the economics journal of the Communist Academy. The article was not published, and is known only from the extensive extracts cited by its critics.<sup>254</sup> Preobrazhensky took as his starting point what he described as 'the tremendous hypertrophy of the production of the means of production' which had taken place during the first five-year plan. While he acknowledged that this concentration of resources was made necessary by the 'constant and growing danger of intervention and blockade', he at the same time implicitly refuted official myths by bluntly stating that the result had been a worsening or at best a stagnation in living standards. He also acknowledged that investment would continue to increase rapidly in 1933 and 1934.<sup>255</sup> But he argued

<sup>253</sup> *Osnovnye pokazateli*, June 1932, 140–1; *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, *Snabzhenie i trgovlya*, pp. 4–7.

<sup>254</sup> It was summarised, with long quotations, in *Problemy ekonomiki*, 1, 1932, 7–18 (Butaev); the journal went to press on March 5–April 29, so the article must have been submitted some time before those dates. Attempts by Russian historians to find the article in the archives have so far proved unsuccessful.

<sup>255</sup> According to Preobrazhensky's estimates, the accumulation fund would amount to 25.3 milliard rubles in 1933, the consumption fund to 21.2 milliard rubles (see n. 256 below). The results for 1931, in preparation at the time he was writing, showed the accumulation fund as 15.2 milliard rubles, the consumption fund as 22.7 milliard rubles (in 1928 prices) (*Materials* (1985), 96 – these figures are mistakenly stated to be in current prices). Preobrazhensky therefore assumed that the consumption fund would continue to stagnate in 1932 and 1933, as it had in the previous three years; this was contrary to all official plans,

that by the end of 1934 most of the labour force would be re-equipped; further rapid growth of accumulation after 1934 would therefore threaten a special kind of 'over-accumulation', in the form of excess production from heavy industry. This should be dealt with in the last three years of the second five-year plan, 1935-37, by shifting accumulation into consumption, and reducing the size of the accumulation fund.<sup>256</sup> 'Socialism,' Preobrazhensky declared, 'is production for consumption'; to maintain the high rate of accumulation in the new circumstances would be 'economically completely senseless'.

Preobrazhensky's whole line of argument was repudiated by orthodox party economists, who indignantly rejected his claim that consumption had stagnated or declined, and denounced his proposal to take consumption as the starting point in preparing the second five-year plan. One economist even asserted that the reduction of accumulation would lead to a 'stagnant consumerist society'.<sup>257</sup> Preobrazhensky's critics were right to dismiss his fears of a 'crisis of over-accumulation': his assumption that most labour would be technically re-equipped by 1934 had no serious foundation.<sup>258</sup> But Preobrazhensky had taken up a crucial issue on which official policies were inconsistent. The targets for the second five-year plan presented at the XVII party conference

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which always assumed that consumption would increase, although at a lesser rate than accumulation.

<sup>256</sup> He proposed the following figures (evidently in milliard rubles; prices not stated, but apparently prices of 1928):

	<i>Consumption Fund</i>	<i>Previous year = 100</i>	<i>Accumulation Fund</i>	<i>Previous year = 100</i>
1933	21.2	-	25.3	-
1934	24.4	115.1	35.1	138.7
1935	32.0	131.1	37.0	105.4
1936	48.0	150.0	34.0	91.9
1937	72.0	150.0	27.0	79.4
	(197.6)		(158.4)	
Index for 1937 (1933 = 100)	339.6	-	106.7	-

Index numbers were estimated by the present author.

<sup>257</sup> PE, 1, 1932, 9-10, 14-15, 18 (Butaev); PKh, 3, 1932, 149, 155 (Ragol'skii, report of May 20, 1932).

<sup>258</sup> Alexander Erlich, who first drew attention to Preobrazhensky's article, pointed out that 'it was patently impossible to re-equip 54 out of 60 million people on the basis of up-to-date technology within five or six years' (Erlich (1960), 179).

proposed a substantial reduction in the rate of growth of accumulation and a substantial increase in consumption, but they also simultaneously envisaged very rapid increases in the production of every kind of capital good.<sup>259</sup>

Throughout most of 1932, the draft five-year plans for the production of the major capital goods were further increased, so that the plan became still more unbalanced. In the iron and steel industry, where the original plan to produce 50–60 million tons in 1937 had been sharply reduced (see pp. 124, 135 above), senior officials seized on Stalin's hint at the XVII party conference that counter-planning might result in an increase in the targets, and advocated a pig-iron plan of 25–26 million tons for 1937, as compared with the plan of 22 million tons announced at the conference.<sup>260</sup> At a session of the presidium of Gosplan in May, the responsible Gosplan official pointed out that even this increased figure could not be reconciled with the 1937 programmes of the various metal-consuming industries.<sup>261</sup> A conference of the interested parties held in Leningrad at this time concluded that 30 million tons of rolled steel would be required in 1937 (implying that pig-iron production would be some 35 million tons); however, this target was reduced to 20 million tons at the conference itself.<sup>262</sup> But the argument continued. In June, Mezhlauk pointed out to the presidium of Gosplan that this lower level of production would mean that the metal available for standard machine building was 'completely insufficient'.<sup>263</sup>

<sup>259</sup> See pp. 134–9 above, and Zaleski (1980), 117–18. Capital investment in 1933–7 was planned at an annual average of 28–30 milliard rubles, as compared with 24 milliard rubles planned for 1932; consumption per capita in 1937 was planned at 200–300 per cent of 1932, the upper limit of which is close to Preobrazhensky's assumption that total consumption in 1937 would be 340 per cent of 1933.

<sup>260</sup> See, for example, ZI, April 15, 1932 (Troitskii); he argued with persuasive detail that the existing building teams would easily be able to increase capacity by a sufficient amount, and that only the higher target would make it possible to allocate the engineering industry the iron and steel it needed to meet its target. Another official claimed that the target of 22–23 million tons could be reached 'in the main by maximum utilisation of the fixed capital which we are now producing' (*Sovetskaya metallurgiya*, 1, 1932, 10 (Tseitlin)).

<sup>261</sup> RGAE, 4372/30/25, 229 (Lauer, at session of May 29).

<sup>262</sup> *Ibid.* 453–2 (report of a joint conference of Gipromez, GUMP, Stal'sbyt and Gosplan, given by Borilin to the presidium of Gosplan on June 22).

<sup>263</sup> *Ibid.* 383 (session of June 22).

Plans for most capital goods industries other than iron and steel had been cut much less dramatically by the time of the XVII conference. The astonishing plan to produce 847 thousand tons of copper in 1937, announced in 1931, had been reduced, but only to 500 thousand tons.<sup>264</sup> At a national conference on non-ferrous metals a senior official from the industry, insisting that 'a mere wish to produce as much copper as possible is not enough', rejected the 'astronomical figures' proposed in 1931, and demanded that 'wishes must be justified and confirmed by estimating possibilities'.<sup>265</sup> But the conference, confronted with a demand for copper in 1937 estimated at 775 thousand tons, accepted a plan for 1937 of 650 thousand tons.<sup>266</sup> Vorob'ev, a writer in the industrial newspaper, hinted that such high targets had no foundation, and was in turn criticised for failing to struggle against 'bourgeois influences in planning'. But even Vorob'ev proposed a plan of 505 thousand tons, and acknowledged that from the side of demand 'possibly not 500 but 650 thousand tons is needed'.<sup>267</sup>

In this world of vain hopes and idle dreams, numerous conferences on the second five-year plan assembled in rapid succession, the most important being the conference on the location of productive forces held in April, and a large conference held in May on the general plan for electrification. The May conference considered the five-year plan for electric power and other industries in the context of a proposed new general plan covering a 10–15-year period. Large numbers of scientists and engineers participated; and many of the technical studies submitted were of high quality. Zaleski has noted 'the apparent contradiction between the cautious approach of the authors and the fantastic prospects for development'; proposals which were premature in 1933–7 were sometimes taken up in later years and

<sup>264</sup> RTsKhIDNI, 85/29/16, 5 (a background document used by Ordzhonikidze for the XVII conference); see also Zaleski (1980), 108.

<sup>265</sup> ZI, July 5, 1932 (Ivanov).

<sup>266</sup> EZh, July 2, 4, 1932; high targets were also adopted for other non-ferrous metals.

<sup>267</sup> ZI, July 5, 24, 1932; his critic was Solov'ev, in EZh, July 14, 1932. In the final version of the five-year plan copper production was planned at only 135 thousand tons in 1937; actual production in that year was 97.5 thousand tons (Zaleski (1980), 524).

decades.<sup>268</sup> In opening the April conference, Lomov, vice-chairman of Gosplan, criticised the regional authorities for aiming at 'production on a fantastic scale in the second five-year plan';<sup>269</sup> but at this time restraining hands could at best prevent a further escalation of targets.

These conferences all formed part of the 'first round (*pervyi tur*)' of the preparation of the plan, at the end of which Gosplan was supposed to produce a first variant of the five-year plan for consideration by the government. In the spring of 1932, Gosplan struggled to reconcile the various objectives posed by the XVII conference and the subsequent proposals coming from different government departments. A report presented to a conference held in the Gosplan economic research institute in May attempted to reconcile the proposal to double or treble consumption per head during the second five-year plan with the other targets of the plan by proposing that national income in 1937 should reach 230–250 per cent of the 1932 level.<sup>270</sup> Two weeks later, at a meeting of the presidium of Gosplan devoted to the 'first round' of the second five-year plan, Borilin, chairman of the Gosplan commission on the compilation of the plan, reported that the 'upper limit' for investment must be increased to 160 milliard rubles.<sup>271</sup> Smilga, deputy chairman of Gosplan, in an article written towards the end of the 'first round', insisted that the plan must be based on 'full observance of the conditions which will bring about a normal course of the process of extended reproduction', and criticised 'proposals based on arbitrarily

<sup>268</sup> Zaleski (1980), 119–27, perceptively surveys the abundant material of the electrification conference.

<sup>269</sup> *Trudy . . . po razmeshcheniyu*, iv (1933), 9.

<sup>270</sup> PKh, 3, 1932, 153–5 (Ragol'skii, conference on May 25). At the XVII party conference Kuibyshev had called for investment amounting to 140–150 milliard rubles and for national income in 1937 to reach 'at least double' that of 1932 (*XVII konf.* (1932), 164); Ragol'skii erroneously stated that Kuibyshev's comparison was between 1931 and 1937 (p. 153). At the IX trade union congress in April, Kuibyshev had already replaced his investment figure of 140–150 milliard rubles presented to the XVII conference by 150 milliard rubles (*Devyatyi . . . s'ezd* (1933), 610).

<sup>271</sup> *EZh*, June 24, 1932; by this time reports of meetings of the Gosplan presidium rarely appeared in the press. The plan for rolled steel was cut from 30 to 20 million tons; the rolled steel plan in different variants of the second five-year plan was between 77 and 87 per cent of the pig-iron plan, so even the lower plan for rolled steel implied a pig-iron plan of at least 23 million tons.

estimated “need” or merely on the existence of natural resources’. But the only specific proposal he objected to in public was a wildly extravagant plan for railway electrification.<sup>272</sup>

## (F) RADICAL ECONOMIC REFORM

Thus in the first few months of 1932 the economic and financial policies of the previous three years continued to predominate. The authorities clung to their over-optimistic plans, and sought to cure the sick economy by more feverish exertions, coupled with additional injections of currency. But some decisions at the end of 1931 and in January–April 1932 were harbingers of the major changes in policy and practice in May–July.

Significant changes in economic administration facilitated reform. In December 1931, the status of the governmental statistical service was greatly enhanced. Demoted to a mere department of Gosplan at the beginning of 1930 (see vol. 3, pp. 238–9), it was now elevated into a semi-autonomous Central Administration of National Economic Records (TsUNKhU), attached to Gosplan, but with nominal control of its own budget and staff, and the right of direct access to higher government agencies. The status of the director of TsUNKhU was enhanced by the provision that he would be appointed by TsIK direct.<sup>273</sup> On January 11, 1932, Osinsky was appointed the first director.<sup>274</sup>

<sup>272</sup> PKh, 3, 1932, 25; this issue, though dated July, went to press on July 8–August 7, and was signed for printing on September 3–15. The proposal was to electrify 18,000–20,000 km.; Zaleski (1980), 121, cites a detailed project presented to the electrification conference proposing to electrify 21,000 km. in 1933–37. But the proposals circulating in Narkomput’ in the first few months of 1932 envisaged the electrification of only about 10,000 km. (RGAE, 1884/43/171, 55–8 (dated February 16), 69–71 (April 2), 79–80 (April [?] 20)). In July Narkomput’ proposed a higher ‘first variant’ of 13,300 km. (RGAE, 1884/43/171, 119–22 (dated July 8), 113, referring to Narkomput’ meetings with Gosplan on July 25.) So Smilga was attacking publicly a proposal of 18,000–20,000 km., although the highest serious proposal from the department concerned was 13,000 km., and Gosplan’s own proposal was only about half that amount. This indicates the large gap at that time between public discussion and private negotiation, as well as the unreality of all the figures. Even by 1940 only 1,900 km. of track had been electrified (*Transport i svyaz*’ (1972), 89).

<sup>273</sup> SZ, 1931, art. 488 (dated December 17). In reality, of course, he was appointed by the Politburo.

<sup>274</sup> SZ, 1932, ii, art. 15.

This was a remarkable event. Osinsky had been a fellow-student of Bukharin's, a member of the Left Opposition in the spring of 1918, and an independent-minded supporter of successive oppositions thereafter. He resigned or was dismissed from his post as head of the Central Statistical Administration TsSU in March 1928, and vigorously criticised Stalin's industrial and agricultural policies at the plenum of the party central committee in July 1928.<sup>275</sup> It seems unlikely that Stalin would have been enthusiastic about this appointment.

The appointment of Osinsky's deputies also facilitated a limited return to the independent traditions of the statistical services. Minaev was appointed first deputy chair; he had valiantly struggled to maintain some reliability in state statistics since the abolition of TsSU two years previously. Strumilin was appointed deputy chairman – he was an enthusiastic supporter of central planning who had a mind of his own, and had recently been condemned for 'right-wing opportunism' by young marxist economists (see p. 81 above).<sup>276</sup>

TsUNKhU immediately sought to remove some of the veils of statistical deception which concealed economic realities. Within a few weeks of his appointment, while the XVII party conference was sitting, Osinsky announced that grain production in 1931 had been 78.4 million tons; this was still only a first step to the truth, but was 20 million tons less than planned.<sup>277</sup> The statistical services had been shattered in 1930 by drastic reorganisation and still more by numerous arrests. In February 1932 Sovnarkom instructed Narkomtrud to prepare a register of all professional statisticians who had left TsSU since the beginning of 1928; TsUNKhU was given the right to select staff from this register.<sup>278</sup>

<sup>275</sup> See references to Osinsky in Carr and Davies (1969), and Wheatcroft (1979), 6; for his autobiography, see Granat, 41, ii, 89–98. Between 1928 and 1931 his main administrative posts were concerned with the motor industry.

<sup>276</sup> Minaev and Strumilin were appointed deputy chairmen on January 9, two days before Osinsky's appointment; on the same day Nemchinov, the able marxist statistician who had advised Stalin on grain statistics in 1928 was appointed to the TsUNKhU collegium (SZ, 1932, ii, arts. 16–18); Mindlin was appointed to the collegium on March 19 (*ibid.* art. 94) and A. S. Popov on March 25 (*ibid.* art. 95).

<sup>277</sup> I, February 2, 1932; see also Wheatcroft (1979), 8 and 18, n. 27. The figure was eventually further reduced to 69 million tons.

<sup>278</sup> SZ, 1932, art. 84 (dated February 21).

At a time of acute paper shortage, when most journals were appearing irregularly, TsUNKhU pushed ahead with a large new programme for disseminating economic information. In the first few months of 1932 it published a general statistical handbook, the first since 1929,<sup>279</sup> and began to issue an informative new journal, *Narodnoe khozyaistvo SSSR*.<sup>280</sup> Early in 1932 production began of two series of monthly statistical information bulletins for official circulation.<sup>281</sup> These printed bulletins, issued in 500 copies within a few weeks of the end of the month under review, contained numerous statistical tables providing data on production and prices (including private-market prices) of a kind which had not been available in the open press since 1930, and had apparently not been available even to senior officials in any systematic form. In 1932 these bulletins included commentaries on economic developments which, while careful not to criticise official policies, summarised their effects fairly frankly. At this time Gosplan also began to produce an even franker monthly bulletin, at first in mimeographed form.<sup>282</sup> All this provided raw material and fuel for the economic debate.

On January 5, 1932, Vesenkha, in charge of industry since it was established in December 1917, was transmuted into the People's Commissariat of Heavy Industry, Narkomtyazhprom. Light industry and the timber industry were separated from it into separate commissariats, Narkomlegprom and Narkomlesprom.<sup>283</sup> While Narkomtyazhprom and Narkomlesprom were established as 'Union' commissariats, directly responsible for

<sup>279</sup> *Narodnoe khozyaistvo SSSR: statisticheskii spravochnik 1932* (1932) was obviously prepared before the establishment of TsUNKhU, as it was sent to press between December 23, 1931, and January 4, 1932, and approved for printing on January 29–February 1.

<sup>280</sup> Only four numbers of the journal appeared between April 1932 and the end of the year; it was edited by Minaev.

<sup>281</sup> *Osnovnye pokazатели vypolneniya narodno-khozyaistvennogo plana* (Main Indicators of Fulfilment of the National Economic Plan) and *Itogi narodno-khozyaistvennogo plana po torgovle i snabzheniyu* (Results of Fulfilment of the National Economic Plan for Trade and Supply).

<sup>282</sup> *Vypolnenie narodno-khozyaistvennogo plana* (Fulfilment of the National Economic Plan), issued by its sector for supervising fulfilment of the plan.

<sup>283</sup> SZ, 1932, art. 4; a further decree of January 10 listed the sub-industries which were to be included in Narkomlegprom (SZ, 1932, art. 24). The food industry had already been transferred to Narkomsnab in 1930 (see vol. 3, p. 418).



their industries over the whole territory of the USSR, Narkomlegprom was a 'Unified' (Union-Republican) commissariat, with equivalent commissariats in the republics; these were formed out of the republican Vesenkhas.

Ordzhonikidze, who was appointed People's Commissar for Heavy Industry, was not a party to the decision.<sup>284</sup> The question of 'the reconstruction of the work of the economic commissariats, primarily Vesenkha', appeared on the Politburo agenda on December 23, 1931. The Politburo accepted the draft resolution proposed by Stalin. Considerable tension behind the scenes is reflected in its laconic but top-secret decisions that 'Comrade Ordzhonikidze's proposal to resign is rejected' and that 'a special meeting of the Politburo shall be convened to examine Cde. Ordzhonikidze's statement on his relations with cde. Molotov'.<sup>285</sup> The decision to split up Vesenkha was put into effect hastily and with little preparation. The new People's Commissar for Light Industry, Lyubimov, reported to the XVII party conference three weeks later the muddle and disorder associated with the transfer of enterprises to his commissariat.<sup>286</sup> It must remain a matter of speculation whether the division of Vesenkha was deliberately undertaken so as to enhance the authority of Stalin, Molotov and the Politburo. The establishment of a separate Narkomlegprom increased the potential influence of light industry. Lyubimov claimed that it marked 'the promotion of light industry to a leading position', adding that 'we already have the possibility of giving more attention to the production of mass consumer goods'. He warned the XVII conference that to this end 'the attitude of all organisations and the entire party and Soviet public to light industry must be changed fundamentally'; in particular, heavy industry must supply it with more machines and materials.<sup>287</sup>

<sup>284</sup> According to a Russian historian, he 'learned about it accidentally from people not directly concerned, and did not believe it' (*Stranitsy istorii* (1989), 227 – *Lel'chuk*).

<sup>285</sup> RTsKhIDNI, 17/162/11, 99 (item 6); no special meeting appears later in the Politburo minutes. Evidently as a sop to Ordzhonikidze, he was appointed to the small inner commission on international affairs a few days later (see p. 81, n. 17 above).

<sup>286</sup> *XVII konf.* (1932) 34. Lyubimov, a party member since 1902, had previously been a deputy People's Commissar of Foreign Trade.

<sup>287</sup> *Ibid.* 34, 40.

A third important change in economic administration was the establishment in February of a powerful Committee for Collections of Agricultural Products (Komzag) attached directly to STO, bringing together the collection agencies from both Narkomsnab and the agricultural cooperatives. Kuibyshev was appointed chair of this Committee in addition to his duties as deputy chair of Sovnarkom and chair of Gosplan;<sup>288</sup> this meant that a single person now represented the interests of state planning and the agricultural collections on the Politburo. The decree instituting Komzag stressed equally the necessity of unifying the food collection system and the importance of the broad development of 'decentralised collections' by ZRKs, consumer cooperatives and state trading agencies.

A fourth major administrative change established machinery for the management of supplies to the consumer, so far handled by *ad hoc* measures and commissions. On April 1, the Committee for Commodity Funds and the Control of Trade (KTF) was established by Sovnarkom. Like Kuibyshev's Komzag, this committee was attached to STO, and its role in the distribution of commodities was analogous to the role of Komzag in agricultural collections. KTF replaced the Price Committee of STO established in October 1931, as well as taking on some of the functions of Narkomsnab.<sup>289</sup> Molotov, who was chair of the Price Committee, continued as chair of KTF; Mikoyan, who had been responsible for the distribution of supplies as People's Commissar for Supply, was appointed first vice-chair.<sup>290</sup> Thus the collection and distribution of food supplies, and the distribution of industrial consumer goods, were now the responsibility of two members of the Politburo, assisted by Chernov and Mikoyan, who had dealt with these matters within Narkomsnab for several years.

Control by the central authorities was ultimately enhanced by these administrative changes. Thus Sovnarkom ruled that 'normally, with no exceptions permitted, the distribution of

<sup>288</sup> SZ, 1932, art. 53 (dated February 13), and SZ, 1932, ii, art. 54 (dated February 14); on the same day Chernov, who had been responsible for the grain collections in Narkomsnab, was appointed deputy chair (SZ, 1932, ii, art. 55). The functions of the Committee will be discussed in more detail in vol. 5.

<sup>289</sup> SZ, 1932, art. 155 (dated April 1); RTsKhIDNI, 17/3/878, 23 (Politburo decision dated April 1).

<sup>290</sup> SZ, 1932, ii, art. 97 (dated April 1).

commodity funds is the exclusive prerogative of STO, or of KTF on the authority of STO'.<sup>291</sup> But in the short term, the new agencies, particularly TsUNKhU and Komzag, became instruments of reform. Paradoxically, economic reform was the unexpected offspring of the desperate food shortage. On March 8, a Politburo decision 'On Improving the System of Commodity Movement' recommended drastic cuts in the range of foods and other commodities subject to centralised distribution and rationing; the decision was put into effect by a Sovnarkom decree of March 23.<sup>292</sup> Ten months previously, on May 10, 1931, rationing of many industrial consumer goods had been abolished (see pp. 61–2 above). The new decree abolished centralised state distribution of confectionery, most preserved foods, and vegetables including potatoes. Rationing of eggs, milk and cheese and most fish was abolished, so that henceforth the only rationed foods were flour, bread, groats, meat, herrings, vegetable oil, butter and sugar. Simultaneously, centralised distribution of cigarettes, knitwear and toilet-soap was discontinued. Centralised state supply of finished clothing remained only in the case of mass-produced overcoats and suits. Most footwear was also taken off the ration. Distribution plans for all commodities taken off central supply were now supposed to be the direct responsibility of the various trade networks and the producers, and did not require the formal approval of Sovnarkom.

The main result of the decree was that the state was no longer committed to providing a definite amount per person of the vast range of foodstuffs and consumer goods taken off centralised supply. In a time of plenty, the curtailment of centralised supply might be regarded as reducing bureaucracy and encouraging initiative. But it was undertaken at a time of dearth, and, as in the case of the decision of May 10, 1931, primarily motivated by the inability of the state to offer a regular ration of these goods. The authorities expected these measures to be unpopular, and were hesitant both about introducing them and about reporting them in the press. The decision to abolish the centralised supply of many foods was originally taken by Narkomsnab on January 27,

<sup>291</sup> GARF, 5446/1/66, 312–22 (art. 407, dated March 23).

<sup>292</sup> RTsKhIDNI, 17/3/875, 16–17; GARF, 5446/1/66, 322–4 (art. 408); see also *Postroenie* (1960), 452. Bread rations were reduced on the same day (see pp. 182–3 above).

but it does not seem to have been put into effect immediately.<sup>293</sup> The Sovnarkom decree of March 23 repeated its provisions, but did not appear immediately in the official journal of decrees; it was published for the first time seven weeks later in *Pravda*.<sup>294</sup>

The reduction of the scope of centralised supplies, together with the increase of retail prices by 30 per cent in state and cooperative trade (see p. 194 above), seriously undermined the standard of living of lower-priority and lower-paid groups. The fate of pupils at factory schools (FZU) provides a striking example. When the pupils were removed from the quota of the general stores at a Kolomna factory, some of them were unable to get to the factory because they had no shoes.<sup>295</sup> Public catering was also affected: at the 'Serp i Molot' iron and steel works the number of dinners for FZU pupils was cut from 1500 to 450–500 per day, so that 'the lads and lasses go about the school as hungry as wolves'.<sup>296</sup> But even when rationed supplies were available, the increase in prices meant that some of the lower-paid could no longer afford them. The stipend of pupils at FZU proved insufficient to cover the cost of the basic ration to which they were entitled.<sup>297</sup> Pupils who lived away from home and were not subsidised by their parents could not eat every day;<sup>298</sup> 'many pupils do not have dinners [in the factory canteen] because dinners are expensive'.<sup>299</sup> In the North Caucasus, after pupils purchased their rations they were 'sometimes compelled to sell bread on the market in order to make ends meet'.<sup>300</sup> And pupils who lived some distance from their factory could not pay the increased rail fare, and so 'must either risk their lives by travelling without paying, or leave the school'.<sup>301</sup> One official

<sup>293</sup> The decree is in RGAE, 8043/1/53, 132 (art. 39). It was supposed to come into effect on February 1.

<sup>294</sup> P, May 11, 1932.

<sup>295</sup> GARF, 5451/16/638, 39 (conference of April 14); see also GARF, 5451/16/639, 99 (conference of April 27).

<sup>296</sup> *Ibid.* 64.

<sup>297</sup> The full ration cost 1r20 per day, but the stipend was only 27r per month (GARF, 5451/16/602, 19ob; 5451/16/639, 64).

<sup>298</sup> GARF, 5451/16/638, 37ob.

<sup>299</sup> *Ibid.* 49ob.; it was also pointed out that pupils did not eat their dinners because 'the quality of the food is so low that even a lad or a girl can't eat it' (GARF, 5451/16/639, 59).

<sup>300</sup> GARF, 5451/16/639, 85 (conference of April 27).

<sup>301</sup> *Ibid.* 64.

reported that after the February price increases he was ‘literally buried in telegrams and letters from the periphery which asked whether to raise wages or reduce prices . . . , but it was clear and obvious to everyone that, as the instruction came through party and government channels, neither wage increases nor price reductions must take place’.<sup>302</sup>

Desperately short of both industrial consumer goods and food, the authorities sought out additional resources. After the resolution on trade of the October 1931 plenum of the central committee (see pp. 95–6 above), much was said and written about the need for factories and institutions to organise their own additional food collections (self-collections – *samozagotovki*). The decree establishing *Komzag* reiterated the importance of what were now termed ‘decentralised collections’. Factories were also encouraged to establish or expand vegetable plots to supply their canteens and shops. Great hopes were attached to a rabbit-breeding campaign, and to fish-raising in pond, rivers and lakes in or near the towns.<sup>303</sup>

The resolution on trade of October 1931 also proposed that the ‘market fund’ for urban and rural consumption should be ensured by imposing strict limits on ‘non-market consumption’ by the army and other institutions maintained by the state budget. The increase in supply to the population at large was imposed from above. In February 1932, a special commission established by the Politburo set about increasing the ‘market fund’ by reducing non-market consumption and eliminating unnecessary stocks; Stalin was chair of the commission, and it became known as ‘the commission of cde. Stalin’. The commission resolved to reduce drastically the supply of special clothing and footwear to the state sector, including industry, the army and the OGPU; and also to increase the supply of consumer goods to the market by the artisan cooperatives, by cutting artisan production for the state sector, by reducing exports (see pp. 161–2 above) and by increasing production.<sup>304</sup> On March 25, Narkomtyazhprom

<sup>302</sup> GARF, 5451/16/638, 59.

<sup>303</sup> See Shimotomai (1991), 127–9.

<sup>304</sup> The Politburo decision of March 16 was followed by a Sovnarkom decree on March 23 (RTsKhIDNI, 17/3/876, 17–27; GARF, 5446/1/66, 312–24 (art. 407)). The commission was reported to have found goods to the value of 2,000 million rubles in three weeks (*Devyatyi . . . s’ezd* (1932), 190–1 – Rudzutak). The chronology in Stalin’s works (*Soch.*, xiii (1951), 407) states: ‘10 February–

established a separate sector for consumer goods with the explicit purpose of increasing the production of consumer goods within the commissariat; the former right-winger Uglanov, who supported the claims of light industry in the party debates of 1928, was appropriately appointed head of the new sector.<sup>305</sup>

All these measures failed to produce any substantial improvement. The additional commodities released to the 'market fund' were mainly sold at fixed low prices; although these prices had been substantially increased on February 1, sales failed to keep pace with the increase in purchasing power. And the prices at which artisans and peasants were expected to sell their additional production as 'decentralised collections' to state and cooperative organisations were far lower than those on the semi-legal private market; in consequence very little was obtained. In April 1932, the reduction in supplies on the ration, and the increasing disorder in the supply of rations to those officially entitled to them, forced the urban population to increase their purchases on the private market. In consequence, private-market prices rose more rapidly than the normal seasonal increase before the harvest.<sup>306</sup> Simultaneously the centralised collections of almost every item continued to fall even further behind the level of 1931: TsUNKhU summed up the results of the collections for the first six months of 1932 as 'unfavourable'.<sup>307</sup>

Against the bleak background of worsening food shortages, rising prices, urban unrest, and the failure of the economic plan, the authorities embarked on the major policy changes of May–July 1932. These were intended to enhance economic incentives to the peasants and the kolkhozy and thus ensure improved food supplies from the harvest of 1932. A series of decrees reduced the collection quotas for grain, meat and other agricultural products and permitted kolkhozy and their members, and individual working peasants, to engage in trade 'at prices formed on the

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1 April. I. V. Stalin leads the work of the commission of the CC CPSU(b) on questions of the production of mass consumption goods'. For an earlier attempt to encourage additional production of consumer goods by artisan cooperatives, see SZ, 1932, art. 34 (dated January 19).

<sup>305</sup> SP NKTP, 1932, art. 182. For Uglanov's earlier role see Carr and Davies (1969), 317, 329; and Merridale (1990), 56.

<sup>306</sup> See *Itogi . . . po torgovle*, January–March and April 1932, 13 and also Table 25(b) below, which gives lower rates of increase.

<sup>307</sup> *Osnovnye pokazateli*, January–June 1932, 140.

market'. The sale of animals and meat on the market was permitted on condition that the reduced collection plan was carried out 'on schedule' (i.e. on a monthly basis). Grain could not be sold on the market until after the grain and seed collections for the year had been completed.<sup>308</sup>

From one aspect these decrees could be seen as merely injecting a measure of realism into economic policy. The new grain collection plan for 1932, 20.5 million tons, was much lower than the 29.5 million tons approved by Narkomsnab in December 1931, rightly described by Professor Lewin as a 'fabulous target', but it was only slightly lower than the amount actually collected from the 1931 harvest.<sup>309</sup> And the drastic reduction in the livestock target for 1932 was a response to the failure of the collections in January–April 1932; even the new low target eventually proved somewhat optimistic.<sup>310</sup> The legalisation of sales 'at prices formed on the market', given the scale of the

<sup>308</sup> The relevant documents are the decrees of Sovnarkom and the party central committee on grain collections and kolkhoz trade in grain (SZ, 1932, art. 190, dated May 6) and on livestock collections and trade in meat (SZ, 1932, art. 195, dated May 10), and the decree of TsIK and Sovnarkom on trade by kolkhozy, collective farmers and working individual peasants (SZ, 1932, art. 233, dated May 20); the decree of May 20 was the first to concede that trade could take place at 'prices formed on the market'. The decree of May 6 was approved by the Politburo by correspondence on May 5 after the question of the grain collections had been introduced by Stalin as item 14 on the agenda on the previous day (RTsKhIDNI, 17/3/882, 3; 17/3/883, 9). The decree of May 10 was proposed to the Politburo by Kuibyshev on May 8 (RTsKhIDNI, 17/3/883, 5 – item 16). The crucial decree of May 20 was apparently not discussed by the full Politburo, merely approved by correspondence on May 19 (RTsKhIDNI, 17/3/885, 10).

<sup>309</sup> Collections in 1931/32 amounted to 21.3 million tons; in the plan for 1932/33 adopted in May 1932, the planned collection from kolkhozy and individual peasants was reduced by 1.3 million tons, from sovkhozy increased by 0.7 million tons. These figures exclude the milling levy. The December 1931 target appeared in a Narkomsnab decree of December 6, 1931; it was said to refer to the whole socialised sector, including the State Selected Seed Fund and 90 per cent of the milling levy (RGAE, 7446/6/143, 41); see also Moshkov (1966), 201. For Lewin's comment see Abramsky, ed. (1974), 293.

<sup>310</sup>

*Thousand tons  
live weight*

Original collection plan for 1932	2282
Actual collections Jan.–March 1932	411 <sup>a</sup>
Hence remaining to be collected in April–December 1932	1870
Revised collections plan Apr.–Dec. 1932	847 <sup>b</sup>
Actual collections Apr.–Dec. 1932	800 <sup>c</sup>

(continued on next page)

semi-legal free market in food products, might be said to have merely legalised an existing activity, bringing it within legal bounds. According to a Soviet estimate, trade on the new kolkhoz market amounted to 7,000–8,000 million rubles in 1932, as compared with purchases by the urban population of agricultural products on the private market in 1931 amounting to 6,500 million rubles, of which 65–70 per cent went to peasants.<sup>311</sup>

There is no doubt, however, that the May decrees marked a major change in policy. In 1930 and 1931 the authorities made persistent but unsuccessful efforts to bring all trade within the compass of the state and cooperative trading agencies. The policy launched in October 1931 appeared to be more flexible, because it encouraged local supplementary collections and kolkhoz trade, but it failed because it continued the high level of state collections and insisted that kolkhoz trade should be at fixed 'Soviet prices'. Reports in the press made it abundantly clear, however, that nearly all trade by collective farmers and individual peasants was in fact taking place at market prices. At the large Danilov market in Moscow, which had 'spread far beyond its official limits',

Sellers, some on carts, some standing, some simply sitting on the ground with their small quantity of goods, with exceptional unanimity charge fabulous prices . . . The collective farmer is attracted into the orbit of speculation, charging prices for his potatoes and cabbage based on the prices of consumer goods sold here by speculators.<sup>312</sup>

But until the reforms of May 1932 all official statements continued to insist that trade by kolkhozy and collective farmers must be at 'Soviet prices'. Articles in the press at this time, supported by a resolution of Rabkrin of the RSFSR, insisted that the markets must be supplied with industrial goods at low prices so as to provide incentives to the peasants to sell at fixed prices.<sup>313</sup>

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<sup>a</sup> Estimated from data in *Ito gi . . . po trgovle*, January–March and April 1932, 20.   
<sup>b</sup> SZ, 1932, art. 195, dated May 10.

<sup>c</sup> Estimated from data in *Sovetskaya trgovlya* (1935? [1936]), 15.

<sup>311</sup> Malafeev (1964), 131, 170.

<sup>312</sup> ZI, March 22, 1932; similar reports from other markets appear in ZI, March 23, 24, 1932.

<sup>313</sup> See, for example, ZI, April 8, 1932 (conference organised jointly by the newspaper and the Moscow soviet), April 21, 1932 (article by D. Z.); for the Rabkrin resolution, see P, April 26, 1932.



But this attempt failed, as had similar attempts on many occasions in the past, from the civil war onwards. The supply of industrial goods was small, and no serious attempt was made to relate the supply directly to the sale of agricultural products.

The Politburo was very reluctant to concede to the peasants the explicit right to trade at market prices. In January 1932 a Sovnarkom decree authorised kolkhozy, collective farmers and individual peasants to dispose of piglets raised in excess of the state plan 'at their complete discretion', but remained silent about the prices at which sales could take place.<sup>314</sup> On March 4 a Sovnarkom decision reduced taxes on kolkhoz trade on the grounds that it took place at 'cooperative prices' – i.e. low fixed prices.<sup>315</sup> On April 8 an ambiguous decree signed by Kuibyshev in his capacity as deputy chair of STO reduced the collection plan for vegetables and permitted kolkhozy to sell processed vegetables 'at bazaars'.<sup>316</sup> The prices in which trade could take place were not mentioned, but the implication seemed to be that sales could take place at 'bazaar' prices – i.e. free market prices. But a further decree of May 5 was more cautious. It permitted 'individual kolkhozy, kolkhoz commodity farm units and their associations to trade in their own products at prices somewhat higher than cooperative prices'. These prices were to be controlled by the regional soviet executive committee, and even this limited right applied only to kolkhozy within 100 kilometres of Moscow and Leningrad. The decree did not authorise either collective farmers (as distinct from kolkhozy) or individual peasants to trade at these prices.<sup>317</sup> The subsequent decrees of May 6 and 10, reducing the grain and livestock collection plans and encouraging kolkhoz trade, made no specific statement about the prices at which kolkhoz market sales could take place; and the numerous articles which appeared in the press about these decrees refrained from stating that kolkhoz trade could take

<sup>314</sup> SZ, 1932, art. 38 (dated January 29).

<sup>315</sup> GARF, 5446/57/18, 98 (protocol no. 4, para. 21). Following this decision a senior trade official, Nodel', castigated as a revision from the Right a proposal that kolkhozy should be permitted to sell non-rationed foods at prices higher than those of the retail cooperatives (P, March 9, 1932; the proposal was made at a conference organised by Kolkhozsentr).

<sup>316</sup> SZ, 1932, art. 156 (dated April 8).

<sup>317</sup> SZ, 1932, art. 198.

place at market prices. Finally, the decree of May 20 explicitly stated:

Trade by kolkhozy, collective farmers and individual working peasants shall take place at prices formed on the market, and trade by kolkhoz associations shall take place at prices not higher than the average commercial prices in state trade.

Thus even this decree did not relax prices in kolkhoz trade completely. The restriction on prices charged by kolkhoz associations could have been quite severe, because in May 1932 state 'commercial' prices were considerably below market prices. But it seems to have had no practical effect. No serious attempt was made at this time to regulate prices at the kolkhoz markets. It should be noted, however, that the decrees of May 6, 10 and 20 all emphasised that only sales direct from peasant or kolkhoz to individual consumers or governmental trading agencies could legally take place at market prices; purchase for resale was castigated as 'speculation' and strictly forbidden. These successive decrees and statements convey a strong impression of a reluctant leadership – or section of the leadership – hesitantly moving step by step towards new policies.

In spite of these equivocations, the May decrees were frankly presented as a bold departure in policy. The decree of May 6 reducing the grain collections brazenly claimed that the new policy was based not on impending disaster but on successful growth, declaring that an increase in kolkhoz trade was made possible by the 'continuous growth in the quantity of industrial consumer goods and of grain production'. A striking paragraph, which bears the imprint of Stalin's style and mode of thought, explained that the urban population would henceforth be supplied both by 'the method of grain collections' and 'the method of trade in grain by the kolkhozy and the collective farmers themselves'. A few days later Kuibyshev, addressing a conference of plenipotentiaries of Komzags, was somewhat franker. Commenting that 'it would be laughable to think that the growing requirements of our economy in agricultural products could be satisfied solely by state centralised collections', he insisted that the collections must be undertaken in a way which would stimulate production, rather than by 'methods which violate the interests of collective farmers and individual peasants'. The usual conventional phrases attributing the

slaughter of livestock to the influence of kulaks and speculators did not appear in Kuibyshev's speech. Instead he blamed the slaughter on the lack of legal market opportunities: 'the absence of the possibility of selling meat production led to illegal sales, which were profitable to resellers and speculators; the ban on slaughter achieved no result except a continuously increasing decline in the number of livestock'.<sup>318</sup> A *Pravda* editorial hailed the decree of May 20 as providing the kolkhozy with 'a tremendous thrust towards their autonomous economic activity', and attacked 'Leftists' who consider that 'direct product-exchange and centralised distribution of the whole of national-economic production are the basis of the economic policy of the party'. The editorial insisted that hindrances to kolkhoz trade must be resisted as strongly as hindrances to khozraschet and uravnilovka.<sup>319</sup> In the first flush of enthusiasm for the new measures, a senior trade official even envisaged that as much grain could henceforth be obtained from kolkhoz trade as from centralised collections.<sup>320</sup>

The measures of May 1932 had much in common with the first stages of the New Economic Policy. In 1921, as in 1932, the grain collection plan, then known as a 'tax in kind', was strictly fixed in advance at a lower level than in the previous year in order to provide the peasants with a 'motive for sowing'. In 1921, as in 1932, peasants were permitted to sell at market prices the products remaining after their obligations to the state had been fulfilled. There are also, however, obvious differences between the two situations. In 1921, peasants were not organised into collective farms under state control, but worked their land in family units; in 1921, after a short period of uncertainty, private traders were permitted to buy and re-sell peasant production, activities which in 1932 continued to be prosecuted as speculation in spite of the reform. In 1932 the Soviet leaders were at pains to contradict the assertion of the émigré press, and the gossip within the Soviet Union, that the new policies amounted to a 'neo-Nep'. Kalinin, while claiming 'unique significance' for the new

<sup>318</sup> Kuibyshev, v (1937), 289–93; this speech, delivered on May 11, was first published in 1937.

<sup>319</sup> P, May 22, 1932.

<sup>320</sup> P, June 5, 1932 (Nodel'; cp. his much more cautious article of March 1932, note 315 above).

measures in extending the role of the market, strongly denied their similarity to NEP:

I have been asked questions like 'Isn't this all a retreat from the general line of the party?' . . . Local officials must understand that the present measures in their inner meaning have nothing in common with the period of NEP, when, on certain conditions, the revival of the private trader was allowed.<sup>321</sup>

Yakovlev attributed the notion that a transition to NEP was taking place to 'kulak agents and Right-wing opportunist supporters of capitalism';<sup>322</sup> Vareikis condemned 'two or three long-haired professors who go around asking like parrots "Retreat or offensive?"'<sup>323</sup> For Kaganovich the opportunists who rushed to describe the new measures as 'neo-NEP' were 'ridiculous',<sup>324</sup> while Kirov grumbled more mildly that 'Some people are inclined to speak of neo-NEP but this is by no means of course people from our camp.'<sup>325</sup>

This unanimity barely concealed striking differences in interpretation of the scope and significance of the new measures. All commentators stressed continuity with previous policy, and denied that any kind of retreat was involved. But some stressed the continuity, others the element of novelty. An editorial in *Pravda* published only two days after the promulgation of the decree of May 20 even pretended that kolkhoz sales at market prices were not an innovation. It criticised those organisations which had so far assumed that they were 'obliged to compel kolkhozy, collective farmers and individual peasants to sell their output at prices fixed by those organisations and not at *prices formed on the market*'.<sup>326</sup> In contrast, Kalinin more realistically presented the policy as an evolutionary process which began with the Appeal on trade of May 1931 (see pp. 61–2 above) and was completed by the decree of May 20, 1932, in which 'the basis of Soviet trade has extended to its natural boundaries'.<sup>327</sup> Yakovlev carefully faced both ways. He stressed the continuity of the new

<sup>321</sup> P, June 3, 1932 ('On Soviet Trade').

<sup>322</sup> P, July 15, 1932.

<sup>323</sup> Vareikis (Voronezh, 1932)(1)), 26–7.

<sup>324</sup> P, August 6, 1932.

<sup>325</sup> P, August 6, 1932.

<sup>326</sup> P, May 22, 1932.

<sup>327</sup> P, June 3, 1932.

policy, dating it back to the decision of March 1930 to legalise bazaars. At the same time he argued that the artel form of the kolkhozy, although a socialist type of economy, was also a 'commodity economy', rather than an economic unit administered and planned solely from above:

The agricultural artel is an enterprise of which the master is the collective farmer; as such it is a commodity economy, selling its production. It is a collective enterprise carrying out production on land belonging to the state, and to a considerable extent with the assistance of state means of production (the MTS). As such it hands over (sells) part of its commodity production to the state in amounts and at prices fixed by the state. Hence there are two streams along which the *commodity* production of kolkhozy and collective farmers are directed: part to the state in amounts fixed by the state, and the remainder, by their own decision, to the market or to increase their own consumption.

Yakovlev evidently hesitated about where to place the household plot in this scheme, variously classifying it as an 'additional, private economy', 'an additional personal economy' and a 'secondary, personal and additional economy'.<sup>328</sup> Krylenko, like Yakovlev usually anxious to extend the bounds of reform when he thought it safe to do so, argued that 'Soviet trade is now a method of socialist commodity exchange between town and countryside, two wings of a single socialist economy', and boldly stressed the novelty of this approach:

These two forces – the kolkhoz peasantry and socialist industry – appear as counter-agents on the market, and this is not what the market was in the past either in its substance or in its functions.<sup>329</sup>

Kaganovich evidently had such generalisations in mind when he vigorously condemned attempts to present the reforms as a substantial innovation. He castigated as 'hapless theoreticians'

<sup>328</sup> Yakovlev (1933), 126–33 (July 1932); most of this article also appeared in P, July 15, 1932.

<sup>329</sup> P, July 16, 1932.

those who rushed in to claim that the new decisions were a 'system of views' which contradicted the previous system of views.<sup>330</sup>

The May reforms did not stand alone. A second series of reform measures was enacted in June and July: in August Kaganovich noted that as many as fifteen 'important' party and government decrees had been adopted in the previous two or three months.<sup>331</sup> The tone was set by the famous decree of June 25 'On Revolutionary Legality', prepared by a Politburo commission headed by Kalinin. Its thrust was its criticism of 'the considerable number of violations of revolutionary legality by officials, and distortions in the practice of carrying it out, which still occur, especially in the countryside'; officials guilty of these offences, or of a bureaucratic attitude to complaints, must be penalised or punished. On the same day as the adoption of this decree, the Politburo resolved to 'categorically forbid interference by party organisations in individual specific court cases'.<sup>332</sup> In this spirit of moderation, the decrees and resolutions preparing for the new harvest, while insisting that the reduced collection plans must be carried out, were relatively mild and propitiatory in tone.<sup>333</sup>

Strenuous efforts were made to improve incentives to the peasants. At the beginning of April, the Politburo and Sovnarkom resolved to increase the supply of industrial consumer goods to the countryside in 1932 by over 20 per cent as compared with the 1932 plan.<sup>334</sup> Efforts were particularly concentrated on the crucial July–September quarter, when most crops were harvested. At a meeting of the Business Club held at the end of May, a representative of Narkomtyazhprom, following up the decision of March 25 (see pp. 208–9 above), stated that in July–September every factory in Narkomtyazhprom must produce consumer goods in its main departments and also establish a

<sup>330</sup> P, August 6, 1932.

<sup>331</sup> P, August 6, 1932.

<sup>332</sup> SZ, 1932, art. 298 (decree of TsIK and SNK); RTsKhIDNI, 17/3/890, 11, 40 (Politburo decisions adopted by correspondence).

<sup>333</sup> See, for example, SZ, 1932, art. 312 (dated July 5); resolution of third Ukrainian party conference, P, July 15, 1932.

<sup>334</sup> RTsKhIDNI, 17/3/878, 44–6 (dated April 1); GARF, 5446/1/67, 134–7 (art. 531, dated April 10). The increase, from 1,500 to 1,829 million rubles, referred to 'planned goods'; in addition the supply of 'unplanned' goods was to increase by an extra 275 million rubles.

special factory department to produce consumer goods from by-products; this would assist in providing a counter-flow to the flow of agricultural products which collective farmers and individual peasants would bring to the market.<sup>335</sup> At the end of June the party journal announced that twice as many goods would be delivered to the countryside in July–September 1932 as in July–September 1931.<sup>336</sup> The campaign to achieve this target was afforded high priority. Following a conference of officials of local state trade agencies chaired by Mikoyan, a Narkomsnab decree called for ‘all-round improvement in the sales of commodities in the countryside’; to this end part of the urban trading network could be temporarily transferred to the countryside, and commodities should be sold directly at kolkhoz bazaars.<sup>337</sup> Similar measures were adopted by the consumer cooperatives. Then, on July 20, a decree of Sovnarkom, praising the efforts of Moscow and Leningrad to increase the supply of consumer goods to the countryside, drew more general conclusions:

The successes achieved by the government in establishing the socialist link (*smychka*) with the countryside on the basis of the mechanisation of agriculture does not remove the question of the trade link with the countryside but now poses the task of all-round strengthening of the development of trade turnover between town and country with still greater insistence.<sup>338</sup>

In July 1928, Stalin had insisted that the link with the peasants required a ‘metal link’ as well as a ‘textile link’; Sovnarkom now reversed the emphasis.<sup>339</sup>

The artisan industries offered an additional source of consumer goods for sale in the countryside. While official Soviet policy had

<sup>335</sup> ZI, May 27, 1932 (report by V. Ya. Grossman).

<sup>336</sup> B, 11–12, June 30, 1932, 9. A KTF decree of July 1, endorsed by the Politburo, specified that during the quarter 53 per cent of the ‘market fund’ of planned industrial goods should be allocated to rural districts (RTsKhIDNI, 17/3/890, 17–19).

<sup>337</sup> RGAE, 8043/1/56, 84–5, 87 (art. 338, dated July 13); all state trade in the countryside was to take place at higher commercial prices (in fact two-thirds was at commercial prices in July–September 1932 – see *Itoги . . . po torgovle*, September 1932, 81).

<sup>338</sup> SZ, 1932, art. 346.

<sup>339</sup> Stalin, *Soch.*, xi (1949), 160–1; the statement in Carr and Davies (1969), 199, that Stalin called for the *replacement* of the ‘textile link’ by the ‘metal link’ is incorrect.

always encouraged artisan production, in practice the artisans had been severely hit by the developments of the past three years.<sup>340</sup> Some artisan enterprises were closed on the grounds that they were exploitative private industry in disguise;<sup>341</sup> others declined or collapsed altogether through lack of raw materials. Individual artisans were constrained to join artels (producer cooperatives): total membership of artels was estimated to have increased from 1.1 million in 1928/29 to 1.8 million in 1932.<sup>342</sup> Like all other socialised economic activities, artisan coöperatives were brought under stricter centralised control during the course of the five-year plan. Their priority was low; and many artisans spontaneously left for factory industry or even building sites, where earnings were higher and food rations were both larger and more regular.<sup>343</sup> In 1930, by agreement between Narkomtrud and Vesenkha, the artisan cooperatives also officially supplied teams of artisans to large new building sites such as Kuznetskstroï and Magnitostroï; this practice continued in 1931.<sup>344</sup> The distribution of the output of the artisan cooperatives was also centrally regulated.<sup>345</sup> In broad accord with official priorities, the proportion of materials and components in total artisan output increased at the expense of consumer goods, and a high proportion of artisan consumer goods was diverted from state and cooperative shops, and allocated to industry, the army,

<sup>340</sup> For developments in 1929–30, see also vol. 3, pp. 105–9.

<sup>341</sup> See *XVI s'ezd* (1931), 629–30 (Beika).

<sup>342</sup> Eason (1959), 378–80; membership of the system controlled by Vsekopromsovet increased as follows (thousands):

	<i>Total</i>	<i>of which, in common workshops</i>
October 1, 1928	793	—
October 1, 1929	1183	416
October 1, 1930	1566	—
January 1, 1932	1628	869
January 1, 1933	1609	824

(*Promyslovaya kooperatsiya SSSR* (1934), 9, 13).

<sup>343</sup> See, for example, the report from Pavlovo in *ZI*, September 20, 1932 (Bespalov).

<sup>344</sup> *PI*, 5–6, 1931, 80–1 (Sen'ko); see also the editorial in *ZI*, May 25, 1930, demanding that large numbers of metalworking artisans should be transferred to the engineering industry, and the dispute *ibid.*, July 30, 1930.

<sup>345</sup> These arrangements were characterised in the Narkomsnab journal as 'bureaucratically centralised sale' (*ST*, 2–3, 1932, 51–2 – Ziman).



etc. for direct distribution to their personnel.<sup>346</sup> Some artisans escaped from cooperative membership, and were able to make a good living by selling their products illegally at high prices.<sup>347</sup> But the total supply of consumer goods sold to the population from artisan sources fell drastically between 1928 and 1932.

On the eve of the five-year plan, three-quarters of all artisans, producing nearly half of all small-scale industrial production, lived in the countryside. Their activities were gravely damaged by the excesses of the first collectivisation drive in the winter of 1929–30 (see vol. 2, p. 140, n. 45). Attempts to restore rural artisan production in 1930 were largely unsuccessful. After a year of official neglect, a resolution of the central committee dated November 1, 1930, approved the setting up of artisan collective farms (*promkolkhozy*) in which artisan and agricultural activities were combined.<sup>348</sup> Some 3,000 *promkolkhozy* were established with 250,000–300,000 members; but they did not work very effectively. They were neglected by the artisan cooperative organisations and given exaggerated plans for agricultural production which interfered with their industrial activities. A survey in the Moscow region disclosed that many *promkolkhozy* greatly reduced artisan production during the summer, and some completely ceased production; between a quarter and a half of their members did not return to artisan work.<sup>349</sup> *Promkolkhozy* were frequently closed altogether by the village or district authorities; their members were used for agricultural work and their buildings were taken over for agricultural purposes.<sup>350</sup> A senior Vesenkha official complained that in districts of comprehensive collectivisation ‘as a general rule we have abolished artisan cooperatives’.<sup>351</sup> Artisans who were individual members

<sup>346</sup> According to one estimate, only 1,146 million rubles out of 2,818 million rubles total production by artisan cooperatives in 1930 were consumer goods for mass consumption (P, June 1, 1931 (S. Lobov)); these figures are presumably in current prices. Figures for 1931 and later years have not been traced.

<sup>347</sup> See ZI, September 20, 1932 (Bespalov); in conversation individual artisans were referred to as *chastniki* (private businessmen).

<sup>348</sup> SPR, viii (1934), 251–2, which endorsed the ‘experiment’ in Pavlovo district, Nizhnii Novgorod; ST, 4–5, 1932, 160 (Sen’ko).

<sup>349</sup> ST, 4–5, 1932, 158–60 (Sen’ko).

<sup>350</sup> ST, 4–5, 1932, 158–60; SZe, September 1, 1931 (Shiryaev), reports a case where a brick kiln was taken over to use as a pig-sty.

<sup>351</sup> P, June 1, 1931 (S. Lobov).

of normal kolkhozy were often in an even more unfavourable position.

Throughout 1932, efforts were made to increase production of consumer goods by the artisan cooperatives, and to reduce the proportion of their output transferred to government departments. Following the decrees of May 1932, these efforts were stepped up. In May, Uglanov told a meeting of the Business Club that the industrial cooperatives and the metal goods industry *'must return to their direct responsibilities – to produce the output needed by the worker and the collective farmer'*. He also announced that 12 metal goods factories would be transferred to a new consumer goods corporation within Narkomtyazhprom.<sup>352</sup>

But the artisan cooperatives continued to suffer the dual disadvantage of low priority coupled with close control over their production and prices. Their low priority could not be fundamentally altered without disrupting the struggle to complete the major projects of heavy industry. Instead, the authorities endeavoured to enhance the position of artisan industry by bringing market forces into play. On July 23, a decree of TsIK and Sovnarkom, the importance of which was emphasised in a simultaneous statement from the party central committee, called for *'the further development of the production initiative of the artisan artel, and the maximum extension by artisan cooperatives of the production of consumer goods'*.<sup>353</sup> To this end it permitted artels to buy certain agricultural raw materials and industrial products without control,<sup>354</sup> and to sell products made from their own purchases (*samozagotovki*) at bazaars and markets *'at prices formed on the market'*. Production from materials sold to the cooperative via the central plan or at state fixed prices could still be sold only at fixed prices; but even for this production the *'system of centralised compulsory orders'* would henceforth give way to a *'voluntary two-sided agreement'* between the supplier of the material and the artel or its superior union. Consumer goods must increase to 70 per cent of total artisan production by 1933,

<sup>352</sup> ZI, May 27, 1932; I have been unable to trace when or whether this corporation was established.

<sup>353</sup> SZ, 1932, art. 340; P, July 24, 1932. The decree was approved by the Politburo on the same day, after reports from Molotov and Antipov, a senior official of Rabkrin (RTsKhIDNI, 17/3/893, 5).

<sup>354</sup> Cotton, flax, hemp, wool, silk and leather (except pigskin) could be purchased only with the permission of Komzag.

and sales in the countryside must receive special attention. A few days later, a similar decree ‘on the work of artisan cooperatives in districts of comprehensive collectivisation’ called upon the regional authorities to facilitate ‘the restoration of old crafts and the development of new ones’ in the countryside.<sup>355</sup>

The scope of the reforms, and the way in which they would modify and fit into the existing economic system, were never clearly defined in the numerous official pronouncements of the spring and summer of 1932. But they ranged far beyond the direct relation between peasant, state and market. They attempted to restore the position of consumption – and the role of the consumer – in the Soviet economy. Centralised rationed distribution of industrial consumer goods and food products was curtailed for reasons of expediency (see pp. 61–2, 206–7 above). But this decision provided a strong argument for reconsidering the whole system for planning and administering consumption.

The initial measures were limited in their intention and their practical effect. On March 5, Narkomsnab established an all-Union trading organisation, with its own network of permanent and travelling ‘commercial agents’, responsible for collecting offers to supply consumer goods and food products from industries and trading agencies and placing them with other trading agencies: ‘this helps,’ its report commented, ‘to redistribute required commodities through the market (v rynochnom poryadke)’.<sup>356</sup> But its operations were on a very small scale.<sup>357</sup> In April a Sovnarkom decree criticised the system of standardised production which ‘deprived consumers of the possibility of a choice of clothing and footwear according to their taste’, and proposed that part of the supply of woollen cloth, worsted and leather should be made available to consumers who would place individual orders for the making-up of the material.<sup>358</sup> This

<sup>355</sup> SZ, 1932, art. 345 (Sovnarkom decree dated July 26).

<sup>356</sup> RGAE, 8043/1/61, 358–61 (memorandum of early April 1932).

<sup>357</sup> After its first month of operation, it had arranged contracts worth 81 million rubles (RGAE, 8043/1/61, 358).

<sup>358</sup> SZ, 1932, art. 166 (dated April 10); the decree allocated to individual orders leather for two million pairs of footwear in 1932 and instructed that woollen and worsted material allocated should rise from 15 per cent of urban supplies in April–June to 30 per cent in October–December 1932. A further decree pointed out that the plan was not being fulfilled satisfactorily (SZ, 1932, art. 293, dated June 19).

arrangement affected only a fairly small part of total production, and was obviously designed for the benefit of more prosperous or more influential urban citizens.

Three months later, on July 19, more or less simultaneously with the decisions about the artisan cooperatives (see p. 221 above), a much more far-reaching decree of Sovnarkom announced that throughout state and cooperative trade 'it is necessary to go over from the fourth quarter [of 1932] to a system of orders in advance (*predvaritel'nye zakazy*)'.<sup>359</sup> Under this system, production plans were based on specific and detailed orders placed annually by trading organisations. When the system was introduced in the consumer goods industries in 1927, its effect was to strengthen central planning and limit the influence on production of short-term changes in demand.<sup>360</sup> But in 1930, as the shortages grew worse, even these arrangements were, as Tsentrosoyuz admitted, 'in practice reduced to nothing',<sup>361</sup> producers of consumer goods paid very little attention to requests from trading organisations. The predominant philosophy among business managers in 1930-1 was unwittingly revealed in a statement by the rationalisation sector of the Business Club:

In the conditions of capitalist private economy, with its frantic competition, it is necessary for the enterprise to adapt itself to the – often unfounded – caprices of consumers. In the conditions of socialist planned economy, the most rational design must be dictated not by the consumer but by its producer.<sup>362</sup>

In such an atmosphere, the reintroduction of the system of orders in advance partly restored the influence on production of the trading agencies – and potentially of the consumer – and had long been advocated by Tsentrosoyuz.<sup>363</sup>

The introduction of orders in advance was slow to materialise. When detailed regulations appeared in October 1932, they strongly criticised the failure of the supply of consumer goods to correspond to consumer demand, and called for 'the maximum

<sup>359</sup> SZ, 1932, art. 347.

<sup>360</sup> See Carr and Davies (1969), 642-4.

<sup>361</sup> ZI, April 17, 1931.

<sup>362</sup> *Predpriyatie*, 12, June 16-30, 1931, 41.

<sup>363</sup> See ZI, April 17, 1931.

possible adaptation of industrial activity to the needs and requests of workers and of the working masses of the countryside'. But the reintroduction of the system was delayed to the beginning of 1933.<sup>364</sup>

Authoritative government statements now acknowledged the importance of the consumer market in terms which would have been entirely unacceptable a few months previously. On August 1, the Politburo approved a decree of KTF which declared that in the case of the wide range of consumer goods and foods which were no longer rationed the functions of KTF should be strictly limited. While KTF was still responsible for preparing detailed annual and quarterly plans distributing the 'non-market fund' between state institutions, the market fund should merely be divided as a total amount for each region between town, village and special purposes; the distribution was to be made 'in accordance with conditions on the market'.<sup>365</sup>

Meanwhile, the Politburo was actively considering further measures to increase the influence of the market on decisions of state enterprises. On June 8, it established a three-man commission – Ordzhonikidze, Lyubimov and Mikoyan (representing heavy industry, light industry and trade) – to draw up a 'unified project' on 'the right of enterprises which have overfulfilled their plan to sell their output on the market'.<sup>366</sup> The proposal came before the Politburo on several subsequent occasions, but was eventually dropped.<sup>367</sup> The protracted nature of the discussions indicates both the sensitivity of the proposal and that it was being seriously considered.

In the unfavourable circumstance of worsening goods shortages such decisions and proposals were not much more

<sup>364</sup> SZ, 1932, art. 466 (dated October 28).

<sup>365</sup> RTsKhIDNI, 17/3/894, 38–40.

<sup>366</sup> RTsKhIDNI, 17/3/887, 7.

<sup>367</sup> On July 10, the Politburo resolved to reconsider the proposal on July 16; meanwhile a new commission consisting of Mikoyan (chairman), Pyatakov (heavy industry; Ordzhonikidze was on holiday) and Lyubimov was to 'examine Lyubimov's project, and present an agreed proposal to the Politburo' (RTsKhIDNI, 17/3/891, 4, item 13). On July 23, the Politburo passed the project to an enlarged commission including representatives of the timber industry and the State Bank (RTsKhIDNI, 17/3/893, 4); and on August 8 it was transferred to a further commission, now including representatives of Rabkrin, and under Postyshev's chairmanship, to decide which industries should be included (RTsKhIDNI, 17/3/895, 3, item 8).

than the expression of pious intentions. The abolition of rationing and of centralised allocation of consumer goods imperatively required an equilibrium between supply and demand on the retail market. In the summer of 1932 retail prices of consumer goods, in spite of the increases of the previous February, were still fixed far below the market-clearing level; even goods sold at much higher 'commercial prices' had to be distributed in practice by a rough system of rationing. No indication had yet been given by the authorities of how this gap would be closed. Moreover, the implications of the reforms for the planning of investment, production and the distribution of production within industry were entirely unclear. Would the reform measures of May–July 1932 lead to substantial changes in the existing centralised system?

These issues were evidently much debated behind the scenes. In retail trade, the party was now fully committed to the ultimate abolition of rationing. In industry, Ordzhonikidze had sought more flexible arrangements ever since he took over Vesenkha in November 1930; and in particular he favoured the abandonment of the centralised distribution of industrial production (see pp. 11–12 above). The pressure for reform of the economic system both in retail trade and in industry came to the surface in the industrial newspaper with the publication on June 23, 1932, the first anniversary of Stalin's 'Six Conditions' speech (see pp. 70–6 above), of a major article by the well-known industrial journalist M. I. Birbraer.<sup>368</sup> The article, entitled 'In New Conditions – Work in a New Way', after a catchphrase in Stalin's speech, purported to examine the extent to which Stalin's directives had been carried out, but in fact advocated a far-reaching reform of the economic mechanism.

Birbraer concentrated his critical analysis of the economic system on the 'lack of regularity (*neuregulirovannost*)' in the price system. He argued that on the consumer market, price arrangements reinforced the 'equalisation' of wages which Stalin had criticised. This was because 'shock supplies equalise all shock workers'; the worker could not use an increase in wages to buy more than a small amount of additional goods on the high-priced free market or in the state commercial stores. The solution was to

<sup>368</sup> ZI, June 23, 1932; the article appeared under the name 'N. Ivanov'. On the Birbraer affair, see my article in SR, lxii (1984), 201–23.

replace special supply systems by ‘identical prices for identical goods’:

It is therefore necessary (of course with necessary gradualness) to move toward the elimination of the gap between prices for the same products in different sectors of trade – meat, vegetables, eggs, bread, etc., must cost the same (approximately the same) wherever you wish to acquire them.

Moreover, in industrial prices generally, the role of budget subsidies, unequal rates of turnover tax, and so on, must be greatly reduced. Prices in heavy industry, capital construction, and light industry should all be formed on the same basis. This reform of industrial prices could even be carried out before the reform of retail consumer prices and without the need ‘yet’ (*sic*) to increase the general level of consumer prices substantially (*v osnovnom*). Birbraer thus strongly hinted that the prices of capital goods should be greatly increased, and in the very near future.

Further, Birbraer argued that the system of ‘funding’ – the central allocation of quotas or funds (*fondy*) of industrial goods to different industries and sectors – should be abolished within industry as well as on the retail market, and replaced by ‘Soviet trade’. According to Birbraer, the arguments in favour of the central allocation of producer goods were ‘obviously “leftist”’, because they treated Soviet trade as ‘something which contradicts the plan’. He clearly implied that prices within industry should be fixed at market-clearing levels and that financial resources available to industry should be reduced to the level at which supply and demand were in balance on the producer goods market. And in the case of capital construction he explicitly proposed the reduction of the provision of finance so as to make ‘funding’ unnecessary; ‘building sites receive monetary allocations to a greater extent than is economically expedient’.

These proposals, and their further elaboration in later articles, did not amount to a complete or viable reform programme. In the political environment of that time, it would have been impossible for Birbraer to publish an examination of the profound changes in central planning and economic policy required for an attempt to eliminate or drastically reduce shortages. We cannot know whether Birbraer had progressed very far, even in his private thinking, in the difficult task of

designing an alternative model of socialist planning. Over sixty years later no viable 'third way' combining plan and market has emerged in any post-Communist country, and influential economists argue that a third way is impossible in principle. Nevertheless, Birbraer's article, though worded cautiously at sensitive points, was an urgent call for the establishment of a socialist market, both in producer goods and in retail trade, and for the replacement of centralised planning in physical terms by planning primarily through economic incentives.

The article was immediately recognised to be a strong challenge to the existing economic system. Two days after its publication, Verner, the deputy editor of the industrial newspaper, replied with an article entitled 'Khozraschet – But Not This'.<sup>369</sup> The main text of the article was well-reasoned and moderate in tone. Birbraer was criticised not as a heretic but as a 'practical economist' with a 'crudely empirical approach', who failed to see the political factors influencing economics. Verner did not reject Birbraer's main propositions outright, and explicitly agreed that the funding system should be gradually dismantled. His open-mindedness in these respects indicates the extent to which major economic issues were open to discussion at this moment in Soviet history. His main objection was that the proposals were premature and impracticable. Verner complained that Birbraer had launched his call for the abolition of the rationing of supplies to the individual consumer 'outside time and space', and insisted that 'today it is in no way an operational slogan':

Someone could propose the abolition of rationing only if he had no concern for politics and economics, and did not take into account the close, one may say the *cardinal*, connection between on the one hand the abolition of rationing at fixed prices, and on the other hand wages, collection prices [for agricultural products], the ruble and the rates of our construction.

The establishment of a unified price system at the present stage would result in a 'sharp change in the balance of national-economic accounts in favour of the countryside and to such an

<sup>369</sup> ZI, June 25, 1932; the article appeared under the name of V. Markov but was written by Verner (see Verner in ZI, May 5, 1933).



extent that it would immediately affect the rate of industrialisation of the country and the economic strengthening of the *kolkhozy*'.

As for Birbraer's approach to intra-industrial planning, his belief that the abolition of funding was 'some kind of panacea' was 'simply harmful':

Funding is not in any way the result of a mistake of economic policy . . . , and simply abolishing it without simultaneously introducing appropriate economic measures would be a way of pushing us into difficulties no less than those which Comrade Ivanov [Birbraer] wants to avoid, but of another kind. In a number of cases the danger could even appear of reducing the tempo in the most decisive sectors of industrialisation.

In his brief concluding paragraphs, Verner suddenly changed the terms of the argument and indicated that his disagreement with Birbraer was not, after all, simply a matter of Birbraer's unwise foreshortening of developments. While Birbraer tried to 'jump over the necessary stages of development', his mistakes were 'in essence clearly not "Leftist"'. They were based on devotion to *khozraschet* without planning, which would lead to 'the adaptation of the Soviet economy to the irresponsible, uncontrolled operation of the law of value, not curbed by the planning principle, as a unified and single regulator'. Though Verner did not say so explicitly, this was an accusation that Birbraer was repeating the errors of the bourgeois economists of the 1920s and of the Right wing of the party.<sup>370</sup> Verner's strictures on Birbraer foreshadowed the fate of the reform, indicating that strict limits would be set to the bold measures of May–July 1932.

<sup>370</sup> In the debates of the 1920s, Bukharin, in common with most economists, argued that during the period of transition to socialism 'the law of value' was a historically-specific manifestation of the universal 'law of proportionate labour outlays', and as such was the sole regulator of the Soviet economy. During the transition period planning had to operate within the constraint of maintaining equilibrium between supply and demand on the market, and particularly between peasant agriculture and state industry. Preobrazhensky, in contrast, argued that the essence of the NEP economy was conflict between the 'law of value' and the 'law of socialist accumulation'. (See VKA, xiv (1926), 3–254, and E. Preobrazhensky, *The New Economics* (Oxford, 1965), especially pp. 18–40 (first published 1926).)

# CHAPTER TEN

## CRISIS AND REPRESSION, JULY–DECEMBER 1932

### (A) CRISIS, JULY–AUGUST 1932

The course of reform was brusquely interrupted by a series of calamities. The decline in industrial production by over 11 per cent in July 1932 was far greater than the normal seasonal reduction; production was only 3.4 per cent greater than in July 1931. In August, the production of capital goods declined by over 3 per cent;<sup>1</sup> according to TsUNKhU, this was 'the first occasion on which a decline has occurred in August as compared with July in the whole period from 1924 to 1932'.<sup>2</sup> By the end of August the lag of industrial production behind the annual plan was greater than in previous years; Gosplan admitted with unusual frankness that this poor result 'predetermines the underfulfilment of the annual plan even if the rates of development of industrial production obtained in previous years were considerably

<sup>1</sup> The following figures for gross output of the four commissariats Narkomtyazhprom, Narkomles, Narkomlegprom and Narkomsnab were reported in the monthly bulletins of TsUNKhU (million rubles at 1926/27 prices):

	<i>Capital goods</i>	<i>Consumer goods</i>	<i>Total</i>
July <sup>a</sup> : amount	1294	740	2034
% of previous month	96.2	78.5	88.9
% of July 1931	115.0	88.0	103.4
August <sup>b</sup> : amount	1254	851	2097
% of previous month	95.6	111.2	101.4
% of July 1931	107.2	85.6	97.3
January–August <sup>b</sup> : amount	10808	7843	18651
% of Jan.–Aug. 1931	121.6	106.6	114.8

<sup>a</sup> *Osnovnye pokazateli*, July 1932, 87.

<sup>b</sup> *Osnovnye pokazateli*, August 1932, 48.

Minor omissions from these figures are listed in the sources.

<sup>2</sup> *Osnovnye pokazateli*, August 1932, 17.

overfulfilled'.<sup>3</sup> In the crucial iron and steel industry, in spite of the starting-up of new giant blast-furnaces (see p. 147 above), production of pig-iron was lower in August than in May; and production of rolled steel declined to a lower level than in any month since August 1928, a mere 69 per cent of the peak output achieved in December 1930.<sup>4</sup>

Capital construction was in even more serious difficulties. During the first six months of 1932, the authorities sought to force up the amount of construction by lavish provision of finance. The construction industry was unable to absorb these allocations. It was faced with persistent shortages of labour and materials, while the ready availability of investment money forced up prices wherever they were not strictly controlled. (See pp. 153–4 and 192–3 above.)

On July 23, 1932, the Politburo abruptly changed course. Noting the rising building costs, it instructed a commission chaired by Kuibyshev to reduce the investment allocation for July–September 1932 by as much as 700 million rubles, 10 per cent of the planned allocation.<sup>5</sup> A week later the Politburo, having heard reports from Kuibyshev, Pyatakov (Narkomtyazhprom), Markevich (Narkomzem), Voroshilov, Grin'ko (Narkomfin) and Mar'yasin (State Bank), noted 'the considerable rise in costs . . . and the excess of financial provision over the physical volume of work accomplished' and confirmed the decision to reduce investment by 700 million rubles 'with the aim of bringing the amount of finance provided into conformity with the physical volume of work indicated in the plan, and of concentrating material resources on the crucial sites'. The commission recommended, quite unrealistically, that as much as 405 million

<sup>3</sup> *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Otsenka, 1.

<sup>4</sup> For monthly figures for 1930–2 see Table 7 (a)–(e); for 1928 and 1929, see *Osnovnye pokazateli*, July 1932, 44–5 (these are slightly lower figures, evidently excluding some minor rolling mills). The decline in rolled steel was due partly – but only partly – to the conversion of some mills to the production of high quality steel (see pp. 280, 281–2 below).

<sup>5</sup> RTsKhIDNI, 17/3/893, 2. According to Sedov's 'notes on a conversation' in September 1932 (presumably with Gol'tsman) 'Third quarter. Capital investment reduced by 700 million' (Hoover: Trotskii and Sedov – I, Box 374, doc. 64). This information was published in I. N. Smirnov's article in Trotsky's journal (*BO* (Berlin), xxxi (November 1932), 18); for this article see pp. 245–6 below.

rubles should be cut from the allocation to Narkomtyazhprom for 'industrial power-stations and military industry'.<sup>6</sup> Eventually the allocation to the armaments industries for July–September was reduced from 400 to 305 million rubles, and the remaining sum was taken from several other industries within the commissariat.<sup>7</sup>

This was a far more dramatic moment than the other occasions on which ambitious investment plans had been curtailed. A few weeks after the Politburo decided to increase the July–September plan by 250 million rubles (see p. 193 above), it now reduced it by 700 million, so that it was lower than in the previous quarter. This policy change was strongly but unsuccessfully resisted by Narkomtyazhprom. At the Kuibyshev commission, Pyatakov, on behalf of Narkomtyazhprom, vainly insisted that 310 rather than 400 million rubles was the maximum possible reduction.<sup>8</sup> Ordzhonikidze, who was on leave, sent a telegram of protest, but without effect. Kaganovich, responsible for Politburo meetings during Stalin's absence in Sochi, sent Ordzhonikidze a friendly letter which attempted to reconcile him to the cuts, but at the same time made it clear that the whole operation had Stalin's support:

We were compelled to do this, my friend, the financial situation required it. We already have huge hold-ups in the payment of wages and the budget deficit has grown more than ever before . . . We wrote to our chief friend [i.e. Stalin] and he thought it absolutely correct and timely to make cuts of about 700 million, which we did. At the PB [Politburo] meeting I tried (after your telegram) to reduce the figure for the cut relating to Narkomtyazhprom, but it did not work. Please don't get upset about it, and especially don't get angry.<sup>9</sup>

<sup>6</sup> For the Politburo decision, see RTsKhIDNI, 17/3/894, 1, 12 (session of August 1, item 3). Two other items with defence connotations were also reduced: special works, by 40 million rubles, and construction in the Far-Eastern region, by 50 million rubles. The investment allocation to Narkomzem was reduced by 150 million rubles.

<sup>7</sup> GARF, 5446/57/20, 133–52 (art. 1294/278s, dated August 20); in addition investment in civilian industry for military purposes was reduced from 86 to 51 million rubles.

<sup>8</sup> GARF, 5446/22/21, 8–9 (session of July 26).

<sup>9</sup> RTsKhIDNI, 85/29/433, 1; see also *Svododnaya mysl'*, 17, 1991, 80 (Khlevnyuk).

On August 1, the day on which the Politburo confirmed the investment cuts, it also approved Grin'ko's proposals for the adoption of financial measures in July–September which were intended to eliminate wage debts as early as August 15 and achieve a budget surplus in October–December. The most important decision envisaged further substantial increases in rural prices.<sup>10</sup> But it was not put into effect; and high net currency issues continued throughout the year (see pp. 285 and 309–10 below).

The investment cuts, together with the difficulty of recruiting building labour (see pp. 239–40 below), led to a decline in the volume of building work in industry in both July and August.<sup>11</sup> A Gosplan report published in September anticipated that 'in all probability' the volume of capital construction would be 'a few per cent lower' in July–September 1932 than in the same quarter of 1931.<sup>12</sup> In Narkomtyazhprom capital construction declined by 5 per cent in July and a further 3 per cent in August.<sup>13</sup> The annual programme of the main building organisation of Narkomtyazhprom, Soyuzstroï, was cut by 27 per cent, and in order to concentrate resources on key objectives a number of projects was moth-balled.<sup>14</sup>

These months also saw the failure of the reduced plan for state collections from agriculture. Grain collections in July, the first month of the new harvest, though planned at approximately the July 1931 level, in fact reached less than half this level. After strenuous efforts, collections improved in August and September, but they continued to lag behind both the reduced plan for 1932 and the amount collected in the same period of 1931. State collections of livestock and dairy products, potatoes and other vegetables, and sugar beet followed the same pattern; only

<sup>10</sup> RTsKhIDNI, 17/162/13, 49–50 (item 25).

<sup>11</sup> *Osnovnye pokazateli*, July 1932, 21; *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Stroitel'stvo, p. 2; data for September have not been available.

<sup>12</sup> *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Stroitel'stvo, p. 1.

<sup>13</sup> Estimated from *ibid.*, June and January–June 1932, Tablitsy, *Vypolnenie plana kapital'nogo stroitel'stva*; *ibid.*, August and January–August 1932, Stroitel'stvo, pp. 9–10.

<sup>14</sup> *Ibid.*, August and January–August 1932, Stroitel'stvo, pp. 2–3; for the moth-balling of projects earlier in the year, see p. 154 above.

makhorka, flax and cotton were collected in greater quantities than in the previous year.<sup>15</sup>

The economic reforms were too late and too little to provide adequate incentives to the peasants. Too late, because in mid-May when the reforms were introduced much of the spring sowing was already completed. Too little, because the supply of consumer goods to the peasants was far too small. The authorities made a serious attempt to seek out and transfer commodities to the countryside. On June 19, Sovnarkom resolved to 'categorically forbid' the transfer of goods intended for the peasant market to factory canteens and elsewhere.<sup>16</sup> The value of the twelve planned groups of consumer goods despatched to the countryside in July–September 1932 was 32 per cent greater than in the previous quarter and as much as 84 per cent greater than in July–September 1931. But this fell short of the plan.<sup>17</sup> On August 16 the Politburo criticised the failure to transfer the planned quantities of footwear, makhorka, soap and clothing to the countryside.<sup>18</sup> And other goods, not in the 'planned' groups, were transferred to a much smaller extent. Total retail turnover in the countryside increased by only 19 per cent during the quarter, from a very low level.<sup>19</sup> The additional goods were rapidly swallowed up by the vast pent-up purchasing power of the countryside. There was a dearth of consumer goods in the countryside even at the higher commercial prices.<sup>20</sup> The hope of using these goods to encourage agricultural deliveries to the state proved futile.

Even this modest increase in the supply of consumer goods to the countryside greatly reduced supplies to the towns. This was because the entire pool of consumer goods available for distribution was small: supply to town and country of the twelve planned groups of goods, and total retail turnover, both declined by about 3 per cent in the July–September quarter.<sup>21</sup> Efforts to

<sup>15</sup> See *Itogi . . . po torgovle*, September 1932, 43–61; the collections will be discussed in vol. 5.

<sup>16</sup> GARF, 5446/1/69, 26 (art. 982).

<sup>17</sup> *Itogi . . . po torgovle*, September 1932, 68–9.

<sup>18</sup> RTsKhIDNI, 17/3/896, 36.

<sup>19</sup> *Itogi . . . po torgovle*, September 1932, 79.

<sup>20</sup> On August 25 a Sovnarkom decree complained that the supply of goods to the village from the commercial fund was 'clearly unsatisfactory' (GARF, 5446/1/70, 149 – art. 1302).

<sup>21</sup> *Itogi . . . po torgovle*, September 1932, 68–9, 79.

supplement the production of consumer goods had little success.<sup>22</sup> Urban supplies of the twelve planned goods were reduced by as much as 63 per cent in July–September.<sup>23</sup> Supplies of textiles to towns and industrial settlements virtually ceased;<sup>24</sup> in August over two-thirds of the ‘planned’ consumer goods dispatched to the towns consisted of cigarettes!<sup>25</sup>

Simultaneously urban food supplies deteriorated as a result of the uncertainties of the grain collections, and the decline in other food collections. Rations were honoured only intermittently, and canteens went short. Gosplan reported ‘increased difficulties in supplying livestock products, and also, in a number of areas, in supplying bread’. In July and August the quarterly supply plan was fulfilled only 39 per cent in the case of flour and 32 per cent in the case of meat; ‘the reduced supply plans for a number of major products are fulfilled in a declining percentage from quarter to quarter’. Gosplan acknowledged that even large industrial centres suffered a ‘considerable deterioration’ in food supply.<sup>26</sup>

<sup>22</sup> Consumer goods produced by heavy industry amounted to only 38.8 million rubles in July and 42.3 million rubles in August (*Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, *Promyshlennost’*, p. 16zh). The production of consumer goods by the artisan cooperatives under Vsekpromsovet (excluding the timber industry) actually declined in each of the first three quarters of 1932; it increased in October–December, presumably as a result of the measures of July 1932, but this was too late for the crucial July–September quarter (for figures see ST, 2, 1933, 34 (Sen’ko); these figures are presumably in planned prices of 1932). A Sovnarkom decree of August 3 also belatedly instructed the OGPU and the People’s Commissariat of Justice to supply consumer goods worth an additional 70 million rubles, using prisoners (GARF, 5446/1/70, 18–19 – art. 1201).

<sup>23</sup> *Itogi . . . po torgovle*, September 1932, 68–9.

<sup>24</sup> In July–August the countryside received cotton and woollen textiles and sewn goods to the value of 370 million rubles, but the towns received supplies to a value of only 23 million rubles (*Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, *Torgovlya*, 5–6).

<sup>25</sup> *Osnovnye pokazateli*, August 1932, 34.

<sup>26</sup> Centralised supplies per head to the 22 most important closed workers’ cooperatives (kg. per person per month):

	Flour	Groats & macaroni	Butter	Vegetable oil	Fish	Meat	Sugar
Jan–March 1931	19.0	1.7	0.25	0.23	2.5	2.4	1
Oct–Dec. 1931	17.1	2.2	0.14	0.33	1.6	1.9	2
Jan–March 1932	13.8	2.0	0.03	0.28	0.9	1.2	1.3
Apr–June 1932	11.8	0.8	0.025	0.23	0.7	0.4	0.8
July–Aug 1932	13.3	0.4	0.02	0.15	0.6	0.15	0.6

‘There’s no bread, no meat, no fats – nothing’, admitted a senior GPU official responsible for food supply in Leningrad.<sup>27</sup> Sites and factories continued to demand more and bigger food quotas (see pp. 177–80 above); but they were now primarily engaged in desperate efforts to secure the supplies which they had already been allocated. Vareikis reported to Kaganovich that as a result of the shortage of grain, in the Central Black Earth Region supplies to Lists 1 and 2 had been reduced by 25 per cent, and List 3 had been abolished.<sup>28</sup> Narkomsnab noted that in July–September the dispatch of food from its factories even to the top priority gold and platinum industry was completely unsatisfactory, and authorised the vegetable-oil corporation to divert production to the gold industry which was originally intended for export.<sup>29</sup> The shortage of food was so great that in spite of the balance of payments crisis the government authorised the import in July–December 1932 of meat with a live weight of 168 thousand tons from the Middle and Far East for distribution to industrial centres and the army.<sup>30</sup>

The Soviet authorities acknowledged that the decline in official food supplies was forcing the urban worker into further dependence on the free market. At a session of the Gosplan presidium in June Mezhlauk noted that an increasing proportion of urban food supply would be obtained from kolkhoz trade ‘at exceptionally high prices’, from purchases at the state commercial shops, and from purchases on the kolkhoz market by the consumer cooperatives for resale in their shops.<sup>31</sup> Expenditure at bazaars and on private trade increased from 15 per cent of a Moscow worker’s food outlays in 1931 to 20 per cent in April

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(*Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, *Torgovlya*, 3, 4, 5a).

<sup>27</sup> Woodward and Butler, eds. (1958), 244 (reported in Strang’s despatch from Moscow of August 14, 1932).

<sup>28</sup> GARF, 5446/27/13, 158 (telegram from Vareikis and Rybinin, dated August 21).

<sup>29</sup> RGAE, 8043/1/52, 17–18 (art. 420, dated August 14).

<sup>30</sup> RGAE, 8043/1/56, 111 (art. 350, dated July 19); in the event only 93 thousand tons were imported in 1932, and 65 thousand tons in 1933 (*Vneshnyaya torgovlya* (1960), 360).

<sup>31</sup> RGAE, 4372/30/25, 277 (session of June 13); see also l. 362 (Borilin).



1932 and 30 per cent in July; the equivalent figures for Leningrad were even higher.<sup>32</sup> These higher outlays did not imply any substantial increase in the amount of food purchased by workers on the free market. Between May 1 and September 1, 1932, free-market food prices rose by 13 per cent, and throughout the summer they were at almost twice the level of 1931. Throughout 1932, wages failed to keep pace with either fixed or free-market prices. In April 1932, the average wage in Narkomtyazhprom was 19.7 per cent higher than in April 1931,<sup>33</sup> but urban retail prices in cooperative trade rose in the same period by as much as 44.5 per cent, and free-market prices by as much as 74.7 per cent.<sup>34</sup> In the summer of 1932, the purchasing power of the urban worker deteriorated still further in real terms. Urban retail prices in cooperative trade increased between May 1 and September 1 more rapidly than free-market prices, rising by 25.2 per cent; food prices increased by as much as 37.9 per cent.<sup>35</sup> But the average wage in Narkomtyazhprom rose by only 7 or 8 per cent.<sup>36</sup>

And the wages which were earned were not always received. In the summer of 1932 the wage debts of factories and sites to their workers increased considerably. Enterprises and economic organisations were particularly short of money at this time. Tighter budget and bank controls, introduced in the interest of economic efficiency, restricted subsidies and short-term loans at a time when costs were rising. Moreover, the decline of retail trade turnover meant that the trading organisations failed to pay in enough cash to the banks, who therefore lacked cash to advance

<sup>32</sup> *Vypolnenie narodno-khozyaistvennogo plana*, July and January–July 1932, Torgovlya, p. 5a.

<sup>33</sup> *Osnovnye pokazateli*, May 1932, 99; the average daily wage per worker rose from 4.49 to 5.37 rubles.

<sup>34</sup> *Tovarooborot* (1932), 134–5, 143; indexes for May 1, 1931, and May 1, 1932; all goods in cooperative trade, 9 food products in urban bazaar trade.

<sup>35</sup> *Tovarooborot* (1932), 134–5.

<sup>36</sup> The daily wage increased by 5.4 per cent between April and July 1932, from 5.37 to 5.66 rubles (*Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, *Tablitsy, Srednyaya dnevnyaya zarabotnaya plata*), and by a further 2–3 per cent in August (read off from diagram in *Osnovnye pokazateli* . . . *NKTP*, January–June 1933, 30). Between April and July 1932 the wage in Narkomlegprom increased from 3.60 to 3.76 rubles, or by only 4.4 per cent (*Osnovnye pokazateli*, May 1932, 99, August 1932, 107).

to enterprises.<sup>37</sup> By August factories were heavily in debt to a high proportion of their workers. On August 2, in line with Grin'ko's proposals to the Politburo on the previous day (see p. 232 above), Sovnarkom declared that it was the personal responsibility of People's Commissars to eliminate wage debts by August 15.<sup>38</sup> Local authorities took desperate measures to bring in cash from the population. The party secretary in the Lower Volga region reported, for example, that they had removed money from the rural areas, fined organisations which had failed to pass on their receipts to the banks, and restricted bank loans; they were now about to 'apply class repressions to the rural trading agencies which have not fulfilled their plan for the mobilisation of resources'. But all these measures would at most provide enough cash to cover half the wage debt.<sup>39</sup> In the USSR as a whole, wage debts continued to increase.<sup>40</sup>

Evidence on the mood of the urban population in face of these difficulties is scarce and patchy. Self-sacrifice and enthusiasm for

<sup>37</sup> See GARF 5446/27/13, 156 and 5446/27/9, 59 (telegrams from Kosior and Chubar' to Kaganovich and Kuibyshev, August 21 and 23).

<sup>38</sup> GARF, 5446/57/20, 85 (art. 1204/256s). On August 11 a Politburo commission to discuss the delays in the payment of wages was established under Rudzutak's chairmanship (RTsKhIDNI, 17/3/896, 11).

<sup>39</sup> GARF, 5446/27/13, 159 (telegram from Ptukha to Kaganovich, August 27).

<sup>40</sup> The wage debt increased as follows (million rubles):

	July 1 <sup>a</sup>	August 1 <sup>a</sup>	September 1 <sup>a</sup>	Approximate total monthly wage bill
Narkomtyazhprom	89	133	208	400 <sup>b</sup>
Of which more than 15 days overdue	16	23	48	—
Total for all USSR	300	445	658	2700 <sup>c</sup>
Of which more than 15 days overdue	88	113	160	—

<sup>a</sup> *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Trud, 5.

<sup>b</sup> *Osnovnye pokazateli . . . NKTP*, January–June 1933, 155, gives average monthly wage-bill in Narkomtyazhprom for 'up to 90 per cent of the total number of workers' as 354 million rubles.

<sup>c</sup> Total wage bill in 1932 was 32,738 million rubles (*Trud* (1936), 20–1); this covers all workers and other employees in the USSR receiving wages or salaries.

socialist construction among workers continued to be described not only in the official press but also in émigré publications. A clandestine letter from Moscow published in the journal of the Left Opposition reported:

At every step one comes across supremely devoted workers, old and young, entirely devoting themselves to the cause to which their lives are dedicated. Often skilled workers, particularly the communists, work for 10 or 12 hours a day, struggling to close up all the gaps and reach the vital targets.<sup>41</sup>

But most unofficial reports indicate that the wave of discontent set in motion by the food shortages in the early months of 1932 continued during the summer. In Siberia, for example, disturbances followed the failure to deliver bread for several days.<sup>42</sup> The journal of the Left Opposition, on the basis of its recent information from Moscow, claimed that 'the working class, weakened by increasing need, is infected with lack of confidence in plans of economic construction, and shows its indifference to them'.<sup>43</sup> In the Soviet press, an editorial in the industrial newspaper admitted that '*socialist emulation and shock-work have declined recently at many enterprises*'; serious accidents had resulted from the 'increase in the number of cases of refusal to carry out the direct orders of the management'. The newspaper acknowledged that there was some truth in the view that the deterioration in discipline was due to the poor living conditions.<sup>44</sup>

It is in this context that we should consider the sharp deterioration in labour productivity in the summer of 1932. After a substantial decline at the beginning of 1932, productivity rose slowly during the first six months of the year; but in July and August it declined both in heavy and in light industry. It even declined in the engineering industry, where it had been continuously rising for nearly a decade as new products were mastered and produced on a larger scale. In August 1932 output

<sup>41</sup> BO (Berlin), xxix–xxx (September 1932), 14 (letter signed by 'U—ii', dated 'beginning of August').

<sup>42</sup> German archives: A.40 Geheim. Politische Jahresberichte 1931H/433213–216 (report by Grosskopf dated August 23).

<sup>43</sup> BO (Berlin), xxxi (November 1932), 18 (for this report, written at the end of September 1932, see p. 245 below).

<sup>44</sup> ZI, October 24, 1932.

per person employed in industry as a whole was lower than in August 1931.<sup>45</sup>

While the decline in labour productivity could be due to worsening shortages of raw materials and inefficiencies for which the workers were not responsible, in the summer of 1932 the workers' performance also deteriorated in terms of indicators more closely associated with their commitment to their work. Both absenteeism without due cause and labour turnover markedly increased.<sup>46</sup> Moreover, contrary to the normal pattern in the summer months, the number recruited in industry, building and on the railways was lower than the number leaving, so that the total number employed declined absolutely. Workers and others removed from the rations left for the countryside in search of food.<sup>47</sup> The decline took place in every industry. According to Gosplan, some crucial groups of workers, including miners at the coal-face, were particularly affected. The general shortage of unskilled as well as skilled labour was now a serious bottleneck for the first time.<sup>48</sup>

In an unpublished report Gosplan frankly admitted the gravity of these developments:

The results of July and August in regard to labour are characterised by a number of negative features, reflected in: the reduction of the size of the labour force in industry, building and transport; the growth of labour turnover; the absence of the reconstruction of norm setting and of the control of wages; an increase in overdue wage payments; worsening supplies to the workers; the worsening state of labour

<sup>45</sup> *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Trud, 6–7.

<sup>46</sup> Absenteeism without due course rose from 0.46 days per month per worker in industry as a whole in April 1932 (*Osnovnye pokazateli*, January–June 1932, 114) to 0.59 in October (*Osnovnye pokazateli*, January–March 1933, 83) (comparable figures for other months have not been available). Workers leaving their job in Narkomtyazhprom rose from 11.0 per cent of average monthly employment in June to 12.7 per cent in July, and rose still further in August (*Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Trud, p. [3]).

<sup>47</sup> See, for example, GARF, 5446/27/13, 144 (telegram from Bashkiria to Kaganovich, dated August 19).

<sup>48</sup> *Vypolnenie narodno-khozyaistvennogo plana*, August and January–August 1932, Stroitel'stvo, p. 13, Trud, pp. [1–2].

discipline; considerable deterioration in labour productivity indicators; the unsatisfactory state of labour organisation in the period of the harvest campaign. All these unfavourable features have harmed the production programme in the most important branches of the economy.<sup>49</sup>

Writing clandestinely from Moscow, a supporter of the Left Opposition claimed that ‘all delays, breakdowns, non-fulfilment of plans . . . have largely the same cause: inefficient and irregular supply to the workers’.<sup>50</sup> Both TsUNKhU and Gosplan treated the food shortages as an important factor in the deteriorating performance of industry and capital construction, and attributed the difficulties in recruiting and holding labour primarily to this cause. TsUNKhU noted in August 1932 that ‘worsening social and living conditions for labour in recent months, associated with the worsening food supply, delays in paying wages, etc. are the main causes of the increasing outflow of workers’.<sup>51</sup> Gosplan took the analysis further, pointing out some of the implications of this startling reversal of the net migration of labour from countryside to town which was a well-established feature of pre-revolutionary industrialisation and had markedly accelerated after the revolution. In its report completed in July 1932, Gosplan had already observed that ‘labour turnover particularly increases in areas where supply conditions in the town are worse and where the kolkhozy have a relatively better organisational and economic level’.<sup>52</sup> Two months later, on September 24, it analysed the novel situation with stark clarity:

The lack of food . . . on the border between two agricultural years . . . has affected the level of turnover and the state of labour discipline in a number of branches of the economy. The unorganised quitting of agriculture for industry and construction has been replaced at the height of seasonal agricultural work . . . by an identical unorganised quitting, though on a smaller scale, of these branches of the economy for agriculture

<sup>49</sup> *Ibid.*, August and January–August 1932, Trud, p. 7.

<sup>50</sup> BO (Berlin), xxviii (July 1932), 3 (for this letter see p. 133 n. 1 above).

<sup>51</sup> *Osnovnye pokazateli*, July 1932, 22 (completed August 21).

<sup>52</sup> *Vypolnenie narodno-khozyaistvennogo plana*, June and January– June 1932, Trud, p. 4.

... This new labour force has not been fully assimilated and to a considerable extent is nomadic between village and town depending on which has the best food and other material conditions at a particular time. By quitting the towns this new labour force is able to harm greatly the whole production process of a number of branches of the economy. Therefore the question of the organisational and economic strengthening of the kolkhoz is in no way merely a question of agricultural organisation.<sup>53</sup>

A subtle change of emphasis between the first and second passage reflected the ambiguities in the attitude of the planners. In the first passage, the reference to kolkhozy with 'a relatively better organisational and economic level' clearly means those with better food supply for their members, whose success is paradoxically hindering the development of urban industry. In the second passage, the success of the kolkhoz is defined in terms of the state: the call for 'organisational and economic strengthening of the kolkhozy' obviously implies that a 'strong' kolkhoz would be one which would supply adequate food to the towns, and thus prevent workers from drifting back to the countryside. Arguing on similar lines, a TsUNKhU report directly attributed the difficulties in recruiting building labour to the 'favourable' conditions in the countryside resulting from the reforms: 'the development of kolkhoz trade and the new conditions for artisan cooperatives have affected the rate of recruitment of labour for the building sites'.<sup>54</sup> In the same spirit, but in less guarded language, a Soviet manager told a British Embassy official that any concession to the peasants would adversely affect the proletariat of the towns, whom the government could not afford to estrange. The British chargé d'affaires in Moscow suggested that resentment by the industrial workers might be the result of the expansion of the free market in food at the expense of rationing, which led to increased economic differentiation between higher and lower wage-earners, and between the 'new bourgeoisie' and the proletariat.<sup>55</sup>

<sup>53</sup> *Ibid.*, August and January–August 1932, Otsenka, p. 5.

<sup>54</sup> *Osnovnye pokazateli*, August 1932, p. 28.

<sup>55</sup> Report by Strang of account by Vyvyan, August 14, 1932, in Woodward and Butler, eds (1958), pp. 244, 243.

(B) THE HARSH SOLUTION AND ITS OPPONENTS,  
AUGUST–DECEMBER 1932

By the end of July the failure of the state grain collections from the new harvest placed food supplies in jeopardy, and demonstrated that 'Neo-Nep' had not worked. Stalin and his supporters in the Politburo concluded that the storm could be ridden out only with a very firm hand on the tiller.

From the beginning of August, official pronouncements, and particularly *Pravda* editorials, blamed kulak machinations both for the widespread speculation in grain and for the failure of the collections.<sup>56</sup> The more realistic assessment of agricultural difficulties which predominated between May and July was not, however, entirely abandoned. Kuibyshev, addressing Moscow party officials on August 2, strongly emphasised the inadequacy of the incentives to the peasants.<sup>57</sup> But towards the end of his speech, in a passage which may have been prepared at the last minute, he switched to a condemnation of the 'frenzied opposition of the defeated kulak class', and announced that a decree of 'tremendous significance' was in preparation concerning the defence of kolkhoz property from theft by 'class-hostile' elements.<sup>58</sup> This was the notorious decree imposing the death penalty for theft of kolkhoz property, which was interpreted to include grain standing in the fields. The decree was approved by the Politburo on August 2, and promulgated by TsIK and Sovnarkom on August 7.<sup>59</sup> Stalin was on holiday in Sochi at this time; nevertheless this decree, unlike the reform measures of May–July, was frequently attributed to Stalin personally; thus Sheboldaev praised the 'far-sighted genius of our CC, and of comrade Stalin who posed this question'.<sup>60</sup> On August 22 a

<sup>56</sup> These developments will be examined in more detail in vol. 5.

<sup>57</sup> Kuibyshev (1932); Kuibyshev, v (1937), 294–322. The speech was delivered to 'rapporteurs of the Moscow party organisation'; the pamphlet went to press on August 8–10 in 200,000 copies, but the speech was not reported in the daily press.

<sup>58</sup> Kuibyshev (1932), 34–5.

<sup>59</sup> RTsKhIDNI, 17/3/895, 14 (decision reported to session of August 8); SZ, 1932, art. 360 (decree of TsIK and Sovnarkom, entitled 'On the Defence of the Property of State Enterprises, Kolkhozy and Cooperatives and on the Strengthening of Social (Socialist) Property').

<sup>60</sup> Sheboldaev (1934), 67; this was in a speech delivered on November 12.

further decree 'On the Struggle with Speculation' announced that 'cases of speculation have occurred, particularly in consumer goods', and instructed the OGPU, the procuracy and the local soviets to take steps to root out speculation, 'applying to speculators and re-sellers imprisonment in concentration camps for 5–10 years without right to amnesty'.<sup>61</sup>

In the succeeding winter and spring of 1932–3 the Soviet state used coercion on an unprecedented scale to secure in full the reduced quota of grain. Almost nothing about the desperate food situation appeared in the press, which did not even openly admit that the standard of living in the towns had declined, let alone that starvation was threatening the towns and ravaging the countryside. But the secret directives of the centre were much franker. In August 1932, a telegram from the central committee and Sovnarkom to the leadership of the North Caucasus region claimed that the breakdown (sryv) of the collections would place Moscow, Leningrad and other industrial centres in jeopardy.<sup>62</sup> On May 6, 1933, towards the end of the grain campaign, Stalin wrote to Sholokhov even more bluntly:

the respected grain producers of your district (and not only of your district!) have carried out a go-slow (sabotage!), and were willing to leave the workers, and the Red Army, without bread. Although the sabotage was quiet and appeared to be irreproachable (no blood was shed), this does not alter the fact that the respected grain producers in essence were carrying out a 'silent' war against Soviet power. War by starvation, my dear comrade Sholokhov . . .<sup>63</sup>

Throughout the autumn of 1932, the authorities waged the bitter battle for grain. At the beginning of November, a central committee delegation headed by Kaganovich was despatched to the North Caucasus: in the ensuing weeks entire villages which

<sup>61</sup> SZ, 1932, art. 375 (decree of TsIK and Sovnarkom). The Politburo approved the decree by correspondence on August 13, following a report by Kaganovich; it was accompanied by a letter from Menzhinsky to local OGPU offices (RTsKhIDNI, 17/3/896, 13).

<sup>62</sup> Fridberg (1973), 350, citing party archives.

<sup>63</sup> This letter was first publicly cited by Khrushchev thirty years later (P, March 10, 1963); it was a reply to a letter from Sholokhov dated April 16, 1933. It is published in full in VI, 3, 1994, 22.



failed to fulfil the grain plan were exiled and resettled, and the North-Caucasian party was subjected to 'a thorough-going purge'.<sup>64</sup> This was followed in December by the announcement that throughout the USSR all recruitment to the party was to cease pending a general purge of party members and candidates in the course of 1933.<sup>65</sup> In the same month the Politburo decided to establish centrally managed political sections (*politotdely*) in Machine-Tractor Stations to control agriculture, analogous to the political sections formed in the Red Army during the civil war.<sup>66</sup> In consequence of the depredations of the grain collectors in areas where the harvest was poor, many villages in Ukraine, the North Caucasus and the Volga regions were haunted by famine before the end of 1932.

The new policy – or rather the reversion to previous policies in new and more threatening circumstances – aroused widespread resentment. From the summer, clandestine opposition groups revived and re-formed, impelled to speak out by policies they thought disastrous, enabled to do so by the somewhat more relaxed atmosphere of the summer of 1932. In July, a Left Opposition group based both in Moscow and Leningrad prepared a programmatic document or 'draft platform' which was smuggled abroad and published in Trotsky's journal.<sup>67</sup> Diagnosing the 'crisis of the Soviet economy' as fundamentally due to the excessive industry–agriculture imbalance which had led to agricultural decline, it called for 'revision of the basic plans and basic methods of economic management with the object of reducing the disproportion, and primarily of achieving a more acceptable commodity exchange between town and country'. To this end, inflation must be cut back by reducing state

<sup>64</sup> *O kolkhoznom stroitel'stve* (Rostov, 1932), 281–3, 286–90. The events in the North Caucasus will be discussed in vol. 5; for an informative account, see *Acta Slavica Iaponica*, i (1983), 39–56 (Shimotomai – in English).

<sup>65</sup> P, December 11, 1932 (resolution of party central committee of December 10); RTsKhIDNI, 17/3/910, 2.

<sup>66</sup> IZ, lxxvi (1976), 45 (Zelenin).

<sup>67</sup> BO (Berlin) xxix–xxx (September 1932), 1–5: according to Trotsky, the document, the first page of which was missing, was 'received in a foreign language, into which it had been translated in order to despatch it clandestinely', and retranslated by the journal (*loc.cit.* 1). Trotsky referred to the document as a 'draft platform', and identified himself closely with it (*Cahiers Léon Trotsky*, v (January–March 1980), 36).

expenditure, including industrial expenditure, to a realistic level. In agriculture, those kolkhozy which were not 'viable' must be dispersed and the remainder should be provided with adequate resources to enable them to supply the towns; the elimination of the kulaks as a class by administrative methods must be brought to an end. Citing Lenin's support in 1920 for investment of foreign capital in Soviet industry through 'concessions', the group called for a 'five-year plan of collaboration with capitalist countries'. In conclusion, ludicrously exaggerating the power and influence of the Left Opposition, the draft platform announced that the Opposition would collaborate with the 'faction which is ruling at present' in order to defend the country from external dangers and overcome economic difficulties, and would endeavour to secure as smooth a transition as possible from 'the present obviously unhealthy and obviously unviable regime to a regime of party democracy'.

The Left Opposition displayed other signs of life in the summer of 1932. In September, following the preparation of the draft platform, a Soviet official, E. S. Gol'tsman, met Trotsky's son Sedov in Berlin, and handed him a 1,500-word article by I. N. Smirnov, 'The Economic Position of the USSR', which was duly published in Trotsky's journal.<sup>68</sup> The article attracted widespread attention because of its sound factual basis. It consisted mainly of unacknowledged extracts and summaries from a confidential report of Gosplan covering the first six months of 1932; Smirnov presumably received this report in the course of his duties.<sup>69</sup> Smirnov's article, though accurately reproducing the

<sup>68</sup> BO (Berlin), xxxi (November 1932), 18–20; the article was signed 'KO'. The large Western literature on the Gol'tsman–Sedov meeting, which featured in the Zinoviev–Kamenev trial of August 1936, is summarised and carefully examined by P. Broué in *Cahiers Léon Trotsky*, v (January–March 1980), 5–37. Some passages may have been added to or modified by Sedov in the course of editing the article for the *Byulleten' Opozitsii* (on this, see p. 246 below).

<sup>69</sup> The report was entitled *Vypolnenie narodno-khozyaistvennogo plana za iyun' i I-oe polugodie 1932* (Fulfilment of the National-Economic Plan for June and the First Half of 1932), 178-pages mimeographed, dated July 1932 and prepared by the sector of Gosplan USSR for the supervision of plan fulfilment. Smirnov, who led the Red Army against Kolchak in Siberia in the Civil War, was a long-established supporter of Trotsky; he capitulated to Stalin in 1929 (P, November 3, 1929). He was sent to the Volga region as a leading official on the Saratov construction project, and clashed with Molotov at the Industrial Conference in January 1931 after proposing to establish a centralised agency to control all

Gosplan data, omitted sections of the original report which described successes. It also included negative conclusions which did not appear in the Gosplan report. Thus a passage was added to the section on labour discipline asserting that 'the working class, weakened by increasing need' was infected by scepticism about the economic plans, although its disaffection was 'passive in character'. Smirnov's final sentence was entirely absent from the original report:

In view of the inability of the present leadership to extricate itself from the economic and political blind alley, the conviction is growing in the party that it is necessary to replace the party leadership.

Smirnov apparently informed Sedov, via Gol'tsman, at their meeting in the last few days of September 1932, that a 'bloc' had been formed of various opposition groupings in the USSR, together with Trotskyist organisations abroad. Sedov reported to Trotsky, in a letter written in invisible ink, and received by Trotsky on October 4, 1932, that a bloc had been organised in the USSR, consisting of 'Zinovievites, the Sten-Lominadze group and Trotskyists (former [capitulators])'.<sup>70</sup> Trotsky approved of the formation of the alleged bloc, and proposed that it should 'for the moment' primarily engage in 'exchange of information'.<sup>71</sup>

While these activities were afoot among former members of

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industrial supply (see pp. 13–14 above). In July 1931 he met Sedov while on a business mission in Berlin (*The Case of Leon Trotsky* (1937), 88–9; Deutscher (1963), 165). His appointment as deputy head of the *glavk* for transport equipment (Glavtransmash) on March 28, 1932 (SP NKTP, 1932, art. 192) was one of a series of appointments of former oppositionists, reflecting the more relaxed political atmosphere of the first six months of 1932 (see p. 142 above).

<sup>70</sup> T 4782, translated into French in *Cahiers Léon Trotsky*, v (January–March 1980), 36–7. The letter is undated, but in a letter dated October 5, 1932, Trotsky mentioned that he received it 'the previous day'; I am indebted to Professor Broué for this information. Sten and Lominadze had been condemned together with Syrtsov for forming a 'Right–"Left" bloc' in 1930 (see vol. 3, pp. 411–15). Starkov, a Russian historian with access to OGPU archives, has expressed great scepticism about the information in Sedov's letter. Starkov claims that in 1932 all oppositionists were closely watched by the OGPU, the Left Opposition was demoralised and scattered, and in particular no Sten-Lominadze group existed (VIK, 5, 1991, 82–3).

<sup>71</sup> T 13905c and 1010, undated letter to Sedov, translated into French in *Cahiers Léon Trotsky*, v (January–March 1980), 35–6.

Left Oppositions, the former Right was also stirring.<sup>72</sup> Bukharin, Rykov and Tomskey seem to have stood aside from all dissident activity. But in the spring and summer of 1932, M. N. Ryutin drafted an appeal 'To All Members of the CPSU(b)' and a much longer document entitled 'Stalin and the Crisis of the Proletarian Dictatorship'; the latter document became widely known as 'the Ryutin platform'. Ryutin, an old Bolshevik, had been a Moscow party secretary and supporter of Uglanov in 1928, and clashed with Stalin at a meeting of the party Orgburo. Late in 1929 or early in 1930 he wrote a note to the Central Committee protesting about forcible collectivisation, and in September 1930 he was expelled from the party. Shortly afterwards he was arrested by the OGPU, but released in January 1931; for the next eighteen months he worked as an economist in the central administration of the electricity industry. In the summer of 1932 he discussed his draft documents with a group of friends, the most prominent among whom were the old Bolsheviks V. N. Kayurov and M. S. Ivanov; and on August 21 they were revised at a clandestine meeting in a flat near Moscow. The fifteen people present were all party members except Ryutin, and occupied official posts in a variety of mainly economic organisations; several of them were from Kharkov. They decided to establish a 'Union of Marxist-Leninists', notionally within the party. After further meetings they circulated the final versions of the two documents among party members in Moscow, Kharkov and Belorussia. Among their readers were Zinoviev, Kamenev, Uglanov, and Bukharin's close former associates Slepkov and Maretsky; some of those who read them suggested amendments.<sup>73</sup>

The versions of the appeal and the platform published in Moscow in 1988–90 are copies made by the OGPU from copies of

<sup>72</sup> In his letter to Sedov about the bloc, Trotsky wrote that delay 'would leave the ground clear for the Rights' (*Cahiers Léon Trotsky*, v (January–March 1980), 35), implying that the Right was not and should not be part of the bloc.

<sup>73</sup> The above account in based on the material published in 1989–90 in association with the Politburo commission on the repressions. See *Izvestiya TsK*, 6, 1989, 103–5, 109–11; 3, 1990, 154–60; *Oni ne molchali* (1991), 160, 166–7 (Starkov). According to statements made to the OGPU at the time, at the end of August and beginning of September an unofficial gathering was attended by former members of Bukharin's school, including Slepkov, Maretsky, Astrova, Aikhenval'd and P. Petrovsky (son of the head of TsIK of the Ukraine) (*ibid.* 194–5 – account by P. Petrovsky's son L. P. Petrovsky).

the original, and so may not be accurate.<sup>74</sup> The appeal occupies five printed pages, the platform in the Russian archives consists of 194 typewritten pages.<sup>75</sup> Their content corresponds quite closely to the summaries which have appeared in the West.<sup>76</sup> They present in stark terms the bureaucracy, terror, deceit and dictatorship which prevails throughout the party, and condemn Stalin as objectively performing the role of 'the Azef of the CPSU(b)' – Azef was the pre-revolutionary head of the terrorist organisation of the Socialist-Revolutionary Party, who was simultaneously an agent of the Tsarist secret police. 'The boldest and most brilliant provocateur,' the Ryutin platform claimed, 'could not have thought out anything which would be better at destroying the proletarian dictatorship and discrediting Leninism than the leadership of Stalin and his clique.' As a result of these anti-Leninist policies, the economy had plunged into profound crisis:

The adventurist tempos of industrialisation, involving a colossal reduction in the wages of manual and white-collar workers, intolerable open or concealed taxes, inflation, price increases and the fall in the value of the ruble; adventurist collectivisation supported by incredible force, terror and dekulakisation – in fact directed mainly against the middle and poor peasant masses of the countryside; and, finally, the expropriation of the countryside by means of all kinds of imposts and compulsory collections – these have led the whole

<sup>74</sup> The OGPU may have doctored the documents so as to make their supporters appear more dangerous. Yakovlev, member and later chair of the Politburo commission on the repressions, has claimed that 'there was no group organised around Ryutin' and that Stalin was the author of the 'alleged platform', which he had fabricated as a provocation (Iakovlev (1991), 40–1); there seem to be no grounds for this strange assertion, which is quite contrary to the findings of the Politburo commission.

<sup>75</sup> The appeal was first published in *Yunist'*, 11, 1988, and was reprinted in *Osmyslit' kul't Stalina* (1989), 618–23, and is dated June 1932. The platform appears in *Izvestiya TsK*, 8, 1990, 200–7; 9, 1990, 165–83; 10, 1990, 191–206; 11, 1990, 161–86; 12, 1990, 180–99. The original version of both the appeal and the platform were apparently prepared in March (*ibid.*, 6, 1989, 103).

<sup>76</sup> Ciliga (1979), 292–3, based on accounts he heard while a prisoner in the camps in 1932–3; Nicolaevsky (1966), 28–9, based on his interview with Bukharin in 1936; BO (Berlin), xxxi (November 1932), 23 (letter from Moscow dated early October 1932).

country to a most profound crisis, appalling impoverishment of the masses and famine in both village and town.

Industry was working at half capacity, labour productivity had fallen and large-scale unemployment faced the working class; in the future industrial production would continue to fall and capital construction would cease.

The way out was to replace Stalin and his dictatorship and re-establish democracy in the party. Stalinist methods and rates of industrialisation must give way to industrialisation based on improved living standards, and compulsory collectivisation must give way to voluntary collectivisation 'together with consistent help to individual poor-peasant and middle-peasant households'.<sup>77</sup>

These documents have much in common with the Left Opposition 'draft platform' of July 1932. But the Left Opposition document did not refer to Stalin; and throughout the autumn and winter of 1932–3 Trotsky insisted that 'Down with Stalin', however popular, 'is not our slogan'. According to Trotsky, the situation was so dangerous that the Left Opposition might temporarily find itself in a united front with Stalin against 'Miliukov, the Mensheviks, and Thermidorians of all sorts'.<sup>78</sup>

<sup>77</sup> Many strong hints that the Ryutin platform attacked Stalin appeared in the Soviet press. A resolution of a meeting of Leningrad party activists at this time contained two paragraphs stressing Stalin's invaluable role (P, October 10, 1932); a *Pravda* editorial noted about the group that 'the sharpness of their malicious "criticism" is now directed against that leadership which over a number of years has shown its fidelity to Leninism, the socialist revolution and the Communist International' (P, October 11, 1932). Kaganovich declared that the party was 'still more united' around its central committee and its 'steadfast leader and teacher' (P, October 11, 1932). These passages read like a veiled reply to a call for Stalin's removal. Another document calling for the removal of Stalin was the 'letter of 18 Bolsheviks', reported briefly in a letter from Moscow dated September 7, 1932, in the Menshevik journal. This document, said to have been prepared by an 'unformed bloc of former right and left oppositionists', may have been a disguised or distorted version of the Ryutin appeal or platform (SV (Paris), cclxxviii–cclxxix (September 26, 1932), 20–1).

<sup>78</sup> Letters and draft ms in Trotsky archives, translated and summarised in *Writings of Leon Trotsky: Supplement (1929–33)* (1979), 168–74, 388–9; Trotsky discussed the question publicly in an article of March 3, 1933 (BO (Paris), xxxiii (March 1933), 9–10). At this time Trotsky still argued that the gravest danger to the revolution was that 'Thermidorian' forces to the Right of the Bolsheviks would seize power, and, by analogy with the anti-Robespierre coup in July (Thermidor) 1794, pave the way for the restoration of counter-revolution.

Disaffection with the party spread far beyond the ranks of the former oppositionists. In June 1932, Kollontai, Soviet representative in Sweden and a former leader of the Workers' Opposition, commented during a visit to Moscow that the 'old hands' (*stariki*) were criticising and mocking everything, and saying that things could not continue like this – 'we are losing the true course', one of them complained, 'the compass is damaged'.<sup>79</sup> In September or early October 1932, Zinoviev, interviewed by the party central control commission about his connection with the Ryutin affair, gave his own assessment of the atmosphere in party circles:

In general my conception is: as far as I can judge, recently a fairly significant section of party members have been seized by the idea of retreat, that it is necessary to retreat somewhere. This conception comes from my impressions, what I read and hear, that there is a vague idea of a retreat.

Molotov, citing this statement, scathingly remarked that 'Zinoviev is of course very sensitive to the attitudes of petty-bourgeois elements', but also revealingly admitted that 'such Right-wing opportunist attitudes really do exist' even in certain party circles.<sup>80</sup>

The extent of the disquiet among party members is difficult to assess. Certainly one specific type of disquiet – resistance to the grain collection plans – was widespread among party officials at district, regional and republican level; this is well documented.<sup>81</sup> What is less clear is how far such disquiet led officials and ordinary members to political conclusions. Sedov referred in a letter to Trotsky to the 'liberals. . . who have given us more than anyone – of course along "practical" not political lines', and Trotsky remarked that 'the liberals and their closest neighbours find us too conciliatory, that's natural'.<sup>82</sup> Who the 'liberals' were, and at what level of the party they were to be found, is not

<sup>79</sup> VIK, 8, 1989, 103 (Kulikova); Kollontai added that the 'old hands' had no proposals about how to get out of the situation.

<sup>80</sup> P, January 12, 1933; for other aspects of Molotov's speech, see pp. 322–3 below.

<sup>81</sup> This evidence will be examined in vol. 5.

<sup>82</sup> T 4777, dated October 12; T 10047, dated October 30, cited in *Cahiers Léon Trotsky*, v (January–March 1980), 16.

known. Many rumours about dissension in the party circulated in Moscow at this time, and reached western journalists and diplomats. In September, the Finnish legation fancifully concluded that 'Kaganovitch [is] likely to succeed Stalin whose retirement is considered inevitable'.<sup>83</sup> But no hard evidence is available about divisions in the Politburo in these critical months.<sup>84</sup>

Following denunciations of the Ryutin group sent to the central committee and to the OGPU, on September 15 Ryutin and a group of his supporters were arrested. On September 27, the presidium of the party central control commission called upon the OGPU to investigate further what it designated 'the counter-revolutionary Ryutin group', and declared that 'all these White-guard criminals . . . should be subject to the most strict revolutionary law'.<sup>85</sup>

Thus the plenum of the party central committee met in tense circumstances from September 28 to October 2, 1932. This was the first meeting of the plenum since the party conference in the previous February; and, in spite of the grave food problems which haunted the party throughout the summer of 1932, agriculture was not on the agenda. At the very end of the plenum, Postyshev reported that the Politburo had summoned a meeting of obkom secretaries and chairmen of soviet executive committees, which had approved the Politburo grain collection plan for October; the plenum simply noted without discussion the Politburo grain collection target of 350 million poods (5.7 million tons) in October.<sup>86</sup> The plenum dealt with three major items: the development of Soviet trade; the production of consumer goods; and the iron and steel industry (see pp. 256–61 and 294–5 below). The verbatim report of the proceedings does not record any direct criticism of party policy, and the speeches convey only a faint impression of the hunger, suffering and confusion outside the hall.

Ryutin and his supporters are not even mentioned. However, Pyatakov, in his reply to the discussion on consumer goods, in an

<sup>83</sup> US State Department, 861.00 11501, dated September 23, 1932.

<sup>84</sup> See, however, pp. 268–70 below.

<sup>85</sup> See *Izvestiya TsK*, 6, 1989, 106–7.

<sup>86</sup> RTsKhIDNI, 17/2/500, 190–1; October was the peak month for the collections.



implicit rebuff to Ryutin, firmly denied that more attention should have been paid to consumer goods in previous years:

Was it necessary to create a large engineering base? Was it necessary to create a large new metallurgical base, and to extend this base? Was it necessary to re-equip our army? Was it necessary to establish the production of tractors, vehicles, combine harvesters, nitrogen phosphate and potassium fertilisers, etc? I assume that none of us have any doubts about this. Could we have solved both tasks simultaneously? <sup>87</sup>

In a further attack on the critical views which lurked behind the scenes, the commission of the plenum which considered the draft resolution on consumer goods added a clause which strongly condemned both 'counter-revolutionary Trotskyism' and the 'anti-Leninist kulak essence of the Right opportunists', and supported the party policy of 'restoration and reconstruction of heavy industry at truly Bolshevik rates'; the resolution claimed that it was this success which had provided a stable base for expanding the consumer goods' industries. <sup>88</sup>

The central committee plenum completed its work on the evening of October 2, and was followed on the same evening by a joint session of the plenum and the presidium of the central control commission. This session resolved to approve the expulsion of the 'Ryutin-Slepko group' from the party, and also called for the immediate expulsion of all those who knew about the existence of the 'counter-revolutionary group', especially if they had read its documents, and had failed to inform the central committee; such people were 'protectors of enemies of the party and the working class'. <sup>89</sup> A *Pravda* editorial on the following day attacked 'remnants of broken opposition groupings' which had 'rolled on to the counter-revolutionary road', and also condemned 'rotten liberals and appeasers'. <sup>90</sup> A week after the plenum, on October 9, a session of the presidium of the party central control commission expelled 18 party members

<sup>87</sup> *Ibid.* 131.

<sup>88</sup> *Ibid.* 191; *KPSS v rez.*, iii (1954), 168.

<sup>89</sup> For these proceedings, see *Izvestiya TsK*, 6, 1989, 107.

<sup>90</sup> *P*, October 3, 1932.

for 'endeavouring to create, under the deceitful flag of "Marxism-Leninism", a bourgeois, kulak organisation to restore capitalism and especially the kulaks'. The list of offenders included Slepkov and Maretsky; they were specifically accused only of printing and distributing the literature of the group. In addition to these 18, Zinoviev and Kamenev were expelled for 'receiving the documents of the group and failing to inform the party of this, thus helping the activity of the group'; four others were expelled with a right to appeal in a year, including Sten, Uglanov and P.G. Petrovsky.<sup>91</sup> On October 11, the OGPU sentenced all the participants in the Union of Marxist-Leninists to imprisonment or exile; the main culprit, Ryutin, was sentenced to ten years' solitary confinement.<sup>92</sup> According to unconfirmed accounts, Stalin proposed to the Politburo that Ryutin should be executed, but was opposed by a majority including Kirov, Ordzhonikidze and Kuibyshev.<sup>93</sup> Various members and associates of the group, including Zinoviev and Kamenev, were sent into exile.<sup>94</sup> Sympathisers in other parts of the USSR, including higher-education teachers, students of the Industrial Academy and trade union officials were also expelled from the party.<sup>95</sup>

While these repressions were in progress, Stalin, Molotov, Voroshilov and Kaganovich met some 45 prominent writers at a bizarre and lengthy gathering at Maxim Gorky's town house, which lasted from 9 p.m. to 5 a.m. on the night of October 26–27.<sup>96</sup> Stalin chatted amiably to the writers, and then addressed them at length on the importance both of securing the support of non-party people and of unity among Communist writers. In the course of his address he made his famous declaration that writers are 'engineers of human souls':

There are various forms of production: artillery, automobiles, lorries. You also produce 'commodities', 'works', 'products'.

<sup>91</sup> P, October 11, 1932.

<sup>92</sup> *Izvestiya TsK*, 6, 1989, 107; 3, 1990, 160.

<sup>93</sup> *Literaturnaya gazeta*, June 29, 1988 (Vaksberg); see also *Oni ne molchali* (1991), 170 (Starkov), and Medvedev (1971), 143. Ryutin was eventually executed on January 10, 1937.

<sup>94</sup> BO (Berlin), xxxii (December 1932), 28.

<sup>95</sup> Unpelev (Vladivostok, 1972), citing the archives; the date of the expulsion is not given.

<sup>96</sup> The occasion is described in detail in Kemp-Welch (1991), 127–32, on the basis of the report in the Gor'kii Archives.

Such things are highly necessary. Engineering things. For people's souls . . . You are engineers of human souls.<sup>97</sup>

In the context of the vast resources devoted to engineering, and the enormous prestige of the engineering profession, these remarks were intended to be highly complimentary to the writers. But an occasion intended to demonstrate the breadth and flexibility of Soviet policy primarily revealed the towering importance already being acquired by Stalin in decisions about every aspect of Soviet life.

Following the firm action against Ryutin and his associates, other groups were soon despatched. According to Sedov, the group of I. N. Smirnov, Preobrazhensky and Ufimtsev was one of the first to be dissolved, probably in October.<sup>98</sup> On November 24 and 25, Eismont and Tolmachev were arrested after being accused of collaborating in a Right-wing group with A. P. Smirnov. At the time of their arrest Eismont was People's Commissar for Supply of the RSFSR, and Tolmachev was head of the road transport administration for the RSFSR. A. P. Smirnov, who had been People's Commissar for Agriculture until 1928, was in 1932 still a member of the party central committee, and a candidate member of its Orgburo; but he had apparently not been working since 1930 owing to illness. On November 7, Eismont, while under the influence of alcohol, expressed critical views to an old colleague, a certain N. V. Nikol'skii, who was visiting Moscow, and on the following day Eismont met Tolmachev and A. P. Smirnov. In the conversation of November 7, which was reported to Stalin, Eismont was alleged to have declared 'It is either cde. Stalin, or peasant uprisings'; and to have claimed that Smirnov favoured the 'removal' of Stalin. Eismont, at a series of interviews with the party central control commission and the OGPU, vigorously denied having made any such statement. Eismont admitted that he was critical of the rate of industrialisation, and believed that the economy could have been developed with less sacrifices for both town and countryside. Smirnov acknowledged that he was opposed to the

<sup>97</sup> At this gathering, in response to a question, Stalin briefly announced his support for 'socialist realism': 'An artist must above all portray life truthfully. And if he shows our life truthfully, on its way to socialism, that will be socialist art, that will be socialist realism' (*ibid.* 131).

<sup>98</sup> *Cahiers Léon Trotsky*, v (January–March 1980), 37.

methods of agricultural collectivisation and other economic policies. But both they and Tolmachev denied participation in any political grouping.<sup>99</sup> Whether or not they attempted to form a group, the fact that such conversations were held among high officials confirms the extent of disillusionment in those circles at the time: A. P. Smirnov, close associate of Lenin, upright and popular, was near to the very top rank of party officials.

While these groups were forming and being dissolved, Stalin was confronted with a dramatic personal act of disillusionment: on the night of November 8–9, 1932, his wife Nadezhda Alliluyeva killed herself.<sup>100</sup> Although her suicide may have been precipitated by a personal quarrel with Stalin, the sensitive Alliluyeva, a convinced Bolshevik from a Bolshevik family, was certainly strongly influenced by the conditions of the country and the party, and her knowledge of Stalin's personal role.<sup>101</sup> Alliluyeva's death was a reaction to Stalin's harsh solution to the economic crisis, not a cause of it; but it seems to have increased his personal isolation and his suspicion of the loyalty of even close personal acquaintances.<sup>102</sup> Open and veiled hostility of

<sup>99</sup> *Izvestiya TsK*, 11, 1990, 63–74 (report based on party and OGPU archives). Nikol'skii told M. A. Savel'ev (chair of the presidium of the Communist Academy, and an old party stalwart) about the conversation of November 7, and Savel'ev reported this to Stalin in two letters dated November 19 and 22. Eismont was called before the party central control commission on November 24, and arrested, on Rudzutak's suggestion, on the same day. At the commission Postyshev remarked 'We understand what "remove" means. To remove is to kill. For me, when they say "remove", it means "kill".'

<sup>100</sup> P, November 10, 1932, announced the death without stating the cause.

<sup>101</sup> According to I. B. Shishkin, members of the Ryutin circle often referred in his presence to Alliluyeva's attempt to defend them (VI, 7, 1989, 52). For the most plausible and circumstantial account of her suicide, and a daughter's favourable assessment of her mother, see S. Alliluyeva, *Twenty Letters to a Friend* (NY, 1967), 95–115; the account is based on the reminiscences of others, as she was only six years old at the time. This book was written clandestinely in Moscow in 1963, and is more reliable as to fact, though politically more naive, than *Only One Year* (London, 1969), where she was obviously strongly influenced by what she had learned from Western specialists on Soviet affairs. In the first book her mother wrote Stalin 'a terrible letter', which 'wasn't purely personal; it was partly political as well' (p. 113). In the second book 'mamma left father a letter full of political accusations' (p. 141). For Khrushchev's compatible account, describing Nadezhda Alliluyeva as a mature fellow-student in the Industrial Academy, see *Khrushchev Remembers* (London, 1971), 43–4, 291.

<sup>102</sup> See Alliluyeva (1967), 112–13, and the British ambassador's despatch of December 12, 1932 (Ovey to Simon, BDFA, IIA, xvi (1992), 262).

many old Bolsheviks, and personal tragedy, did not weaken Stalin's determination to force the Soviet Union through the crisis. In the last two months of 1932, he turned his attention to the working class (see pp. 268–91 below).

### (C) THE ECONOMIC DEBATE, AUTUMN 1932

The harsh policies towards the peasants were pursued with uncompromising vigour, and any criticism of them was treated as the action of a class enemy. In this atmosphere, greater frankness in economic debate, a notable feature of the spring and summer of 1932, was restricted and eventually crushed.

The September plenum of the party central committee, the first to be held since the previous February, set firm limits to the economic reform of the spring of 1932. In his report on Soviet trade Mikoyan criticised 'Leftists' who denied the importance of trade, but reserved his main fire for the 'Rightists'.<sup>103</sup> He dismissed the notion that the new measures amounted to a 'neo-Nep' as 'the stupidity of pitiable theoreticians'. According to Mikoyan, the Rightists wanted merely to limit private trade instead of rooting it out, but Soviet trade 'excludes the growth of the private trader, speculation and capitalism', and was therefore different in principle from NEP:

In 1921 . . . the Mensheviks were put in jail, but the private trader was allowed to participate in the economy of the country. Now we will put not only the open and hidden Mensheviks in jail but also the speculators – and if not in jail then certainly in a concentration camp.<sup>104</sup>

This emphasis on the need for firmness or even harshness in order to establish proper conditions for Soviet trade prevailed at the plenum. Stalin, who did not make a speech at the plenum, set the example. In his co-report, Antselovich – in one of the rare

<sup>103</sup> Mikoyan's report was nominally on behalf of Narkomsnab. Zelensky (Tsentsrosoyuz) also delivered a report on trade, with a co-report from Antselovich (Rabkrin). For other aspects of the plenum see pp. 251–2 above and 294–5 below.

<sup>104</sup> RTsKhIDNI, 17/2/500, 10.

moments of frankness during these proceedings – reported the appalling conditions found by a Politburo commission at the new automobile factory in Nizhnii Novgorod, where the factory farm was selling milk on the side while failing to supply it to hospitals, or children, or to workers in hot shops. The following exchange then took place:

*Stalin.* Comrade Zhdanov. Is this true?

*Zhdanov.* Yes.

*Stalin.* A ZRK [workers' cooperative] like that should be arrested.

*Antselovich.* We wanted to throw them out but it would be better to arrest them.<sup>105</sup>

Antselovich also pointed out that workers' wives sometimes had to wait two or three days to get their rations; there was a bread shortage even in the shop designated for the best shock-workers:

[*Antselovich.*] People who can look on cold-bloodedly while workers or their families don't get bread for two or three days are degenerates.

*Stalin.* They are enemies.<sup>106</sup>

This familiar attribution of economic difficulties to bad organisation or ill-will was not openly challenged at the plenum. But a number of speakers stressed the role of economic factors in explaining the difficulties on the market. In a significant interjection, Skrypnik called out 'The key is to provide more products, and then prices will be lower.' The speaker replied in quite moderate tones:

I know that prices will fall if supply exceeds demand. But if we rely only on that and do not try to interfere in an organised way through the Soviet system, through state and cooperative trade, and through some influence on the kolkhozy . . . it will be a long time before collective farmers sell more cheaply than private traders.<sup>107</sup>

A speaker from Leningrad pointed out that the high market prices received by the peasants for their produce had led to a

<sup>105</sup> *Ibid.* 24; Zhdanov was secretary of the regional party committee.

<sup>106</sup> *Ibid.* 28–9.

<sup>107</sup> *Ibid.* 41; the speaker was Pivovarov.

large cash surplus in the countryside.<sup>108</sup> Khataevich spoke at length on the difficulties resulting from the low level of prices in relation to demand. He pointed out that even state 'commercial prices' were much lower than market prices, so that much of the 'commercial fund' was bought up and re-sold by speculators. In the villages, trading organisations did not supply matches or salt at all; instead of engaging in trade they merely distributed manufactured goods at low official prices on the basis of lists supplied by the board of the kolkhoz and the rural party cell. Boots and other goods could be obtained only in this way, as they were not available at higher commercial prices. Khataevich also complained that collective farmers were discouraged from trading – a successful trader who had been able to buy three horses in two months as a result of his activities was expelled from his kolkhoz. 'In order to operate on the market, you must know it', but no-one was investigating questions of trade and prices properly; KTF had no local representatives.<sup>109</sup> Eikhe, while insisting that the abandonment of 'administrative regulation of the market' required the 'strengthening of our organising role', called for much greater flexibility in purchasing decentralised food supplies from the villages. It was ridiculous to base voluntary sales on 'prices which seem favourable to us, but do not exist on the market'; either we would have to buy at a different [i.e. higher] price, or not buy at all.<sup>110</sup> A speaker from the Far East complained that 'our market is over-saturated with money, especially in our region, and this is combined with an extreme shortage of goods on the market'; owing to the excess of wages over the supply of goods, his region had used up 48 million rubles of additional currency in six months. More goods must be provided, or supply to the workers would fail, leading to 'immense economic and political complications'.<sup>111</sup>

All these speakers assumed that organisational measures and coercion were not enough. If the retail market was to work properly, prices must be adjusted so that supply would more nearly equal demand, and supplies of consumer goods must be increased.

<sup>108</sup> *Ibid.* 42 (Pozern).

<sup>109</sup> *Ibid.* 44.

<sup>110</sup> *Ibid.* 46.

<sup>111</sup> *Ibid.* 56–8 (Zimin).

A significant incident revealed how the party leadership sought to prevent a frank assessment of the situation on the market. Antselovich tried to reveal that a substantial decline in sales by the retail cooperatives had taken place in 1932. According to his figures, while cooperative trade in current retail prices in January–August 1932 exceeded the level of January–August 1931 by 26 per cent, in comparable prices it had declined by 16 per cent in the countryside and nearly 10 per cent in the towns.<sup>112</sup> To convince his party audience of the authenticity of these figures, Antselovich carefully pointed out that they had been supplied by the head of the records sector of Tsentsosoyuz, who had been a party member since 1906.<sup>113</sup> In his reply, Mikoyan rejected Antselovich's figures, and sought to smear the compilers of the index:

it would be good to check who compiled it and how – whether there is Menshevik deception here . . . No single Communist has done the calculation himself. No single Communist has found out how these indexes are compiled.

While the Mensheviks who made such calculations did not openly claim that twice two was five, 'by extrapolation you can arrange things so that this is not noticed'.<sup>114</sup>

<sup>112</sup> *Ibid.* 21. Cooperative retail trade was stated to be as follows (million rubles):

		Jan.–Aug. 1931	Jan.–Aug. 1932	% increase or decrease(–)
(a) in current prices:	Total	10535	13273	26.0
	Rural	4118	5196	26.2
	Urban	6417	8077	25.9
(b) in comparable prices:	Total	(9690)	(8544)	– 11.8
	Rural	3495	2932	– 16.1
	Urban	6195	5612	– 9.4

The percentages, and the figures in brackets, were added by the present author.

<sup>113</sup> *Ibid.* 22; he acknowledged that Rabkrin had not checked the indices. He added that according to TsUNKhU *total* trade turnover (i.e. including both state and cooperative 'normal' trade at lower prices and state commercial trade) had increased by 7–8 per cent in real terms.

<sup>114</sup> *Ibid.* 73–4. Mikoyan pointed out that it was very difficult to estimate retail trade in comparable prices. According to Mikoyan, the sale of 'planned' goods measured in fixed industrial transfer prices of 1930 was 18 per cent above the 1931 level in the first nine months of 1932, while the supply of other industrial goods was unlikely to have declined.



In their replies to the discussion, both Zelensky and Mikoyan were equally uncompromising in their insistence on attributing the deficiencies of Soviet trade to deficiencies in organisation. Zelensky reproved the speakers at the plenum for underestimating the dangers and importance of speculation both by cooperatives and by private traders: 'the private trader, the reseller and the speculator display flexibility and initiative, and are often not rebuffed sufficiently'.<sup>115</sup> Mikoyan rejected the view that the prices for decentralised collections should be increased. Instead he argued that regional party committees must control prices more firmly:

On the market the scissors are opening from the side of agricultural products, and this is because our organisations, instead of leading the struggle to reduce market prices to an acceptable level, drive prices upwards by their actions, and play into the hands of the speculators.<sup>116</sup>

The resolution 'On the Development of Soviet Trade' followed the line taken by Mikoyan. Although it nominally supported 'kolkhoz bazaars' at free-market prices, its thrust was to circumscribe their activity. It followed Mikoyan in castigating those state and cooperative agencies which had paid 'inflated prices' when purchasing food both in the form of 'decentralised collections' and at the kolkhoz market, and called for the reduction of 'unreasonably high prices' on the market. The resolution also insisted that state purchases should be made at agreed 'convention prices'.<sup>117</sup> Echoing the resolution on trade of the plenum of October 1931, it demanded the 'rooting out of all types of manifestation of the Nepman spirit'.<sup>118</sup>

The further resolution 'On the Production of Mass Consumer Goods' stressed their 'prime political significance' in improving

<sup>115</sup> *Ibid.* 69–70.

<sup>116</sup> *Ibid.* 75.

<sup>117</sup> In July 1932 decrees of Sovnarkom and STO established regional 'convention bureaux', which approved 'convention prices' at which purchases should normally be made (SZ, 1932, art. 323, dated July 5; ST, 5, 1933, 28, referring to STO decree of July 25).

<sup>118</sup> *KPSS v rez.*, iii (1954), 157–63; the resolution was approved on September 29.

the material position of the workers and peasants, and in strengthening the 'link' with the peasants. According to the resolution, the economic authorities had underestimated the 'tremendous importance' of consumer goods, and increased efforts should be made to produce them by heavy as well as light industry, and by the industrial cooperatives. But no substantial new measures were suggested; the resolution merely added the weight of the central committee plenum to previous decisions.<sup>119</sup>

While the main reports and the resolutions of the September plenum were conservative in their approach, franker discussion continued for a few months both in public and behind the scenes. The most notable event in the economic debate of the autumn of 1932 was the appearance and condemnation of the *Materials for a Balance of the National Economy, 1928-1930*.<sup>120</sup> This 381-page document, containing numerous tables on every aspect of the economy, was prepared in TsUNKhU, sent to press on August 27 and printed on October 14, in 500 copies for restricted circulation among senior planners and officials.<sup>121</sup> In December 1929 Stalin had slightly condemned earlier attempts to compile an integrated national-economic balance. But he had also acknowledged that 'revolutionary marxists' should prepare such a balance.<sup>122</sup> This provided the justification for the continuation of work on the balance by the statistical agency.<sup>123</sup> In its first number, the new TsUNKhU journal announced that it would concentrate on the balance of the national economy and its constituent elements.<sup>124</sup> In the summer of 1932, an article in the Gosplan journal criticised those who were 'throwing out the baby with the bath-water' by neglecting the balance; it 'must become

<sup>119</sup> *KPSS v rez.*, iii (1954), 163-9. Reports on consumer goods were delivered at the plenum by Lyubimov (Narkomlegprom), Pyatakov (Narkomtyazhprom) and Vasilevsky (artisan cooperatives); the Rabkrin co-report was presented by Antipov.

<sup>120</sup> *Materialy* (1932); the English-language version, *Materials* (1985), edited by Wheatcroft and Davies, will be cited here.

<sup>121</sup> *Materials* (1985), 51-2.

<sup>122</sup> Stalin, *Soch.*, xii (1949), 171-2 (speech of December 27, 1929).

<sup>123</sup> A preliminary balance for 1927/28-1929/30 was circulated within Gosplan in the middle of 1931 (PKh, 2-3, 1931, 42, by Ragol'skii, and 4, 1931, 19, by Minaev, on whom see p. 202 above).

<sup>124</sup> *Narodnoe khozyaistvo*, 1-2, 1932, 3.

one of *the most important forms and one of the most important methods of planning*'.<sup>125</sup> The economic journal of the Communist Academy also emphasised the importance of the balance in enabling planners 'to know the real state of affairs'.<sup>126</sup> Thus the balance was launched in an apparently favourable atmosphere. While it was not published for open circulation, many of its most important tables appeared in an article on the balance in the economic journal of the Communist Academy.<sup>127</sup>

In his introduction to the balance, its principal compiler, A. I. Petrov, was careful to defend party policy, and attributed the lag in agricultural production to the destruction of livestock by kulaks, and by middle peasants under kulak influence. But he also admitted that in 1929–30 a satisfactory combination of accumulation and consumption was not fully achieved, due to difficulties with the production of consumer goods, and that this situation was exacerbated when '*the entire increase in the national income in 1931 went into accumulation*'.<sup>128</sup> For all the circumspection of its compilers, the appearance of the balance was a blow for greater realism in planning, at the time when the second five-year plan and the plan for 1933 were in active preparation.

The balance did not remain respectable for long. On December 16, on the basis of a draft from Stalin, Molotov and Kaganovich, a Politburo resolution, without specifically mentioning the balance, condemned TsUNKhU for 'a number of the crudest political mistakes', which were 'not an accident' but due to 'the presence in the apparatus of TsUNKhU of a bourgeois tendency concealed by the flag of "objective" statistics'. Among other mistakes, TsUNKhU had produced 'tendentiously underestimated statistics on workers' food consumption', and had published 'tendentious data on the results of the five-year plan'. The Politburo imposed a formal reproof on Osinsky, and a strict reproof on Minaev and Mendel'son, and instructed Mezhlauk, Antipov and Ezhov to check the senior staff of TsUNKhU within one month and 'cleanse it from elements alien to Soviet

<sup>125</sup> PKh, 2, June 1932, 136 (Ignatov); this issue was sent to press June 16–July 9, 1932.

<sup>126</sup> PE, 6, 1932, 48 (Kosechenko); this issue was sent to press on July 26.

<sup>127</sup> PE, 7, 1932, 36–57; this issue went to press on November 23, 1932. The article was by T. Spivak, said to be one of Petrov's students.

<sup>128</sup> *Materials* (1985), 79–80, 96.

power'.<sup>129</sup> In fact the balance purported to show that workers' consumption per head increased by 12 per cent between 1928 and 1931,<sup>130</sup> but this increase was far smaller than that claimed in other official publications.<sup>131</sup>

Shortly after the unpublished Politburo resolution, the journal of the Communist Academy, which had so recently praised the balance, declared that it contained 'a number of mistaken propositions', and in particular had failed to show that the socialist sector of agriculture was expanding; this was denounced as a 'wrecking methodology . . . still deeply rooted in many of our statistical agencies'.<sup>132</sup> The main agricultural journal, without mentioning the balance, strongly condemned Petrov and Spivak as 'Right-wing opportunists and degenerates' for underestimating the achievements of socialist agriculture.<sup>133</sup> No further mention of the *Materials* appeared in the Soviet press until six years after Stalin's death;<sup>134</sup> and the balance of the national economy was not discussed in public between 1932 and 1936.<sup>135</sup> Behind the scenes TsUNKhU continued to work on the preparation of the balance. In Narkomfin, however, work on compiling a financial balance for the national economy ceased in 1932, both centrally and in the Soviet republics, and was not resumed for a number of years.<sup>136</sup>

<sup>129</sup> RTsKhIDNI, 17/3/911, 22–3; this was item 10 on the agenda. Mezhlauk was first deputy chair of Gosplan; Antipov was a deputy People's Commissar of Rabkrin, and Ezhov was at this time a senior official in the central party apparatus. The resolution's condemnation of the TsUNKhU assessment of the 1932 grain yield will be dealt with in vol. 5. An even stronger resolution followed on January 16, 1933 (see p. 339 below).

<sup>130</sup> *Materials* (1985), 97.

<sup>131</sup> For Mezhlauk's later criticism of the food consumption data and of the urban budget surveys on which they were based, see PKh, 4, 1933, 11.

<sup>132</sup> PE, 8, 1932, 201–2; this issue was sent to press on January 1, 1933, but not published until the following May. The article was written by Partigul, in the name of an editorial committee which included Voznesensky.

<sup>133</sup> NAF, 1, 1933, 36–7 (Krylov, Naumchik, Smolin).

<sup>134</sup> See Ryabushkin (1959), 132–47.

<sup>135</sup> For a review of developments from 1936 onwards, see *Materials* (1985), 43–5.

<sup>136</sup> Lyando (1963), 4, 7; this source does not make it clear whether the work ceased in Narkomfin at the beginning of 1932 when the 'unified financial plan' was dropped as an administrative document (see p. 131 above), or later in the year.

The frank circulation of information among economic officials was also restricted in several other respects towards the end of 1932. The Gosplan monthly bulletin on plan fulfilment, the July issue of which was used by I. N. Smirnov as the basis for his clandestine article in Trotsky's journal, was evidently closed down.<sup>137</sup> The monthly bulletins of TsUNKhU on the fulfilment of the plan for the economy as a whole, and on trade and supply, continued to appear; but from the end of 1932 they lacked the informative commentaries which were a feature of the earlier issues, and consisted entirely of statistical tables.<sup>138</sup>

These moves all diminished the extent to which TsUNKhU, and Gosplan to which it was attached, could communicate their findings and analysis in confidential journals circulated to senior Soviet officials. The open publications of both agencies were also restricted. The new TsUNKhU journal *Narodnoe khozyaistvo* ceased publication altogether at the end of 1932 after only four numbers (see p. 340 below). And on December 8, 1932, the influential newspaper *Ekonomicheskaya zhizn'* (Economic Life), previously published jointly by Gosplan and Narkomfin, was transferred to Narkomfin and its associated agencies.<sup>139</sup> The newspaper's broad coverage of economic issues had been continuous since its foundation in 1918; but now immediately gave way to more narrowly financial matters, and deprived Gosplan of an influential voice.<sup>140</sup> Shortly afterwards, on January 1, 1933, Gosplan's most independent-minded senior official, Smilga, former member of the Leningrad and United Oppositions, was dismissed from his post.<sup>141</sup> According to Trotsky's journal, Smilga did not support 'any opposition or

<sup>137</sup> The last issue available in Russian or Western libraries, for August and January–August 1932, was completed on September 24, 1932; the offending issue of Trotsky's journal, *BO* (Berlin), xxxi (1932), appeared in November.

<sup>138</sup> The commentaries in *Osnovnye pokazateli*, October 1932, are extensively cited in *Industrializatsiya, 1929–1932* (1970), 165–70, 331–42; the last number containing a commentary which I have seen is for August 1932, dated September 23. The September 1932 number of *Itogi . . . po torgovle*, dated October 20, contains a commentary; the November number, dated December 28, does not (I have not seen the October number).

<sup>139</sup> *EZh*, December 8, 1932.

<sup>140</sup> Like many other periodicals, *Planovoe khozyaistvo*, the Gosplan monthly journal, also appeared very irregularly at this time, but this may have been due to paper shortage rather than to political motives.

<sup>141</sup> *SZ*, 1933, ii, art. 4; he was a deputy chair.

semi-opposition group'; his fault was merely to have spoken critically about agricultural policy 'in a very narrow and highly responsible circle' at a conference chaired by Stalin.<sup>142</sup>

In sharp contrast to these developments, in industry the vigorous debate on major questions of economic organisation (see pp. 225–8 above) continued with minor interruptions throughout the second half of 1932. Between July and September the industrial newspaper published two major series of discussion articles. The first dealt with the financing of capital investment. Birbraer intervened in the debate on no fewer than five occasions to call for the replacement of outright budget grants by returnable loans on which interest was paid.<sup>143</sup> This arrangement was advocated by the presidium of Vesenkha in 1927–8, and swept aside during the investment boom of 1929 and 1930.<sup>144</sup> Birbraer also proposed that prices of capital goods should be substantially increased so that enterprises, instead of receiving a subsidy, should make sufficient profit to be able to finance 'a very large part' of investment from their own resources.

The second discussion dealt with industrial supply. Birbraer did not participate, but a certain M. Artamonov supported Birbraer's views.<sup>145</sup> Artamonov proposed that the centralised allocation of industrial materials and equipment should be replaced by 'Soviet trade'. This was a radical proposal. It presupposed that prices should be arranged so that supply did not exceed demand; and that capital projects should be financed only to the extent that materials were available.

In September the discussion ceased abruptly, apparently 'at the suggestion of Narkomtyazhprom'.<sup>146</sup> But towards the end of

<sup>142</sup> BO (Paris), xxxiii (March 1933), 25 ('Letter from Moscow' dated February 1933).

<sup>143</sup> ZI, July 28, August 22, September 3, 8, 16, 1932.

<sup>144</sup> See *Torgovo-promyshlennaya gazeta*, June 18, 1927, January 14, 1928, and Carr and Davies (1969), 783–5; for Birbraer's earlier views, see also *Torgovo-promyshlennaya gazeta*, May 25, 1927.

<sup>145</sup> ZI, August 17, September 17, 1932. I have not been able to trace M. Artamonov's biography; in an article in ZI, November 11, 1929, he advocated an enhanced role for Rabkrin. K. M. Artamonov was first deputy head of the Chief Military and Mobilisation Administration of Narkomtyazhprom in 1934 (*Oktyabr*, 10, 1973, 141).

<sup>146</sup> See the comment by the deputy editor in ZI, May 5, 1933. This referred specifically to the discussion on supplies, but the discussion on investment also ceased. The last contributions appeared on September 20.

the year Birbraer returned to the fray in an article calling for the extension of ‘prices formed on the market’ from the kolkhoz market to all consumer goods. Birbraer proposed that, with this ultimate objective, price fixing should be transferred from the centre to local price bureaux, which would know how to arrange prices so as to influence the market. Birbraer implicitly admitted that price increases would result:

The main line of our price policy is of course to *reduce prices*; but the dialectics of development is not leading us over a smooth parquet floor.<sup>147</sup>

Many industrial managers and economic officials participated in these discussions, and in the parallel discussions in the pages of *Ekonomicheskaya zhizn'*. Administrators from major construction sites bitterly complained about the pernicky, futile and disruptive nature of financial controls over investment; and industrial officials at every level exposed the astonishing and growing deficiencies in industrial supplies.<sup>148</sup> The head of the Azerbaijan oil trust complained that in the oil industry ‘supply in all three quarters of 1932 has been uniquely unsatisfactory, with a tendency to worsen from month to month’; the sporadic interruptions in supplies which were characteristic of 1930 and 1931 had now become ‘lengthy and chronic’.<sup>149</sup> An official of the precision instruments corporation VOTI claimed that supply planning was a ‘mere fiction’: in practice supply was ‘left to spontaneity, and to the cunning of certain managers’, and supplies were obtained not via Narkomtyazhprom but by barter, or with the help of ‘an ordinary suitcase full of cigarettes’.<sup>150</sup>

Thus most contributions were strongly critical of the existing arrangements; the editor of the newspaper was said to have claimed that ‘the approaches published in ZI are shared by the majority of managers’.<sup>151</sup> But the proposals of Birbraer and Artamonov, although cautious and vague, would have involved the establishment of an economic mechanism in which supply and demand were in equilibrium on the consumer market, and in

<sup>147</sup> ZI, December 16, 1932, criticising an article in EZh, December 4, 1932, by Morgunov, deputy chairman of Tsentrosoyuz.

<sup>148</sup> For these articles see SR, xlii (1984), 209–11 (Davies).

<sup>149</sup> ZI, September 9, 1932 (Barinov).

<sup>150</sup> ZI, September 14, 1932 (Fedorov).

<sup>151</sup> ZI, April 3, 1933.

which shortages within industry were eliminated through a combination of financial prudence and the use of the laws of the market. With the high level of investment which obtained in 1932, such a reformed system was quite impracticable, and it may have been entirely incompatible with Soviet economic objectives.<sup>152</sup> This was recognised by the majority of the contributors. In the discussion on investment finance, officials from the Industrial Bank and Narkomtyazhprom rejected Birbraer's proposals outright.<sup>153</sup> In the discussion on supplies, leading industrial officials rejected Artamonov's proposals, arguing that centralised supply was essential so that resources could be concentrated on key investment projects and on defence.<sup>154</sup> One contributor impugned the proposals as 'a reflection of the Manchester School in a special Sovietised form'.<sup>155</sup> And even the angry and frustrated representatives of building sites and enterprises were content to object to the existing system without committing themselves to the reforms proposed by Birbraer and Artamonov.

The question of the prices of capital goods emerged sharply in connection with the preparation of the 1933 plan. During 1932 costs increased substantially, particularly in the coal and iron and steel industries (see pp. 308–9 below), and this led to large increases in subsidies from the state budget to these industries. In loss-making industries, should transfer prices (the prices paid to industrial producers for their output) be increased so as to obviate losses and budget subsidies? Mezhlauk, first vice-chair of Gosplan, in a secret telegram to Molotov, strongly argued that iron and steel and coal prices should not be increased, because this would lead to 'an avalanche of cost increases in every branch of the economy'. Mezhlauk argued that the early 1930s were analogous with the early 1920s. During the restoration period,

<sup>152</sup> On this see Kornai (1980), 569–70. He argues in relation to investment tension and shortages in conditions of economic expansion and high investment that it is impossible 'to accept with pleasure the beneficial effects of these regulations and to escape entirely from those consequences which we regard as disadvantageous'.

<sup>153</sup> ZI, September 6, 1932 (Dukor, deputy head of the bank); September 14, 1932 (Knyaz'kov, capital construction department of Narkomtyazhprom).

<sup>154</sup> ZI, August 24, 1932 (Parkhomenko, senior official in the non-ferrous metals industry), September 4, 1932 (Budnevich, from the steel distribution agency).

<sup>155</sup> ZI, August 29, 1932 (S. Volkov).



when production was being mastered, costs were high, but this was followed by a period of cost reduction. In the 1930s unemployment had been abolished, and mechanisation and new equipment had been introduced, similarly requiring a long assimilation period. But the new material basis and the new personnel would lead to cost reduction from 1933 onwards:

We will be right to expect from the whole economy a similar if not a more rapid movement to improve qualitative indicators . . . In the course of two or three years, the heavy industries must become profitable with the present transfer prices.

Mezhlauk also argued that it was essential that the complicated system of retail prices, including high commercial and bazaar prices, should not influence costs and prices in state industry. Centralised rationing of food and consumer goods must be maintained, or industrial wages would increase, resulting in cost increases.<sup>156</sup>

While this authoritative voice in Gosplan implicitly rejected Birbraer's proposals, they were taken more seriously by part of the central apparatus of Narkomtyazhprom. Bogushevsky, the editor of the industrial newspaper, clearly revealed his sympathy with the reformers;<sup>157</sup> the deputy editor later claimed that he left the newspaper because he disagreed with Bogushevsky's favourable view of Birbraer.<sup>158</sup> Bogushevsky was a member of the Narkomtyazhprom collegium, in frequent touch with Ordzhonikidze, and Ordzhonikidze paid close attention to the industrial newspaper.<sup>159</sup> We cannot assume that Ordzhonikidze endorsed the reform proposals; but he certainly shared the widespread criticism of the defects in the existing system, and may well have felt that these were ideas worth exploring. His unease, and his eagerness for change, were given practical expression in the

<sup>156</sup> GARF, 5446/27/11, 106–7 (no date, but accompanies a memorandum dated October 20, 1932, for which see p. 296 below).

<sup>157</sup> ZI, September 8, 17, 1932.

<sup>158</sup> ZI, May 5, 1933.

<sup>159</sup> According to one memoir, Bogushevsky paid 'daily' visits to Ordzhonikidze (*Byli industrial'nye* (1970), 181–2). Another memoir recalled that Ordzhonikidze received the newspaper at his flat by special delivery every morning, read it from cover to cover, and took it very seriously; the author claimed that 'there was no major pronouncement which remained without Sergo's [Ordzhonikidze's] active support' (Khavin (1968), 128–9).

course of the debate. At a meeting of the collegium of Narkomtyazhprom on November 20, 1932, following a long and confused discussion about the placing of equipment orders for 1933 by iron and steel works, he insisted that 'overcentralisation of supplies' must stop. Instead, suppliers and consumers should negotiate in advance about their centralised funds.<sup>160</sup> Ten days later he followed this up with a dramatic order cancelling existing arrangements for the centralised allocation of iron and steel equipment. Instead, iron and steel works were to place their orders for 1933 directly at the engineering factories concerned, and before January 1. The engineering factories were to treat them as equal to 'special orders' (i.e. defence or export orders).<sup>161</sup> Thus the whole elaborate supply hierarchy was suddenly excluded from the negotiations and replaced by a vague instruction about priorities.

This sudden freedom caused panic. Nobody had expected it, and the various offices had already spent much time on the now cancelled claims for 1933. Senior officials of Narkomtyazhprom and managers of engineering factories complained that the iron and steel investment plan had not yet been agreed upon, so that nobody knew the entitlement of the whole iron and steel industry, let alone of each iron and steel works. Moreover, engineering factories had no instructions for ranking the priorities of the different orders they received. The editors of the industrial newspaper complacently pointed out that engineering factories were required to accept and carry out *all* orders from the iron and steel industry;<sup>162</sup> to refuse orders was to commit sabotage.<sup>163</sup> Undeterred by the confusion, Ordzhonikidze also removed equipment for the coal and oil industries from central funding.<sup>164</sup>

Naturally, the experiment failed. No more than 35 per cent of the equipment required by the iron and steel industry in 1933 was included in contracts with engineering factories by January 1, and many factories put in excessive demands for equipment. The Chief Administration of the Iron and Steel Industry (GUMP) had to intervene to cut their orders. Once the January 1 deadline was past, representatives of all the iron and steel works were

<sup>160</sup> ZI, November 21, 1932.

<sup>161</sup> ZI, November 30, 1932.

<sup>162</sup> ZI, December 6, 1932.

<sup>163</sup> ZI, December 10, 1932.

<sup>164</sup> ZI, December 22, 1932.

summoned to Moscow to engage in the usual annual wrangling and bargaining with the central staffs of GUMP and of the Chief Administration for the Engineering Industry.<sup>165</sup> But Ordzhonikidze was unabashed, and entered the new year still determined that the central allocation of metal should be brought to an end.<sup>166</sup> At the end of 1932 Narkomtyazhprom remained committed to some kind of substantial reform in industrial management. But there was no agreement either about the reform itself or about how it should be put into effect.

#### (D) ECONOMIC DEVELOPMENTS, SEPTEMBER–DECEMBER 1932

##### (i) *The failure of 'neo-NEP'*

In spite of the exertions of the authorities and the suffering imposed on the peasants, the grain collections from the 1932 harvest continued to lag behind the plan. By January 1, 1933, they reached 17.4 million tons as compared with the planned 20.5 million tons; this was 3.7 million tons less than the amount collected by January 1 of the previous year.<sup>167</sup> State collections of almost all other food products lagged even further.<sup>168</sup>

In consequence, rationed food supplies continued to deteriorate. In October–December, the period after the harvest in which supplies were normally at their peak, the quantity of food grains made available for general rationed supply was 16 per cent lower than in October–December 1931; and the decline in the supply of all grains, including minor grains such as peas and millet, and fodder grains, amounted to 23 per cent.<sup>169</sup>

When kolkhoz markets were legalised in the spring of 1932, the authorities envisaged that they would supply a greater proportion of urban food, more than compensating for the planned reduction in the state collections. Following the reaffirmation of

<sup>165</sup> ZI, January 5, 1933.

<sup>166</sup> On January 31, 1933, he told the Donetsk party regional committee that 'whatever happens, we must ensure that we do not have so-called funding [central allocation] of metal, that there should be as much metal as we need' (Ordzhonikidze, ii (1957), 460).

<sup>167</sup> *Ezhegodnik khlebooborota*, [vi] (1934), 7, 10.

<sup>168</sup> The collections will be discussed in vol. 5.

<sup>169</sup> Tables on grain distribution will be included in vol. 5.

support for the kolkhoz market at the September 1932 plenum of the central committee, industrial consumer goods continued to be supplied to the markets, in the hope of encouraging peasants to put more food on sale at reasonable prices.<sup>170</sup> Consumer goods were also required to encourage peasants and kolkhozy to fulfil the state collection plans. But the total supply of consumer goods to the countryside was lower in October–December 1932 than in the previous quarter. The original intention was to continue to supply the countryside at the expense of the town: on September 7, 1932, KTF resolved that priority should again be given to the countryside in October.<sup>171</sup> But Kaganovich, reviewing the results for July–September 1932, bluntly stated that ‘we have “insulted” the towns’.<sup>172</sup> In the outcome, the share of the town was partly restored. In consequence the supply to the countryside of ‘planned’ industrial goods declined in October–December 1932, and total retail trade in the countryside declined in each of the months October, November and December.<sup>173</sup>

The shortage of consumer goods in official trade, even at high state commercial prices, discouraged peasants from selling food on the market. And they were also discouraged by the risk that these sales would be treated as acts of criminal ‘speculation’. There were no precise boundaries between ‘speculation’ and legitimate trade; and the proceedings of the September plenum encouraged restrictions on free trade. The principle that prices on the kolkhoz market could be ‘formed on the market’ was not rejected. But the official trade journal now argued in favour of a ‘definite control (regulirovanie)’ over prices on the market; the concept of a ‘kolkhoz price’ should be introduced, which would enable ‘the establishment of ceiling prices (predel’nye tseny)’.<sup>174</sup> In accordance with the legislation of May 1932 (see pp. 209–10

<sup>170</sup> For an account of substantial supplies of consumer goods at markets in Baku, Tashkent, Archangel and Gor’kii, see ST, 4–5, November–December 1932, 221.

<sup>171</sup> RGAE, 4372/30/6, 114, 112 (protocol of KTF session). In the plan for October–December 1932, the towns received less than in the same quarter of 1931, and the countryside received more (GARF, 5446/1/70a, 53–8 – art. 1508, dated September 28).

<sup>172</sup> ZI, October 12, 1932 (report to Moscow party organisation).

<sup>173</sup> See quarterly and monthly data on rural trade in *Itogi . . . po torgovle*, September 1932, 79, 84–5; November 1932, 60–2; March 1933, 57–9, 66–7.

<sup>174</sup> ST, 4–5, November–December 1932, 95 (Nodel’).

above), after the 1932 harvest all trade in grain was forbidden until the whole region had completed its collection plan in full. This provision was strictly enforced, and delinquents were treated harshly as ‘speculators’. The sale on the market of other agricultural products, except in very small quantities, was also suspect: peasants charged with ‘reselling’ received severe and well-publicised sentences.<sup>175</sup> In November, the famous Sukharevka market in Moscow was closed; and many traders at other markets were harassed and fined.<sup>176</sup>

Decentralised collections (see p. 208 above) provided a significant amount of food for the non-agricultural population, primarily for the canteens managed by Narkomsnab and Tsentrosoyuz. Although the decentralised collections were supposed to be strictly voluntary, in August 1932, at the beginning of the vegetable and potato harvest, the official trade journal insisted that the collections must be organised and not ‘merely spontaneous’, and that ‘convention prices’ must not be prices spontaneously ‘formed on the market’.<sup>177</sup> Later in the year the same journal insisted that convention prices should be no higher than the average price in state commercial trade; this was considerably below the market price.<sup>178</sup>

These attempts to control sales outside the official collections were ineffective. According to a leading Soviet official, ‘thousands and tens of thousands of collectors’ sought food throughout the USSR; by the end of 1932 every district had a number of competing small collection agencies belonging to the various public catering organisations.<sup>179</sup> In spite of all the stipulations to the contrary, the prices paid ‘approximated to bazaar prices’, which had increased rapidly throughout 1932.<sup>180</sup>

The total amount of food made available to the towns in the last months of 1932 through the kolkhoz market and decentralised collections is not known. Records of decentralised

<sup>175</sup> In Yaroslavl’, for example, peasants received sentences of exile for 5–8 years for ‘speculating’ in makhorka and wool (*Severnyi rabochii*, December 3, 1932).

<sup>176</sup> See Shimotomai (1991), 133.

<sup>177</sup> ST, 1, August 1932, 15 (Gatovskii), 31 (Nodel’).

<sup>178</sup> ST, 4–5, November–December 1932, 95 (Nodel’).

<sup>179</sup> ST, 4–5, November–December 1932, 89 (Nodel’), 5, September–October 1933, 29 (Vil’nit).

<sup>180</sup> ST, 5, September–October 1933, 29 (Vil’nit); for market prices see Table 25(b).

collections were not kept properly in the first half of 1932.<sup>181</sup> The first preliminary sample surveys of deliveries to urban kolkhoz markets were not undertaken until the end of 1932.<sup>182</sup> According to a Soviet estimate, in the whole of the calendar year 1932 as much as 81 per cent of marketed food in real terms was supplied by centralised collections; 6.5 per cent was supplied by the kolkhoz market; and 11.2 per cent by decentralised collections.<sup>183</sup> These figures are very rough.<sup>184</sup> The imperfect data are necessarily confused because the so-called ‘decentralised collections’ were normally simply purchases made piece-meal at market prices by collectors visiting the kolkhoz markets.<sup>185</sup> But all authorities agree that public catering establishments obtained a large part of their supplies via decentralised collections, particularly potatoes and vegetables.<sup>186</sup> Some food was also

<sup>181</sup> Neiman (1935), 201.

<sup>182</sup> *Kolkhoznaya trgovlya*, i (1935), 7.

<sup>183</sup> Estimated from data for food products in Barsov (1969), facing p. 112 (Barsov’s minor arithmetical errors have been corrected).

<sup>184</sup> The figure for decentralised collections is probably too high in relation to the figure for the kolkhoz market. According to Neiman (1935), 202, the turnover of kolkhoz bazaar trade ‘considerably exceeded the decentralised collections’. Barsov’s figure for decentralised collections of potatoes in 1932 is extraordinarily high, amounting to 3,571,000 tons as compared with a mere 171,000 tons in 1933 (the latter figure is from *Sovetskaya trgovlya v 1935 godu* (1936), 33). Barsov’s figure is obtained by deducting the kolkhoz market figure of 427,000 tons (obtained by Barsov from Soviet archives) from the figure of 3,999,000 tons for ‘kolkhoz trade (including decentralised collections)’ given in *Vtoroi*, i (1934), 386.

<sup>185</sup> ST, 4–5, November–December 1932, 87; 5, September–October 1933, 40 (N. Popov).

<sup>186</sup> According to one source, decentralised collections provided about one quarter of all agricultural products distributed via workers’ supply in 1932 (ST, 5, September–October 1933, 49 (N. Popov); see Neiman (1935), 201–2, for comparable figures for individual closed workers’ cooperatives). The percentage of various foods obtained via decentralised supply (samozakupki) in 1932 was estimated as follows:

	<i>Narkomsnab public catering</i>	<i>Consumer cooperative public catering</i>
Groats and macaroni	1.3	10.8
Meat products	14.4	46.0
Fish products	3.8	34.1
Potatoes	n.a.	65.3
Vegetables	n.a.	56.4
Butter	25.0	56.4

(*Sovetskaya trgovlya* (1935? [1936]), 142–3)).

grown on farms and allotments attached to public catering establishments and by the urban population on small plots of land (see p. 303 below).

In spite of these endeavours, and contrary to the intentions of the reforms, the decline in urban food supplies from centralised collections was not replaced by a greater or even equivalent increase in food obtained on the market and from other sources. No devices could circumvent the absolute lack of food. The harvest of potatoes as well as grain was lower in 1932 than in the previous year, and meat and dairy production (including eggs) also continued to decline. Demand on the market again rose more rapidly than supply. Exceptionally, in the single month of September prices of vegetables declined both on the market and in retail state and cooperative trade, and as a result the rise in the general indexes of fixed and free-market prices was temporarily halted.<sup>187</sup> But this was due to the influx of the new season's vegetables: September has always been the best month for food supplies in the Russian year, the month in which urban families, when they can, buy in vegetables for preservation and use through the winter. But once September was past, urban bazaar prices again began to rise; in the three months following the plenum resolution they increased by 50 per cent (see Table 25(b)). By January 1933, even according to the official statistics, they were eighteen times the 1928 level, and over 260 per cent of the level at the beginning of 1932.<sup>188</sup> These price increases placed the kolkhoz market far beyond the reach of the lower-paid in the towns.

Against this background, the management of every enterprise and industry continued to seek additional rationed supplies from the state. But, with the absolute decline in centralised supplies, the authorities resisted these unremitting pressures. In August, claims for additional rations for 57,000 workers on the Moscow–Donbass railway project were rejected; and meat rations to workers at the priority Dal'stroi site were reduced.<sup>189</sup> The

<sup>187</sup> See Table 25(b); and *Itogi . . . po torgovle*, November 1932, 81, 110–11. The only vegetable included in this index was potatoes, but TsUNKhU reported in relation to vegetables generally that 'data from 8 regions show a fairly significant reduction' (*Itogi . . . po torgovle*, September 1932, 33).

<sup>188</sup> See Table 25(b). Barsov's index shows a substantially higher increase (see note h to Table 25(b)).

<sup>189</sup> RGAE, 4372/30/6, 103–2 (minutes of KTF dated August 28); in compensation, additional industrial goods were allocated to the Moscow–

situation was so desperate that in September a commission of KTF was instructed to examine the possibility of reducing the number of building workers receiving rations under Narkomvoenmor and at special sites of Narkomtyazhprom.<sup>190</sup> Then at the end of September a Sovnarkom decree responded to the insistent demands. While reducing the number of building workers on the Special List and List 1, it increased the number of manual and white-collar workers on these lists, so that the total number receiving rations in the top two categories remained unchanged at 21.4 million. Even so, the decree listed 50 enterprises or groups of enterprises which were refused permission to be transferred to one of the top two categories.<sup>191</sup>

In the outcome, the total number of persons receiving rations on the Special List and List 1 in October–December 1932 was only 12 per cent above the April–June 1932 level, as compared with 27 per cent in the equivalent period of 1931 (see Table 12(a)). The rations per person for most foods on the Special List and List 1 were lower in October–December than in April–June. And the numbers of persons, and the rations, for Lists 2 and 3 remained at the discretion of the local authorities; the centre could no longer guarantee adequate supplies.<sup>192</sup> The ‘orienting supply fund for Lists 2 and 3’ allocated by the centre amounted to 319,000 tons in July–September and 310,000 tons in October–December; the full ration required an allocation of 524,000 tons.<sup>193</sup>

In the autumn of 1932, the food shortage in the towns thus remained a major preoccupation of the authorities at every level. Control over rations was extremely tight. Kuibyshev, senior vice-chair of Sovnarkom and STO, and chair of Komzag and Gosplan, suggested to Kviring, second vice-chair of KTF, that

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Donbass line at the expense of other sections of Narkomput’, and additional fish rations were allocated to Dal’sroi. At the same session, a Narkomzem claim that 70 thousand workers in primary processing plants should be transferred to List 1 was also rejected.

<sup>190</sup> *Ibid.* 120 (KTF minutes for September 14, 1932); the outcome of the deliberations of the commission has not been traced.

<sup>191</sup> GARF, 5446/1/70a, 59–78 (art. 1509, dated September 28).

<sup>192</sup> See p. 183 above. Sugar was the only food for which a firm ration was fixed by the centre (see Table 12 (b)).

<sup>193</sup> GARF, 6759/2/191, 48 (dated September 21, 1932; these are planned figures).



‘the Krasnyi Oktyabr’ works, which supplies major factories with quality steel, should as a special case be supplied with a certain amount of food from the reserve’. But Kvirring uncompromisingly replied:

We now have a whole series of requests of this kind (Kuzbass etc.) – in my opinion we cannot do this.<sup>194</sup>

Even high-priority enterprises lacked food. In September, flour was in short supply in Leningrad.<sup>195</sup> In Baku, the oil workers had not received their September sugar ration in full by the beginning of November, and at that time Baku workers generally had received no groats or macaroni for two months.<sup>196</sup> Even though the workers on the Baikal–Amur railway construction (BAM) in the Far East were supposed to receive rations on the Special List, food shortages threatened the continuation of winter work on the line; the spontaneous dispersal of its work-force was imminent.<sup>197</sup> The Politburo decided to transfer the management of BAM from Narkomput’ to the OGPU. Prisoners in the OGPU camps were to be used for the construction.<sup>198</sup> They did not receive rations from the Special List, and had little opportunity for spontaneous dispersal.

The large section of the urban population receiving lower-priority rations was in a far worse plight. The local authorities, lacking supplies, were forced to reduce the numbers of persons receiving rations on Lists 2 and 3, and the amount of the rations. Thus in the Central Volga region, for example, according to a senior party official, ‘we are compelled to remove manual workers and specialists of most districts from the ration, and the clerical workers and members of workers’ families in Samara, Penza, Ulyanovsk and Orenburg; in view of the absence of

<sup>194</sup> GARF, 5446/27/9, unpaginated [between ll. 40 and 41] (telegrams dated October 11 and 15).

<sup>195</sup> GARF, 5446/27/13, 191 (telegram to Kaganovich, dated September 19).

<sup>196</sup> GARF, 5446/27/9, 1141–12 (third telegram from Polonskii, dated November 2, and undated telegram in support of this complaint from Postyshev to Kuibyshev).

<sup>197</sup> GARF, 5446/27/12, 33–2 (telegram from Kvirring to Kuibyshev and Andreev, dated September 22); a note in pencil from Kuibyshev dated September 26 proposed that the question should be decided at STO if it was not settled by September 27.

<sup>198</sup> RTsKhIDNI, 17/3/904, 6, 30 (decision of session of October 23, item 18, to approve a draft decree of STO signed by Molotov).

kolkhoz trade in grain at present, an extremely tense position has been created'.<sup>199</sup>

The seriousness of the immediate food situation in the towns must not be exaggerated. These were the months after the harvest, the season when food of all kinds trickled into the towns. The urban death rates in Kiev and the Central Volga region, which had reached exceptionally high levels in June and July (see p. 187 above) now fell slightly.<sup>200</sup> But they remained well above the normal level. And living conditions in the towns generally continued to deteriorate; disease was widespread.<sup>201</sup>

Some priority activities received additional rations. The North-Caucasian coal industry reported that a major factor in its success in increasing production in October was the supply of additional rations for underground workers, and the opening of special canteens and buffets.<sup>202</sup> But for the cities and the construction sites as a whole additional food was not available; and in October–December 1932 the number of workers in industry remained substantially below the peak figure of April–June 1932 (see Table 16(c)). In previous years the industrial labour force had continued to expand throughout the year, but in December 1932 less workers were employed in industry than in December 1931. This was the first occasion since the early 1920s when such a decline had occurred. In capital construction, the pattern of previous years was also reversed: the number employed on December 1 had fallen to a mere 3.9 per cent above the level on December 1, 1931 (see Table 17). And food shortages, together with bad housing and living conditions, meant that

<sup>199</sup> GARF, 5446/27/9, 75–4 (telegram from Shubrikov to Postyshev and Molotov, dated November 16).

<sup>200</sup> The death-rate per thousand population, on an annual basis, was as follows:

	<i>June</i>	<i>July</i>	<i>November</i>	<i>December</i>
Kiev	27.0	28.0	20.0	21.0
Central Volga (urban)	33.7	33.9	23.4	27.0

(RGAE, 1562/20/41, 31, 39).

<sup>201</sup> On December 15, 1932, Sovnarkom allocated 250,000 rubles for measures against a typhus outbreak in West Siberia (GARF, 5446/57/21, 183 – art. 1871/395s). A draft decree of STO sent to Molotov on December 31, 1932, referring to the 'unfavourable epidemic situation in a number of places', proposed to establish 15,000 hospital beds in special epidemic wards (RGAE, 4372/30/28, 34–3).

<sup>202</sup> ZI, November 12, 1932 (A. Khavin).

workers continued to quit their jobs in search of betterment: 'the main cause of labour turnover,' the tractor and vehicle industry recorded in its annual report for 1932, 'was the state of housing and living conditions'.<sup>203</sup> In October–December 1932 labour turnover in industry remained at the very high level of 1931, and was even somewhat higher than in the previous spring (see Table 19).

While further deterioration in agricultural supplies was the most serious problem confronting industry, other constraints which had affected industrial performance earlier in 1932 also continued to operate. In the second half of 1932 the international situation temporarily improved: non-aggression pacts were signed with Poland and France;<sup>204</sup> and the Nazi danger in Germany seemed to recede.<sup>205</sup> Kalinin was also able to report 'considerable improvements' in the Far East.<sup>206</sup> But any diminution in the Japanese threat was ambiguous and temporary. While some prominent Japanese politicians sought to overcome the breach with the Soviet Union, the influential War Minister Araki remained in post, and told a journalist in June 1932 that war with the Soviet Union was 'sooner or later inevitable'.<sup>207</sup> A document in the State Department files, dated August 9, 1932, and based on information supplied by General Skobolevsky, reported the formation of a 'Russian National Union in the Far East' in Manchuria. The 'National Union' called for 'overthrowing by force of the communist dictatorship ruling over the Russian people' and the establishment of an independent Russian National State as a buffer on Siberian territory with the assistance of a dissident Red Army; to this end it would be 'indispensable to enter into friendly cooperation with any outside power, which is interested in striking a blow upon the Soviet government' (an obvious reference to Japan).<sup>208</sup> In the same month the Soviet ambassador in Japan reported that the Japanese army was preparing for war, and military factories were working day and night.<sup>209</sup> The Soviet authorities were no doubt

<sup>203</sup> RGAE, 7620/1/168, 30.

<sup>204</sup> See Haslam (1983), 104–5, 114.

<sup>205</sup> *Ibid.* 113–16.

<sup>206</sup> P, November 10, 1932.

<sup>207</sup> *Dokumenty vneshnei politiki*, xv (1969), 447–8 (despatch of August 2).

<sup>208</sup> US State Department, 861.00 11500.

<sup>209</sup> *Dokumenty vneshnei politiki*, xv (1969), 464 (despatch of August 11).

further alarmed by a report from their chargé d'affaires in London that the Japanese government had asked Britain and France whether they could have their direct support in the event of war with the USSR.<sup>210</sup> In the second half of 1932, some relaxation was allowed in the feverish transfer of resources to the armaments industries characteristic of the first six months of the year. But the cuts in the ambitious defence plans were primarily a response to the grave economic problems at home, rather than the result of a reassessment of dangers abroad. Defence needs continued to occupy a far more prominent place in the affairs of industry than in the years before the crisis in the Far East. The Politburo decisions to construct a searchlight factory in Moscow and a major new shipyard in the Far East,<sup>211</sup> at a time when other projects were being moth-balled, are a faint but unmistakable echo of the intense activities behind the scenes.

In the second half of 1932 the balance of payments difficulties continued. The German–Soviet trade agreement of June 15 provided further credits (see p. 159 above). But elsewhere the prospects for new loans seemed remote. They further receded when, on October 27, the British National Government denounced the Anglo-Soviet trade agreement.<sup>212</sup> Any substantial increase in receipts from exports was impracticable, in view of the bad grain harvest, the decline in oil production, and the continuing decline of world prices of raw materials. In July–December 1932, after strenuous efforts, exports increased slightly, but the foreign trade account was brought into balance only by slashing imports by a further 28 per cent as compared with the first six months of the year (see Table 13(d)).

### *(ii) Industrial production*

Although the industrial labour force did not increase, and imports of industrial materials and equipment were further

<sup>210</sup> *Ibid.* xv (1969), 791 (despatch from Bogomolov of August 19); Anthony Eden's alleged reply, 'not at the present stage', could hardly have provided even luke-warm comfort to the Soviet authorities.

<sup>211</sup> Decisions of August 16 and November 13, 1932 (*Industrializatsiya, 1929–1932* (1970), 613, 615).

<sup>212</sup> See Haslam (1983), 108–9.

reduced, the production of heavy industry, after nine months of stagnation, increased by over 10 per cent in October–December 1932, according to official figures, and output per worker rose by 11.7 per cent.<sup>213</sup> Part of the increase was spurious. Every factory rushed to complete its production in the last days of every month, the last month of every quarter and the last quarter of every year, reporting incomplete output as complete, at the expense of reducing its potential production in the next period. But genuine increases in production were also achieved. Electric power continued its impressive rise. The production of iron ore and coke which were normally bottlenecks temporarily increased, and in turn facilitated a considerable increase in the production of pig-iron.<sup>214</sup> The most impressive success was the growth of quality steel, used by the new tractor, vehicle, tank and aircraft industries, from 153,000 tons in July–September to 204,000 in October–December.<sup>215</sup> This provided the basis for substantial increases in the production of lorries; the tractor and vehicle industry reported that in October–December 1932 the supply situation with steel ‘somewhat stabilised and lost its former sharpness’.<sup>216</sup>

The increases in quality steel were due to improvements and conversions at existing factories. But with most other capital goods, including pig-iron, most of the increase took place at the new factories now being brought into production, such as Magnitogorsk, Kuznetsk and the Gor’kii (formerly Nizhnii-Novgorod) automobile works.<sup>217</sup> In these achievements the part played by the hard work and determination of managers and engineers and of a minority of the workers should not be underestimated. These months were the climax of the campaign to complete the five-year plan in four-and-a-quarter years, by

<sup>213</sup> *Tyazhelaya promyshlennost’* (1934), 207.

<sup>214</sup> See Table 7(c), and *Osnovnye pokazateli*, 1935, pp. xx, xxi, xxiii.

<sup>215</sup> *Osnovnye pokazateli* . . . *NKTP*, January–June 1933, 127, and *ZI*, December 3, 1932.

<sup>216</sup> *Osnovnye pokazateli*, 1935, p. xxv; *RGAE*, 7620/1/168, 16.

<sup>217</sup> In October, Nizhnii-Novgorod town and region, and Tverskaya street in Moscow, were all renamed Gor’kii, after Maxim Gorky, now a pillar of the regime, and the Moscow Arts Theatre was also named after him. Prishvin wrote in his diary that ‘everyone is joking that the Pushkin memorial is “named after Gorky”’. (*SZ*, 1932, art. 444, dated October 7; Prishvin diary in *Oktyabr’*, 1, 1990, 175 – entry for October 20.)

December 31, 1932. This major campaign was reinforced by a plethora of minor campaigns; notable among these was a successful 'all-Union blast-furnace competition' launched in September.<sup>218</sup>

The improvement was extremely patchy. The fuel industries remained in crisis. Oil production declined further in October–December 1932. Coal production increased after its summer decline, but the production of coal as well as oil was substantially less than in the last quarter of 1931 (see Table 7(a) and (b)). As a result fuel shortages were an acute problem throughout the economy: the Chelyabinsk tractor factory reported that 'in the last days of December, with a temperature down to minus 48° [Centigrade] the site did not have a single ton of coal, and work on the site was paralysed for 3 days'.<sup>219</sup> The production of important materials, including copper and cement, was also lower than in both the previous quarter and October–December 1931.<sup>220</sup> While such shortages predominated the Dnepr hydro-electric station provided a prominent instance of additional supplies becoming available before the factories which could use them were built. Dneproges, completed in triumph on October 10, still lacked the new aluminium plant and the Zaporozh'e steel factory which were intended to be its main consumers. Nine months after its completion, a French engineer reported that 'the turbines are at rest, utilising not much more than 100,000 h.p.'. <sup>221</sup>

Major disproportions occurred within as well as between industries. While the production of pig-iron increased, crude steel production did not rise above the level of October–December 1931, and less rolled steel was produced than in either of the previous two years (see Table 7(c)–(e)). This was partly a result

<sup>218</sup> RGAE, 4086/2/43, 22.

<sup>219</sup> RGAE, 7620/1/682, 2.

<sup>220</sup> *Osnovnye pokazateli . . . NKTP*, February 1934, 39; *Osnovnye pokazateli*, January–March 1933, 37.

<sup>221</sup> Ribardiére (Paris [1933]), 57, citing a note prepared in July 1933. On June 5, 1932, an unpublished Sovnarkom decree, reporting 'the successful progress in building the Dnepr dam and Dnepr hydro-electric station and the sharp lag in the construction of the Dnepr combine', called for 'a decisive break-through' in constructing the aluminium and ferro-alloy factories (GARF, 5446/1/68, 296–7, art. 900).

of the difficulties in switching some steel works to the production of quality steel. But the major factor was the failure to complete the new open-hearth furnaces and rolling mills on time. In 1931 all construction efforts in the iron and steel industry were concentrated on the pig-iron shops: 'the year 1931', according to the official history of the Magnitogorsk factory, 'was entirely dominated by the slogan "everything for the blast-furnaces"'. In the winter of 1931–2 the builders of the open-hearth shop were transferred to assist the first blast-furnace.<sup>222</sup> As a result, the first open-hearth furnace did not start up at Magnitogorsk until July 1933.<sup>223</sup> Better results were achieved at Kuznetsk: the first furnace in the open-hearth shop began to operate in September 1932, and the huge blooming mill, imported from the United States, produced its first steel in November.<sup>224</sup> But this was not in time to affect production in 1932, and soon brought its own problems. The shortage of both crude and rolled steel continued to be the main constraint on the expansion of the engineering industries.<sup>225</sup>

The crisis in agriculture reduced the supply of raw materials to industry. In 1932 the continued decline in the number of sheep reduced the supply of wool; and the state collections of leather, temporarily enhanced in previous years by the large number of cattle deaths, also substantially declined. Even more serious difficulties resulted from the failure of the sugar harvest in 1932, and from the decline in the cotton harvest. In October 1932 the production of woollens, linens and footwear was lower, and of cotton textiles only slightly higher, than in October 1931. And as a result of the agricultural crisis the production of the food industry was 18.1 per cent lower in absolute terms than in October 1931.<sup>226</sup> These trends continued, and in November and December the production of consumer goods (including manufactured food products) was 7.5 per cent less than in the same

<sup>222</sup> *Magnitostroi* (Sverdlovsk-Magnitogorsk, 1934), 74.

<sup>223</sup> *Ibid.* 125, 131.

<sup>224</sup> *Istoriya Kuznetskogo* (1973), 165–8.

<sup>225</sup> In a report, dated November 14, 1932, on the reasons for the delay in completing Soviet-made machinery for the Chelyabinsk factory, the shortage or bad quality of metal was the main reason given by most suppliers (RGAE, 7620/1/695, 75).

<sup>226</sup> *Osnovnye pokazateli*, October 1932, 15–23, cited in *Industrializatsiya, 1929–1932* (1970), 332–42.

months of 1931.<sup>227</sup> The agricultural crisis now dominated every aspect of Soviet economic life.

*(iii) Finance*

In September–December 1932, the authorities continued the prudent financial policy of July and August (see pp. 230–2 above). The capital investment plan for October–December amounted to a mere 4,400 million rubles, as compared with the original plan of 7,050 millions for the previous quarter.<sup>228</sup> Budgetary allocations to industry and other sectors of the economy declined substantially; only the light and food industries received substantially higher allocations. In heavy industry, both capital investment and subsidies to current production were reduced. (See p. 310 and Table 23 below.)

The financial screw was also tightened by new legislation. A decree of STO instructed financial agencies not to provide working capital in excess of the plan without checking in detail the reasons for the trouble. If the lack of working capital was due to illegal actions on the part of management, financial agencies should require the commissariat concerned to take disciplinary action against the offenders, or even initiate action under criminal law.<sup>229</sup>

In spite of financial stringency, managers at every level were determined to retain labour and acquire materials in order to fulfil their production plan. In consequence, costs continued to

<sup>227</sup> See table in PKh, I, 1937, 213; these data refer to the industrial commissariats and part of local industry only; the performance of the rest of industry is likely to have been even worse. A letter from Gosplan to Sovnarkom reported that the production of light industry in each of the last three months of 1932 was substantially less than in the same period of 1931 (RGAE, 4372/31/33, 91, dated January 25, 1933).

<sup>228</sup> GARF, 5446/1/70a, 88-113 (art. 1514, dated October 1). Capital investment in Narkomtyazhprom was planned at 1,943 million rubles as compared with the plan for the previous quarter of 2,645 million; a plea from the commissariat for an increase in the plan was rejected by Gosplan (RGAE, 4372/31/25, 347–8, memorandum by Mezhlauk dated November 14, 1932). According to Sedov's notes of September 1932 (see p. 230 note 5 above), he was told by his Soviet informant in regard to capital investment 'Fourth quarter – will be reduced by 1 milliard' (Hoover: Trotsky and Sedov – I, Box 374, doc. 64).

<sup>229</sup> SZ, 1932, art. 447 (dated October 13).



increase. In the main industrial commissariats the official cost index reached 13–14 per cent above the 1931 level before the end of 1932, increasing by several per cent in the October–December quarter.<sup>230</sup> Wage increases played a major part in this increase. In October–December 1932 the average monthly wage in large-scale industry was 7.6 per cent higher than in the previous quarter.<sup>231</sup>

Construction costs, which had already risen substantially in the first half of the year (see p. 230 above), continued to increase. The cost of building materials rose particularly sharply after artisan cooperatives were permitted in July 1932 to charge ‘prices formed on the market’.<sup>232</sup> With the further decline in the number and the physical strength of horses, the cost of cartage, still the main form of transport on building sites, doubled or trebled in 1932: in the Moscow Cartage Trust, for example, cost per horse-day rose from 19r85 in January–June to 51 rubles in December.<sup>233</sup> An authoritative source reported ‘mass deaths’ of horses on building sites in the spring of 1932, and enormous

<sup>230</sup> Increase in factory costs as a percentage of 1931 (average):

	<i>Jan–Nov.</i>	<i>Jan–March</i>	<i>April–June</i>	<i>July–Sept.</i>	<i>Oct–Nov.</i> ( <i>approx.</i> )
Narkomtyazhprom	5.6	2.0	2.7	7.7	(12.7)
Coal	26.2	12.8	23.6	35.9	(35.7)
Tractors and Vehicles	–34.9	–29.5	–37.0	–36.0	(–38.2)
Narkomlegprom	9.0	5.2	6.2	12.0	(14.4)

In Narkomsnab industry costs exceeded the 1931 level by 6.3 per cent in January–June, approximately 13 per cent in July–December, and 9.8 per cent for the year as a whole. (*Osnovnye pokazateli*, January–February 1933, 76–7; bracketed data were estimated by the present author.) These estimates used fixed prices for inputs (*ibid.* January–February 1933, 76); the use of actual input prices would have increased costs even further.

<sup>231</sup> *Trud* (1936), 97; increases occurred in all industries listed in this handbook, except the food industry.

<sup>232</sup> *Industrializatsiya, 1933–1937* (1971), 177–8, citing Gosplan report of July 20, 1934. In the Central Black-Earth region the freeing of prices led to ‘widespread selling-off (*razbazarivanie*) at high prices’ of planned allocations of building materials (ZI, November 26, 1932).

<sup>233</sup> *Industrializatsiya, 1933–1937* (1971), 179. For more detailed figures covering the period up to July–September 1932, see *Osnovnye pokazateli*, January–February 1933, 90. The cost of building materials, including their transport, increased in 1932 as a whole by 30–35 per cent (EZh, February 11, 1933 – Frolov).

increases in the price of fodder (fodder, except for grain, was largely sold at free-market prices).<sup>234</sup> Surveying building costs towards the end of 1932, the industrial newspaper, complaining that '*most managers of sites have an indifferent attitude to costs*', concluded that new methods must be found to put an end to the 'wholly impermissible' increases.<sup>235</sup>

The losses on current account which resulted from the rise in production costs were partly reimbursed by short-term credit, not included in budget expenditure. In consequence currency in circulation increased by 1,645 million rubles in August–December 1932 (see Table 24). This was a larger increase, as a percentage of total currency in circulation, than in the same months of each of the previous three years. It was authorised by a series of Politburo decisions: those covering the period August–November specifically mentioned the need to reduce or eliminate the wage debt.<sup>236</sup> These currency issues marked the tacit abandonment of the decision taken at the beginning of August that the state budget would be in surplus in October–December 1932 (see p. 232 above). But money was still extremely tight. In September, a Leningrad engineering trust complained that its factories did not even have enough cash to purchase 5kg of oil in a shop, and had been refused materials because they could not pay for them.<sup>237</sup> The wage debt remained substantial. Towards the end of 1932 workers on the site of the Chelyabinsk tractor factory had to suffer 'systematic delays in the payment of wages owing to the lack of cash'.<sup>238</sup> In the Ural iron and steel trust Vostokstal', the wage debt amounted to 16.5 million rubles by January 1, 1933, equivalent to the total wage bill for nearly six weeks.<sup>239</sup> The continuing wage debt, and the general lack of cash at enterprises, was a general phenomenon at the end of the year.

<sup>234</sup> ZI, November 15, 1932 (Berezin).

<sup>235</sup> ZI, November 15, 1932 (Berezin).

<sup>236</sup> RTsKhIDNI, 17/162/13, 51 (July 28, no. 35/9, 150 million rubles), 53 (August 2, no. 65/1, 200 million rubles), 79 (August 20, no. 60/28, 150 million rubles), 91 (September 8, no. 44/29, 200 million rubles), 138 (October 28, 200 million rubles).

<sup>237</sup> ZI, September 14, 1932 ('Transmissiya' group of factories in ROMO engineering combine).

<sup>238</sup> RGAE, 7620/1/682, 95 (survey dated January 15, 1933).

<sup>239</sup> RGAE, 4086/2/367, 89; the annual wage-bill in 1932 was 116 million rubles for current production (RGAE, 4086/2/365, 85–6) plus 31 million rubles for capital construction (RGAE, 4086/2/78, 3).

(E) THE CONTROL OF LABOUR,  
NOVEMBER–DECEMBER 1932

In an endeavour to stem the escalation of wage costs, on December 1 the Politburo called for the 'strictest economy in the expenditure of money', and firm control over wages.<sup>240</sup> Two days later Sovnarkom approved a confidential decree instructing every commissariat to establish a firm 'wage fund' for each of its enterprises and establishments. It would be a criminal offence either to exceed this amount, or to increase the wages of any group of manual or white-collar workers without the knowledge of Sovnarkom. The original decree bears a note in Molotov's handwriting: 'Do not publish as an order of Sovnarkom – decrees of the commissariats can be published on the basis of this decision'.<sup>241</sup> This indicates unwillingness to admit the responsibility of the central authorities for these severe wage restrictions. In conformity with Molotov's ruling, Narkomtyazhprom issued a strongly worded order warning factory directors, departmental heads and foremen that any increase in wages not authorised by Ordzhonikidze himself would be prosecuted as a criminal offence amounting to the embezzlement of state resources.<sup>242</sup>

In October–December 1932, with great difficulty, food was supplied to roughly the same number of industrial and building workers as in the previous quarter (see Table 12(a) and p. 275 above). As a result, by January 1, 1933, stocks of food grains were some 500,000 tons lower than on January 1, 1932.<sup>243</sup> All other kinds of food were also much less plentiful than in the previous year. The authorities concluded that it was urgently necessary not merely to stabilise but to reduce the number of mouths fed from state supplies. They sought to drive citizens regarded as superfluous out of the towns, while simultaneously keeping up industrial production by forcing undisciplined and idle workers to increase their productivity. Measures to tighten up labour discipline had been introduced at the end of 1930 (see vol. 3, pp. 419–24), but managers frequently failed to apply them in view of their need to attract and retain labour in conditions of labour shortage. New legislation at the end of 1932 endeavoured

<sup>240</sup> RTsKhIDNI, 17/3/909, 1–2 (decision dated December 1).

<sup>241</sup> GARF, 5446/1/70b, 121 (art. 1788, dated December 3).

<sup>242</sup> SP NKTP, 1932, art. 920, dated December 15.

<sup>243</sup> For details see vol. 5.

both to restore and extend the earlier controls, and to compel managers to accept a reduced labour force.

On November 15, a decree of TsIK and Sovnarkom abolished the clause in the Labour Code which prohibited managers from dismissing workers for absenteeism unless they were absent without due cause on at least three occasions in one month. The decree claimed that, owing to the 'absence of unemployment', this clause encouraged absenteeism. In future workers who failed to appear on even one single day without good cause would be liable to be dismissed. Upon dismissal, they were to be deprived of their ration cards for food and consumer goods and ejected from their living quarters if these were attached to the enterprise.<sup>244</sup> A few days later, an instruction from Narkomtrud added that those dismissed for absenteeism without due cause could not be re-engaged for a year.<sup>245</sup>

The number of registered cases of absenteeism without due cause in industry immediately declined, from 0.59 days per worker per month in October 1932 to as little as 0.07 days in February 1933.<sup>246</sup> Eikhe enthusiastically applauded this improvement and improbably claimed that these severe measures had the support of the public:

All class-conscious workers look on absenteeism as shameful. A strong public opinion has been created against absenteeism and they don't stand on ceremony with persistent absentees –

<sup>244</sup> SZ, 1932, art. 472.

<sup>245</sup> BFKhZ, 13, 1933 (instruction dated November 26); *Sbornik . . . po trudu* (1938), 252, 255. The definition of 'justified absenteeism' adopted in December 1930 continued to operate. It included illness, serious illness of a member of the family, Acts of God and (a serious matter in the transport conditions of the 1930s) 'interruption or delay in travel owing to floods, snowstorms, train accidents, etc.'; the vagueness of the last provision must have led to much dispute.

<sup>246</sup> Absenteeism was reported as follows (in days):

	<i>With due cause</i> ( <i>'justified'</i> )	<i>Without due cause</i> ( <i>'unjustified'</i> )
October 1932	0.24	0.59
November 1932	0.21	0.43
December 1932	0.18	0.18
January 1933	0.18	0.11
February 1933	0.14	0.07

(*Osnovnye pokazateli*, January–March 1933, 83).

he was absent – throw him out. And not only are they driven from the factory, they are deprived of ration cards and living quarters, and at other enterprises these sharks and layabouts are not accepted, there is no place for them.<sup>247</sup>

Both the statistics and Eikhe's encomium deserve to be treated with scepticism. Some improvement in attendance undoubtedly occurred under the impact of the harsh penalties suffered by both workers and managers for disobeying the law. But managers and workers also had a common interest in falsifying the statistics. In view of the shortage of labour, managers were reluctant to dismiss workers unless they were extremely undisciplined.<sup>248</sup> Even in the first few weeks after the decree, some managers and departmental heads failed to implement it, and were prosecuted.<sup>249</sup>

The legislation on absenteeism was followed on December 4 by an even more far-reaching decree of Sovnarkom and the party central committee, on food supplies to industry. This had been in preparation since October, when Stalin proposed to the Politburo that a commission on this subject should be established.<sup>250</sup> The decree of December 4 transferred direct control of food supplies to the management in 262 high-priority 'Group One' factories. The ZRKs in these factories were transferred to the factory management, and were henceforth known as 'departments of workers' supply' (ORSy). At other factories which had a ZRK ('Group Two' factories), the ZRK remained administratively within the cooperative system, but here too the authority of management was strengthened. And at all enterprises the issue of ration books to workers and their families was transferred from the local soviets to the factory management. The explicit objective of all these measures was to prevent the

<sup>247</sup> Eikhe (1933), 23–4; this speech was made in March 1933.

<sup>248</sup> On the Chelyabinsk site, 471 out of 7,804 workers (6.0 per cent) who left their jobs in April–June 1932 were dismissed for violating labour discipline; this fell to a mere 6 out of 1,197 (0.5 per cent) in October, a time of particular difficulty in obtaining labour on the site, and rose in December, after the new decree, to 192 out of 1,329 (14.4 per cent) (RGAE, 7620/1/682, 10, 101).

<sup>249</sup> See ZI, December 27, 1932 (report of Commission on Fulfilment attached to Sovnarkom RSFSR); P, January 22, 1933 (Tsikhon).

<sup>250</sup> RTsKhIDNI, 17/3/902, 4 (sitting of October 8, item 8); the commission included Kaganovich, Stalin, Molotov, Mikoyan, Zelensky, Shvernik and the directors of large ZRKs and enterprises in Moscow, Leningrad and the Donbass.

distribution of food and consumer goods to 'absentees and flitters' and to 'strengthen the power of the director in the enterprise'.<sup>251</sup> A detailed order issued by Narkomsnab three weeks later placed the rationing system under administrations and bureaux responsible to regional and republican plenipotentiaries of Narkomsnab of the USSR. These authorities were instructed to 'reduce swollen quotas, and remove from the quotas of all enterprises all groups of the population, and individuals, which are not connected with the enterprise'; in no case could the number of ration books exceed the number of manual and white-collar workers allowed for in the production plan or in the approved list of staff. The order also sought to make it more difficult for workers to change their jobs without authority. It ruled that new workers must produce a certificate from their old employer showing that the old ration book had been handed in; and it insisted that managements should issue certificates to departing workers only if they left their job without violating labour discipline. Workers who had not previously been in receipt of rations from centralised supply were required to produce a certificate from their own local soviet to that effect. In order to cut down the quota lists even further, the definition of dependents entitled to rations was narrowly drawn, including only immediate relatives living in the household (wives, children and parents), and only those not capable of work.<sup>252</sup>

These changes in the rationing system were accompanied by an extensive press campaign demanding the cancellation of ration cards issued to undeserving citizens; the campaign was particularly shrill in its call for the removal of absentees and flitters from the lists. According to the Menshevik journal, disturbances at a number of factories followed the introduction of the new system. In December there was 'very serious workers' unrest' at the Putilov works when direct dependents had their supplies withdrawn because of the 'very narrow interpretation' of 'dependent'.<sup>253</sup> The journal claimed that the protests led to a

<sup>251</sup> SZ, 1932, art. 489; the list of 262 enterprises is appended to the decree. The Narkomsnab order of December 26 (see next note) stated that ration books were to be issued through the management at all places of work, not merely productive enterprises.

<sup>252</sup> RGAE, 8043/1/58, 144–51 (art. 561, dated December 26).

<sup>253</sup> SV (Paris), cclxxviii (February 13, 1933), 15; this issue also reported conflicts in Leningrad, Moscow, the Donbass and the Urals.

change in the definition of 'dependent': this was evidently a reference to the further Narkomsnab instruction on December 31 which added 'wives engaged in housework' to the list of dependents who could be allocated rations, even if they were capable of paid work.<sup>254</sup> In some priority enterprises husbands of women workers demanded that they and their children should be entitled to receive rations on the same basis as the wives and children of male workers.<sup>255</sup>

The legislation on absenteeism and rationing endeavoured to limit the urban population and urban employment by tightening existing controls. On December 27 a decree of TsIK and Sovnarkom, accompanied by a Statute, introduced a more fundamental restriction on the rights of citizens. It established a 'unified passport system within the USSR, and the obligatory registration of passports'. All citizens aged sixteen years and over, and permanently resident in towns and workers' settlements, or working on transport, on building sites or in sovkhozy were required to possess an internal passport issued by the police (the equivalent of an identity card), and to register with the police within 24 hours of arrival in a town. The decree frankly stated that its objective was 'to secure better records of the population of towns, workers' settlements and building sites, to clear out from these locations persons not connected with production or with work in offices or schools and not engaged in socially useful work (with the exception of invalids and pensioners), and to cleanse these locations of concealed kulaks, criminals and other anti-social elements'. In the initial stage passports were to be introduced in eight major towns; the provision of passports for the whole urban population was to be completed during 1933. The passport showed nationality, social position, place of work and liability for military service, and included the names of dependents under sixteen years of age.<sup>256</sup>

<sup>254</sup> RGAE, 8043/1/58, 210; this phrase was added in Mikoyan's handwriting.

<sup>255</sup> SV (Paris), cclxxxv (December 24, 1932), 8 (A.Yugov). The regulations do not in fact specify the sex of the worker to whom dependents may be attached, merely stating that where there are several wage-earners dependents shall be registered only with one of them.

<sup>256</sup> SZ, 1932, arts. 516–17. A simultaneous decree and statute of TsIK and Sovnarkom established a chief administration of the workers' and peasants' police (militsiya) attached to the OGPU of the USSR, the head of which was appointed by Sovnarkom on the recommendation of the OGPU (SZ, 1932, arts.

The introduction of the passport system considerably tightened controls over the movement of the population. The passport was supposed to be presented when taking up employment. The rural population were not entitled to passports, and had to be content with 'temporary authorisations' when taking up seasonal work. The first detailed instruction on the issue of passports, relating to Moscow, Leningrad and Kharkov, declared that those not granted a passport must leave these towns within ten days, and those refused registration must leave within 24 hours.<sup>257</sup>

The authorities intended to achieve a substantial reduction in the size of the urban population. When the decree was published, *Pravda* called for 'maximum firmness' in implementing it, and claimed that 'hundreds of thousands of kulaks and their myrmidons' had penetrated into the towns, where they speculated with ration cards, forced up prices on the market, bought up consumer goods and organised queues in shops.<sup>258</sup> *Pravda* had thus installed the evil figure of the kulak as a scapegoat for the shortages and hunger in the towns as well as in the countryside. The newspaper also called for the removal from large towns of people who were not kulaks, but who lacked a definite occupation or skill. It was 'natural', *Pravda* declared, that such people, who caused overcrowding by living with relatives and acquaintances, or renting part of a room, 'should be resettled in other places'.<sup>259</sup> In Moscow, and no doubt elsewhere, plans for reducing the urban population soon took shape. On January 4, 1933, the draft 1933 control figures for Moscow submitted to the bureau of its city committee proposed to reduce the population of the city from 3.6 to 3.3 million in the course of the year.<sup>260</sup>

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518–19); this replaced republican police forces by a nation-wide force and tied the civil police (*militsiya*) more closely to the political police (OGPU). Prokof'ev, a deputy chair of OGPU, was appointed its first head (SZ, 1933, ii, art. 16, dated December 27, 1932).

<sup>257</sup> SZ, 1933, art. 22 (dated January 14, 1933); the decree introduced the passport system for the whole area within 100 km of Moscow and Leningrad and 50 km of Khar'kov.

<sup>258</sup> P, December 28, 1932.

<sup>259</sup> P, December 28, 1932. The impact of the decree is described by a critical witness in Lyons (London, 1938), 515–17.

<sup>260</sup> See Shimotomai (1991), 67–8. Lyons (1938), 516, appears to be mistaken in claiming that 'it was the announced purpose of the government to expel a million' from Moscow.



## (F) TOWARDS REALISTIC PLANNING

The shift towards more realistic planning began with the Politburo decision of July 23 to reduce the capital investment plan (see p. 230 above). By the autumn, confronted with agricultural disaster, the authorities tacitly recognised not merely that the revised five-year plans approved by the XVI party congress in July 1930 could not be achieved, but also that many crucial elements of the 'optimum variant' of the spring of 1929 were in jeopardy.

The 1933 plan was prepared in this sombre context. The early drafts in August 1932 assumed that industrial production would increase by only 20–23 per cent, a considerably lower rate of growth than in the 1932 plan.<sup>261</sup> The draft plan for capital investment, the mainspring of ambitious planning and currency inflation, was even more cautious. At the end of August a series of meetings presided over by Mezhlauk adopted preliminary ceilings (*limity*) for Narkomtyazhprom investment which were considerably lower than in 1932.<sup>262</sup> On September 15, a letter from Mezhlauk and Borilin to government departments, evidently sent after consultation with Sovnarkom, proposed that total investment in the economy should amount to only 17,680 million rubles, also a substantial reduction as compared with 1932.<sup>263</sup>

The political and economic leaders were now forced to recognise, albeit reluctantly, that they had embarked on too many investment projects. At the beginning of 1932 Stalin had rejected the sentences in Kuibyshev's draft resolution for the XVII party conference which stressed the need to concentrate on a limited number of projects. But the letter from Mezhlauk and Borilin on September 15 again emphasised 'the necessity to give priority to the conclusion and final completion of construction which has already been started . . . and the strict concentration of money, materials and machinery on major objects, and primarily on those due to start production in 1933'. Later

<sup>261</sup> RGAE, 4372/31/24, 27, referring to the four industrial commissariats.

<sup>262</sup> *Ibid.* 20–1, 165; the proposed investment was increased from 7,300 to 7,964 million rubles at a meeting on August 29, and to 8,086 million on September 4. Planned investment in 1932 was 8,900 and actual investment 8,505 million rubles (RGAE, 4372/30/25, 82; *Sots. str.* (1935), 466–7).

<sup>263</sup> RGAE, 4372/31/24, 66–7, 113–15.

passages in the letter, however, also called for investment in 1933 which would enable new construction to be started both in 1934 and in the following three years of the second five-year plan.<sup>264</sup> The contradiction between the urgent need to complete existing projects and the hopes for rapid expansion in the future was at the heart of the policy discussion in the remainder of 1932.

The iron and steel industry was again a major source of contention. The plan to produce 17 million tons of pig-iron in 1932/33, and the equally extravagant plans for 1933–7, had been quietly dropped (see p. 124 above). The quarterly plan for October–December 1932, approved by Narkomtyazhprom in August, tacitly acknowledged that pig-iron production could not exceed 6.9 million tons in 1932, as compared with the annual plan of 9–10 millions (see p. 193, note 244 above). But the plan to produce 13 million tons in 1933 had not yet been officially revised, and the schedules for completing new blast-furnaces were predicated on this assumption.

On September 1, 1932, I. Abramov, a senior metallurgist, criticised the plans for the industry in the columns of the industrial newspaper. He praised the installation of nine new blast-furnaces in the first eight months of 1932 as ‘an unheard-of event in the history of the world economy’; the capacity of the new furnaces exceeded the total previously installed since the revolution. But he also pointed out that the plan for 1932 actually proposed the installation of 24 new blast-furnaces, and strongly hinted that a total of only 12 or 13 could in fact be installed by the end of the year. The lag in crude-steel and rolled-steel capacity was even greater. Capital equipment to a value of 750 million rubles would be required to catch up the 1932 investment programme, but equipment available from Soviet industry would amount to no more than 150 million rubles. Abramov rejected the practice of dispersing resources so that ‘*everything was built a little bit*’, and boldly concluded that in 1933 the ‘central task’ should be ‘to attain *proportionality in the development of all elements of the basic capital of iron and steel*’:

There is a very great deal to be said for the need in the capital investment plan for 1933 *to place the main emphasis on completing*

<sup>264</sup> *Ibid.* 66–7, 113–15. For Stalin’s earlier rejection of Kuibyshev’s draft, see Khlevnyuk and Davies (1993), 23.

*projects carried over into 1933; preparation for new construction should begin only after the actual completion and start-up of the projects already being built.*

If blast-furnaces already under construction in 1932 were completed in 1933 this would provide an additional four million tons of pig-iron even if no new construction was started.<sup>265</sup>

Behind the scenes, Abramov's argument was strongly supported by Tochinskii. In a memorandum dated September 6, he declared that 'in 1933 capital construction must be directed along a different channel'; in particular the commencement of the construction of new iron and steel enterprises should be brought to a halt.<sup>266</sup>

Abramov's challenge went unanswered until the plenum of the party central committee at the end of September. At the plenum Ordzhonikidze and the iron and steel industry were called upon to account for the failure of the plan. In a long report, first published a quarter of a century later, Ordzhonikidze frankly admitted that 'the shortage of metal disrupted the work' at tractor and vehicle factories in May and June.<sup>267</sup> But he defended the achievements of the industry against its detractors:

Although we have not fulfilled the programme this year. . . what we have achieved in iron and steel in these 4 years and in the final year is not at all bad. We are doubling production in 4 years. . . We will not fulfil the iron and steel five-year plan in four years, but I think that iron and steel must fulfil it in 5 years, whatever happens.<sup>268</sup>

Without mentioning critics such as Abramov by name, Ordzhonikidze condemned those who argued that resources had been spread too thinly as 'profoundly mistaken', but also implicitly admitted that plans had been over-ambitious:

<sup>265</sup> ZI, September 1, 1932.

<sup>266</sup> RTsKhIDNI, 85/29/14, 53 (memorandum to Gurevich, deputy People's Commissar of Heavy Industry, located in Ordzhonikidze's personal files); for Tochinskii's earlier intervention in favour of realism, see pp. 124–5 above.

<sup>267</sup> Ordzhonikidze, ii (1957), 392–3. The debate, in which most of the principal leaders of the industry spoke, is reported in RTsKhIDNI, 17/2/500, 138–89. For other aspects of the plenum, see pp. 251–2 and 256–61 above.

<sup>268</sup> Ordzhonikidze, ii (1957), 416; he was referring to the original plan to produce 10 million tons in 1932/33, not the revised plan of 17 million tons.

We thought we could construct Magnitka in 2 or 3 years. It didn't come off, we strained every nerve, but it didn't come off.

Ordzhonikidze insisted or admitted that 'success would have been much greater if our leadership had been better', but conceded that no such leadership was available:

It is a huge task, alarmingly huge, we torment ourselves, we bang our heads against it, and we learn. Iron and steel must be given a lot of help, the help of the whole party. The burden has proved so heavy – iron and steel is rightly called heavy industry, devil take it – that the whole party must help it to get out of its difficulties.<sup>269</sup>

The plenum resolution on Ordzhonikidze's report attributed the poor results achieved by the industry in the summer of 1932 not to over-ambitious planning but to the conventional scapegoat – unsatisfactory managerial and administrative-technical leadership at every level of the industry, including the central staff of the Commissariat. But it said nothing specific about future plans for the industry, merely calling for 'continuous increase of its output by millions of tons of pig-iron and rolled steel a year'.<sup>270</sup>

The vagueness of the resolution reflected indecision behind the scenes. The protagonists of investment on a wide front cited the plenum resolution in their own favour. Vareikis, reporting back in the Central Black-Earth region, drew attention to 'opportunist gossips' who argued that it was 'essential to reduce construction in the iron and steel industry'; these people sought, with support from within the region, to cease work on the new Lipetsk works. Vareikis assured his listeners that iron and steel would be produced in Lipetsk by the summer of 1933.<sup>271</sup> In the industrial newspaper, an iron and steel official rejected Abramov's proposal

<sup>269</sup> *Ibid.* 417, 419.

<sup>270</sup> *KPSS v rez.*, iii (1954), 169–73 (dated October 2), first published in *P*, October 3, 1932.

<sup>271</sup> Vareikis (Voronezh, 1932 (2)), 6–8 (speech to the *aktiv* of the Voronezh party organisation, October 8); the central committee resolution merely stated that 'construction of new iron and steel factories has been developed on a broad front' at a list of factories including Novo-Tagil, Krivoi Rog, Tula and Lipetsk. At the central committee plenum Ordzhonikidze stated that at Lipetsk 'the site has progressed quite significantly', and Stalin called out 'Vareikis will help' (Ordzhonikidze, ii (1957), 400).

to concentrate resources on blast-furnaces already being erected on the grounds that this would cause work to cease on five sites at which it had already been started, including Krivoi Rog, Lipetsk and Novo-Tagil.<sup>272</sup>

Other industries and sectors of the economy also urged Gosplan and the government to increase the tight investment limits for 1933. But it was by now abundantly clear that the authorities could achieve some degree of financial stability only if they did not relax their curbs on expenditure. On October 20, 1932, Mezhlauk, together with the head of the Gosplan sector of financial planning, pointed out in a memorandum to Molotov that losses on the sale of the production of the four industrial commissariats and the sovkhozy would amount in 1932 to 2,893 million rubles rather than the 735 million rubles planned, and that expected losses in 1933 were estimated at 2,770 million rubles. According to the memorandum, it would be impossible to eliminate losses by increasing the industrial transfer prices of the big loss-makers, coal and iron and steel, because this would result in all the consumers of coal and metal having to increase their prices. Over 2,000 million rubles of the 2,770 millions expected losses would have to be met by a subsidy from the budget.<sup>273</sup> Faced with such clear evidence of the growing claims on resources, the central authorities held to their more moderate plans. On November 10, STO adopted a decree 'On the Failure of the People's Commissariats to Carry out the Sovnarkom Decree on the 1933 Control Figures'. The decree instructed Gosplan to return the documents on the plan to the commissariats and oblige them to submit within three days a revised plan which corresponded to the limits already fixed; they were also to present draft financial plans to Gosplan and Narkomfin which 'precisely correspond to the approved financial limits'.<sup>274</sup> Ten days later, on November 20, a memorandum from Grin'ko to Stalin, Molotov and Kuibyshev sought to stiffen their resistance to the claims of the commissariats. Grin'ko emphasised the 'serious inflationary phenomena in the country', and pointed out

<sup>272</sup> ZI, November 3, 1932 (Zhigalko).

<sup>273</sup> GARF, 5446/27/11, 112–7 (telegram from Mezhlauk and Konovalov to Molotov, marked 'only personal'). For Mezhlauk's views on costs and prices, see also pp. 267–8 above.

<sup>274</sup> GARF, 5446/13/23, 2.

that the draft state budget for 1933 included a substantial deficit in spite of the proposed reduction of capital investment to 18 milliard rubles. He proposed that planned expenditure on defence and the social and cultural services should be reduced, and, in sharp contrast to Mezhlauk (see p. 296 above), he also argued that subsidies to most loss-making industries should be abolished; on the revenue side of the budget, planned receipts from vodka should be increased. This would enable currency in circulation to be reduced by 1,500 million rubles in 1933.<sup>275</sup>

A few weeks later, on December 3, the Politburo approved the proposed directives for the state budget, and agreed that capital investment should amount to only 18,000 million rubles, as compared with the preliminary figure of 17,900 millions in 1932. The Politburo firmly declared that the investment total for 1933 was 'final and not to be reconsidered'.<sup>276</sup>

The Politburo also restricted the 1933 budget allocations for military purposes. In the heady atmosphere of the previous May, the 1933 budget allocation to Narkomvoenmor had been estimated at 7,000 million rubles, as compared with the 1932 estimate of 4,750 millions.<sup>277</sup> Following the stringent financial measures at the end of July, the 1933 estimate for Narkomvoenmor was reduced to 5,800 million rubles.<sup>278</sup> On December 3, the Politburo again reduced the estimate, to a 'maximum' of 5,000 million, within which military orders placed with industry would amount to no more than 1,800 million.<sup>279</sup>

The production plans in preparation for 1933 also envisaged a lower rate of growth than in previous plans. The amount of new capital equipment available was limited not only by the stringent capital investment plans but also by the continuing severe restrictions on imports. The initial draft compiled in August 1932 envisaged that production by the four industrial commissariats would increase by 23 per cent.<sup>280</sup> But in the course of negotiating

<sup>275</sup> GARF, 5446/22/5, 34-45.

<sup>276</sup> RTsKhIDNI, 17/3/910, 5-6 (decision taken by correspondence, confirmed at session of December 10). For the 1932 figure see SZ, 1933, art. 38 (dated January 26). Investment in 1932 was eventually reported as 20,478 million rubles (*Sots. str.* (1935), 464-5).

<sup>277</sup> GARF, 8418/6/242, 5 (session of Defence Commission of May 25).

<sup>278</sup> *Ibid.* 3 (session of Defence Commission of August 7).

<sup>279</sup> RTsKhIDNI, 17/162/14, 24 (decision by correspondence no. 11/5).

<sup>280</sup> RGAE, 4372/31/24, 26 (no precise date is given for this figure).

the plan this figure was substantially reduced.<sup>281</sup> Most branches of industry were affected. In the oil industry, the initial plan of 29 million tons was reduced by October to 23 million tons, largely because of the lack of imported equipment and pipes to start new wells – at this time the industry was expected to produce 23 million tons of oil in 1932. Lomov, deputy chair of Gosplan with special responsibility for fuel, complained bitterly in a lengthy telegram to Kuibyshev and Mezhlauk that this was ‘a major planning mistake’. As the consumption of light oil by tractors and vehicles was bound to increase, the present target would require an absolute reduction in other internal uses of oil by industry, or in the oil available for mass consumption, or in oil exports. Lomov appealed for an increase in the plan to 27 million tons, arguing that rather than accept such cuts it would be ‘considerably more profitable to allocate an extra 1–2 million rubles in gold for the urgent purchase of pipes’.<sup>282</sup> But in the event the plan for 1933 amounted to only 24.4 million tons.<sup>283</sup> In consequence, on the basis of a memorandum from Lomov, the Politburo reduced the planned export of light oils so that internal consumption could increase.<sup>284</sup>

In conformity with the new spirit of moderation, the quarterly control figures of Narkomtyazhprom for January–March 1933 proposed relatively modest production targets for all the major industries.<sup>285</sup>

Meanwhile Trotsky published in Berlin an article entitled ‘The Soviet Economy in Danger’, and dated October 22, 1932, which developed the ideas of the Left Opposition ‘draft platform’ of July 1932 (see pp. 244–5 above). Trotsky’s article, shorn of certain exaggerations, and of its hostility to the regime, reads like a prospectus for the economic programme for 1933 which was simultaneously being approved by the Soviet authorities. He

<sup>281</sup> By August 28, it had been reduced to 20 per cent (RGAE, 4372/31/24, 27); the final figure was 16.5 per cent (see p. 330 below).

<sup>282</sup> GARF, 5446/27/13, 123, 123ob., dated October 29. The figure ‘25’ in the text is replaced by ‘27’.

<sup>283</sup> See Zaleski (1980), 550.

<sup>284</sup> RTsKhIDNI, 17/162/14 (session of February 1, 1933, item 8), based on Lomov memorandum to Politburo also dated February 1 (GARF, 5446/27/23, 243, 243ob.). For figures of actual production see Table 7(b) below.

<sup>285</sup> SP NKTP, 1932, art. 857 (order of December 1); the quarterly targets included 18.5 million tons of coal and 2.07 million tons of pig-iron.

diagnosed 'the real cause of the troubles' in industry as the 'intolerably hard conditions of existence of the workers'. Bad food and 'rule by command' had together led to apathy. Disproportions and contradictions were growing, and to overcome them 'il faut réculer pour mieux sauter'. Trotsky accordingly proposed that 1933 should be a 'buffer year' between the two five-year plans, in which a retreat in the collectivisation of agriculture was accompanied in industry by the concentration of resources on first-priority investment, on putting factories in order and on supplying food, housing and clothes to the workers; simultaneously 'the process of inflation must be halted with an iron hand'. Under the general heading 'A Year of Capital Repair', Trotsky called for a 'bold reduction in capital investment, sacrificing many hundreds of millions of rubles'.<sup>286</sup>

During the autumn the 'second round' of discussions on the second five-year plan was also in progress. An unpublished draft of the second five-year plan prepared in November 1932 drastically reduced the 1937 production targets for major industries:<sup>287</sup>

	<i>May 1931 directives</i>	<i>Early 1932</i>	<i>November 1932</i>
Electric power (million kWh)	150	79.5	45
Coal (million tons)	390	315	180
Crude oil (million tons)	130–150	81	45
Pig iron (million tons)	60	26	20 <sup>288</sup>
Copper (thousand tons)	847	500	250

<sup>286</sup> BO (Berlin), xxxi (November 1932), 3–13; the article was published in English translation in instalments in *The Militant* for November and December 1932, and is reprinted in *Writings of Leon Trotsky (1932)* (NY, 1973), 258–284. In the English translation Trotsky uses the term 'capital reconstruction', not 'capital repair'; this corresponds more closely to his intention, which was to reduce but continue net investment. This article could not have been the inspiration for the more moderate plans of 1933, as Western historians, including the present author, have sometimes supposed, because these plans were well advanced behind the scenes before the article appeared.

<sup>287</sup> For May 1931, see Zaleski (1980), 108; early 1932 is from RTsKhIDNI, 85/29/16, 4–9; November 1932 is from RGAE, 4372/31/24, 34.

<sup>288</sup> On November 3, Lauer, the head of the metal sector of Gosplan, sent a metal balance for 1937 to Mezhlauk's commission on the second five-year plan



Simultaneously, a Narkomtyazhprom order instructed its sector for long-term planning to prepare new ‘basic limits for production and capital investment in 1937’ in conformity with the 1933 plan.<sup>289</sup> Summarising these cuts, the Gosplan memorandum of December 3 proposed that industrial production as a whole should increase by only 14 per cent a year during the second five-year plan as compared with the figure of 20 per cent current at the time of the XVII party conference.<sup>290</sup>

Similar developments were taking place in other sectors of the economy. Thus in Narkomput’ the plan for dieselisation of the railways proposed that 4,183 km of track should be used by Diesel locomotives in 1933–7, as compared with 13,125 km in the previous draft.<sup>291</sup>

Simultaneously, Gosplan also reconsidered the investment plan for the economy as a whole in 1933–7. In a memorandum of November 1932, the proposed level was reduced to 115 milliard rubles,<sup>292</sup> some 20 per cent lower than the figure approved at the XVII party conference.

Thus a remarkable reversal of the planning process had taken place in the course of 1932. In the preliminary figures for the second five-year plan presented to the XVII Conference at the beginning of the year, the production plans proved too large to be accommodated to the proposed investment plan. But instead of ‘widening the bottleneck’ by increasing the investment plan, Gosplan, with at least some degree of approval from the Politburo, planned ‘on the bottleneck’ by reducing the production plans; and even reduced the investment plan itself. The acceptance of more realistic rates of growth and investment in the second half of 1932 was not the result of any general decision of

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which assumed that production of pig-iron would be only about 20 million tons, but cautiously added that this should be seen as ‘solely an internal document of Gosplan’ (RGAE, 4372/31/513, 133–7). A month later, on December 2, another Gosplan document reduced the 1937 plan to 18 million tons (RGAE, 4372/92/10, 166).

<sup>289</sup> SP NKTP, 1932, art. 794 (dated November 14).

<sup>290</sup> RGAE, 4372/92/10, 164.

<sup>291</sup> RGAE, 1884/43/171, 129, 155, 157–8; the new draft, described as ‘Variant 1 of Round 2’, was dated November 10, 1932, the previous draft August 1932.

<sup>292</sup> RGAE, 4372/31/24, 36.

principle, but a reluctant response to the growing economic crisis and the increasing disruption of the budget and the currency. But the Politburo learned something from this experience, and never returned to the fantastic planning of 1930–2.

## CHAPTER ELEVEN

### 1932 IN RETROSPECT

As a result of the combined agricultural, financial and foreign trade crisis, both industrial production and capital construction grew much more slowly in 1932 than in the previous year. Agricultural production and retail trade substantially declined. According to a careful Western estimate, Gross National Product fell slightly for the first time since the early 1920s.<sup>1</sup>

#### (A) CAPITAL INVESTMENT

In 1932, expenditure on non-agricultural capital investment, measured in current prices, increased by 35 per cent (see Table 2). But, according to the only available Soviet estimate, investment costs rose by 23 per cent in 1932.<sup>2</sup> In real terms, therefore, the increase in non-agricultural investment was no more than 10 per cent. The most careful Western estimate records a similar increase in real terms.<sup>3</sup>

For the first time since the 1920s, the building labour force increased more rapidly than the supply of materials. The number employed in the building industry increased by 23 per cent (see Table 17), but the total supply of building materials did not increase.<sup>4</sup> Transport facilities also deteriorated. Very few lorries had yet reached the building industry. Horses and carts were the main means of transport from rail-head to site, and from one part of the site to another. But far fewer horses were available; and

<sup>1</sup> See Moorsteen and Powell (1966), 622; GNP is measured in 1937 prices.

<sup>2</sup> *Nashe stroitel'stvo*, 7, April 1934, 298 (Bagdat'ev) (but see note 33 below).

<sup>3</sup> It may be estimated from the data in Moorsteen and Powell (1966), appendices A and D, that gross investment (including capital repair) increased by about 8 per cent (measured in 1937 prices); however, net investment measured in 1928 prices increased by about 20 per cent.

<sup>4</sup> The production of brick and cement slightly increased, but the supply for building purposes of iron and steel, timber and window glass declined (see Powell (1957), i, 6, and ii, 7–35).

lack of fodder resulted in the death of many horses on building sites in the course of 1932.<sup>5</sup>

In the allocation of investment between sectors, previous priorities were generally maintained. Investment in ferrous and non-ferrous metals increased, in current prices, by as much as 70 per cent, and investment in machine-building and metalworking by 45 per cent. The main shifts in priorities were the substantial decline in investment in the vehicle and tractor industries, and in agricultural engineering, following the completion of the major projects, and the substantial increase in investment in armaments. Investment in the fuel industries also received relatively low priority, particularly investment in the oil industry, which declined in real terms, with disastrous effects on production in later years. The already very low level of investment in education, health and housing also declined in real terms.

As in previous years, the amount of unfinished construction continued to grow, increasing by over 50 per cent.<sup>6</sup> Industrial projects accounted for nearly 60 per cent of all unfinished construction.<sup>7</sup> On December 31, 1932, the date on which the first five-year plan was declared to be completed, most of its major projects were still under construction.

## (B) INDUSTRIAL PRODUCTION

According to official figures, total gross production of large-scale industry increased by only 13.7 per cent as compared with 23 per cent in 1931 and the planned figure for state industry of 36 per cent (see Table 5(a)). But even this rate of growth is obviously exaggerated. It incorporates the claim that the production of the food industry increased by 13 per cent, and of other Group B industries (mainly industrial consumer goods) by 8.5 per cent. But agricultural marketings of the ten main foods declined by as

<sup>5</sup> Mandalyan (1932), 44, and p. 284 above; according to ZI, November 11, 1932 (Khaevskii), the condition of the carts also considerably deteriorated, because materials for repair were not available.

<sup>6</sup> See Davies, ed. (1984), table 9.8 on pp. 177–8 (the equivalent figure in Moorsteen and Powell (1966), 446, is too low, for reasons explained in table 9.8).

<sup>7</sup> Compare tables 9.8 and 9.9 in Davies, ed. (1984), 177–9.

much as 22.4 per cent in 1932;<sup>8</sup> and Gosplan stated in a confidential report that the growth of light industry in 1932 had been 'very insignificant'.<sup>9</sup> Official statistics also claimed that the production of small-scale industry increased slightly in 1932; but a later census indicated that production may have declined.<sup>10</sup>

The official figure for the increase of the gross production of Group A industries, 16.6 per cent, though exaggerated, is closer to reality. Some notable successes were achieved. The output of electric power rose by 26 per cent, and of coal by 13 per cent. The output of pig-iron, which had declined in 1931, increased by as much as 26 per cent now that major new blast-furnaces had come on stream. And while the production of ordinary rolled steel increased by only 3 per cent, that of quality steel rose from 422 to 683 thousand tons. Most quality steel was produced at the Krasnyi Oktyabr' works in Stalingrad and the antique but refurbished iron works of the Urals. In the Stalingrad works substantial investments since 1930 had transformed a long-established and somewhat old-fashioned plant into a relatively modern works serving the new tractor and tank industry. In the Urals, great efforts since the party decision of May 1930 to adapt existing capacity to modern production had bore fruit in the course of 1932.<sup>11</sup>

Other industries were less successful. The production of crude oil declined slightly; and the production of copper failed to increase. The resulting shortages were worsened by drastic import cuts, as a result of which Soviet consumers received lower quantities of rolled steel, iron and steel pipes, copper, zinc, lead and aluminium.<sup>12</sup>

<sup>8</sup> See Barsov (1969), facing p. 116; these estimates are in 1928/29 prices. I have slightly reduced Barsov's total for 1932 to correct for arithmetical errors.

<sup>9</sup> RGAE, 4372/31/33, 91 (dated January 25, 1933).

<sup>10</sup> The production of small-scale industry was reported in *SSSR v tsifrakh* (1934), 10, as 4,700 million rubles in 1931, 4,800 million in 1932 and 4,900 million in 1933. But the 1934 census, carried out after this figure was published, reported that the production of small-scale industry was only 3,694 million in 1933 (*Sots. str.* (1935), 30-1). The final figure for 1932 included in the official series was 4,500 million rubles; this seems to be without foundation.

<sup>11</sup> RGAE, 4086/2/43, 2-3, 6; for the decision of May 1930 to develop the Ural works, see vol. 3, 205-6.

<sup>12</sup> See Table 8 for non-ferrous metals. Rolled steel production increased by 129,000 tons (see Table 7(e)) but import declined by 404,000 tons (*Vneshnyaya torgovlya* (1960), 310, 343).

In spite of these restrictions, the engineering industries continued to expand.<sup>13</sup> Substantial increases took place in the production of tractors and lorries, including their engines, of boilers and generators, of machine tools and of armaments (see Tables 6(b) and (c)).

Whereas in 1931 most of the increase in production in capital goods production was achieved at old and reconstructed factories, in 1932 69 per cent of the increase took place at new factories, a first fruit of the huge projects started in 1929 and 1930.<sup>14</sup> To supply them with scarce materials, priorities were quite strictly enforced. To provide metal for the engineering industries, the production of roofing iron was cut by 37.4 per cent, and the production of rails was reduced in spite of the continued deterioration of the track.<sup>15</sup> Within engineering, the production of several major types of machinery was reduced.<sup>16</sup> But the full story of how significant advances were achieved in spite of the failure of several basic industries remains to be told.

### (C) LABOUR AND LABOUR PRODUCTIVITY

The rate of growth of the employed labour force declined from 30.0 per cent in 1931 to 17.7 per cent in 1932 (see Table 15(a)). But these annual average figures do not indicate the extent of the reduction in the rate of growth. In 1931 the labour force expanded throughout the year, and particularly in the second half of the year (see pp. 97–8 above); the annual average for 1931 was therefore substantially lower than the number employed at the end of the year. But in the course of 1932 numbers employed increased very slowly: in industry, the number of manual workers

<sup>13</sup> According to official Soviet statistics, the increase amounted to 25 per cent. This high figure is supported by Western estimates for civilian machinery: according to Nutter, using a rather small sample, the increase was 28 per cent (in 1928 prices); according to Moorsteen's much larger sample, the increase was 29 per cent (1937 price weights) (Nutter (1962), 525–6; Moorsteen (1962), 310).

<sup>14</sup> *Tyazhelaya* (1934), 147; for the definition of a 'new' factory, see p. 412, n. 25 below.

<sup>15</sup> *Chernaya metallurgiya* (1935), 56–8.

<sup>16</sup> These included various machines used in building; tractor-drawn ploughs and other agricultural implements; and sewing machines.

was even slightly lower in the last quarter than in the first quarter (see Table 16(c)). Thus the expansion of the employed labour force, which had continued ever since the early 1920s, had almost ceased. The number of seasonal workers declined substantially in 1932.<sup>17</sup> The attempt, strongly backed by Stalin, to replace the casual seasonal labour market by *orgnabor* ('organised recruitment') (see vol. 2, pp. 162–7; and pp. 70–1 above) had failed. Even on the largest construction sites the proportion of new workers taken on through *orgnabor*, after reaching a peak in November 1931, steadily declined thereafter.<sup>18</sup>

The increase of 17.7 per cent in the number employed was somewhat more rapid than the 11.2 per cent proposed in the 1932 plan.<sup>19</sup> But in previous years, in the course of the struggle to fulfil the plan, the labour plan was always considerably exceeded. In 1932, the crucial problem was the growing food shortage, which forced the state to impose a strict ceiling on the issue of ration cards. Without rations at state prices, peasants had little incentive to move to the crowded housing of the towns and building sites; in the summer of 1932 many factories and sites were finding it difficult to retain labour (see pp. 239–41 above). In the last months of the year, however, the situation was reversed. Peasants from the famine areas sought to migrate to the towns in search of food, but were kept out by government restrictions.

Living and working conditions further deteriorated in 1932, and there is much evidence of a serious decline in morale (see pp. 184–92 and 289–90 above). The authorities sought to encourage cheerfulness in face of adversity by renewing the socialist emulation campaign, culminating in an 'All-Union Shockworkers Day' on January 1, 1933.<sup>20</sup> In the spring of 1932,

<sup>17</sup> Panfilova (1964), 110–11; Sonin (1959), 182. The reduction was from 5.45 million in 1931 to 3.64 million in 1932. These figures refer to all seasonal workers, including both *otkhodniki* and those recruited by *orgnabor*, and include seasonal employment in agriculture and the timber industry. Seasonal workers in the non-agricultural sector are included in Table 15 (a), which is for full-time equivalents.

<sup>18</sup> For eight sites, the peak percentage was 48.9, and the percentage declined to 22.3 in March 1932; a similar trend was observed in a survey of the Moscow coal basin (P, August 5, 1932 – L. Ginzburg).

<sup>19</sup> Levin (1932), 140.

<sup>20</sup> ZI, December 27, 1932.

record coal output was achieved by the Donbass miner Izotov. Like most of his fellow-workers, he used a pick rather than a mechanical drill, and undertook his own propping.<sup>21</sup> Izotov's efforts launched the first nation-wide movement named after a worker. The more comprehensive khozraschet brigades, emphasising costs as well as production, also received extensive publicity. Their first All-Union conference was convened in March;<sup>22</sup> in July the trade unions adopted an elaborate 'Standard Statute for a Khozraschet Brigade'.<sup>23</sup> The authorities claimed that in 1932 35–40 per cent of industrial workers belonged to these brigades.<sup>24</sup> Official statistics also recorded a slight increase in the total number of workers involved in all kinds of shock-work and socialist emulation.<sup>25</sup> But all these official efforts could not reverse the collapse of enthusiasm. The number of proposals for improved work declined by as much as 43 per cent between October–December 1931 and the same months of 1932.<sup>26</sup> A confidential Gosplan report noted that the khozraschet brigades suffered from 'bad leadership', and that their records were in 'a thoroughly unsatisfactory state'.<sup>27</sup>

The indicators of labour efficiency worsened, or at best stagnated.<sup>28</sup> For the first time since the early 1920s the official figures showed a decline in labour productivity. In industry,

<sup>21</sup> P, May 11, 1932; see also Siegelbaum (1988), 53–61; Gershberg (1971), 107–31. Izotov achieved 4–5 times the norm, and earned 5–6 times the basic rate. In 1931 great efforts had been made to introduce the 'Kartashev-Kasaurov method', involving the intensive three-shift use of mechanical drills, but with indifferent results (ZI, February 22, 23, March 11, April 13, 1931; P, May 12, 1931; *Puti industrializatsii*, 11 [June] 1931, 6; B, 18, September 30, 1931, 46). In 1932 *Pravda* also supported a record-breaking machine-operator (P, May 11, 1932), but he was soon forgotten, and Izotov's mechanised equivalent, Stakhanov, did not appear until 1935.

<sup>22</sup> ZI, March 22, 23, 26, 1932.

<sup>23</sup> *Industrializatsiya SSSR, 1929–1932* (1970), 558–60, dated July 27.

<sup>24</sup> 39.1 per cent (April 1, 1932) (*Vypolnenie narodno-khoziaistvennogo plana*, June and January–June 1932, Trud, p. 4); 35 per cent (January 1, 1933) (Kul'chitskii (1979), 169–70) (both figures from trade union surveys).

<sup>25</sup> *Trud v pervoi pyatiletke* (1934), 54.

<sup>26</sup> *Ibid.* 65; the report claimed that the proposals, while smaller in number, were of higher quality . . .

<sup>27</sup> *Vypolnenie narodno-khoziaistvennogo plana*, June and January–June 1932, p. 7, Trud, p. 4.

<sup>28</sup> For labour turnover, absences and hold-ups, see *Sots. str.* (1935), 502.



where productivity was planned to increase by 22 per cent,<sup>29</sup> a decline of 4 per cent was reported.<sup>30</sup> The decline was even more rapid in the building industry (see note 33 below). On the railways, the labour force increased more rapidly than the amount of freight carried.<sup>31</sup> In the coal industry, in spite of Izotov, productivity declined by 11.4 per cent.<sup>32</sup>

#### (D) COSTS AND FINANCE

In 1932, costs continued to rise dramatically throughout the economy. In every branch of the state sector, money wages increased more rapidly than in 1931, even though productivity declined. According to the official record, costs rose by 5.8 per cent on the railways, 6.8 per cent in industry, and as much as 27 per cent in construction.<sup>33</sup> As in 1931 (see pp. 29–30 above), costs fell considerably (by 35 per cent) in the tractor and vehicle industry,<sup>34</sup> but rose in almost every other industry. In Group A

<sup>29</sup> Levin (1932), 104.

<sup>30</sup> Production of large-scale industry increased by 13.7 per cent (see Table 5(a)), but numbers employed increased by 18.2 per cent. The official index of productivity was later revised to show an increase of 2.6 per cent, but an index published by Varga in the Soviet Union showed a decline of 3.5 per cent; an independent Western estimate shows a decline of 8 per cent (Hodgman (1954), 113).

<sup>31</sup> Freight measured in ton-kms increased by 11.1 per cent; numbers employed increased by 15.7 per cent. Combined 'output' of passengers and freight increased by 18.3 per cent, owing to the large rise of 35.4 per cent in kms travelled by passengers, squeezed into overcrowded trains. (Table 15(a); Hunter (1957), 331, 357, 362.)

<sup>32</sup> Annual output per worker (estimated from data in *Sots. str.* (1935), 128).

<sup>33</sup> *Osnovnye pokazateli*, January–February 1933, 76–7 (for industry), 87 (for railway transport). The figure for industry is for Narkomtyazhprom (5.6 per cent) and Narkomlegprom (9.0 per cent) and covers the first 11 months; in Narkomsnab industry (food industry) costs rose by 9.8 per cent (12 months). These figures are underestimates, because they do not take the increases in input prices into account. Costs on the railways are for a weighted unit of freight ton-kilometres and passenger-kilometres. The figure for construction costs (*Stoimost'* (1935), 17–18) is based on data for 1,074 industrial sites spending 1,317 million rubles in 1932 on 'pure construction' (excluding equipment). Output per person declined by 5 per cent while wages increased by 17.8 per cent; the cost of building materials increased by 23 per cent and of administration by as much as 39 per cent.

<sup>34</sup> The cost of an International Tractor at the Stalingrad factory declined from 4,076 to 3,344 rubles, of an AMO lorry from 11,078 to 5,640 rubles (*Osnovnye pokazateli*, January–February 1933, 78–9).

industries, the increase was largest in the coal industry (+26 per cent), the oil industry (+19 per cent) and the iron and steel industry (+13 per cent). But costs also increased in all the consumer and food industries.

In 1932, as in the previous year, the failure of the costs reduction plan meant that the state budget had to meet additional expenditure on investment and operating costs. Budgetary expenditure on industry exceeded the estimates by 24 per cent, and was 60 per cent higher than in 1931.<sup>35</sup>

The state sought to deal with the growing financial crisis by drastic price increases. For the first time since the early years of NEP, urban retail prices in state and cooperative trade were increased substantially; and the amount of state 'commercial trade' at higher prices also greatly increased. In 1932 as a whole, the retail price index for all socialised trade rose between 44 and 88 per cent, depending on the index used, as compared with 26 per cent in 1931 (see Table 25(a)). In consequence, although retail trade in real terms declined in 1932, the revenue from turnover tax and related taxes exceeded the estimates, and was 66 per cent greater than in 1931.<sup>36</sup> As in previous years, the tax on vodka and other spirits was the largest item of revenue.<sup>37</sup>

These revenue increases were again insufficient to cover all the needs of the economy, and currency in circulation increased by

<sup>35</sup> See Table 22(b), which also shows the above-plan expenditure on the railways and other transport (see note i).

<sup>36</sup> In 1932, turnover of Narkomsnab and Narkomlegprom net of tax declined, and turnover tax increased from 46 per cent to 59 per cent of turnover (million rubles at current prices):

	1931			1932		
	Gross turnover	Turnover tax	Net turnover	Gross turnover	Turnover tax	Net turnover
Narkomsnab	11301	6229	5072	14306	9560	4746
Narkomlegprom	5693	1596	4097	7926	3633	4329

(estimated from data in *Otchet . . . 1931* (1932), 151, 154–7; *Otchet . . . 1932* (1932? [1933], 143; turnover tax in 1931 includes budget mark-ups (natsenki), later incorporated in turnover tax, and I have therefore included them in gross turnover in 1931).

<sup>37</sup> The value of the retail turnover of alcohol (in current prices) increased from 4,604 million rubles in 1931 to 7,243 millions in 1932 (*Otchet . . . 1931* (1932), 154–7; *Sovetskaya torgovlya v 1935* (1936), 66–7). The amount of turnover tax on alcohol in 1932 has not been published; in 1931 it amounted to 91 per cent of turnover (i.e. a mark-up of 900 per cent); in 1932, as tax rates had increased, the tax was certainly greater than 91 per cent of turnover.

some 50 per cent, considerably more rapidly than in 1931 (see Table 24).

These annual figures do not show the sharp change in policy which took place in the second half of the year. From July onwards, budgetary expenditure was restricted, and the financial screws were tightened throughout the economy. Allocations from the all-Union budget to the principal sectors of the economy increased in the first two quarters and then declined substantially (see Table 23). But inflationary pressures remained strong, particularly after even greater food shortages followed the 1932 harvest. This was indicated by the rapid increase in prices received by peasants on the free market, which more than doubled in the course of the year (see Table 25(b)).

### (E) THE DEFENCE SECTOR

1932 was the second year in which investment in the armaments industry, and armaments production, expanded extremely rapidly. The additional investment and production programmes approved in the first few months of 1932 were not achieved; nevertheless, armaments expanded more rapidly than any other industry.

The production of armaments, measured in 1926/27 prices, increased by over 70 per cent, and reached more than treble the 1930 level.<sup>38</sup> Aircraft and tank production increased most rapidly. In value terms, aircraft production increased by 177 per cent in 1932, and tank production, which did not begin until 1931, more than trebled in a single year (see Table 5(b)). But these were young and immature industries. The tank industry, previously scattered under various industrial corporations, was organised into a separate trust, Spetstrest, on November 17, 1932. The trust included four units: the Voroshilov factory, which was actually a department or shop located in the huge 'Bol'shevik' works in Leningrad; Factory No. 37 in Moscow; the Kharkov locomotive works; and Krasnyi Oktyabr', in Stalingrad, which had previously made spare parts for tractors. Both 'Bol'shevik'

<sup>38</sup> One report shows an increase of 72 per cent (RGAE, 4372/91/1824, 33); another report, measuring production in terms not of 1926/27 prices but of 'comparable costs', shows an increase of as much as 78 per cent (RGAE, 4372/91/2196, 1). Both these reports were prepared in January 1934; the figures exclude shipbuilding.

and No.37 began batch production of tanks in 1931.<sup>39</sup> The Kharkov factory, after experimental work on tanks in 1930–1, developed the production of the BT tank in association with the Kharkov tractor factory. To bring this about, its production of locomotives and diesels was reduced by more than 50 per cent.<sup>40</sup> Responsibility for achieving rapid conversion to tanks, and for expanding aircraft production, was assigned to members of the Politburo – Kaganovich in Moscow, Kosior in Kharkov and Kirov in Leningrad; and several thousand party members were mobilised to work in the key factories.<sup>41</sup>

Although they expanded rapidly, the aircraft and tank industries accounted in 1932 for only 32 per cent of armaments production, and employed less than a quarter of the labour force.<sup>42</sup> Most armaments production still consisted of traditional weapons produced at factories established before the revolution.

The number of workers in the industry increased by 25 per cent in 1932, expanding much less rapidly than armaments production. This slower rate of increase in the labour force was partly due to the reduction of the share of civilian goods in the total production of the industry,<sup>43</sup> but it was mainly a result of increased productivity. Productivity expanded particularly rapidly in the aircraft and tank industries, where (as in the tractor industry) the rapid increase in production enabled a sharp fall in the previously very high costs.<sup>44</sup>

<sup>39</sup> RGAE, 4372/91/1824, 17, 17ob, 16, 16ob; 4372/91/2196, 10; see also Cooper (1976), 13; Sutton (1971), 241. The former Kharkov motor-car assembly plant was added to the trust as a repair base in 1933. The Bolshevik factory began mass production of the T-26, a new model.

<sup>40</sup> RTsKhIDNI, 17/2/514, 107 (Ordzhonikidze); RGAE, 4372/91/2196, 10; *Skvoz' ognennye gody* (Kharkov, 1966), 107–29; *Istoriya Khar'kovskogo traktornogo zavoda*, i (Kharkov, 1960), 173. The factory became a major centre of the tank industry, and its design team was responsible for the T-34, a major Soviet tank in the second world war.

<sup>41</sup> RTsKhIDNI, 17/2/514, i, 124–5 (Voroshilov).

<sup>42</sup> The aircraft industry employed 59 thousand workers, and the tank industry 24 thousand, out of a total of 349 thousand (RGAE, 4372/91/1824, 11, 17, 17ob, 33).

<sup>43</sup> See SS, xlv (1993), 596 (Davies).

<sup>44</sup> Output of the tank industry per worker increased from 6,088 rubles in 1931 to 8,424 rubles in 1932; the equivalent figures for the aircraft industry are 4,298 and 5,717 rubles; these figures include the civilian production of the industries (estimated from data in RGAE, 4372/91/1824, 11, 17, 17ob).

In addition to armaments produced by the defence industry proper, civilian enterprises continued to be converted to armaments production in 1932. Thus the tank industry proper was supported by a number of civilian factories, including the Gorky (Nizhnii Novgorod) automobile works, the Kharkov tractor factory, and the Putilov works in Leningrad. The Putilov works produced 18,800 tractors in 1931, but the number fell to a mere 4,500 in 1932, partly as a result of the conversion to tank production.<sup>45</sup>

Capital investment in the armaments industry, measured in current prices, increased by 57 per cent in 1932, representing an increase in real terms of over 25 per cent. Investment in the aircraft and tank industries almost doubled, and together they absorbed one-third of all investment in the armaments industries.<sup>46</sup> Construction work for Narkomvoenmor increased even more dramatically, by as much as 245 per cent, an increase of perhaps 150 per cent in real terms, and underwent a sharp change of direction. In 1931 the repair and construction of barracks, housing and military stores absorbed three-quarters of Narkomvoenmor expenditure on construction; only 25 per cent was allocated to directly military construction – mainland and coastal defensive works, and naval and air bases. In 1932, while more barracks and other services were built to cope with the increase of 90 thousand in the number of army personnel, more than half of total expenditure was allocated to directly military construction, a substantial proportion of this in the Far East.<sup>47</sup> Taken together, investment in the armaments industries and in construction for Narkomvoenmor accounted for about 9 per cent of all investment in 1932, as compared with 5 per cent in the previous year.

<sup>45</sup> For tractor production, see Dodge (1960), 608–14; for the conversion to tank production, see pp. 170–1 above, and RTsKhIDNI, 17/2/514, i, 107, where Ordzhonikidze claims, with some hyperbole, that tractor production at the Putilov works, amounting to 36,000 tractors a year [presumably the 1933 plan or the planned capacity] was ‘cancelled’. The British Embassy noted the development of shadow munition shops in civilian establishments such as the Moscow bicycle factory (BDFA, IIA, xvi (1992), 467–9 – Annual Report for 1932).

<sup>46</sup> Estimated from data in current prices in RGAE, 4372/91/2527, 6; 4372/91/2196, 9.

<sup>47</sup> RGAE, 4372/91/2527, 16, 13. Expenditure on construction within the Narkomvoenmor budget increased as follows (million rubles at current prices):

The unprecedented increase in the military budget by about 120 per cent in 1932, measured in current prices, was not shown at all in the published figures (see Table 22(b)).<sup>48</sup> Expenditure on armaments and construction accounted for as much as four-fifths of the increase. The third major item of expenditure was 'maintenance (soderzhanie)', which included army pay and food, and uniforms. This increased by 76 per cent; but this did not represent a substantial real increase. It must mainly have been absorbed by increases in army pay, and by the greatly increased cost of food and other goods.<sup>49</sup>

### (F) FOREIGN TRADE

Following the payments crisis at the beginning of 1932 (see pp. 118–22 above), the drastic actions of the authorities greatly improved the balance of trade in the course of 1932. Foreign trade was frequently on the Politburo agenda. The achievement of a balance of payments surplus was constrained by the existence of a backlog of orders committing the Soviet Union to imports in

	1931	1932	1933
1. General (barracks, etc.)	196	437	320
2. Land and coastal defence	16	204	119
3. Special naval work	5	27	46
4. Aviation work (aerodromes, etc.)	43	230	194
Total	260	898	678

In 1932 130 million rubles, or 56 per cent, of items 2 and 3 were allocated to the Far East. For developments in the Far East, see ch 9(c) above.

The figure for 1933 is apparently a planned figure; finance actually provided is given as 620 million rubles, and work carried out (ob"em) at 532 million, in RGAE, 4372/91/3217, 3.

<sup>48</sup> Actual expenditure on Narkomvoenmor was variously given as 1,790 and 1,852 million rubles in 1931 and 4,308 and 4,034 million rubles in 1932 (see SS, xlv (1993), 593 and – for the second, later figures – GARF, 8418/10/148, 5).

<sup>49</sup> For the breakdown of the Narkomvoenmor budget, see SS, xlv (1993), 593 (Davies); the figures listed there as 'Consumption' appear in other sources as 'Maintenance', and include pay (for example in RGAE, 4372/91/2527, 11–10). The extent of the increase in the prices charged to the armed forces for food and uniforms is not known.

1932, and of payments for imports supplied on credit. And the urgent need for imports to sustain essential industries led to *ad hoc* decisions overruling the restrictions of the monthly and quarterly plans.<sup>50</sup> Imports, at some 700 million rubles, eventually exceeded the plan by 14 per cent, while exports were 18 per cent lower than planned (see p. 156 above and Table 13(a) and (c)). In consequence, the planned foreign trade surplus of 88 million rubles was not achieved. But the foreign trade deficit, at 129 million foreign-trade rubles, was substantially smaller than in 1931, as was the balance of payments deficit. In October–December 1932 exports exceeded imports for the first time in two years (see Table 13(d); and vol. 3, table (13(a))).

The reduction in the foreign trade deficit was achieved solely by a drastic reduction in imports, amounting to 27 per cent in real terms. Imports of tractors and other agricultural machinery, and of vehicles, virtually ceased. Imports of chemicals were reduced by over 80 per cent. And in spite of the acute shortage of metals, imports of rolled steel were reduced by 31 per cent, of copper by over 50 per cent. In contrast, imports of industrial equipment – including machine tools, and equipment for the iron and steel industry – were on the whole maintained at the 1931 level.<sup>51</sup> Cuts were also made in invisible imports in the form of payments in foreign currency to Western specialists working in the Soviet Union.

The cuts fell almost entirely on imports from the United States, following a telegram from Stalin to the Politburo in which he stated that ‘I oppose any new orders in America in view of currency difficulties and unacceptable conditions’, and called for ‘the cancelling of all previous Politburo decisions contradicting this decision’.<sup>52</sup> Soviet politicians, and the more influential specialists, regarded United States products as technically more

<sup>50</sup> Thus on August 16 the Politburo authorised an increase in the payments for non-ferrous metals from 68 to 71 million rubles (RTsKhIDNI, 17/162/13, 66 – item 18).

<sup>51</sup> See Table 8; and *Vneshnyaya torgovlya* (1960), 301–67. Exceptionally the import of equipment for power stations and the electrical industry was substantially reduced.

<sup>52</sup> Telegram approved by the Politburo at its session of August 25, 1931 (RTsKhIDNI, 17/162/10, 173 – item 22). Stalin proposed ‘not to make any exceptions from this rule either for Magnitostroi or Kuznetskstroï, or for Khar’kovstroï, Dneprostroi, AMO [Moscow vehicle works] and Avtostroi

progressive than European, but the United States took few Soviet exports, offered no new credits, and still failed to recognise the Soviet government. In 1931, the United States supplied 21 per cent of Soviet imports; in 1932, the proportion fell to a mere 4.5 per cent, while the German share rose from 37 to 47 per cent. The only other major country whose share of exports to the Soviet Union increased was the United Kingdom. (See Table 13(f).)

The Soviet Union achieved some success in its efforts to increase industrial exports. Gold exports, which do not form part of the published statistics, were somewhat lower than in the previous year; but still exceeded gold production.<sup>53</sup> Great efforts were also made to sell antiques and works of art abroad, with only a small effect on the balance of payments.<sup>54</sup> Greater success was achieved with manufactured goods and raw materials. The Soviet Union produced textile lengths, metal goods, china and glass at special enterprises earmarked for export, and exports of all these items increased in 1932. The exports of many materials increased in real terms, including asbestos, coal, chromite, asphalt and apatites, and the traditional export of oil and furs.<sup>55</sup> The British Embassy in Moscow noted the increased industrial processing of some exported materials. A higher proportion of

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[Nizhnii-Novgorod vehicle works]'. But the Politburo was later informed that existing deals in the US could not be cancelled (RTsKhIDNI, 17/162/11, 2 – decision of September 10, 1931, no. 14/45); and technical necessity led to certain exceptions being made in the ensuing period (e.g. equipment ordered in the US for the Chelyabinsk tractor factory – RTsKhIDNI, 17/162/11, 121, decision of January 13, 1932, no. 22/15; equipment to make tunnel for Moscow Metro – RTsKhIDNI, 17/162/12, 147, session of May 23, 1932, item 13).

<sup>53</sup> Gold exports amounted to 69 tons (89 million rubles) (Dohan (1969), 843, 853). Production was planned at 69 tons, but amounted to only 29 tons in January–September; on October 27 Sovnarkom estimated that annual production would amount to 40 tons 'at most' (52 million rubles) (GARF, 5446/57/21, 31–6 – art. 1648/338ss).

<sup>54</sup> On December 10, 1932, Sovnarkom reported that the sale of antiques had realised only 2.8 million rubles, and approved a very long list of antiques and works of art to be sold abroad, from tea services and books to a XIV-century shield (GARF, 5446/57/21, 125–62 – art. 1833/381ss). In the course of 1932 the Politburo authorised the auctioning of 150 Rembrandt drawings in Germany, the sale of paintings by Rembrandt and Poussin, and of contemporary Russian paintings (RTsKhIDNI, 17/162/11, 187 – session of February 23, item 1; 17/162/12, 183 – decision of June 14, no. 73/15; 17/162/13, 43 – decision of July 23, no. 66/32; 17/162/14, 25 – decision of December 7, no. 27/21).

<sup>55</sup> BP (Prague), ciii, April 1933, 12.



furs were dressed and dyed within the USSR, and standard timber increasingly replaced bulk timber.<sup>56</sup>

But these successes were outweighed by the decline in agricultural exports. Grain exports amounted to only 1,819,000 tons, less than one-third of the export in the previous year (see Table 13(b)), as compared with the ambitious export plan of 6,235,000 tons.<sup>57</sup> Moreover, the international terms of trade continued to turn against agricultural goods and raw materials. Exports of agricultural products other than grain increased by as much as 62 per cent in real terms, but earnings from them nevertheless declined. The Soviet balance of trade suffered from the joint impact of the internal agricultural crisis and the world crisis of agricultural overproduction, which drastically reduced Soviet earnings from agricultural exports squeezed from a hungry population.

<sup>56</sup> BDFA, IIA, xvi (1992), 489 (Annual Report of 1932). The Report noted that the low price of Soviet industrial goods 'renders them attractive in the oriental markets for which they are intended'.

<sup>57</sup> For the plan, see RTsKhIDNI, 17/162/11, 128, 131–54 (Politburo session of January 16, 1932, item 17).

## CHAPTER TWELVE

# THE JANUARY PLENUM AND THE 1933 PLAN

By the beginning of 1933 the annual control figures had not yet been published; and no directives had yet been agreed for the second five-year plan, due to commence on January 1. Many foreign observers were convinced that disaster was overhanging the Soviet economy. The Commercial Counsellor at the British Embassy in Moscow believed that 'the Soviet leaders now in power may not be there two years hence',<sup>1</sup> while the British Ambassador even entertained the possibility that the Soviet Union would collapse.<sup>2</sup> The Soviet leadership rallied its supporters by a celebration of its achievements and declaration of faith in the future. The first item on the agenda of the plenum of the party central committee, which met from January 7 to 12, 1933, was boldly entitled 'The Results of the First Five-Year Plan, and the National-Economic Plan for 1933 – the First Year of the Second Five-Year Plan'. It was introduced by three reports from senior members of the Politburo: Stalin, Molotov and Kuibyshev. The plenum received the publicity normally afforded to a party conference: the three reports and several other speeches appeared in *Pravda* and other newspapers within a few days.<sup>3</sup>

Immediately before the plenum, on January 5, 1933, Sovnarkom adopted confidential decrees on the 1933 state budget and economic plan.<sup>4</sup> The capital investment prescribed in the decree on the economic plan conformed to the Politburo decision of December 3 (see p. 297 above). The decree on the

<sup>1</sup> Woodward and Butler, eds (1958), 294 (memorandum of December 12, 1932).

<sup>2</sup> Ovey to Vansittart, March 19, 1933 (Woodward and Butler, eds (1958), 338).

<sup>3</sup> The three reports, and Ordzhonikidze's speech, appeared in the press with only minor changes as compared with the printed stenographic report in the archives, and are cited here from the published versions. The other speeches at the plenum are cited from the archives. Abbreviated versions of Bukharin's and Tomsy's speeches appeared in P, January 14, 16. The published version of Bukharin's speech combined his two speeches at the plenum.

<sup>4</sup> GARF, 5446/1/71, 31–63 (arts. 22 and 23).

state budget prescribed that defence expenditure would amount to 1,450 million rubles, and this figure was eventually published.<sup>5</sup> But a secret appendix to the decree provided that the actual allocation to Narkomvoenmor would amount to 4,718 million rubles.<sup>6</sup> While more than treble the published allocation, this was a further reduction as compared with the secret Politburo decision of December 3, and only 10 per cent above the expected expenditure in 1932.<sup>7</sup>

On the first day of the plenum, Stalin, in his first major speech since June 1931 (see pp. 70–6 above), delivered a lengthy address on the results of the five-year plan.<sup>8</sup> Mocking bourgeois newspapers which had dismissed the plan as a Utopian fantasy, Stalin claimed that *'the successes of the five-year plan have mobilised the revolutionary forces of the working class of all countries against capitalism'*. It had transformed the USSR from a 'powerless agrarian country' into 'a powerful country standing fully on its own feet and independent of the caprices of world capitalism'. Agriculture as well as industry had been reconstructed on a socialist basis, and all conditions had been established for a strong defence capacity. In launching the plan, the party had decided that the 'main link' in the chain, pulling the rest of the economy behind it, must be 'heavy industry and its central core, machine building'. Stalin claimed that the success of this policy, in spite of the high cost of carrying it out on internal resources, was 'greater than the most impetuous members of our party could have expected', and praised the triumph of industrialisation in tones reminiscent of his famous vow at Lenin's funeral nine years earlier:

We had no iron-and-steel industry, the foundation of the industrialisation of our country. We have one now.

We had no tractor industry. We have one now.

We had no automobile industry. We have one now.

<sup>5</sup> The true defence figure appeared only in top-secret decrees, not in confidential decrees.

<sup>6</sup> GARF, 8418/8/137, 11–12. In addition, expenditure on special, convoy and OGPU armies, military industry, defence measures in civilian industry, 'mobilisation stocks' (mobzapasy) and design bureaux was estimated at 1,910 million rubles, 6,628 millions in all.

<sup>7</sup> Expenditure in 1932 eventually amounted to 4,034 million rubles (see Table 22(b)), so the 1933 plan represented an increase of 16 per cent.

<sup>8</sup> P, January 10, 1933; Stalin, *Soch.*, xiii (1951), 161–215.

We had no machine-tool industry. We have one now. We had no serious and modern chemical industry. We have one now.

We had no real and serious industry for producing modern agricultural machines. We have one now.

We had no aircraft industry. We have one now.

In the production of electric power we were at the bottom of the list. Now we have moved up towards the top.

In the production of oil products and coal we were at the bottom of the list. Now we have moved up towards the top.

The Soviet Union had established a new coal and metal base in the East – ‘the pride of our country’. New textile bases were also being constructed. These vast new industries had been created on a scale and in amounts which outranked European industry. Stalin admitted that in the course of four years industrial production had reached only 93.7 per cent of the amount planned for the fifth year of the plan, but claimed that this lag was due to the switch of a number of factories to the production of armaments in 1932.<sup>9</sup>

Stalin justified the priority given to heavy industry rather than consumer goods entirely on the grounds that the alternative would have left the USSR ‘unarmed in the face of the capitalist encirclement, which is armed with new technology’:

Our position would then have been more or less analogous to the position of present-day China, which does not have its own heavy industry, and its own armaments industry, and is nibbled at by anyone who feels like it.

The Soviet Union had been ‘threatened with mortal danger’. In these circumstances, Stalin declared in a memorable phrase, ‘the party as it were whipped up the country, spurring it on’.

Stalin impugned critics at home and abroad. According to Stalin, some ‘strange people’, who were ‘envious of the laurels of Herostratus’, argued that kolkhozy and sovkhozy should be

<sup>9</sup> This figure is discussed on pp. 467–8 below. According to Voroshilov, Stalin also ‘stated in his report that we did not have a tank industry and now we have one’ (RTsKhIDNI, 17/2/514, i, 124); this statement does not appear in the published version of the report.

dissolved if they did not become profitable immediately; but such an action would be a 'very serious crime'. This was obviously a reference to Ryutin and his associates. According to Stalin, foreign correspondents in Moscow who argued that the material position of workers and peasants was not improving knew as little about the matter as 'the King of Abyssinia knows about higher mathematics'. And as for economists from capitalist countries who claimed that Soviet currency was valueless without a sufficient gold stock, 'they understand no more about political economy than the Archbishop of Canterbury understands about anti-religious propaganda' – Soviet currency had supported Magnitostroi and other projects, and was backed by all the goods owned by the state.

In the final section of his speech Stalin praised the success of the plan in driving out capitalism from the economy, but reiterated his notorious proposition that this success was bound to lead to the further intensification of the class struggle. He warned the plenum that remnants of the defeated classes had crept into factories, offices and farms, and even into the party. Unable to attack Soviet power directly, they had engaged in 'stealthy sabotage'. Stalin condemned as 'counter-revolutionary' the theory that the class struggle was dying out, and insisted that it was necessary to strengthen state power to the maximum. His final sentence again stressed the importance of standing firm in times of trouble:

The results of the five-year plan have shown that the Communist Party is invincible if it knows where it is going, and is not afraid of difficulties.

Stalin's report contained many fallacies. He ignored the over-ambitious revision of the plan approved by the XVI party congress in 1930. He exaggerated the progress of industry even in terms of the 1929 version of the plan. He attributed the underfulfilment of the plan solely to the switch to defence production, even though production lagged far behind the plan before this switch occurred. He shamelessly asserted that the material position of the people had improved at a cruel time of hunger and deprivation. Yet his report was not merely hollow boasting. Those great half-finished factories would soon be transformed into a triumph for Stalin and for Bolshevism. Stalin's

presentation of the crucial role of the party in the great struggle for industry and socialism was in tune with the feelings of party activists; and his re-emphasis on the doctrine of the intensification of the class struggle provided a justification for the pragmatic acts of repression which it fell to their lot to carry out.<sup>10</sup>

Stalin's bold claims of economic achievement provided the framework, or rather the cover, for a long overdue revision of policy. In the summer of 1932 Stalin argued in an unpublished letter that the 'passion for mastering (ovladienie) production' should be added to the 'passion for construction'. At the January plenum, what was previously a sub-theme was now treated as the key to successful development. A leading *Pravda* journalist has recalled that Zavenyagin, a prominent Soviet-trained engineer, appointed at an early age as a deputy head of the iron and steel industry, told him at that time:

Assimilation (osvoenie)? That's the key! It is a necessary and inevitable change of direction (povorot) in our policy. It is our future, our perspective. Just before the plenum Sergo [Ordzhonikidze] and I were with comrade Stalin. He asked what I thought was the main thing in industry. I answered: 'assimilation'. He tried to push me in different directions, asked me about the importance of supply, transport and personnel, and like a Humpty-Dumpty I kept coming back to my point of view, and insisted: 'assimilation'.<sup>11</sup>

In his report to the plenum Stalin linked the problem of assimilation to his call for a slower future pace of industrialisation. He claimed that the economy had been provided with a modern technological base and that defence capacity was now adequate. It was no longer necessary to 'whip and spur on the country'. In any case the assimilation of 'dozens and hundreds of new large factories' required more time for training and for the acquisition of new working habits:

<sup>10</sup> For Stalin's 1928 announcement of the doctrine of intensification of class struggle, see vol. 1, p. 400.

<sup>11</sup> Gershberg (1971), 199–200; on January 12, Yaroslavsky instructed the *Pravda* editorial team that 'this is a matter of change of direction, a real change of direction in the policy of industrialisation' (Gershberg (1971), 197). For Stalin's earlier statement, see Ordzhonikidze, ii (1957), 421.

Even if we wanted to we could not carry out during the second five-year plan, especially in the first two or three years . . . , a policy of accelerating rates of growth to the maximum . . .

During the first five-year plan the annual increment to industrial production was on average 22%. I think that for the second five-year plan it is appropriate to take an average annual increment to industrial production of 13–14% as a minimum.

The passion for construction must be complemented by concentrating on ‘enthusiasm and passion for *assimilation* of new factories and new technology, a serious improvement of labour productivity, a serious reduction in costs’.<sup>12</sup>

Five weeks before the plenum, on December 3, 1932, a Gosplan internal memorandum had already proposed an annual rate of increase in 1933–7 of only 14 per cent (see p. 300 above). In draft resolutions for the plenum, alternative rates of ‘12–16 per cent’ and ‘approximately 14 per cent’ were suggested. In Stalin’s copy this was amended in his handwriting to ‘approximately 13–14 per cent’, and this figure appeared in the resolution approved by the plenum.<sup>13</sup> Stalin refrained from mentioning that the rate of growth of industrial production planned for 1931, and at that time expected to continue indefinitely, was as high as 45 per cent (see p. 1 above). Even a year earlier the planned annual growth-rate for the second five-year plan was ‘at least 20 per cent’.<sup>14</sup> The new figures implied a drastic reduction of the production plans; these were now more compatible with the investment plans (see pp. 138 and 300 above).

On January 8, the day after Stalin’s report, Kuibyshev presented a detailed if exaggerated account of the ‘technical reconstruction’ of the economy during the first five-year plan, contrasting the enthusiasm for technical advance in the USSR with the ‘cursing at technology’ which was a cliché in capitalist countries.<sup>15</sup> On the same day Molotov reported on the plan for 1933.<sup>16</sup> While still over-optimistic, the 1933 plan was much more

<sup>12</sup> *Soch.*, xiii (1951), 185–6.

<sup>13</sup> See Khlevnyuk and Davies (1993), 31.

<sup>14</sup> *XVII konf.* (1932), 162 (Kuibyshev).

<sup>15</sup> P, January 13, 1933.

<sup>16</sup> The figures on the 1933 plan were repeated without alteration from a Gosplan submission to Sovnarkom dated December 31, 1932 (despatched on

modest than its predecessors. Molotov admitted that industrial production, planned to increase by 36 per cent in 1932, had achieved a mere 8.5 per cent. For 1933, the increase was planned at 16.5 per cent (this was the lowest annual plan for many years; the original version of the 1933 plan proposed an increase of 23 per cent – see p. 247 above). The production plan would be achieved with a mere 2 per cent increase in the industrial labour force; the total number of employed persons in the economy would decline.<sup>17</sup> Total capital investment, at 18 milliard rubles, would be slightly higher than in 1932 (this statement revealed that capital investment had been much less than the plan of 24.3 milliard rubles, even without any allowance for increased costs). Investment in industry, however, would increase by about 10 per cent, and within this total the increase in the consumer goods industries would be as much as 48 per cent. As in previous years, Molotov stressed that a reduction in costs was imperative, but admitted that this would be difficult to achieve in view of the large cost increases which had taken place in 1932.<sup>18</sup>

Molotov had read Trotsky's article of October 1932, and condemned his proposal to delay the five-year plan by one year, and his unfortunate phrase that 1933 should be 'a year of capital repair'. 'We stand on the road of the attack', Molotov proudly replied to Trotsky. Other speakers at the plenum, including Kuibyshev, Rudzutak and Ordzhonikidze, also strongly criticised Trotsky.<sup>19</sup> In this spirit Ordzhonikidze rejected proposals to reduce investment and to moth-ball investment projects, and insisted that 'in 1933 the huge expansion of capital construction will continue'. On the vexed question of the Lipetsk works (see p. 295 above), he assured the regional party secretary: 'cde. Vareikis, we must complete not one but two blast-furnaces this year'. Ordzhonikidze also condemned 'chatter-boxes' who claimed that the new iron and steel plants should have been completed before the new engineering factories.<sup>20</sup>

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January 3, 1933 (RGAE, 4372/31/33, 4–8)). This was supported by a detailed breakdown of the plans in other documents (for example, on capital investment see RGAE, 4372/30/28, 48–6).

<sup>17</sup> The figures for industry were for the four industrial commissariats.

<sup>18</sup> P, January 12, 1933.

<sup>19</sup> For Rudzutak's speech, see P, January 26, 1933 (speech of January 9).

<sup>20</sup> P, January 22, 1933; Ordzhonikidze, ii (1957), 429–45 (speech of January 10).



Ordzhonikidze also devoted much attention to the armaments industries, praising the new tanks and aircraft which had been displayed at the November celebrations.<sup>21</sup> Voroshilov presented the main account of the development of the armaments industries during the five-year plan. Explaining that the Politburo had discussed defence regularly and constantly, he praised the advances in armaments production:

The completion of the first five-year plan . . . has made it possible for the party and the government to improve colossally the defence capacity of the country and to change fundamentally the technical equipment and armament of the Red Army. In consequence, in its technical capacity it has joined the first rank, together with the advanced capitalist armies.

Voroshilov claimed that the design and production of machine guns, rifles and artillery were well advanced; and that on the basis of the engineering and tractor industries, 'we have succeeded in these four years in fully mastering the tank as a contemporary weapon, both in production and in the army'. He acknowledged that the aircraft industry, while much improved, was still far behind modern technology, but insisted that it would reach the world level during the next few years. Considerable efforts had been devoted to the navy, and the fruits of these efforts would ripen in the course of the second five-year plan. Overall, payments for armaments now amounted to 1012 per cent of the 1927/28 level. Voroshilov displayed a diagram showing that the production of aircraft, tanks and other armaments, from a lower base, was expanding more rapidly than in other countries.<sup>22</sup>

<sup>21</sup> RTsKhIDNI, 17/2/514, i, 107–8; see also p. 311 above. These passages did not appear in the published version of his speech.

<sup>22</sup> RTsKhIDNI, 17/2/514, i, 121–8; the figure for expenditure on armaments excluded capital investment. When the diagram was displayed, Ordzhonikidze called out ironically: 'Give this to Litvinov, it's suitable for Geneva. (*Laughter*)' – a reference to the figures which Litvinov was required to present to the League of Nations during the world disarmament negotiations. What figures should be presented had been examined by the Politburo on June 8 and 16, 1932 (RTsKhIDNI, 17/3/887, 7, item 32; 17/3/888, 14). The figures for 1931 transmitted to the League of Nations appear in *Dokumenty vneshnei politiki*, xiv (1968), 280–1; they equal the defence item of the state budget for 1931, but are a very considerable underestimate (see pp. 117–18 above). Voroshilov's report to the Moscow garrison, based on his speech at the plenum, but with important passages omitted, appeared in P, January 24, 1933.

An apparently light-hearted exchange between Stalin and Ordzhonikidze about the armaments industry revealed the pressure for resources exerted by Tukhachevsky behind the scenes:

*Stalin:* And to Tukhachevsky it's all very little. (*Laughter.*)

*Ordzhonikidze:* Everything is little to him.

But we can say to comrade Tukhachevsky the following: when we need to move these weapons to the front, we will give the Red Army as much as it needs. (*Prolonged applause.*)<sup>23</sup>

Tukhachevsky had good grounds for the disquiet attributed to him at the plenum. Following the enormous increase in the secret defence budget in 1932 (see p. 313 above), the increase of 10 per cent planned for 1933 was insufficient even to cover the increased cost of pay and maintenance. The sums made available for the purchase of armaments were smaller than in 1932, and construction within the defence budget was reduced by 25 per cent.<sup>24</sup> The plan for investment in the armaments industries, which was financed separately, was also reduced by 15 per cent, even though investment in industry as a whole was planned to increase slightly.<sup>25</sup> While the armaments industries were now producing at a far higher level than in 1931, they had suffered a serious setback.

While the discussion at the plenum was largely celebratory, the crisis in the country was not ignored. In a striking speech, Grin'ko frankly admitted that during the 'stormy course' of the five-year plan, 'we put huge demands on currency circulation and our ruble, meeting the lack of resources at its expense'. Grin'ko admitted that the idea that devaluation and currency reform were required was 'fairly widespread' among both party and non-party managers, and was the subject of 'whispers and talk in the corridors'; he had received 'quite a number of letters' proposing schemes for replacing the old currency by a new one. But he firmly insisted that all these 'rumours and ideas' were

<sup>23</sup> RTsKhIDNI, 17/2/514, i, 108. In the course of his speech Voroshilov claimed that Tukhachevsky 'has no grounds to feel dissatisfied' (*ibid.* i, 123).

<sup>24</sup> RGAE, 4372/91/2527, 11; 4372/91/3217, 4.

<sup>25</sup> For the defence industries (listed as 'other' industry), see GARF, 5446/1/71, 62-3 (art. 23, dated January 5, 1933); for industry as a whole, see *KPSS v rez.*, iii (1954), 185.

'fundamentally incorrect and absolutely harmful'. Instead the economic plan for 1933 would withdraw 1,000–1,500 million rubles from circulation, and 'create conditions to make a big improvement in currency circulation'.<sup>26</sup>

An enthusiastic resolution approved the report on the first five-year plan and the directives for the 1933 plan, and incorporated Stalin's cautious approach to the second five-year plan (with the minor variation that the average rate of growth of industry in 1933–7 was now put at 'approximately' rather than 'a minimum' of 13–14 per cent). The target for pig-iron production in 1933 was 9 million tons, the same as in 1932.<sup>27</sup> A further section of the resolution insisted that in 1933 labour productivity and production costs would be 'the priority criteria in evaluating the work of every enterprise and trust'.<sup>28</sup> Hopes of improving productivity and lowering costs must by this time have seemed pious and forlorn to Soviet managers: Ordzhonikidze admitted later in January that 'questions of cost have remained outside the field of vision of our managers'.<sup>29</sup> But managers soon discovered that costs and productivity were now being taken very seriously.

The announcement of more realistic plans at the plenum was accompanied by a very firm emphasis on the need for discipline throughout the economy. Many speakers insisted on the inviolability of the grain collection plan; and the plenum, after a report from Kaganovich, approved the establishment of political departments in MTS and sovkhozy.<sup>30</sup>

The final sessions of the plenum, held on January 12, were devoted to 'the anti-party grouping of Eismont, Tolmachev, A. P. Smirnov and others'. In his opening report, Rudzutak sought to demonstrate that they constituted a definite political group opposed to the Politburo and to Stalin personally; they were not 'drunken chatterers' but 'a group of political enemies'.<sup>31</sup> Eismont and Tolmachev were already under arrest (see p. 254 above), and the main fire was directed at Smirnov. Smirnov, chronically

<sup>26</sup> RTsKhIDNI, 17/2/514, i, 95. This speech was not published.

<sup>27</sup> In fact only 7.1 million tons were produced in 1933.

<sup>28</sup> *KPSS v rez.*, iii (1954), 174–87 (dated January 10).

<sup>29</sup> Ordzhonikidze, ii (1957), 455 (speech at Donetsk party provincial committee, January 31, 1933).

<sup>30</sup> *KPSS v rez.*, iii (1954), 187–98 (dated January 11); this resolution will be discussed in a later volume.

<sup>31</sup> RTsKhIDNI, 17/2/514, ii, 41–5.

ill, and on his own account suffering at the time of the plenum from influenza and continuous headaches, was brought to the plenum against his will,<sup>32</sup> the scene is reminiscent of the Moscow party plenum reluctantly attended by the sick Eltsin at Gorbachev's bidding in December 1987. Smirnov indignantly denied that he had called for the removal of Stalin. He agreed, however, that he had mistakenly criticised the methods used in the collectivisation of agriculture, and had engaged in 'unpleasant conversations, nothing more . . . I spoke with these comrades incorrectly on certain questions, in a manner which was clearly non-party, and that gave them a pretext for considering me a fellow-thinker'. Smirnov did not complete his speech, declaring pathetically 'I can't speak, my head aches. I've got muddled.' But before he sat down Molotov wrung a further admission from him:

*Molotov:* Was it right to arrest Eismont and Tolmachev?

*Smirnov:* Yes, if they did that, absolutely right.<sup>33</sup>

Much was made at the plenum of a six weeks' hunting holiday which Smirnov spent with Tomsy and V. V. Shmidt, former People's Commissar for Labour and recently head of the State Arbitration service; the holiday took place at the time of the September 1932 plenum, and the trio apparently failed to inform the plenum about their absence. At the January 1933 plenum, Shmidt denied, amidst protests from his listeners, that political conversations had taken place during the holiday.<sup>34</sup> Tomsy, who was also frequently interrupted, claimed that Smirnov had been so bad-tempered on the holiday that it was impossible to talk to him properly. He admitted, however, that Smirnov had criticised the poor cultivation of the land, especially in Ukraine, and the policy towards livestock, but argued that these 'were not political conversations in the normal understanding of the word'. Tomsy also admitted or alleged that Eismont, who visited them, had used Smirnov's chuntering for political purposes:

Foma [i.e. Smirnov] talked, Foma grumbled, and Eismont began to turn this into a cause, to recruit supporters.<sup>35</sup>

<sup>32</sup> *Ibid.*, ii, 55 (Smirnov), 67 (Voroshilov).

<sup>33</sup> *Ibid.*, ii, 55–7.

<sup>34</sup> *Ibid.*, ii, 48.

<sup>35</sup> *Ibid.*, ii, 51–2.

Smirnov and his associates were attacked in a style previously reserved for Trotskyists. Several speakers indicated that any kind of critical conversation about party policy and party leadership was now impermissible. One speaker complained: 'If you want to hear repulsive anecdotes about the work of the party, sit in the Sovnarkom dining-room'; and Shkiryatov, a close associate of Stalin, bluntly insisted that 'anecdotes against the party are agitation against the party', reminding the members of the plenum that 'in the old days we struggled against tsarism and told anecdotes so as to disrupt the authority of the existing system'.<sup>36</sup>

In their speeches at the plenum both Rykov and Bukharin strongly praised Stalin's leadership. In the debate on the five-year plan Bukharin declared that 'the historically-established leadership of our party headed by cde. Stalin, that energetic, iron figure, has wholly earned itself the right to lead the whole future process'.<sup>37</sup> In the debate on the 'anti-party group' he emphasised the need for party unity in circumstances in which part of the new working class was subject to petty-bourgeois influences, and some groups in the kolkhozy were under kulak influence. He argued that while the immediate danger from abroad had lessened, 'the general international situation is such that any couple of weeks may bring an extremely unfavourable downturn'. Criticisms of a 'barracks regime' must therefore be rejected:

*we are now in battle, and we must have the strictest discipline. The internal and external position are such that this iron discipline must not be weakened in any circumstances . . . We are soldiers and warriors . . . Such groups must be completely mercilessly cut off, without giving way to any sentimental respect for an individual as such, as so on. These are all abstract formulas which are entirely inappropriate for an army when it is storming the fortress of the enemy.*

Stressing his own guilt as the 'ideological supplier' of wrong attitudes, Bukharin called for vigilance, and for unconditional defence of the party line by 'soldiers of the party'.<sup>38</sup> In a lengthy

<sup>36</sup> *Ibid.*, ii, 54 (Pozern, a secretary of the Leningrad regional party committee), 60 (Shkiryatov).

<sup>37</sup> *Ibid.*, i, 78.

<sup>38</sup> *Ibid.*, ii, 65-6.

speech at the end of the debate, Voroshilov supported the call by Peters and Akulov for the expulsion of Smirnov from the party, and strongly attacked Tomsy: 'Tomsy is cunning; Rykov tries to be sincere, but so far nothing has come of it.' Bukharin, on the other hand, was 'sincere and honest', but was also 'tender-hearted'; this was a poor guide in politics and had led him to worry about the action taken against his 'school', some of whom were anti-party, others openly counter-revolutionary.<sup>39</sup>

In a special resolution, the plenum condemned 'the anti-party grouping of Eismont, Tolmachev, A. P. Smirnov and others'. Eismont and Tolmachev were expelled from the party, and A. P. Smirnov was expelled from the central committee. Although he was not expelled from the party, he was warned that he would be expelled 'if in all his future work he did not justify the party's trust'. Tomsy, Rykov and Shmidt were reprimanded for their contacts with Smirnov and Eismont, and for conduct which gave a pretext to anti-party elements to rely on their support; they were warned to 'change their conduct in the struggle with anti-party elements fundamentally'.<sup>40</sup> The resolution fancifully claimed that the Eismont group, 'like the Ryutin-Slepikov anti-party grouping, had set itself the task of in reality renouncing the policy of industrialisation of the country, and restoring capitalism, and in particular the kulaks'.<sup>41</sup> The resolution was approved unanimously by the plenum.<sup>42</sup> Finally, the plenum approved without discussion the Politburo decision on the party purge, which declared that the objective of the purge was to 'secure iron proletarian discipline in the party and the purging of all unreliable, unstable and time-serving elements from the ranks of the party'.<sup>43</sup>

Eleven days after the plenum, a session of TsIK, which met from January 23 to 30, formally approved the plan and the state budget for 1933. The resolutions publicly confirmed that

<sup>39</sup> *Ibid.*, ii, 64, 67-70.

<sup>40</sup> In the discussion of the resolution, Tomsy insisted that he had no links with Eismont, but Voroshilov interjected 'You with Smirnov, and Rykov with Eismont (*Laughter*)'.

<sup>41</sup> *KPSS v rez.*, iii (1954), 199.

<sup>42</sup> *Ibid.*, 199. Tomsy and Rykov voted for the resolution, but their reservations were noted (RTsKhIDNI, 17/2/514, ii, 71).

<sup>43</sup> *KPSS v rez.*, iii (1954), 198; RTsKhIDNI, 17/2/154, ii, 71; this resolution was introduced by Postyshev.

industrial production was planned to increase by only 16.5 per cent, and that investment would only slightly exceed the 1932 level.<sup>44</sup> Speakers at the session emphasised that even this more modest plan would be difficult to achieve. Mezhlauk described the plan for industrial production as 'a hard nut to crack'; he pointed out that the plan for January–March 1933 proposed to increase production by a mere 3.2 per cent as compared with the previous quarter, but in the first ten days of January even this increase had not been achieved.<sup>45</sup> Grin'ko's report on the budget did not reveal the proposed reduction of currency in circulation, but he strongly stressed the general need for economy. He particularly criticised the prevalence of a large amount of capital construction outside the plan, and insisted that this must be brought to an end so that investment was strictly limited to the planned level.<sup>46</sup> The new year opened with a renewed emphasis on the need for more realistic planning, and for financial stability.

<sup>44</sup> *TsIK 3/VI*, No. 25, 4–14, 15–23; these resolutions may also be found in SZ, 1933, arts. 38 and 39 (dated January 26 and 30).

<sup>45</sup> *TsIK 3/VI*, No. 7, 20–2.

<sup>46</sup> *Ibid.*, No. 11, pp. 9–10, 29.

## CHAPTER THIRTEEN

### FROM DISASTER TO STABILITY: THE POLITICAL CONTEXT OF 1933

On January 30, 1933, Hitler was appointed Chancellor of the German Reich. Within a few months all political parties were banned, and the trade unions were taken over by the Nazi Labour Front. These events, though accompanied by a fierce anti-Communist campaign, were at first greeted by the Soviet authorities with outward calm and a certain inner complacency. But it soon became apparent that the Nazi victory involved the collapse both of the Comintern's revolutionary strategy and of the long-established economic and military association between the Soviet Union and Germany. On June 14, Hugenberg circulated a memorandum to the World Economic Conference which announced that the energetic German race needed new territories for colonies, and implied that these would be found in Russia.<sup>1</sup> The German Foreign Office denied any intention of seizing Soviet territory, and Hugenberg was dismissed when his National Party was banned. But his memorandum conformed with the doctrines of Hitler's *Mein Kampf*, and the Soviet government not unreasonably assumed that it expressed the views and intentions of the Nazi government.<sup>2</sup> On June 26 the Soviet government informed the German embassy in Moscow that it had rescinded all Soviet–German agreements on military collaboration; on September 15 German military installations in the Soviet Union were closed down.<sup>3</sup> Rapallo was at an end.

In the Far East, the atmosphere was for the moment calmer. But continuing Japanese belligerence towards the Soviet Union

<sup>1</sup> See Carr (1982), 97.

<sup>2</sup> For the Soviet protest note and the subsequent Soviet conversations with the German Foreign Office, see *Dokumenty vneshnei politiki*, xvi (1970), 359–61, 383–4.

<sup>3</sup> Haslam (1984), 20, 244, citing *Documents on German Foreign Policy, 1918–1945*, Series C, vol. 1 (London, 1957), docs. 339, 439. Until August, agreements were still being signed with German firms for technical assistance for submarine and aeroengine production (RTsKhIDNI, 17/162/14, 79–80 – decision by correspondence of March 5, no. 59/36; *ibid.* 134–9, decision by correspondence of April 29, no. 36/23; 17/162/15, 15 – session of August 1, item 2).



had direct repercussions in Soviet domestic policy. In June 1933, a senior Japanese official told an American visitor that 'Japanese policy was first to secure the Chinese Eastern Railway, and then to take Vladivostok and the Maritime Province', even though war would result.<sup>4</sup> The Soviet Union, desperate to avoid simultaneous menace from West and East, had already indicated to Japan that it was willing to negotiate the sale of the Chinese Eastern railway;<sup>5</sup> and in June 1933 negotiations opened about the sale.<sup>6</sup> A British embassy despatch at this time described Soviet policy towards Japan as 'extreme prudence bordering on pusillanimity'.<sup>7</sup> Behind this cautious policy, the Soviet Union continued to strengthen its Far-Eastern defences. In April, the Politburo secretly authorised more thorough control over the Japanese concessions in Sakhalin.<sup>8</sup> In June, it instructed the Defence Commission to spend 13 million rubles of the Sovnarkom reserve fund on various factories in the Far East.<sup>9</sup> In July, criticising the 'considerable delay in the completion of factories' in the Far Eastern Region in 1932, it approved capital investment amounting to 870 million rubles in 1933.<sup>10</sup>

These external difficulties coincided with the most desperate months of famine and industrial crisis at home. Stalin and his supporters redoubled their efforts to repress all internal dissension. Nearly all the former oppositionists and other critical party members who had been appointed to leading economic posts a year earlier were dismissed, and Smilga, I. N. Smirnov and

<sup>4</sup> BDFA, IIA, xi(1986), 135–6 (Strang to Simon, June 2, 1933); the American visitor was Colonel Pope.

<sup>5</sup> *Dokumenty vneshnei politiki*, xvi (1970), 831–2, n. 114; for the earlier decision on this question, see p. 167, note 132 above.

<sup>6</sup> See Haslam (1992), 19–23.

<sup>7</sup> Woodward and Butler, eds., vii (1958), 557; this despatch by Strang, dated June 4, 1933, claimed that Litvinov's 'policy of peace at any price' had led to friction with his deputy Karakhan and with the Soviet military leaders.

<sup>8</sup> RTsKhIDNI, 17/162/14, 127, 132 (decision by correspondence of April 23, no. 155/131). In August, internal passports were introduced in Sakhalin, together with 'decisive measures to exile politically unreliable and criminal elements from districts near the Japanese concessions' (RTsKhIDNI, 17/162/15, 26–August 10, no. 19/77).

<sup>9</sup> RTsKhIDNI, 17/162/14, 159 (decision by correspondence of June 13, no. 113/96); see also RTsKhIDNI, 17/162/15, 3 (July 13, no. 74/65).

<sup>10</sup> RTsKhIDNI, 17/162/15, 1, 7–11 (decision by correspondence of July 5, no. 28/19).

Preobrazhensky, as well as several of those denounced by the central committee plenum, were arrested and exiled.<sup>11</sup> On January 16, the OGPU sentenced Eismont and Tolmachev to three years' deprivation of liberty.<sup>12</sup> In the republics, the drive against dissent merged with a renewed campaign against nationalism. The most prominent victim was the Ukrainian old Bolshevik Skrypnyk. In February, accused of protecting nationalist scholars, he was dismissed from his post as People's Commissar for Culture of Ukraine; he was temporarily appointed chair of the Ukrainian Gosplan. But the ferocious campaign against him intensified, and on July 7 he committed suicide.<sup>13</sup> Many prominent Ukrainian intellectuals and officials were arrested. The drive against nationalism also claimed many victims in the other republics.

Simultaneously, central and local party control commissions investigated political deviation and corruption among party members; in Moscow city, for example, some 7,000 members and candidates, 3 per cent of the total, were expelled in 1932 and 1933.<sup>14</sup> These investigations were separate from and additional to the general party 'cleansing' or purge endorsed by the January central committee plenum (see p. 329 above). The general purge was delayed until the completion of the spring agricultural campaign. On April 28, a resolution of the party central committee and central control commission, followed by an instruction a few weeks later, arranged that it would begin on

<sup>11</sup> For Smilga's dismissal, see pp. 264–5 above. Preobrazhensky was arrested in January 1933 and sentenced to three years' exile on January 26 (*Izvestiya TsK*, 6, 1991, 73); on March 3 he was formally dismissed from the collegium of Narkomlegprom (SZ, 1933, ii, 71). He was also expelled from the party, but this decision was 'soon' rescinded (*Izvestiya TsK*, 6, 1991, 73). I. N. Smirnov was arrested on January 16 and expelled from the party; on April 16 he was sentenced to five years' imprisonment (*ibid.* 72). Shmidt was dismissed from the post of Chief Arbitrator on January 2 (SZ, 1933, ii, art. 14). Eismont was dismissed on January 10 (*ibid.* art. 30), Kritsman was dismissed from the vice-chair of Gosplan on January 21 (*ibid.* art. 21), A. P. Smirnov was dismissed from the chair of the Council for Municipal Economy on January 22 (*ibid.* art. 25); Ufimtsev was dismissed from the collegium of Narkomtyazhprom on March 3 (SZ, 1933, ii, art. 70). Against the general trend Sokol'nikov was appointed to the collegium of the People's Commissariat for Foreign Affairs on March 21 (SZ, 1933, art. 90).

<sup>12</sup> *Izvestiya TsK*, 11, 1990, 73.

<sup>13</sup> See *Cahiers du monde Russe* (Paris), xii, 1–2, 1971, 19–27 (Darotchetche).

<sup>14</sup> See Shimotomai (1991), 16–23, especially p. 21.

June 1 in ten key industrial, agricultural and frontier regions.<sup>15</sup> In 1933 the purge was also carried out in a number of Red Army and frontier army units.<sup>16</sup> The resolution of April 28 made it abundantly clear that the purge was intended to produce a disciplined party free of deviations, as well as to get rid of degenerates and careerists. The first four of the six categories listed as deserving expulsion carried strong overtones of political deviation or disloyalty: they were (1) 'class alien and hostile elements', (2) 'double dealers', (3) violators of party discipline, and (4) 'degenerates' who did not in practice desire to struggle against but merged with kulaks, grabbers (*rvachi*), slackers, thieves, and those who stole socialist property. The other two categories were (5) 'careerists, self-seekers (*shkurniki*) and bureaucratised elements' who disregarded the needs of the people, and (6) 'moral degenerates', a separate category from 'degenerates'.

The third category was particularly relevant to economic administrators, as it covered 'open and concealed violators of the iron discipline of the party and state, who do not carry out party and government decisions, and who subject decisions and plans adopted by the party to doubt, and discredit them with their chatter about "lack of realism" and "unattainability"'. Even though the plans adopted in the past few years had patently proved highly unrealistic, loyal support for official plans remained a cardinal requirement for party membership. Kaganovich, in an address to Moscow party activists, insisted that 'simple agreement' with party decisions was not enough; 'military discipline' was required in actively carrying them out. He condemned party members who 'disorganise the masses with chatter about the lack of realism of the plans'; this occurred 'in industry, at factories, in mines and in transport' as well as in relation to the grain collections.<sup>17</sup>

Numerous reports on purge meetings appeared in the industrial newspaper. One not untypical case concerned a fitter at Factory No.1 (a Moscow aircraft factory). He admitted that he had participated in Kornilov's attack on Petrograd in 1917, and

<sup>15</sup> P, April 29, May 20, 1933; an eleventh region, the North Caucasus, had already been purged at the end of 1932.

<sup>16</sup> Andrukhov (1977), 143.

<sup>17</sup> P, June 2, 1933 (speech of May 22).

that he had recently criticised technically-based output norms and disrupted a whole group of fellow fitters. As he was allegedly a drunkard and absentee as well as a 'class enemy', he stood condemned under several clauses of the resolution of April 28.<sup>18</sup> Such reports, and those of foreign observers, made it clear that the loyalty, discipline, hard work and working-class origin of ordinary members were valued above their knowledge of party doctrine.<sup>19</sup>

When the headquarters staff of the economic commissariats were subjected to the purge, strong attacks were made on political deviations, particularly in unsuccessful industries. Thus the manager of the Grozny oil trust, where production declined considerably in 1933, admitted that he had failed to resist the 'theory' that production at Grozny must inevitably 'attenuate'; the 'theory', which had been condemned by Ordzhonikidze in a Narkomtyazhprom order, was variously described as 'anti-party', 'counter-revolutionary' and 'wrecking'. The manager of the trust and the head of Glavneft' were both dismissed by Ordzhonikidze.<sup>20</sup> Such criticisms at the purge meetings surrounded economic issues with a witch-hunting atmosphere which had been largely absent in Narkomtyazhprom in the previous two years.

The purge provided the occasion for a further battle between *Za industrializatsiyu* (ZI), organ of Narkomtyazhprom, and *Ekonomicheskaya zhizn'*, now the organ of Narkomfin. In July, the economic newspaper attacked officials of the Industrial Bank for 'lack of political vigilance',<sup>21</sup> and was supported by the bureau of the party cell in the bank, but both a Rabkrin investigation and the purge commission for the bank found the charges unjustified.<sup>22</sup> Meanwhile Maimin, the editor of the economic newspaper, was accused at a purge meeting of being a deserter during the civil war and a Trotskyist in 1923-4. His

<sup>18</sup> ZI, July 7, 1933.

<sup>19</sup> Soviet newspaper reports on the purge are surveyed in SV, ccxcix-ccc (August 15, 1933), 2-6; for an informative first-hand account by a hostile witness of the purge in Elektroavod, see Smith (1937), 239-48; for a first-hand account by a favourable witness of the purge of a bureaucrat in the Moscow Restaurant Trust, see Allan (1938), 253-9.

<sup>20</sup> ZI, December 15, 1933.

<sup>21</sup> EZh, July 9, 10, 18, 1933.

<sup>22</sup> ZI, October 16, 1933.

denigrators also claimed that as recently as 1931 he had edited a work which purported to show that it was unprofitable to join a kolkhoz; it was also disclosed that this work was written not by Maimin himself but by one of his deputy editors!<sup>23</sup> The industrial newspaper triumphantly accused Maimin of 'departmentalism and blunting of class vigilance'.<sup>24</sup>

By January 1, 1934, 1,149,000 members and candidates had been through the purge, about one-third of the total; of these 17 per cent were expelled and 6.3 per cent transferred to a new category of 'sympathisers'.<sup>25</sup> But the decline in membership was much greater than this, as party members dropped out or were expelled independently of the purge, and no recruitment of new members was permitted: the number of members and candidates fell from 3,555,000 on January 1, 1933, to 2,701,000 on January 1, 1934.<sup>26</sup> In 1933 and 1934, well over one-third of the members and candidates who were expelled were classified as coming within categories 1 and 3, the more political categories.<sup>27</sup> The purge had made a major contribution towards the consolidation of the party as an obedient instrument of the Politburo's will.

Two major political trials took place in March and April 1933, the first of this degree of seriousness since the Industrial Party and Menshevik trials of the winter of 1930–1. At a secret trial

<sup>23</sup> ZI, November 1, 1933. The work, said to have been compiled by Rogov, was *Denezhnye dokhody, raskhody i platezhi derevni v 1930/31g (po dannym vyborochnogo obsledovaniya)* (1931), an official publication of the financial policy sector of Narkomfin. ZI pointed out that the printed text of this work stated that 'payments of the countryside are the most important (vazhneishaya) part of our programme of socialist accumulation', but the phrase 'most important part' had been 'carefully glued over (zakleena) and "one of the most important parts" was written above it'; Maimin claimed that the offending phrase was a printing error. This is the first sentence in the book (p. 5); in the copy I have seen, the offending phrase has simply been altered in ink.

<sup>24</sup> ZI, November 1, 1933.

<sup>25</sup> *XVII s'ezd* (1934), 287 (Rudzutak); these figures exclude the army, the OGPU, and (apparently) the North Caucasus, which had been thoroughly purged before the general purge was announced.

<sup>26</sup> *Partiinaya zhizn'*, 18, 1967, 9.

<sup>27</sup> According to the official account, 20.9 per cent of those expelled had violated state and party discipline (i.e. the third category) and 16.5 per cent were class-alien elements (i.e. the first category). The remainder included 21.5 per cent of 'morally degenerate people, careerists and bureaucrats'. These were presumably mainly in the 'non-political' categories 5 and 6, but some certainly came within the first four of the six categories. A further 23.2 per cent were

conducted by the OGPU on March 11, 1933, 75 prominent employees of Narkomzem and the People's Commissariat for State Farms were accused of 'counter-revolutionary wrecking', and 35 were executed, including F. M. Konar and M. M. Vol'f, deputy People's Commissars for Agriculture; Vol'f, an old Bolshevik, prepared the agricultural section of the first five-year plan.<sup>28</sup> On the same day, March 11, six British engineers working for the Metro-Vickers electrical engineering Company were arrested.<sup>29</sup> On April 12 to 19, 1933, in a highly publicised trial, they, together with twelve Soviet citizens, were accused of 'wrecking activities' at power stations which they had helped to install in 1929–33 in Chelyabinsk, Baku, Ivanovo and elsewhere, and of spying for British intelligence.<sup>30</sup> Ten of the Soviet citizens received sentences ranging from 18 months to ten years; two British engineers, Thornton and MacDonald, received sentences of three and two years respectively. The British government withdrew its Ambassador, and a week before the trial threatened a complete embargo on Soviet exports, which was imposed when the sentences were announced. Ten weeks later, on July 1, the British prisoners were released and the embargo was withdrawn. In accordance with the understanding between Litvinov and the British Foreign Office, negotiations for a new trade treaty resumed immediately.<sup>31</sup>

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expelled for 'passivity', a category which did not appear in the original instructions. (*Istoriya Kommunisticheskoi Partii*, iv, ii (1971), 283, citing party archives.) Why the remaining 17.9 per cent were expelled is not known, but they presumably included the two further political categories 'double dealers' and degenerates who had merged with the class enemy. Only 25 out of 42 regions went through the purge in 1933–4, including 1,916,500 out of 3½ million members and candidates.

<sup>28</sup> P, March 12, 1933; for Vol'f, see Carr and Davies (1969), 854.

<sup>29</sup> Monkhouse (1933), 281.

<sup>30</sup> The trial proceedings were published in English as an 800-page book, *Wrecking Activities at Power Stations in the Soviet Union* (1933). The Politburo discussed the case on a number of occasions (RTsKhIDNI, 17/3/918, 1, item 2 – session of March 20; 17/3/919, 2 – session of April 4, item 3; 17/3/921, 2 – session of April 23, item 3; 17/3/922, 4 – session of May 10, item 8); its decisions are not recorded in the minutes so far available. For a full account of the trial, its background and consequences, see Morrell (1993).

<sup>31</sup> The Ambassador returned to London for consultations on March 30, the embargo was announced on April 3 and imposed on April 19 (Monkhouse (1933), 303–4, Coates (1945), 483–505); for the withdrawal of the embargo see

There may have been an element of truth in the charges of intelligence-gathering made at the trials. Konar is widely believed to have been a Polish agent.<sup>32</sup> The employees of Metro-Vickers were engaged in intelligence-gathering activities which evidently went beyond normal commercial information.<sup>33</sup> But no serious evidence supported the unlikely and convenient charge at the agricultural trial that the accused deliberately intended to 'disrupt the material position of the peasantry and create a state of famine'.<sup>34</sup> And the charges that the Metro-Vickers engineers damaged equipment and bribed Soviet citizens to wreck industry were supported solely by the statements made by Soviet citizens while in custody. In his speech for the prosecution, Vyshinsky acknowledged that the outlook of engineers had improved since the Shakhty trial of 1928. Wrecking was neither widespread nor capable of serious damage, but it remained an 'enormous social danger'. A small number of wreckers tried to 'create an uninterrupted stream of difficulties', which they then presented as due to 'objective causes'.<sup>35</sup> Thus there were frequent breakdowns at the Zlatoust power station, and 'a big breakdown which put out the lights almost everywhere in Moscow' on November 22, 1932. According to Vyshinsky, the wreckers also planned to put major power stations out of action in the event of war, including the supply to the Kremlin, the

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*Dokumenty vneshnei politiki*, xvi (1970), 366–8, 387–8; Coates (1945), 502–5; P, July 2, 3, 1933. A new trade agreement was eventually signed on February 16, 1934 (Cmd. 4567).

<sup>32</sup> Conquest wrote that 'it seems likely that Konar actually was a genuine foreign spy' (Conquest (1968), 297, 552); see also Duranty (1934), 338–40.

<sup>33</sup> Information from the engineers was passed to the Committee of the International Price Agreement of the electrical plant industry with its headquarters in Berlin, in which the OGPU had planted its own spies. After his first interrogation Mr Monkhouse reported to his chief Mr Richards, who was an officer in British army intelligence in Murmansk during the Civil War, that 'to my utter astonishment they produced a folder about 1½" thick with protocols of all your recent meetings including the meeting at [Berlin] and also a copy of minutes in which you reported certain conditions in this country after your visit here last autumn' (Woodward and Butler, eds. (London, 1958), 781–3, 311–12); this incident is not mentioned in Monkhouse's book. On the basis of the incomplete files in the British Public Record Office, Haslam (1984), 16–19, concludes that 'the charge of espionage appears justified'.

<sup>34</sup> P, March 12, 1933; the trial will be further discussed in vol. 5.

<sup>35</sup> *Wrecking Activities* (1933), 600, 604–5, 630.

barracks and all the radio stations.<sup>36</sup> Much space was devoted to the trial in Soviet newspapers: the industrial newspaper, for example, carried over seven pages of material in the week of the trial,<sup>37</sup> accompanied and followed by a vociferous press campaign against wrecking.<sup>38</sup> The trials had performed the now traditional function of diverting public discontent from the Soviet authorities to the 'enemy within'.

The choice of Narkomzem officials for the first trial was an obvious one at a time of food shortage and famine. The choice of British engineers for the second trial was no doubt related to the British abrogation of the trade agreement in the previous October.

Repressive measures continued to be applied intermittently during the next few months. In July, five 'counter-revolutionary wreckers' were sentenced to death and six imprisoned after a five-day trial in which they were accused of supplying Moscow factories and building sites with poor food containing dirt, wire and broken glass, with the deliberate object of harming the workers. The press reported that the square outside the hall was full, and the proceedings were relayed by loud-speaker.<sup>39</sup>

In this atmosphere of crisis, voices calling for economic reform were temporarily silenced. On January 16, 1933, the Politburo, following its critical resolution about TsUNKhU in the previous December (see pp. 362–3 above), resolved 'to fully subordinate TsUNKhU of the USSR to Gosplan'; henceforth it would not be *attached to* Gosplan (*pri Gosplane*), but *of* Gosplan (*Gosplana*). Mezhlauk and Osinsky, together with Bokii, an OGPU representative, were to ensure the 'complete secrecy' of Gosplan and TsUNKhU materials, and the heads of the two bodies were now obliged 'to bring criminal charges, with arrest as criminals, against those caught revealing any figures or materials'. The Politburo further resolved that Nemchinov (the capable marxist statistician) was to be removed from TsUNKhU, that Kraval' was to be appointed first vice-chair, and that A. S. Popov was to

<sup>36</sup> *Wrecking Activities* (1933), 38, 43, 52, 411–14, 620–1; it was the evidence about Moscow which led Monkhouse to his 'outburst' in court that 'this case is a frame-up against the Metro-Vickers, based on the evidence of terrorized prisoners' (*ibid.* 427, Monkhouse (1933), 320–2).

<sup>37</sup> ZI, April 14–21, 1933.

<sup>38</sup> For a typical example, see *Predpriyatie*, 7, April 1933, 1–3.

<sup>39</sup> ZI, July 12, 1933.



be deputy responsible for cadres. The Politburo also approved a report proposing that the presidium of Gosplan and the collegium of TsUNKhU should be 'thoroughly reinforced with comrades who have proved themselves politically and administratively'; and instructed the personnel department, under the supervision of Kaganovich, to allocate thirty party members to the central staff of TsUNKhU.<sup>40</sup> With its criticism of Gosplan as well as Osinsky, and the further actions in regard to Gosplan which followed, this decision was a strong implicit reproof to Kuibyshev as well as Osinsky.

The central figure in the personnel changes in TsUNKhU was I. A. Kraval', obviously appointed by Stalin to curb the authority of Osinsky. Kraval' was an intelligent but crude administrator of the Kaganovich type, who had been appointed a deputy People's Commissar of Labour in August 1930 when that commissariat was reluctant to follow a more coercive policy towards labour (see vol. 3, pp. 342–3).<sup>41</sup> Six weeks after these personnel changes, on March 3, 1933, in a further move to bring statistics under control, Minaev, an outstanding senior official of long standing, was removed from his post of deputy chair of TsUNKhU and from membership of the presidium of Gosplan.<sup>42</sup> The Politburo and Orgburo also discussed the controversial TsUNKhU journal *Narodnoe khozyaistvo* (see p. 203 above), and merged it with the Gosplan journal *Planovoe khozyaistvo*, in effect closing it down.<sup>43</sup>

A further significant move came on April 23, when Kuibyshev, who had been at the forefront of the reforms of the spring of 1932,

<sup>40</sup> RTsKhIDNI, 17/3/913, 3, 29 (item 10). On February 1, a further decision by correspondence established a commission to reduce TsUNKhU staff, with Trilisser from Rabkrin in the chair (RTsKhIDNI, 17/3/914, 27); until 1929 Trilisser was a senior member of the OGPU.

<sup>41</sup> Sovnarkom duly appointed Kraval' on January 21 (SZ, 1933, ii, art. 29); the same decree also appointed A. S. Popov as a vice-chair, and removed Nemchinov from the presidium. On the same date Sovnarkom approved a secret decree on criminal responsibility for revealing statistics (GARF, 5446/57/23, art. 74/13s).

<sup>42</sup> SZ, 1933, ii, art. 66; for Minaev, see p. 202 above.

<sup>43</sup> On March 1, the Politburo decided by correspondence to refer the matter to the Orgburo (RTsKhIDNI, 17/3/916, 33). A note inserted in *Planovoe khozyaistvo*, 1–2, 1933, announced that the two journals were being combined 'in order to concentrate the materials relating to the problem of planning and records', and that this explained the delay in publication. The journal was sent to press February 2–June 25 (*sic*) and signed for printing August 11–14.

relinquished his positions as chair of Komzag and of the Committee on Fuel.<sup>44</sup> In May, the reduced authority of Kuibyshev and of Gosplan was underlined when responsibility for preparing both annual and quarterly material balances and plans for the distribution of materials was transferred from Gosplan to the People's Commissariats concerned. At a time of great scarcity, this was a crucial function. Gosplan merely retained the right to comment on the balances when they were presented to Sovnarkom.<sup>45</sup> In June, a strongly worded decree of the Sovnarkom Commission on Fulfilment rebuked TsUNKhU for failing to reduce the number of forms filled in by village soviets; in this published decree Osinsky was held 'personally responsible' for this apparently trivial failure, thus enlarging the cloud which had gathered round his agency.<sup>46</sup>

Criticisms of Gosplan and its officials continued to appear later in 1933. In an article in the Gosplan journal, the young marxist economist I. A. Gladkov attacked as 'opportunist from beginning to end' a volume of collected essays by Strumilin, independent-minded vice-chair of Gosplan and long a close associate of Krzhizhanovsky. Gladkov asserted that Strumilin's treatment of planning as an 'engineering art', in which alternative plans could be constructed on the same economic base, meant that he wrongly regarded planning as non-scientific, and overestimated the role of Gosplan in planning, while underestimating the role of

<sup>44</sup> SZ, 1933, ii, art. 128; he was replaced by Chernov, a secondary figure politically, responsible in an administrative capacity for grain collections since 1928, and by V. I. Mezhlauk, who continued as first deputy chair of Gosplan (SZ, 1933, ii, art. 129). The decree was carrying out a Politburo resolution approved by correspondence on the previous day, which stated that Kuibyshev would concentrate on planning work (RTsKhIDNI, 17/3/921, 28); a few days earlier Osinsky was authorised to take six weeks' holiday (*ibid.* 20, dated April 17).

<sup>45</sup> SZ, 1933, art. 195 (dated May 21); the decree was signed by Kuibyshev himself in his capacity as first deputy chairman of Sovnarkom. On May 26, some minor geodesic functions were transferred from Gosplan to Narkomtyazhprom (SZ, 1933, art. 217). In an address to the Planning Academy on May 4, before the promulgation of the decree, Kuibyshev claimed that these changes marked a 'new higher stage in planning work' in which Gosplan was fully responsible for planning but no longer carried out 'operational functions'; he acknowledged that Molotov had exercised a 'great initiative' in their preparation (RTsKhIDNI, 79/1/684, 18-20).

<sup>46</sup> SZ, 1933, art. 233 (dated June 17).

the party. He was also alleged to have played down the influence of wreckers and hostile classes in the rival schools of planning in the 1920s.<sup>47</sup> These were bizarre charges. Strumilin had been the great advocate of 'teleological' planning against the more moderate economists in 1927–9, and his treatment of planning as an 'engineering' art had been directed at their claims to objectivity. Gladkov's ferocious attack indicated how narrow the bounds of permitted heresy had now become.

Meanwhile, the advocates of reform in Narkomtyazhprom (see pp. 265–7 above) were silenced. After the January plenum, Birbraer ceased to call for major price reforms.<sup>48</sup> But in a last fling in February 1933, he turned his attention to the role of statistics, records and bookkeeping in planning. He argued that bookkeeping and statistics should be kept entirely separate, abandoning the 'so-called principle of "unified records" (edinyi uchet)'.<sup>49</sup> He took as his starting point the recent government decision strengthening the rights of chief accountants in factories, trusts and corporations, and establishing bookkeeping departments separate from records and statistics departments.<sup>50</sup> Birbraer argued that factories should keep only those records which were necessary for their operation, and should keep their records in the bookkeeping department. Statistics, as distinct from bookkeeping, 'should primarily be concerned with knowledge', with finding out the regularities of socialist society. It should be based on samples and should primarily be the responsibility not of the factory, but of TsUNKhU and of research units in the commissariats, rather than of the factory itself:

At present [he wrote], about 90 per cent of recordkeeping in enterprises is statistics (bookkeeping records at present contain a lot of statistics), and only 10 per cent is bookkeeping. The proportions should be reversed.

<sup>47</sup> PKh, 5–6, 1933, 263–77 (sent to press November 6, 1933).

<sup>48</sup> Compare his article in ZI, December 29, 1932, which in effect proposed to introduce market prices for all consumer goods, with ZI, January 16, 1933, where he advocated market prices only in cases where consumer goods were produced from by-products and scrap.

<sup>49</sup> ZI, February 12, 1933. The article was not marked 'For discussion'; in ZI, February 14, 1933, an editorial note hastily explained that this was an oversight. For other articles by Birbraer at this time, see SR, xlii (1984), 215 (Davies).

<sup>50</sup> SZ, 1932, art. 440 (dated September 29, 1932).

Birbraer's venture into the statistical minefield provided the opportunity for demolishing him. Kraval', newly appointed to TsUNKhU, went into action. Kraval' was obviously not acting on his own: one Western report claimed that the Birbraer case had involved Kaganovich in an 'organised *battue*'.<sup>51</sup> Kraval' informed Bogushevsky, the editor of the industrial newspaper, that he disapproved of the proposal to separate recordkeeping and statistics. After some negotiation and argument he arranged a meeting to discuss the whole matter at the Business Club (formerly the Red Directors' Club) of which he was vice-chair.<sup>52</sup>

At the meeting, held on March 7, Kraval' presided, and, evidently in hostile terms, introduced a report by Birbraer. The meeting firmly rejected Birbraer's view that statistics should be separated from bookkeeping and other records, and denounced his opposition to 'detailed and specific enterprise plans', as 'objectively' directed against planning. It also condemned Birbraer's statement at the meeting that the results of the first five-year plan were 'insufficiently clarified' and 'imprecise' as slander which revealed his 'Menshevik, hostile face'.<sup>53</sup>

Even after this meeting, the industrial newspaper continued to publish articles which proposed significant economic reforms. On March 17 the economist N. Dol'nikov, who was then working in the party central committee, condemned 'archaic price practices' in the iron and steel industry. Costs were on average 40 per cent above prices, so that the industry received huge subsidies from the state budget. Prices should be raised so that they would be as

<sup>51</sup> US State Department 861.00 11535 (anonymous report from Warsaw dated March 1933).

<sup>52</sup> For these negotiations, see SR, xlii (1984), 216, n. 73 (Davies).

<sup>53</sup> P, March 30, 1933. Following Kraval's appointment, strenuous efforts were made to systematise and reduce the statistical reports sent in by enterprises and local authorities. See SZ, 1933, art. 233 (dated June 17, on reports by village and district soviets, criticising TsUNKhU for 'inactivity', and placing the personal responsibility for improvement on Osinsky), art. 317 (dated August 22, on the same topic), art. 327 (dated August 21, on reduced reporting by enterprises); decrees of March 30 and September 20 (SZ, 1933, arts. 135, 368) call for the reduction of reports sent by telegraph. On June 4, Kraval' sent a document to Stalin and Molotov criticising the chaos and lack of unification in reports from enterprises and building sites, and pleading with Molotov to sign a draft decree on this subject (presumably the decree eventually promulgated on August 21) to 'help me to justify the confidence shown in me' by the appointment to TsUNKhU (GARF, 5446/27/23, 29-30).

close to costs as possible.<sup>54</sup> Dol'nikov's proposals were less radical in terms of economic mechanism than Birbraer's and Artamonov's in the earlier discussions, for he did not link the proposed increases of iron and steel prices with the need to get rid of centralised distribution, but simply proposed that prices should cover costs. But in terms of economic policy they implicitly criticised the national-economic plan of 1933, which was based on the assumption that prices within industry should not increase (see pp. 296–7 and 323 above).

On the following day, March 18, an editorial in ZI rejected Dol'nikov's arguments and supported the official plan to close the gap between costs and prices simply by reducing costs. But this did not satisfy *Pravda*. On March 19 an unsigned article explicitly criticised the editorial board of ZI for the first time, arguing that the publication of Dol'nikov's article showed that 'the editorial board considers that the plan approved by the party and the government is unrealistic and subject to discussion'.<sup>55</sup>

Bogushevsky retreated further. ZI published a long article criticising Dol'nikov by two iron and steel experts, A. Afanas'ev and K. Musatov: they argued that an increase in iron and steel prices would merely produce a chain of price increases throughout industry. On the same day a further editorial note condemned Dol'nikov and strenuously rejected *Pravda's* accusation that the editorial board doubted the realism of the national-economic plan.<sup>56</sup>

Unsigned articles in *Pravda* could no longer be criticised with impunity. A further unsigned article entitled 'Double-Dealers at the Editor's Table' denounced Bogushevsky by name for publishing the article by Afanas'ev and Musatov. *Pravda* complained that the authors pretended to criticise Dol'nikov, but on December 7, 1932, they themselves had written the memorandum on which Dol'nikov had based his argument. 'Opportunist elements of the bourgeois degenerates,' *Pravda* thundered, 'have their nests somewhere in industry, do not

<sup>54</sup> ZI, March 17, 1933.

<sup>55</sup> P, March 19, 1933; this article appeared on an inside page, but it was unsigned and therefore to be taken as authoritative. It was entitled 'A Brave Author and the Double-Dealing of an Editorial Board'.

<sup>56</sup> ZI, March 22, 1933; for an earlier article by Afanas'ev and Musatov, criticising the harmful effect of price discrepancies and abnormalities on the economic performance of the industry, see ZI, January 5, 1933.

believe the plan is realistic and do all they can to disrupt it.' 'What can be seen of the editorial board of ZI at the present time,' *Pravda* concluded, 'makes a very unfavourable impression.'<sup>57</sup>

The end of the affair soon followed. On March 27, Bogushevsky wrote to *Pravda* admitting that neither ZI nor Afanas'ev and Musatov had been sufficiently critical of Dol'nikov's 'Right-opportunist' view that khozraschet was impossible if prices were lower than costs. Simultaneously Afanas'ev and Musatov acknowledged that they should have openly criticised their own memorandum of December 7, but at the same time they insisted that Dol'nikov had distorted its meaning.<sup>58</sup> On the same day on which Bogushevsky wrote to *Pravda*, March 27, Birbraer was dismissed from the staff of the industrial newspaper on the basis of a decision of its party cell. The editorial board, announcing the dismissal a few days later, stated that it formed part of the work of cleansing the newspaper from 'socially alien and ideologically unstable elements'.<sup>59</sup> On March 30, ZI published, together with a further obsequious note by the editorial board, two major articles by senior Narkomtyazhprom officials criticising the proposals to increase iron and steel prices. This was the first time that Narkomtyazhprom officials of their seniority had participated in any of the debates.<sup>60</sup>

In spite of these obeisances by ZI, firm administrative action now followed. On April 4 the Politburo discussed the editorship

<sup>57</sup> P, March 24, 1933. Senior officials of Narkomtyazhprom described Dol'nikov as 'a captive of Afanas'ev and Musatov', whose 'class-enemy sallies' had been overlooked by him and by the editors of the industrial newspaper; Afanas'ev and Musatov allegedly used 'Aesopian language' to conceal their 'Right-wing opportunist practice' (ZI, March 30, 1933); for the authors see note 60 below.

<sup>58</sup> These letters to *Pravda* were sent by Bogushevsky to Kuibyshev (GARF, 5446/27/9, 153, 152, 152ob, 151-50).

<sup>59</sup> ZI, April 2, 1933.

<sup>60</sup> ZI, March 30, 1933. The authors were Zolotarev, first deputy head of the chief administration for the engineering industry and a long-established senior industrial official, and Kruglikov, deputy head of the planning department of Narkomtyazhprom. For their appointments, see SP NKTP, 1932, art. 99 (dated February 23/April 21); later Kruglikov was appointed to the NKTP collegium (SZ, 1932, ii, art. 141, dated June 9). Further criticism of Dol'nikov appeared in EZh, March 26, 1933 (Turetskii); ZI, April 1, 1933 (Gurevich), April 2, 1933 (I. Khavin, the financial official in Narkomtyazhprom, not to be confused with A. Khavin, the industrial journalist), April 6, 1933 (Lebedinskii).

of the newspaper. The main speakers listed in the minutes included Mekhliis, editor of *Pravda*, and Stetsky, as well as Bogushevsky and Dol'nikov. The Politburo resolved to dismiss Bogushevsky, and to dismiss Dol'nikov from his work in the central committee; and it approved 'the statement in *Pravda* against the mistaken articles'. It also instructed the party secretariat to recommend a new editor for the newspaper, and to examine 'the entire structure' of its editorial board and staff, and of the planning and costs sector of the iron and steel industry.<sup>61</sup>

The close involvement of the secretariat in the resolution of this affair was undoubtedly demeaning to Ordzhonikidze; it is significant that the Politburo minutes did not list him as a speaker on this item, even though he was present at the meeting.<sup>62</sup> On April 5, the day after the Politburo meeting, Ordzhonikidze brusquely dismissed Bogushevsky 'for political mistakes, completely correctly criticised in recent numbers of *Pravda*'.<sup>63</sup> Bogushevsky was replaced by B. M. Tal', head of the economic department of *Pravda*, who had played a very active part in the campaign against Syrtsov and Lominadze at the end of 1930.<sup>64</sup>

A few weeks later, ZI, under its new editor, declared in an editorial that 'Birbraer and Dol'nikov were not alone: they reflected the blatantly opportunist tendencies of certain categories of managers', who were contemptuous about plan targets and pushed up prices.<sup>65</sup>

<sup>61</sup> RTsKhIDNI, 17/3/919, 2 – item 4.

<sup>62</sup> He had just returned from a month's leave granted by the Politburo on medical advice (RTsKhIDNI, 17/3/916, 24 – decision by correspondence on February 22).

<sup>63</sup> ZI, April 6, 1933.

<sup>64</sup> ZI, April 9, 1933 (order of April 8, signed by Ordzhonikidze). The appointment of Tal' was approved on April 8 by the Politburo on the recommendation of the secretariat (RTsKhIDNI, 17/3/920, 6). For Tal', see vol. 1, pp. 325–6.

<sup>65</sup> ZI, May 5, 1933. Further attacks on Birbraer appeared in editorials in the journal of the Business Club: *Predpriyatie*, 5–6, March 1933, 3; 7, April 1933, 2–3, and in B, 9, May 15, 1933, 75–7 (Gindin). I have found no information about Birbraer's later activities or his eventual fate. Surprisingly, Bogushevsky re-emerged at the XVII Party Congress in January 1934, where he was elected a member of the Commission of Party Control (*XVII s'ezd* (1934), 681). By 1936 he had been elected secretary of the bureau of the control commission, and until

The rejection of Birbraer's activities was a significant moment in Soviet economic history. It not merely prevented the widening of the bounds of discussion about the economic system. It also heralded a change in the style of work of the Politburo and a further consolidation of the position of Stalin. Ordzhonikidze, like Kuibyshev, accepted stricter limitations on his right as a member of the Politburo to permit economic debate within the press under his control.

Following the more or less successful spring sowing, the harsh policies of the winter of 1932–3 were, however, somewhat mitigated. In May, *Pravda* published appeals to be readmitted to the party from Kamenev and Zinoviev. Without naming Ryutin, Zinoviev apologised for failing to inform the central committee that Sten had shown him the 'counter-revolutionary leaflet and platform'; and Kamenev praised collectivisation as 'the most important fact in world history' after the creation of Soviet power. Both authors acknowledged for the first time that their criticisms of Stalin had been thoroughly mistaken.<sup>66</sup> A few other former oppositionists followed suit. On July 29 the Politburo cancelled Preobrazhensky's exile and permitted him to return to Moscow.<sup>67</sup> At the end of the year other former oppositionists re-emerged in public with articles about uncontroversial economic questions. In the Gosplan journal, Rykov wrote about posts and telegraphs in the second five-year plan, Smilga about Central Asia.<sup>68</sup> Complete capitulation to Stalin was the price exacted for readmission to the party and return to Moscow. But these events nevertheless marked a certain relaxation.<sup>69</sup>

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July 1937 he was listed as a member of the editorial board of the party house journal, in which he wrote a couple of articles; he evidently disappeared during the purges (for these developments, see SR, xlii (1984), 219 (Davies)).

<sup>66</sup> P, May 18 (Kamenev's appeal dated 'April'), May 20 (Zinoviev's appeal dated May 8), 1933.

<sup>67</sup> RTsKhIDNI, 17/3/927, 18 (decision by correspondence).

<sup>68</sup> PKh, 1, 1934, 182–99, 234–43; the journal was sent to the printers on January 27, 1934, so the articles must have been completed before the XVII party congress. For Bukharin's intensive activities at this time, see pp. 356–7, 403–4, 426, n. 104, below.

<sup>69</sup> Zinoviev and Kamenev spoke at the XVII party congress in January 1934 (*XVII s'ezd* (1934), 492, 516). The vast majority of arrested oppositionists remained in exile (see Ciliga (1979), 336–447, Serge (1967), 284–322).



Meanwhile, on May 8, a secret instruction from Sovnarkom and the central committee, signed by Molotov and Stalin, noted a 'new situation' in the countryside following the defeat of kulak resistance, ordered the immediate reduction of the number of persons in places of detention other than labour camps or colonies from 800,000 to 400,000, and demanded that arrest procedures should be regularised.<sup>70</sup> On the same day, the Politburo banned republican and regional tribunals (*troiki*) from imposing the death penalty, except in the Far East.<sup>71</sup> A few weeks later, on June 20, 1933, a Procuracy for the USSR was established, with authority over the republican and regional procuracies.<sup>72</sup> The declared purpose of the Procuracy for the USSR was balanced between 'strengthening socialist legality', a reference to the mild decree of June 1932, and 'the adequate defence of socialised property from depredations by anti-social elements', a reference to the harsh decree of August 7 (see pp. 217 and 242 above). The functions of the Procuracy included inspection of the legality and correctness of the actions of the OGPU, the militia and corrective-labour institutions. The first Procurator of the USSR was the ubiquitous trouble-shooter Akulov, transferred from the Donbass.<sup>73</sup> Akulov's term of office from the middle of 1933 until Kirov's murder on December 1, 1934, was perhaps the time in the 1930s when political life in the USSR was most free from direct OGPU interference. But the establishment of the Procuracy did not imply any fundamental limitation of the prestige and authority of the OGPU. In July, Stalin, Voroshilov and Kirov triumphally travelled the whole length of the White

<sup>70</sup> WKP 178, 134–5; see Fainsod (1958), 185–8, and SS, xxxv (1983), 224–5 (Wheatcroft). The decision was approved by the Politburo by correspondence on the previous day (RTsKhIDNI, 17/3/922, 16, 58, 58ob). An earlier Sovnarkom decree of March 11 instructed the OGPU and the People's Commissariat of Justice of the RSFSR and Ukraine to transfer upwards of 160,000 people from prisons to labour camps, colonies and special settlements (GARF, 5446/57/23, art. 451/76ss); presumably this decree was ineffective.

<sup>71</sup> RTsKhIDNI, 17/3/922, 16 (decision by correspondence).

<sup>72</sup> SZ, 1933, art. 239 (decree of TsIK and Sovnarkom).

<sup>73</sup> SZ, 1933, ii, art. 171 (dated June 21); for his work in the Donbass, see pp. 381 and 385, n. 23 below; for his previous appointment as deputy head of the OGPU, see p. 77 above. The British Counsellor in Moscow described Akulov as 'a staunch party man of honourable reputation' (BDFA, IIA, xi (1986), 177 – Strang to Simon, June 26).

Sea-Baltic Canal.<sup>74</sup> At the beginning of August the official opening of the canal was announced in a series of decrees. Gulag was praised for its 'great political-educational work', and eight leading officials of the OGPU and the canal received Orders of Lenin.<sup>75</sup> In the Procuracy itself, the obsequious and shrewd opportunist Vyshinsky, appointed as Akulov's deputy, was lurking in the wings.<sup>76</sup>

The conciliatory attitude to technical specialists which had prevailed since the spring of 1931 was not reversed as a result of the Metro-Vickers trial. On the eve of the trial the party central committee, citing Stalin's speech of June 1931, condemned as a 'crude political mistake' the decision of the party bureaux and the directors of the All-Union and Moscow Industrial Academies to ban two professors from teaching and expel them from their trade unions because of their anti-Soviet attitudes in the past.<sup>77</sup> ZI persistently campaigned against injustice towards specialists. Thus it accused the party secretary of a Uralsmashzavod shop and the district procurator of slandering honest engineers, backed by the local newspapers; ZI claimed that 'menacing exemplary trials, administrative repressions and accusations of wrecking' had been a general practice in this major new factory 'over a long period'.<sup>78</sup>

The relative immunity of these managers and engineers was not just a result of the special degree of protection afforded to them by Ordzhonikidze in Narkomtyazhprom. In Narkomsnab, where the treatment of alleged wreckers had been particularly vicious on previous occasions (see for example vol. 1, p. 374), Mikoyan signed an order on May 31, 1933, criticising 'certain heads' of local organisations and *glavki* who had on their own

<sup>74</sup> Stalin, *Soch.*, xiii (1951), 414; the journey took place on July 18–25.

<sup>75</sup> SZ, 1933, arts. 293–4 (TsIK decrees dated August 4), 295 (Sovnarkom decree dated August 6); see also p. 32 above.

<sup>76</sup> For Vyshinsky's appointment, see SZ, 1933, ii, art. 172 (dated June 21); he eventually replaced Akulov on March 3, 1935 (SZ, 1935, ii, 31–2).

<sup>77</sup> *Spravochnik*, viii (1934), 317 (dated April 9, 1933).

<sup>78</sup> ZI, August 16, 1933. For other examples see ZI, June 3, 5 (a sick party engineer condemned as a 'deserter' by the cadres sector of Narkomtyazhprom when he was unable to transfer to the Urals), June 11, 12 (director of Siberian non-ferrous metals works arrested and released without explanation by regional procuracy), October 4 (hydro-electric station falsely accused specialists of causing breakdowns), October 27, 1933 (unjustified prosecution of specialists and workers in a number of Ural districts with cooperation of local procuracy).

responsibility dismissed and sent to trial directors of trusts and factories who had been appointed by the commissariat. In an obvious reference to the atmosphere surrounding the Metro-Vickers trial, the order complained that 'these decisions are often taken without sufficient grounds under the influence of particular factors (momenty) which are temporarily sharp in character'; in future, following the 'established procedure for appointing and confirming officials on the nomenclature', requests for dismissal must be sent to Narkomsnab.<sup>79</sup> In spite of the promulgation of this order, the manager of a sugar refinery was dismissed and sent to trial by the head of his trust for selling a large quantity of sugar without permission and for undertaking various unplanned investment and wage expenditures outside the plan; the trust failed to refer the matter to Narkomsnab for approval. After the refinery manager had apologised for his misdemeanours in a letter to Mikoyan, Mikoyan reproved the head of the trust for overstepping his powers and ordered him to withdraw the case.<sup>80</sup>

The divided opinions in the Politburo about how to deal with the specialists, and more generally about how to run the economy, are indicated by a significant incident. In August Vyshinsky, flexing his muscles as deputy prosecutor, prosecuted industrial officials for delivery of incomplete combine-harvesters (see p. 418 below). This was a notable departure from the recent practice of treating industrial inefficiency as a matter to be handled by industry itself. But Vyshinsky was careful not to go too far. He stressed that his main aim was not to mete out punishment but to 'exercise the cultural influence of the Soviet court'.<sup>81</sup> Even so, the trial led to a clash between Stalin and Vyshinsky on the one hand, and Ordzhonikidze on the other. Vyshinsky provocatively declared that the trial 'provides a basis for raising general questions of the work . . . of Narkomtyazhprom and Narkomzem'.<sup>82</sup> On August 24 the Politburo, in Stalin's

<sup>79</sup> RGAE, 8043/1/318, 146.

<sup>80</sup> RGAE, 8043/1/318, 142–54. Mikoyan wrote on the letter 'Simply take note of this statement. A. Mikoyan. 4.VIII.' Connoisseurs of bureaucratic evasion will appreciate the claim of the head of the trust that he had not read Mikoyan's order of May 31 because he was on holiday when it arrived, and will also admire his letter to the procurator asking him to return the file on the case because 'new circumstances have become known'.

<sup>81</sup> ZI, August 22, 1933.

<sup>82</sup> ZI, August 22, 1933.

absence, reproved Vyshinsky for 'providing a pretext for incorrect accusations' against the two commissariats.<sup>83</sup> On September 1, however, Stalin indignantly wrote to Molotov accusing Ordzhonikidze of 'hooliganism'.<sup>84</sup> On the same day the Politburo rescinded its previous decision.<sup>85</sup> Stalin was not appeased. A further letter to Molotov, dated September 12, made clear the gulf which separated Stalin and Ordzhonikidze:

The conduct of Sergo [Ordzhonikidze] (and Yakovlev) in the story of 'complete output' is nothing less than anti-party, because its objective purpose is to defend the reactionary elements of the party *against* the CC CPSU(b). Look at the facts: the whole country is suffering from the incompleteness of production; the party has begun a campaign for completeness, an open press and punishment campaign; a sentence has already been passed on the enemies of the party, who have violated the decisions of the party and the government with impudent maliciousness. But Sergo (and Yakovlev), who are responsible for these violations, instead of repenting for their sins, engage in a blow against the procurator. Why? Not of course to curb the reactionary violators of party decisions, but to support them morally, to justify them in the eyes of party opinion at large, and thus defame the developing campaign of the party, i.e. to defame the practical line of the CC.

I wrote to Kaganovich that, contrary to my expectations, in this matter he has been in the camp of the reactionary elements in the party.<sup>86</sup>

In spite of Stalin's attribution of inefficiencies and disorder to the machinations of enemies, the continued presence at a high political level of a matter-of-fact approach to major disasters was strikingly demonstrated when a horrifying series of air crashes was treated as due not to wrecking but ordinary human failure.

<sup>83</sup> RTsKhIDNI, 17/3/929, 21; affirmed at the session of August 29.

<sup>84</sup> K, 11, 1990, 105, citing the Stalin-Molotov correspondence in the party archives.

<sup>85</sup> RTsKhIDNI, 17/3/930, 13; the rescindment was approved by correspondence, and affirmed at the following Politburo meeting on September 15. Ordzhonikidze was present at the session on August 29 but not at the session of September 15.

<sup>86</sup> K, 11, 1990, 105-6; Yakovlev was People's Commissar for Agriculture.

The most serious crash resulted in the deaths of Baranov, head of the aircraft industry, and A. Z. Gol'tsman, head of the Civil Air Force. A commission headed by Tukhachevsky reported that the plane was overloaded, and that it was flying in low dense cloud even though not sufficiently prepared for blind flight.<sup>87</sup> The Politburo merely resolved that new rules should be established on flight safety, including the right of the directors of aerodromes to ban flights in bad weather; it also decided that henceforth senior officials could fly in aeroplanes only with central committee permission.<sup>88</sup> A serious accident at a Kramatorsk blast-furnace received similar treatment. On November 1 the Politburo decided that senior members of staff at the factory should be put on trial, but a month later this decision was cancelled, and Ordzhonikidze was instructed to punish the guilty persons administratively.<sup>89</sup>

In one aspect of their activities the Politburo and the Soviet state were behaving like the mediaeval Inquisition, seeking out kulaks, wreckers and deviants. At the same time the Politburo approved and encouraged the establishment of the Procuracy and the conciliatory attitude to the specialists, which formed part of a determined effort to establish and consolidate a stable and smooth administrative structure. The most important administrative change in 1933 was undoubtedly the introduction, beginning with the 1933 harvest, of a new system of 'compulsory deliveries' of agricultural products, intended to remove arbitrariness from the collections.<sup>90</sup> These changes did not imply any greater independence for the kolkhozy. The agricultural co-operatives had already been incorporated into the state system in 1932. Early in 1933, the district kolkhozsoyuzy, remnants of the old cooperative system, were abolished and their functions were

<sup>87</sup> ZI, September 24, 1933; the crash occurred near Podol'sk on September 5.

<sup>88</sup> RTsKhIDNI, 17/3/930, 37 – decision by correspondence of September 10; 17/3/931, 43–4 – decision by correspondence of September 22. On November 21, the new K-7 metal aircraft, the largest aircraft in the world, crashed near Kharkov where it was built; this time the commission was headed by Sukhomlin of Rabkrin (ZI, November 23, 1933; for the aircraft, see ZI, November 14, 1933).

<sup>89</sup> RTsKhIDNI, 17/3/933, 3 (session of November 1, item 9); RTsKhIDNI, 17/3/935 (decision by correspondence of December 3).

<sup>90</sup> For the decree on grain deliveries, see SZ, 1933, art. 25, dated January 19; these measures will be discussed in vol. 5.

taken over by the agricultural departments of the district soviets.<sup>91</sup> All this strengthened central control.

Other changes in administration were also designed both to eliminate the confusion and overlap between departments and organisations which had multiplied since 1929, and at the same time to simplify lines of control over the economy from the centre. In August the Politburo decided, on Stalin's proposal, to abolish the 'collegia' (committees) of the People's Commissariats 'in the interests of the completion of the introduction of one-person management in the commissariats'.<sup>92</sup> The collegia, first formed in 1917–18, were originally collectively responsible for the decisions of their commissariat, and even in 1933 important enactments of commissariats were formally submitted to their collegia.<sup>93</sup> While no case is known of a collegium taking a decision contrary to the views of its commissar, the regular sittings of the collegium, and its involvement in all major decisions, were a significant channel for the communication of information and opinion within each commissariat. In Narkomtyazhprom, for example, the collegium met every week, discussed important issues, and was frequently the scene of angry clashes of opinion: this is revealed by the edited reports of its proceedings regularly published in the industrial newspaper in 1932 and 1933. But henceforth the collegia were replaced by larger purely advisory 'councils' of 40–70 members, which were scheduled to meet every two months.<sup>94</sup> Their abolition further limited the lively quasi-pluralistic style of economic administration which had survived from the days of the civil war.<sup>95</sup> In the same spirit, the Politburo criticised the

<sup>91</sup> SZ, 1933, art. 129 (dated February 23).

<sup>92</sup> RTsKhIDNI, 17/3/928 – session of August 15, item 11.

<sup>93</sup> The *postanovleniya* (decrees) were approved by the collegium, either by correspondence (*oprosom*) or at its regular sitting, the *prikazy* by the commissar personally. In some commissariats (e.g. Narkomtyazhprom) decrees and orders were issued in separate series, in others (e.g. Narkomsnab) they were issued together. In Gosplan and (until its abolition) Vesenkha the presidium was equivalent to a collegium.

<sup>94</sup> RTsKhIDNI, 71/3/928, 4 (session of August 15, item 11); half the members were to come from local organisations and enterprises.

<sup>95</sup> The collegia were not in fact replaced by councils until 1934. The Politburo decision was endorsed by the XVII party congress in January–February 1934 (*KPSS v rez.*, iii (1954), 229); the congress resolved that in order to strengthen the personal responsibility of commissars the collegia should be abolished and

head of the building industry in the People's Commissariat for Light Industry for 'violating one-person management' by permitting minor administrative questions to be discussed in party cells, and warned him that he would be dismissed unless he changed his ways.<sup>96</sup>

The most startling change in industrial administration in 1933 was the abolition of Narkomtrud by a decree of June 23. The decree, promulgated jointly by TsIK, Sovnarkom and AUCCTU (the central council of trade unions), nominally provided for the 'fusion' with the trade unions of the central and local agencies of Narkomtrud. The 'fusion' was in fact an annexation, because AUCCTU and the trade unions took over both the obligations and the staff of the commissariats.<sup>97</sup> The functions assumed by the AUCCTU included the management of the social insurance budget, the sanatoria of Narkomtrud and the labour inspectorate.<sup>98</sup>

Before its abolition the powers of Narkomtrud had gradually been reduced. With the advent of central planning and the elimination of mass unemployment, the labour exchanges of Narkomtrud and their successors had virtually ceased to operate, and had given way to an anarchic search for workers by every corporation, coupled with intermittent central decisions which attempted to transfer labour to particular projects or factories. Other central functions of Narkomtrud, including the administration of social insurance, had already been partly transferred to the trade unions.<sup>99</sup> The reorganisation was formally a move in the opposite direction to the general trend towards the explicit assumption by the state of the functions of voluntary organisations. But it was unthinkable that the functions of the trade unions should be openly transferred to the state. At the AUCCTU plenum which discussed the reorganisation, Shvernik proudly contrasted the Soviet trade unions, and their new enhanced functions, with the

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'the commissar and not more than two deputies shall remain at the head of the commissariat'. Collegia were reestablished, with more limited functions, in March 1938 (*Direktiv*, ii (1957), 531-2).

<sup>96</sup> RTsKhIDNI, 17/3/935 (decision by correspondence of December 5).

<sup>97</sup> SZ, 1933, art. 238.

<sup>98</sup> SZ, 1933, art. 333 (decree of Sovnarkom and AUCCTU, dated September 10, 1933).

<sup>99</sup> See Shvernik's report to the III plenum of the AUCCTU, June 29, 1933, in ZI, July 4, 1933.

trade unions of the capitalist world, and particularly with the Nazi Labour Front, which insisted that workers must play no part in the control of production and must pay social insurance fees.<sup>100</sup> But in practice the absorption of Narkomtrud by the trade unions provided a convenient way of further integrating the trade unions into the economic administration. The Politburo must also have been mindful of Narkomtrud's long tradition of independence and awkwardness, only partly overcome when party stalwarts were put into the commissariat at the end of 1930. At the AUCCTU plenum, Shvernik firmly insisted, in implicit contrast with the traditional Narkomtrud approach, that '*we must re-examine the whole practice of social insurance from the point of view of priority to shock workers and to old cadre workers*'. Quitters and absentees should not receive benefits on an equal basis. Benefits, including pensions, should in future be related to the amount of time the worker had spent in a single enterprise, and only those who had spent at least two years at one enterprise should be allowed to use trade union sanatoria and rest homes.<sup>101</sup>

This reorganisation left several important lacunae in the management of labour, some of which were never filled. From 1933 until the formation of the State Committee on Labour and Wages in 1955 no governmental organisation had general oversight of labour problems, and in practice the trade unions did not fill the gap. The preparation and introduction of wage reforms proved difficult to effect. No regular machinery existed to notify job vacancies to workers, so changing jobs was a clumsy process. The abolition of all machinery to cope with unemployment caused great difficulties for workers at times when dismissals on economy grounds led to temporary unemployment. Finally, the valuable research on labour problems pursued by Narkomtrud, still continuing in spite of obstacles in the early 1930s, was greatly restricted between 1933 and the mid-1950s.

Following the good harvest and improved industrial performance which were outstanding features of the second half of 1933, Soviet economic policy strongly emphasised the needs of

<sup>100</sup> ZI, July 4, 1933.

<sup>101</sup> ZI, July 4, 1933. The resolution of the AUCCTU plenum was published in ZI, July 12, 1933.



the consumer. The signal was given by Stalin in an interview with collective farmers from the Odessa region on November 20, 1933. According to the official record:

The collective farmers pointed out the tremendous growth of requirements in the countryside, the growth of the demand for goods. Cde. Stalin, referring to the plan for a serious expansion of light industry, said that double or treble the consumer goods would now be produced.<sup>102</sup>

Thus Stalin reiterated the bold goals for the consumer goods' industries proclaimed by the XVII party conference (see pp. 137–8 above). This was soon taken up elsewhere. In an address to a Donetsk conference on technical propaganda, Bukharin praised 'cde. Stalin's latest slogan' and drew far-reaching conclusions in the spirit of the Bukharin of the 1920s:

For us the machine is not an aim in itself but a means to an end: we consider it necessary that the steel miracles should serve living people. Our working class has certainly not made sacrifices to construct new buildings, to equip giant plants, to produce very complicated machinery, just so as to eat the coal and wash it down with machine oil, but in order after a certain lapse of time to receive an increasing quantity of consumer goods.<sup>103</sup>

This emphasis on consumer goods was reflected both in the national-economic plan for 1934 and in the final version of the second five-year plan which was in course of preparation.<sup>104</sup>

While in the second half of 1933 these complex and often ambiguous developments were shifting internal policy in the general direction of stability and reconciliation, the international situation remained grave. In August, Dirksen, the German ambassador to Moscow, a symbol of Rapallo, was recalled. In September, the Comintern leader Dimitrov was arraigned at the Reichstag Fire Trial in Leipzig. In October the Nazi government

<sup>102</sup> P, November 23, 1933.

<sup>103</sup> ZI, December 8, 1933; see also his article in ZI, January 20, 1934.

<sup>104</sup> See Zaleski (1980), 550, 131; these plans will be discussed in a later volume.

withdrew from the disarmament negotiations and the League of Nations.<sup>105</sup> In December, Litvinov reported to the session of TsIK, in a speech which received wide international publicity, that on the Soviet frontiers 'Japan is feverishly preparing for a war which is bound to be aggressive'.<sup>106</sup> Privately, Litvinov frankly told Bullitt, Roosevelt's emissary to Moscow, that an attack on the USSR by Japan in the spring of 1934 was 'probable', and the war might drag on for years. Stalin anticipated that war with Japan was 'certain', and asked the United States for 250,000 tons of steel rails for double-tracking the line from Lake Baikal to Vladivostok.<sup>107</sup> Bukharin, at the Donetsk conference on technical propaganda, devoted much of his report to a very strong attack on the dangerous and inhuman fascist doctrines of racial superiority, agrarianisation and hostility to technology, which he contrasted with Soviet enthusiasm for industrialisation and technological advance aimed at benefiting the ordinary citizen.<sup>108</sup> A few weeks later he warned in tones of the greatest alarm that Prussian and Japanese fascists were 'ready to destroy the young Soviet Commune in a bloody attack':

the second round of imperialist wars is coming, and the whole world can see the bestial grimaces of the cliques of bloody plunderers around us.<sup>109</sup>

<sup>105</sup> Carr (1982), 100.

<sup>106</sup> *TsIK* 4/*VI*, No. 3, 21 (speech of December 29, 1933).

<sup>107</sup> Conversations with Bullitt, December 21 (Litvinov) and 20 (Stalin), 1933 (*Foreign Relations of the United States* (Washington, 1952), 58–62). Stalin even remarked that old rails would be acceptable; but the rails were not forthcoming. The fears of Japan were shared by the United States. Roosevelt told Litvinov that 'only 8 per cent of the world's population strives for war and conquests, and this includes Germany and Japan', while Bullitt told Karakhan that there was a 40 per cent chance that Japan would attack the Soviet Union in the spring of 1934. (*Dokumenty vneshnei politiki*, xvi (1970), 658, 744.)

<sup>108</sup> *ZI*, December 8, 1933. Criticising Spengler for regarding technology as a 'curse', he praised Stalin as 'not merely the Field-Marshal of the international revolution but also the world's greatest spokesman for technical progress'. But he could not refrain from tweaking the censor's (and Stalin's) tail, remarking that 'Spengler now states that the greatest and really human pleasure is to plunge a dagger into the body of an enemy'. This was evidently a reference to Stalin's alleged belief in vengeance by means of a knife in the back about which Bukharin complained to Kamenev in the famous conversation of July 11, 1928 (see Tucker (1973), 417).

<sup>109</sup> *ZI*, January 20, 1934.

Against this sombre background, Soviet defence preparations in the Far East were accelerated. In August, the Politburo decided to establish a 'special defence fund' of food and fodder grain in East Siberia and the Far East, amounting to one million tons; the OGPU was required to undertake the rapid construction of grain warehouses.<sup>110</sup> Air squadrons were moved to Kamchatka.<sup>111</sup> The Politburo approved a series of measures, proposed by Stalin and Gamarnik, 'to strengthen the defence of our naval shores in the Far East'.<sup>112</sup> It also resolved that timber was not to be exported from the Far East in 1934, but used for defence and other purposes.<sup>113</sup>

In this dangerous climate Soviet diplomacy did not speak with a united voice. The Soviet government firmly rebuffed German measures against Soviet journalists who sought to attend the Reichstag Fire Trial, and for its part arrested alleged German spies and expelled them from the USSR.<sup>114</sup> But at the same time, through both official and unofficial channels, it sought to mitigate the tension with Nazi Germany.<sup>115</sup> The British Foreign Office correctly concluded that these endeavours were made on the assumption that 'the threat from Germany is not so imminent as that from Japan'.<sup>116</sup> In October, the Politburo issued a directive to its representative in Mongolia which referred to

<sup>110</sup> RTsKhIDNI, 17/162/15, 28–9 (decision by correspondence of August 13, no. 122/107), 165 (decision by correspondence of January 9, 1934, no. 149/130). Less than 10 per cent of the required storage space already existed in August 1933 (GARF, 5446/27/33, 143).

<sup>111</sup> RTsKhIDNI, 17/162/15, 30 (decision by correspondence of August 15).

<sup>112</sup> RTsKhIDNI, 17/162/15, 130–2, 139 (decision by correspondence of October 28, and November 5, 9 and 19, nos. 106/120, 36/22, 51/37, and 47/29).

<sup>113</sup> RTsKhIDNI, 17/162/15, 153, 168 (decisions by correspondence of December 11, 1933 and January 19, 1934, nos. 61/36 and 205/18).

<sup>114</sup> RTsKhIDNI, 17/162/15 (decisions by correspondence of September 26, nos. 133/97 and 134/98; Politburo session of November 15, item 3).

<sup>115</sup> See Haslam (1984), 22–6. On October 1, the Politburo simultaneously agreed that Lufthansa could operate a transit line via Moscow to China and that the contract with Krupp should be cancelled (RTsKhIDNI, 17/162/15, 73 – items 3 and 7).

<sup>116</sup> BDFA, IIA, xi (1986), 328 (dated December 5, 1933). In its Annual Report for 1933, however, the British Embassy noted that 'Germany is disliked, suspected and even regarded as a probable enemy, second only to Japan' (BDFA, IIA, xvii (1992), 21).

'tension in Japanese-Soviet relations' and the 'growing danger of Japanese aggression', and frankly stated that 'numerous speeches of responsible Japanese military leaders are openly in favour of preventive war against the USSR'.<sup>117</sup> And, in preparation for the forthcoming meeting of Litvinov and Roosevelt, who had taken office as President in January, the Politburo ruled that 'Cde. Litvinov is not to avoid specific conversation on our relations with Japan; if Roosevelt should aim in conversation at some rapprochement with us or even a temporary agreement against Japan, cde. Litvinov must relate to this favourably'.<sup>118</sup> In the context of the continuing Japanese menace to both the USSR and the US, Soviet diplomacy scored a notable success. On November 16, following strenuous negotiations between Litvinov and Roosevelt, the United States agreed to establish diplomatic relations with the USSR.<sup>119</sup> Prospects seemed good for settling outstanding grievances and developing good trade and political relations.<sup>120</sup> The first US Ambassador, William Bullitt, later bitterly hostile to the Soviet regime, euphorically described the Soviet leaders as 'intelligent, sophisticated, vigorous'; Bukharin,

<sup>117</sup> RTsKhIDNI, 17/162/15, 112, 126-7 (decision of October 19, no. 29/10).

<sup>118</sup> RTsKhIDNI, 17/162/15, 119 (decision of October 25, no. 101/81). To keep the other doors open, the Politburo simultaneously instructed Litvinov that it was expedient to stop in Berlin and not to refuse to talk to von Neurath (Foreign Minister) and, if he wanted it, with Hitler, and also, in passing through Paris, to meet Boncour (French Foreign Minister) if this was proposed by the French side. On November 10, the Politburo instructed Litvinov to travel back from the US on an Italian boat via Italy, and see Mussolini (RTsKhIDNI, 17/162/15, 132).

<sup>119</sup> See Yergin (1978), 22; *Foreign Relations of the United States* (Washington, 1952), 26-7.

<sup>120</sup> On trade, see Mezhlauk to Bullitt (December 20), Litvinov to Bullitt (December 21), BDFA, IIA, xi (1986), 58, 62. The major US grievance was the Soviet abrogation of tsarist and Provisional government foreign debts. In the Litvinov-Roosevelt conversation of November 15, a 'gentlemen's agreement' was reached that 'the Soviet government will pay to the Government of the United States on account of the Kerensky debt or otherwise a sum to be not less than \$75,000,000 in the form of a percentage above the ordinary rate of interest on a loan to be granted to it by the Government of the US or its nationals' (*Foreign Relations of the United States* (1952), 26-7, memorandum by Litvinov; *Dokumenty vneshnei politiki*, xvi (1970), 662-3, 675-6). But no substantial US government loan was forthcoming; the Soviet Union paid no additional interest; the Johnson Bill banned US purchases in the USSR (April 1934); and there were few Soviet imports from the USA.

Radek and other former dissidents were permitted by the Soviet authorities to dine at the US Embassy, and the American air attaché was allowed to keep his own plane in Moscow.<sup>121</sup> Following these developments, Western diplomats noted the 'firmer and even truculent tone among Soviet spokesmen' towards Japan.<sup>122</sup>

At the same time the Soviet authorities sought to secure themselves against isolation in Europe. On September 2, a non-aggression pact was signed with a potential German ally, Mussolini's Italy.<sup>123</sup> Relations with France, too, improved in face of the German threat, and preliminary discussions took place about a Franco-Soviet pact of mutual assistance.<sup>124</sup>

The Thirteenth Plenum of the Executive Committee of Comintern, which assembled on November 28, declared that the fascist government in Germany was 'the principal instigator of war in Europe'. At this stage the Comintern itself displayed no disposition to abandon its uncompromising hostility to social democracy.<sup>125</sup> But immediately after the Comintern session the Politburo approved a fundamental shift in foreign policy. It agreed that the USSR should join the League of Nations on certain conditions, and that it should aim at a regional agreement, within the framework of the League, with France and Poland, and with other European powers, 'for mutual

<sup>121</sup> Yergin (1978) 23–4; Bullitt described Molotov's 'magnificent forehead . . . [like] a first-rate French scientist, great poise, kindness and intelligence'. He told Molotov that 'Roosevelt is very seriously convinced that much of what you have done in your country could be utilised and applied in the USA' (*Dokumenty vneshnei politiki*, xvi (1970), 749).

<sup>122</sup> BDFA, IIA, xvii (1992), 25.

<sup>123</sup> *Dokumenty vneshnei politiki*, xvi (1970), doc. 277.

<sup>124</sup> Haslam (1984), 27–8; *Dokumenty vneshnei politiki*, xvi (1970), 595–6, 682–5, 772–4. An experienced American correspondent claimed that a military mutual assistance pact was secretly agreed in principle between France and the USSR in December 1933 (Wells (1937), 350–3); this was an exaggeration, but arrangements were made for naval and aviation collaboration (*Dokumenty vneshnei politiki*, xvi (1970), 521–2, 595–6, 602, 617–18, 635–8, 715, 867, n. 272). The French, however, were adamant that they were not prepared to enter into any kind of alliance in relation to Japan.

<sup>125</sup> Carr (1982), 105–20; Dimitrov, who was to lead the struggle for the new line in 1934, was in a Berlin prison at this time; the Reichstag Fire Trial took place from September 21 to December 23 (*ibid.* 99–102).

defence from aggression on the part of Germany'.<sup>126</sup> In his address to TsIK at the end of the year, Molotov publicly approved the 'well-known restraining role played by the League upon forces making for war'.<sup>127</sup>

<sup>126</sup> Haslam (1984), 29; RTsKhIDNI, 17/162/15, 154–5 (decision of Politburo by correspondence dated December 19, no. 19/74). For this statement also submitted to the French Foreign Minister Paul Boncour, see also *Dokumenty vneshnei politiki*, xvi (1970), 876–7 (dated December 28). In an interview with the American journalist Walter Duranty on December 25, Stalin announced that 'it is not excluded that we will support the League of Nations, in spite of its colossal deficiencies' (P, January 4, 1934; Stalin, *Soch.*, xiii (1951), 280).

<sup>127</sup> See BDFA, IIA, xvii (1992), 31.

## CHAPTER FOURTEEN

### THE DEPTHS OF CRISIS, JANUARY–MARCH 1933

In the first few months of 1933, the Soviet economy plunged into its deepest crisis since the civil war. Widespread famine in the countryside grew in intensity. Industry entered a new phase of crisis. In the previous two years production had declined in January and February, following the spurt at the end of the previous year. But in 1933 the decline was much greater, and in January and February production was nearly 5 per cent lower than in the same months of 1932.<sup>1</sup>

The decline was particularly severe in the food industry; the grain shortage even led to a temporary fall in vodka production. But capital goods industries, the motive power and end product of the process of industrialisation, were also seriously affected. After a year of effort, sacrifice, and suffering, Narkomtyazhprom production merely reached the level already achieved at the end of 1931. The crisis was most severe in the iron and steel industry: in the first quarter of 1933 the production of crude and rolled steel was lower than in the same quarter of 1930. Even the production of pig-iron, with new blast-furnaces in operation, was 15 per cent lower than in the previous quarter and no higher than in the first quarter of 1932. (See Tables 5(c) and 7(c)–(e).) Production declined in both old and new plant.

This was a crisis resulting from over-stretched investment plans, which had concentrated on the main shops of key projects at the expense of auxiliary processes and materials, and had siphoned resources away from existing enterprises. Ordzhonikidze toured the Ukrainian iron and steel works at the end of January, and, while dismissing the directors of the major works at Makeevka and Stalino on grounds of inefficiency,<sup>2</sup> also noted that the lack of ore and coke was an underlying problem.<sup>3</sup> In 1932 as a whole, coke production had not kept pace with requirements. Coke stocks at the Southern factories declined by

<sup>1</sup> *Osnovnye pokazateli*, January–February 1933, 19.

<sup>2</sup> *Predpriyatie*, 3, 1933, 4, P, February 11, 1933; *1933 god* (1934), 257.

<sup>3</sup> Ordzhonikidze, ii (1957), 448–9 (speech of January 31).

more than 50 per cent in the last six months of 1932, and continued to decline in January–March 1933.<sup>4</sup> In Vostokostal', coke stocks fell to a single day's supply by January 1, 1933.<sup>5</sup> Shortage of coal and coke also brought other troubles: the resulting steam shortage led to interruptions in supply from some power stations.<sup>6</sup> Iron ore was also in short supply, and its metal content and quality deteriorated.<sup>7</sup>

In the Southern iron and steel works, on-site rail transport had also been neglected in the struggle to keep the furnaces working. At the Voroshilov works nearly half the locomotives were out of use; and everywhere goods wagons were in short supply.<sup>8</sup> At the Stalino works, a serious breakdown occurred at a blast-furnace when the dust catcher collapsed under the weight of 400 tons of dust which had not been cleared because there were no wagons to take it away.<sup>9</sup>

These difficulties were compounded by the exceptionally severe winter. At Dneprostal', coal froze in the bunkers and the coal towers; five of the blast-furnaces had to be worked by 'dirty remnants' of coke.<sup>10</sup>

All the troubles which plagued the Southern industry were multiplied at the new Magnitogorsk and Kuznetsk works, where serious weaknesses in the design of the plant were exposed during these months. At Magnitogorsk, Zavenyagin admitted in retrospect that the design was prepared without taking account of climatic conditions:

<sup>4</sup> *Sovetskaya metallurgiya*, 8–9, 1933, 366 (Osvenskii).

<sup>5</sup> RGAE, 4086/2/367, 5.

<sup>6</sup> See, for example, RGAE, 4086/2/143, 9 (Voroshilov iron and steel works, Ukraine, during January–March 1933).

<sup>7</sup> ZI, May 8, 1933 (Protasov); the ore corporation Ruda attributed the deterioration in quality to the switch to underground mining and the use of American methods, but ZI pointed out that the quality of the ore had also declined at mines which used the old methods. For the poor quality and low stocks of ore at Vostokostal', see RGAE, 4086/2/367, 7, 13; there were only 19 days' stock on January 7, 1933, far less than required for normal working.

<sup>8</sup> *Sovetskaya metallurgiya*, 8–9, 1933, 360: see also *Predpriyatie*, 3, February 1933, 5 (editorial).

<sup>9</sup> ZI, March 28, 1933; the breakdown was on March 18. Several responsible officials were sent to trial, and the newspaper hinted that wreckers were at work; it argued that in the absence of wagons the dust should have been emptied onto the track . . .

<sup>10</sup> *Predpriyatie*, 3, February 1933, 4 (editorial); ZI, January 27, 1933.



On the mountain the transporters are partly completely open, and partly enclosed in light temporary wooden galleries on wooden columns. In severe frosts the rubber belts of the transporters lose their flexibility and the transporters stop moving. No preparations were made to prevent the ore *freezing* . . . In the blast-furnace shop the building for the bunkers is too light and can be heated only at the bottom, the upper part cannot be heated and in severe frosts the ore freezes in the bunkers.<sup>11</sup>

At the end of 1932, a severe hurricane 'completely paralysed' the blast-furnace shop at Magnitogorsk, and the furnaces 'entered a phase of severe disruption'.<sup>12</sup> At Kuznetsk, the temperature fell to -46°C at the beginning of January. In the blast-furnace shop, the thermometers broke and the water pipes burst; in the rolling mill the severe frosts damaged the pipe lines and even froze the grease. According to the official history of Kuznetsk, 'no-one knew how to prepare the factory for the Siberian winter'.<sup>13</sup> The Ural-Kuznetsk combine was now paying the price for the incompleteness of the construction and the rush with which it was put into operation. At Magnitogorsk in March 1933 the casting shop 'looked as if a volcano had exploded'.<sup>14</sup> When he visited the works for the first time later in the year, Ordzhonikidze complained that the electricity sub-station looked 'as if there had been a pogrom there yesterday'.<sup>15</sup> In the first months of 1933, many vital pieces of equipment, particularly those in production at Soviet factories, had not yet reached the combine, and the gap was filled by improvisation.

Soviet engineers and workers had no experience of plant of this size and sophistication. Most engineers at the Ural-Kuznetsk combine were young graduates with little production practice.<sup>16</sup> The gap was partly filled by American and German engineers

<sup>11</sup> ZI, January 12, 1934; Zavenyagin was director of the works when he wrote this account.

<sup>12</sup> *Magnitostroi* (Magnitogorsk-Sverdlovsk, 1934), 120–1.

<sup>13</sup> Frankfurt (1935), 228, 236, 240–1; *Istoriya Kuznetskogo* (1973), 171–3.

<sup>14</sup> P, March 29, 1933 (letter from 'N.S.')

<sup>15</sup> Ordzhonikidze, ii (1957), 482 (speech of July 26, 1933).

<sup>16</sup> *Istoriya Kuznetskogo* (1973), 173, reports that at the beginning of 1933 only two engineers in the blast-furnace shop at Kuznetsk had previously worked in an iron and steel plant.

and skilled workers. In the start-up stage, as during the process of construction, cautious and experienced foreign engineers frequently clashed with young inexperienced Soviet enthusiasts and with Soviet managers who were under heavy pressure to achieve quick results. Sometimes the caution was excessive, and Soviet enthusiasm proved effective. Nevertheless, the know-how and the restraining hands of the foreign engineers at first helped to avoid waste and accident. At the beginning of 1933, however, as a result of the balance of payments' crisis, the Soviet authorities failed to renew the contracts of senior American engineers. And junior foreign engineers and workers were transferred from the special stores for foreigners to ordinary rations, and their pay was cut or made available in rubles instead of foreign currency; many of them left forthwith.<sup>17</sup> The withdrawal of foreign engineers and workers imposed a heavy burden on the Soviet engineers at a particularly difficult stage of the start-up process.<sup>18</sup>

In all these unfavourable circumstances, an unprecedented series of disasters rocked the combine. Magnitogorsk in January and February 1933 experienced 'a chain of continuous breakdowns' in the blast-furnaces. *Pravda* reported 'the opinion of the workers and of many specialists that the furnaces are being destroyed', and conventionally detected the 'undoubted' presence of wreckers.<sup>19</sup> At Kuznetsk, the brick chimney of blast-furnace no. 1 exploded and production was halted; a few days later a fire destroyed the cables and damaged the skip of the furnace.<sup>20</sup> At Magnitogorsk, the production of pig-iron fell from 134,000 tons in October–December 1932 to 55,000 in January–March 1933. In Kuznetsk, production had reached 91,000 tons in the single month of November 1932, but declined to 52,000 tons for the whole three-month period January–March 1933.<sup>21</sup>

<sup>17</sup> BDFA, IIA, xi (1986), 160 (Bullard to Strang, June 12, 1933), see also pp. 157–8 above.

<sup>18</sup> For mutually critical accounts of the role of American engineers at Kuznetsk at the beginning of 1933, see *Istoriya Kuznetskogo* (1973), 173, Hoover, AER, Box 2, J. S. Ferguson ms (dated September 10, 1934), p. 6. Ferguson and his colleagues left on January 26, 1933.

<sup>19</sup> ZI, March 22, May 30, 1933; P, March 29, 1933 (letter from 'N.S.').

<sup>20</sup> Frankfurt (1935), 229; *Istoriya Kuznetskogo* (1973), 173; the latter source blames the American engineers for both these accidents.

<sup>21</sup> *Magnitostroi* (Magnitogorsk-Sverdlovsk, 1934), 119; *Plan*, 1, 1934, 25 (Abramov); RGAE, 4086/2/143, 13–14.

The coal industry seemed to present fewer problems. Production declined in January and February, but recovered to a record level in March (see Table 7(a)). And production of coal and coke, unlike iron and steel, had increased substantially – albeit with alarming interruptions – during the first five-year plan. But in the first three months of 1933, production, labour productivity, and capital productivity of the main machines in the Donbass were all substantially lower than in the first three months of 1932.<sup>22</sup> Increases in coal production were essential: coal was the main fuel for the railways and power stations as well as the capital goods industries. Moreover, the authorities regarded it as impossible to import coal. While rolled steel was imported in substantial quantities in 1933, coal was seen as a gift of nature, available in abundance in the USSR – an object for export rather than import.<sup>23</sup> The lack of coal – stocks of which had everywhere fallen below a level which was already much too low – menaced every activity in the urban economy. The coal shortage exacerbated the problems of the iron and steel industry (see pp. 363–5 above) and of the railways (see p. 367 below). In the Far East, the coal shortage was such that Lomov, deputy chair of the Fuel Committee, called for the urgent development of local mines.<sup>24</sup>

Other major capital goods industries were also in serious difficulties. In January–March 1933 the production of chemicals and non-ferrous metals was lower than in the same quarter of 1932.<sup>25</sup> Gold production, of major importance for the balance of payments, also declined.<sup>26</sup> The production of building materials within the main industrial commissariats fell by over 20 per cent.<sup>27</sup> The Commission for Fulfilment of Sovnarkom strongly

<sup>22</sup> For data see *Osnovnye pokazateli*, 1933, 52–5.

<sup>23</sup> Imports and exports of coal of all kinds were as follows (thousand tons):

	1929	1930	1931	1932	1933
Exports	1396	1920	1740	1800	1818
Imports	67	64	107	53	16

(*Vneshnyaya torgovlya* (1960), 94, 128, 308, 341).

<sup>24</sup> GARF, 5446/27/23, 278–7 (memorandum to Molotov and Kuibyshev, dated February 21, 1933).

<sup>25</sup> *Osnovnye pokazateli*, January–March 1933, 26–7.

<sup>26</sup> GARF, 5446/57/24, 33–6 (art. 829/160s, dated April 26).

<sup>27</sup> *Osnovnye pokazateli*, January–March 1933, 26–7.

criticised the poor performance of the timber industry, which had lagged badly behind the plan in the previous six months. The attempt to staff the industry with a permanent labour force had failed; and the supply of horses and carts was inadequate.<sup>28</sup> The Commission blamed poor organisation; but in fact the primary factors responsible were the decline in the number of horses, the lack of fodder for those remaining, and the lack of food for their owners. In contrast to these industries, total engineering production (including armaments) increased by 12.1 per cent as compared with the first quarter of 1932. But this increase took place primarily in industrial capital equipment, where imports had been drastically cut, in tractors and vehicles, and probably in armaments. Production of equipment for the railways, and for most consumer goods industries, declined.<sup>29</sup>

The crisis on the railways continued. The shortage of coal, rails and rolling stock, and the reduction in the labour force, all played their part. In February, Andreev complained to Stalin, Molotov and Kuibyshev of the 'extremely difficult position' on the railways resulting from the coal shortage. Stocks, less than one-third of the 1932 level, were sufficient only for three days' supply, and coal frequently had to be transferred to the locomotives direct from the railway wagons which brought in the coal.<sup>30</sup> As a result of the railway crisis, goods traffic in January–March 1933 was 6 per cent below the level of January–March 1932 (see Table 10). Though pressure on the railways was somewhat mitigated by the decline in industrial production and the restrictions on population movement, the crisis was almost as severe as at the beginning of 1931.

The impact of the foreign exchange and food crises, already major causes of difficulty in 1932, was still more troublesome in the first quarter of 1933. Exports of grain, timber and oil were substantially lower than in the first quarter of 1932, so imports of metals and machinery were reduced even more drastically in

<sup>28</sup> SZ, 1933, art. 112 (decree dated March 11).,

<sup>29</sup> For the data in the above paragraph, see, except where otherwise stated, *Osnovnye pokazateli* . . . *NKTP*, January–June 1933, 111–22.

<sup>30</sup> GARF, 5446/27/23, dated February 25. The number of persons employed by Narkomput' on operations and on capital repair and renovation (excluding capital construction) declined by 3.2 per cent in January 1933, and was 2.3 per cent lower than in the previous January (*Osnovnye pokazateli*, January–February 1933, 57).

order to maintain the positive balance of trade (see Table 13(d)). In February, an order of Narkomtyazhprom optimistically declared that ‘the five-year plan has improved our engineering to such an extent that any machine can be designed and produced at our Soviet factories’, and announced that orders valued at 21 million foreign-trade rubles would be transferred from import to Soviet production. In future all railway locomotives, cranes, electric motors, blast-furnace equipment, electric furnaces, pumps and compressors, and all spare parts for imported goods, were to be produced within the USSR.<sup>31</sup> But in practice Soviet industry frequently failed to provide the required equipment, exacerbating the difficulties of industry.

In the first months of 1933 the food crisis grew even more severe in the towns as well as in the countryside, and continued until the new harvest and beyond. Letters received by the British Embassy in Moscow from workers in various parts of the Soviet Union complained of hunger. In Saratov, ‘people are dying of starvation at the rate of 150 to 200 a day’.<sup>32</sup> A British worker who lived in Armavir, Kuban’ region, reported that the ration in his factory had been cut to ‘400 grammes of bread a day and nothing else’ – ‘all the people have swollen faces and bodies and limbs from having too little or injurious food to eat’. A Canadian engineer working in the copper industry of the Urals reported that ‘food is insufficient, the workers receiving only black bread with sometimes a little sugar’ – ‘Rubbish heaps are searched for potato peelings, bones, etc.’.<sup>33</sup> In spite of the savage reprisals against strikes, workers in the railway repair shops in Voronezh, weakened by hunger following the closure of the canteens, refused to start work until they were served with a meal.<sup>34</sup>

Food supplies continued to decline. In January–March 1933, the amount of food grains and groats made available on general

<sup>31</sup> ZI, February 26, 1933 (order dated February 24 – art. 173); orders were to be placed with Soviet factories within twenty days under the guidance of M. Kaganovich. See also ZI, March 1, 1933. Monthly data on the imports of specific items will be found in the sources cited in Table 13 (a)–(d).

<sup>32</sup> BDFA, IIA, xi (1986), 83 (dated March 6, 1933).

<sup>33</sup> BDFA, IIA, xi (1986), 88 (Strang to Simon, April 9, 1933).

<sup>34</sup> *Ibid.* 216 (note by W. G. Walton dated August 12); the strike, which occurred on July 27, was observed by an American specialist working in Narkomput’ – ‘the shop was surrounded by OGPU troops, but the specialist did not hear of any arrests taking place while he was in Voronezh’.

supply declined by over 20 per cent. The Politburo again sought to relieve the severe food shortages in the towns by reducing the number of mouths to be fed in the priority categories. By March 1933, the central authorities had reduced the number of persons receiving rations on the Special List and List 1 from 21.3 million to 19.7 million.<sup>35</sup> To this end it almost routinely rejected requests for increased rations,<sup>36</sup> and the decrees on passports, rationing and absenteeism of November–December 1932 were strictly applied. Swingeing cuts were made in the number of white-collar workers, and in the number of dependents supplied with rations, with great hardship for those deprived. According to a British Embassy report, the staff of the prestigious metal projects institute Gipromet was reduced by two-thirds.<sup>37</sup> Simultaneously the number of industrial workers entitled to rations was also reduced. Even at major factories significant numbers of workers and their dependents were refused ration cards by their factory management, or passports by the police (this meant they automatically lost their right to a ration card). The British consul in Leningrad reported substantial reductions in the labour force at the telephone works and the Baltic shipyard.<sup>38</sup> By the middle of January 1933, 800 out of 20,000 workers (4 per cent) had been refused passports at Elektrozavod in Moscow; 390 of those refused were described as former White guards and kulaks, and 200 as criminals.<sup>39</sup> On February 1, the Politburo agreed to send a special OGPU team to Magnitogorsk to ‘cleanse it of criminal and unnecessary elements’.<sup>40</sup> In March the party central committee reported that ‘at 74 heavy industry enterprises, 237,000 “dead souls” and parasites were removed from the

<sup>35</sup> These are the ration lists for October–December 1932 (see Table 12) and for the April–June 1933 plan approved on March 9, 1933 (GARF, 6750/1/6, 197–8, 208–10, 212).

<sup>36</sup> Thus five requests were rejected on January 30 (RTsKhIDNI, 17/3/914, 24). See also the numerous requests for grain from special funds which were rejected by Chernov at this time, in GARF, 5446/27/29 (Komzag correspondence for January–March 1933).

<sup>37</sup> BDFA, IIA, xi (1986), 155 (Bullard to Strang, June 12, 1933).

<sup>38</sup> BDFA, IIA, xi (1986), 161 (Bullard to Strang, June 12, 1933). According to this report, those dismissed were usually offered heavy manual work in distant places.

<sup>39</sup> See Shimotomai (1991), 68.

<sup>40</sup> RTsKhIDNI, 17/3/914, 1 – item 2. On February 6 the item on hooliganism in Magnitogorsk was removed from the agenda (RTsKhIDNI, 17/3/915, 17).

two million persons who had been supplied before the ORSy were organised',<sup>41</sup> 12 per cent of the total. Many of those removed must have been dependents or people receiving rations illegitimately, as the number of people working in heavy industry declined by only 7.5 per cent between December 1932 and March 1933.<sup>42</sup>

Those registered on Lists 2 and 3 – some 40 per cent of all persons receiving rations – were, as usual, in an even worse position. The local authorities, required to supplement the meagre central allocations from local resources, made even more drastic cuts than in the previous year. The Central Volga regional party committee reported to Stalin and Molotov that in January–March 1933 all clerical workers in Syrzan', Penza, Ul'yanovsk and Orenburg had been taken off the ration, while in Samara, the principal town, manual workers on List 2 received 400 grams of bread a day, and their families (at the rate of only one dependent per worker) received only 200; clerical workers also received a mere 200 grams, and their families received no ration – and even these supplies were irregular.<sup>43</sup>

Stringent controls were also imposed over those seeking to move to the towns from the famine areas. On March 17, TsIK and Sovnarkom, not for the first time, attempted to regularise the employment of collective farmer-otkhodniki – on the basis of a contract registered with the board of the kolkhoz.<sup>44</sup> All these measures somewhat reduced the urban population. According to official figures, net migration from the towns amounted to 79,300 persons in January–February 1933, as compared with a net immigration of 695,100 in the same period of 1932.<sup>45</sup>

<sup>41</sup> ZI, March 18, 1933.

<sup>42</sup> *Osnovnye pokazateli* . . . *NKTP*, January–June 1933, 153; these figures are for total personnel in production enterprises, excluding capital construction. The central committee statement reported very substantial reductions in the ration quotas at some major factories, quite out of line with the number employed. Thus in January 1933 ration quotas at the 'Dinamo' factory in Moscow were reduced by 9,000, although the number employed was 7,854 on December 1, 1932, and 7,474 on March 1, 1933; equivalent figures for the ZIS motor works in Moscow were 10,000, 19,032 and 17,756 (ZI, March 18, 1933; *Osnovnye pokazateli*, January–February 1933, 54–5).

<sup>43</sup> GARF, 5446/27/28, 11 (telegram from Shubrikov, n.d. [January 1933?]).

<sup>44</sup> SZ, 1933, art. 116.

<sup>45</sup> *Osnovnye pokazateli*, January–March 1933, 89; the population of Moscow declined by 54,600, of Leningrad by 33,800; some net immigration into other

While the labour force in industry as a whole declined in the first three months of 1933, considerable efforts were made to retain workers in the key industries. In iron and steel, the number of workers increased by 1.6 per cent between December 1932 and February 1933; in coal, by 4.5 per cent. But the number of workers in the coal industry, and in heavy industry as a whole, remained smaller than at the beginning of 1932.<sup>46</sup>

A vigorous campaign against theft attempted to impose order on the unruly towns. On February 16, a strongly worded decree sought to prevent theft from state and cooperative shops by white-collar employees, and reiterated that the hiring of staff who had no passport was a criminal offence;<sup>47</sup> the campaign was soon extended to factories and building sites. The industrial newspaper, complaining that theft was looked as on 'a minor disciplinary matter until recently', reported that its voluntary correspondents had got into the Krasnyi Profintern factory without a permit, and taken away various items unmolested. The Krasnyi Profintern scandal was reported by way of example at the Narkomtyazhprom collegium. Those responsible for were sent for trial on Ordzhonikidze's orders, receiving sentences of up to two years.<sup>48</sup>

The ration card – and the threat of being deprived of it – imposed some improvement in labour discipline. During the first months of 1933 the authorities eagerly sought to obtain more production from a smaller labour force while simultaneously limiting wages – thus reversing the declining productivity and wage inflation prevalent in 1931 and 1932. On February 21, 1933, a Sovnarkom decree reinforced the wage legislation of the previous autumn, imposing a monthly ceiling on the wage expenditure of every enterprise (see p. 286 above).<sup>49</sup> In the first

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towns continued, presumably because passports had not yet been introduced. The passport system was extended to Magnitogorsk, Kuznetsk, Stalingrad, Baku and Gor'kii-Sormovo by a Politburo decision of February 4 (RTsKhIDNI, 17/3/915, 12–13; decision by correspondence).

<sup>46</sup> See *Osnovnye pokazateli*, January–February 1933, 53.

<sup>47</sup> SZ, 1933, art. 76 (decree of Sovnarkom dated February 16).

<sup>48</sup> ZI, May 10, 1933; the collegium met on April 20.

<sup>49</sup> SZ, 1933, art. 75. The Politburo approved a draft decree on January 16, delegating the final editing to Molotov and Stalin (RTsKhIDNI, 17/3/913, 4 – item 14). For Molotov's earlier scruples about publishing a USSR-wide decree on this subject, see p. 286 above.



few months of 1933, the total wage bill declined substantially, partly as a result of the decline of the labour force in industry and construction, partly as a result of the decline in the average wage in industry. In Narkomtyazhprom, wages fell more than productivity between December 1932 and March 1933.<sup>50</sup> This was a time of rising prices, so these figures do not reflect the full deterioration in the position of the workers. Moreover, the financial squeeze on enterprises frequently made it impossible to pay wages on time, repeating the experience of previous periods of financial stringency (see pp. 24, 236–7, 285 above). Arrears were considerable even at some major iron and steel works; a Western observer estimated the total arrears in the whole USSR at several hundred million rubles.<sup>51</sup> On April 23, the Politburo instructed commissariats to eliminate wage arrears by May 1; persons responsible for delays in payments were to be brought before the courts.<sup>52</sup> Four days later, it decided to put thirteen directors and others on trial for ‘*systematic delays*’ in wage payments.<sup>53</sup>

<sup>50</sup> The monthly changes were complicated. Wages fell less than productivity in January, but productivity outpaced wages in the following two months:

	<i>Dec.</i> <i>1932</i>	<i>Jan.</i> <i>1933</i>	<i>Feb.</i> <i>1933</i>	<i>Mar.</i> <i>1933</i>
Gross production (million rubles at 1926/27 prices)	1380	1140	1115	1280
Percentage change as compared with previous month	—	–17.4	–2.2	+14.8
Number of personnel (thousands)	3010	2953	2865	2824
Percentage change as compared with previous month	—	–1.9	–3.0	–1.4
Output per person: percentage change as compared with previous month	—	–15.9	+0.8	+16.5
Average monthly wage (rubles)	157r96	147r32	139r60	145r82
Percentage change as compared with previous month	—	–6.7	–5.4	+4.5

*Sources:* for the first line see Table 5(c). Other data were obtained or estimated from *Osnovnye pokazateli . . . NKTP*, January–June 1933, 151; these figures are for the total number of personnel in production enterprises.

<sup>51</sup> BDFA, IIA, xi (1986), 104–5 (Strang to Simon, May 8, 1933).

<sup>52</sup> RTsKhIDNI, 17/3/921, 3–4 (item 7). The question of wage delays was previously brought before the Politburo on January 29 (RTsKhIDNI, 17/3/914).

<sup>53</sup> RTsKhIDNI, 17/3/922, 8–9 (decision by correspondence).

The decline in relative wage rates was obtained by the familiar method of reducing the rate for the job (increasing output norms), which had operated effectively in 1927–30, but was largely ineffective in the inflationary years 1931–2. On January 2, 1933, AUCCTU ruled that output norms, except in the case of individual disputes, would be determined by management alone, and would no longer be subject to confirmation by the factory rates and conflicts commissions (RKK) on which both management and trade unions were represented.<sup>54</sup> On February 15 the Politburo resolved that ‘out-of-date’ output norms should be revised.<sup>55</sup> The new norms were introduced in the course of negotiating the annual collective agreements between management and trade unions.<sup>56</sup> Appropriate instructions were adopted by each of the industrial commissariats. For the food industry, for example, Narkomsnab ruled that ‘out-of-date and low norms’ were to be revised by April 1; where ‘technical norming’ was impossible (which was the usual position), the actual output of shock workers was to be taken as a basis.<sup>57</sup> This was a particularly severe injunction, and must have been carried out only partially.<sup>58</sup>

The authorities correctly anticipated that the increase in norms would not be welcomed by the workers. The managers’ journal conventionally attributed all potential trouble to class hostility and political deviation, but within this convention was surprisingly blunt:

It should not be forgotten that we have huge masses of new workers from a petty-bourgeois environment, among whom Trotskyist agitation could find a favourable soil. It is necessary to root out all kinds of kulak disturbances which may occur during the collective agreement campaign.<sup>59</sup>

<sup>54</sup> See Schwarz (1952), 184–5; the resolution, which was not published until May (*Trud*, May 9, 1933), modified the Statute of December 12, 1928 (see *Sbornik . . . po trudu* (1938), 408–15).

<sup>55</sup> *Industrializatsiya, 1933–1937* (1971), 612; the decision went into effect immediately.

<sup>56</sup> *Predpriyatie*, 4, February 1933, 3.

<sup>57</sup> RGAE, 8043/1/79, 47, 47ob, 48 (labour plan prepared jointly by Narkomsnab and AUCCTU, dated February 17).

<sup>58</sup> For examples of large cuts in time rates, and increases in norms for workers on piece rates, see BDFA, IIA, xi (1986), 162 (Bullard to Strang, June 12, 1933).

<sup>59</sup> *Predpriyatie*, 4, February 1933, 3 (editorial).

Within ten days of the Politburo resolution of February 15, the industrial newspaper, under the heading 'Stern Rebuff to Class-Enemy Interlopers in Factories', reported that at the Neva engineering works in Leningrad a foreman and his workers in one of the shops had protested about the new norms and the rate fixers who had introduced them; in other shops, brigades of workers had deliberately failed to fulfil the new norms. According to the newspaper, the managers of the factory shops denied that this was a manifestation of class hostility, even though the dissidents included a former 'white bandit' as well as former kulaks. But the newspaper admitted that hostility to the new norms was also found among ordinary workers who were 'lacking in class consciousness'.<sup>60</sup>

Such reports continued to appear for some months. In March, an editorial in the industrial newspaper pointed out that 'correct' norms should be based on the assumption that productivity would increase by 16.5 per cent in 1933 while wages would be only 11 per cent above the *average* level of 1932; in consequence, agitation from Trotskyists and Rightists could be expected.<sup>61</sup> The anxiety about the likelihood of disaffection was well-placed, because this ruling meant that, in spite of the increase in productivity, wages would rise hardly at all above the level already reached at the end of 1932. In April, the trade-union newspaper reported that the increased norms had in fact met with 'fierce resistance from class-hostile elements, scroungers and idlers'; forms of resistance included threatening the rate fixers, 'artificial reduction of productivity' and attempts to organise group resistance.<sup>62</sup> The secretary of the trade-union council later complained that 'some comrades in the factories have it rooted in their minds that the trade union should manage wages on an equal footing with the administration'.<sup>63</sup> Later in 1933 an American journalist who had travelled extensively in the USSR reported that 'clashes' of workers with management and even strikes were 'a universal phenomenon'; in an interview a certain 'O.', a leader of heavy industry with a major political role (presumably Ordzhonikidze), remarked that strikes were almost continuous in Kharkov and

<sup>60</sup> ZI, February 24, 1933.

<sup>61</sup> ZI, March 6, 1933.

<sup>62</sup> *Trud*, April 6, 1933 (Kuritsyn); see also Schwarz (1952), 187.

<sup>63</sup> *Trud*, July 8, 1933 (Veinberg's report to III plenum of AUCCTU).

enquired about the methods of strike breaking used by American mine owners.<sup>64</sup> The unrest was not solely the result of the increases in norms, but it was undoubtedly exacerbated by them.

In practice, norms were increased substantially. The size of the increase varied considerably between factories and industries. In a large sample of building sites, wage costs declined by as much as 15 per cent in January–March 1933 as compared with the average level for 1932.<sup>65</sup> At one exemplary coal face where the miners had been trained by Izotov, norms were increased in February by as much as 22 per cent, and loss of wages was avoided only by an even larger increase in productivity.<sup>66</sup> But in coal mining as a whole, against the background of declining productivity, the norm increases were much lower.<sup>67</sup>

Efforts were also made at this time to prevent and even reverse the well-established practice of attracting or retaining workers by appointing them to higher grades than their skills warranted. In the machine shops of the new giant heavy-engineering factory Uralmashzavod, all workers were checked, and many were moved down two or three grades.<sup>68</sup> As piece rates were tied to the grade, this resulted in a wage cut for piece workers as well as time workers.

In capital construction the crisis was even more severe than in industry. Forced to reduce the number of people receiving rations from the state, and determined to control inflation, the authorities firmly adhered to the planned reduction in capital investment. Strict or even savage legislation cut the food available to building sites which were not on the approved list of titles.<sup>69</sup> The number of building workers declined sharply. By

<sup>64</sup> SV (Paris), ccciv (October 10, 1933), 14–16 (Harry Lang of the left-wing New York magazine *Forwards*).

<sup>65</sup> *Stoimost'* (1935), 40; increases in overheads and the cost of building materials resulted, however, in a 1.3 per cent rise in costs.

<sup>66</sup> *Trud*, April 11, 1933 (speech by Izotov); for Izotov, see pp. 306–7 above. See also data for Vostokostal' quarries in RGAE, 4086/2/356, 3–5; they imply that norms were increased by about 20 per cent between the first and third quarter of 1933.

<sup>67</sup> The worker's average wage declined by 11.3 per cent in February (*Osnovnye pokazateli*, January–March 1933, 74–5), while productivity declined by about 3.5 per cent (estimated from data *ibid.* 25, 74); this implies a norm increase of about 8 per cent.

<sup>68</sup> ZI, April 6, 1933.

<sup>69</sup> ZI, January 4, 1933.

April 1, 1933, it had fallen to 2,069,300 as compared with 3,225,100 on November 1, 1932. This decline by 35.8 per cent was without precedent, and reduced the building labour-force below the level attained in 1931. And in January–February 1933, Union-level budgetary expenditure on capital investment in industry amounted to only 703 million rubles, 76.5 per cent of the expenditure in January–February 1932, and a mere 10.2 per cent of the annual allocation for 1933.<sup>70</sup>

The reduction in capital construction was achieved by a rigid application of the STO decree of March 22, 1932, which ruled – or rather reiterated – that building sites which did not have approved technical projects should not be provided with further finance by the banks, except with special permission from STO.<sup>71</sup> In 1932 such permission was frequently granted. But on December 22, 1932, an unpublished Sovnarkom decree firmly ruled that all construction projects which did not appear in the ‘lists of titles’ of Sovnarkom, the individual commissariats, the republics or the regions were to be cancelled; failure to observe the decree would be treated as an ‘anti-state act’, and branches of the banks as well as managers could be prosecuted for failing to observe these provisions.<sup>72</sup> Consequently, at the beginning of 1933 the banks ceased the payment of grants to most building sites. On January 27, 1933, Sovnarkom authorised the publication of a further stringent decree, ruling that before building contracts for 1933 could be signed not only must the site be included in the ‘lists of titles’ for 1933, but also a full technical project must be approved for the entire site (according to earlier legislation, on major sites the technical project was approved for each separate unit when work on it started). The decree also insisted that the financial estimates of the technical project were to be based on 1933 price lists for labour, materials and transport.<sup>73</sup>

<sup>70</sup> Estimated from data in *Osnovnye pokazateli*, January–February 1933, 70, referring to heavy industry (including electric power), the light and timber industries and state trade and supply (i.e. the food industry); capital investment including housing, etc. amounted to 757 million rubles.

<sup>71</sup> SZ, 1932, art. 132; the decree was supposed to be effective from May 1, 1932.

<sup>72</sup> GARF, 5446/1/70b, 243–4 (art. 1893); the main provisions of this decree were incorporated in the Narkomtyazhprom order published in ZI, January 4, 1933.

<sup>73</sup> SZ, 1933, art. 32; for a commentary, see Venediktov, ii (1961), 756–7.

The first quarter of 1933 was frequently described in the Soviet press as a period of 'breakdown of capital construction'. The annual list of titles, showing the projects to be undertaken and the finance to be provided for each project, was greatly delayed; eventually it was approved piecemeal. The government did not approve the list of titles for the first quarter of 1933, as presented by Gosplan, until the beginning of February, and by this time only 50 per cent of the titles in the Narkomtyazhprom list had been approved.<sup>74</sup> The Stalingrad tractor factory was among the important organisations which lacked an approved title, and a firm investment allocation, in the first three months of 1933.<sup>75</sup> The preparation of technical projects and financial estimates was rendered almost impossible by the lack of tables of standard costs and prices for 1933. Gosplan, suddenly confronted with a new and exacting task, did not complete the tables until February; and regional price lists for local building materials were delayed for several months.<sup>76</sup> By March 15, only 3,100 million rubles of a total allocation to Narkomtyazhprom of 5,300 million rubles was supported by approved projects and estimates.<sup>77</sup>

At the beginning of the year the new legislation was pedantically enforced. In January a Narkomtyazhprom representative reported to a building conference that the commissariat would '*never permit construction without estimates*'.<sup>78</sup> The industrial newspaper pointed out that in consequence 'the majority of building organisations completely lack resources and their financial position is extremely shaky'; the Industrial Bank had ceased providing finance for a large number of building organisations. Workers left because the organisation could not pay them, or were dismissed, and sites had to sell building materials and even machinery to get enough money to carry on at all.<sup>79</sup> Such major factories as the Dzerzhinsky iron and steel works reported that 'the threat hangs over the site of ceasing all

<sup>74</sup> ZI, February 8, 1933; GARF, 5446/1/71 (art. 145, dated February 5); EZh, March 6, 1933.

<sup>75</sup> *Nizhnee Povolzh'e*, 4, July–August 1933, 31.

<sup>76</sup> *Industrializatsiya, 1933–1937* (1971), 154–5 (report of construction sector of Gosplan on Narkomtyazhprom construction in 1933, dated July 20, 1934).

<sup>77</sup> EZh, March 20, 1933 (editorial).

<sup>78</sup> EZh, January 17, 1933.

<sup>79</sup> ZI, February 8, 1933; for a similar report see *Nizhnee Povolzh'e*, 4, July–August 1933, 31 (Lower Volga region).

building work'.<sup>80</sup> In Vostokostal', the quarries received no money until March 23 owing to the delay in the approval of their titles.<sup>81</sup> As late as April 11 the bureau of the Central Volga regional party committee reported: 'building in the region has hardly started; the amount of finance to be provided to the main sites in the second quarter of the year is not known, and their estimates and "titles" have not yet been approved'.<sup>82</sup>

In the course of January–March the banks were eventually permitted to issue grants to some important sites even though they lacked the required documentation. But building sites of lesser importance were compelled to stick to the letter of the legislation.

Owing to the sharp reduction in the provision of finance, building materials, in short supply since 1928, suddenly became abundant. At a conference on building materials all regions reported that building materials had not been a constraint on construction in the first months of 1933. The head of the chief building industry administration of Narkomtyazhprom reported that production by central and local organisations was '*several times less*' than in 1932, and the conference heard reports of '*mass closing*' of building materials' factories at regional and district level, and of artisan cooperatives.<sup>83</sup>

Economic officials and the economic press consistently blamed the sorry state of construction on the failure of those responsible to adapt themselves quickly to the new legislation; in a report on the results of capital construction in 1933, Gosplan criticised the 'lack of preparedness at the beginning of the year on the part of the agencies carrying out capital construction for the new more severe requirements and conditions for starting construction'.<sup>84</sup> But the drastic reduction in capital investment at the beginning of 1933 was in fact the deliberate policy of the central authorities. The quarterly budget for 1933 planned to allocate only 998 million rubles to capital investment in industry in January–March; this was a mere 14.5 per cent of the annual allocation. The actual sum allocated in January and February amounted to

<sup>80</sup> RGAE, 4086/2/669, 28 (dated February 8–12, 1933).

<sup>81</sup> RGAE, 4086/2/356, 5–6.

<sup>82</sup> *Istoriya industrializatsii* (Kuibyshev, 1974), 226 (reprinted from the archives).

<sup>83</sup> ZI, June 29, 1933.

<sup>84</sup> *Industrializatsiya, 1933–1937* (1971), 156; for this report see n. 76 above.

70.4 per cent of the quarterly plan, so it somewhat exceeded the authorised plan.<sup>85</sup> On March 2 the Politburo reiterated that any attempt to exceed the annual plan was ‘unconditionally unacceptable’, and even refused to permit Narkomtyazhprom to finance an increase in investment in the armaments industry from its own resources.<sup>86</sup> The plan for April–June 1933 was also confined strictly within the limits set by the annual plan, and was to be implemented without any net currency issue.<sup>87</sup> If the officials responsible for preparing projects and estimates had worked more quickly, the Industrial Bank would have had to find some other excuse for not providing them with funds.

Thus the first three months of 1933 saw the application of a strict monetarist policy. Against the background of disaster in the countryside, industrial production, capital investment and urban employment all declined; and many urban citizens and their dependents, deprived of jobs and rations, suffered great hardship.

<sup>85</sup> Estimated from data in *Osnovnye pokazateli*, January–February 1933, 70; for coverage see note 70 above. On February 20, Mezhlauk on behalf of Gosplan requested Stalin and Molotov to refuse claims from the commissariats for increases in their capital investment (RGAE, 4372/92/13, 26–30).

<sup>86</sup> RTsKhIDNI, 17/3/917, 17; it did, however, permit Narkomtyazhprom to pay additional charges for equipment from its internal resources.

<sup>87</sup> RTsKhIDNI, 17/3/918, 43–4 – dated March 19; GARF, 5446/57/23, 177–80 (art. 520/95s, dated March 20).



## CHAPTER FIFTEEN

### THE EVE OF THE UPSURGE, APRIL–DECEMBER 1933

The worst months of famine – May, June and July, on the eve of the new harvest – affected the towns as well as the countryside. Many urban citizens received extremely inadequate rations, or no rations at all (see p. 368 above). Large numbers of starving peasants poured into the towns in the famine areas, and died in the streets. In Ukraine, the North Caucasus and the Volga regions the urban death rate in these months reached three to five times the normal level. Even after the new harvest, the effects of malnutrition continued; in December 1933 the urban death rate remained substantially above the normal level in most of these regions. Other regions were also seriously affected. In the Central Black-Earth region urban mortality in July 1933 was more than treble the normal level. Even in the highly privileged Moscow region the urban death rate at its peak exceeded the normal level by more than one-third.<sup>1</sup> Epidemic diseases, in large part due to malnutrition, appeared on the Politburo agenda on a number of occasions in the last few months of the year.<sup>2</sup> The number of officially recorded deaths in Russian and Ukrainian towns in 1933 as a whole exceeded the 1931 level by 312,000, or 54 per cent.<sup>3</sup>

Following the harvest of 1933, the supply of flour to the towns substantially increased, and the number of persons registered on the Special List and List 1 increased from 19.7 million in April–

<sup>1</sup> See regional mortality tables in RGAE, 1562/20/40 and 41.

<sup>2</sup> For example, on August 26 (RTsKhIDNI, 17/3/929, 26 – measures to deal with typhoid and malaria in the North Caucasus and the aviation industry), September 23 (GARF, 5446/57/26, 65, art. 2107/473s – urgent purchase of additional quinine abroad), October 9 (RTsKhIDNI, 17/3/932, 20 – allocation of quinine to deal with malaria in the North Caucasus), December 5 (GARF, 5446/57/27, 158–60, art. 2628/607s – measures to deal with epidemics in North Caucasus, especially malaria). For the prevalence of malaria and its causes, see Wheatcroft (1976), 110–22.

<sup>3</sup> Estimated from data in Osokina (1993), 29; a part of this increase was due to the rise in urban population between 1931 and 1933.

June to 21.7 million in October–December (see p. 369 above and Table 12). Most other centralised food supplies to the towns did not increase.<sup>4</sup> But the last few months of 1933 saw a substantial increase in food supplied by peasants to the kolkhoz market, together with a decline in market prices far below their peak level of the spring of 1933; by November 1933 they were already significantly lower than in the same month of 1932.<sup>5</sup>

### (A) ECONOMIC POLICY

The authorities sought to overcome the problems of industry by a combination of firm central control with a more realistic economic policy. Coal was at the centre of attention. The Politburo evidently decided that the active intervention of the central and local party machine in the affairs of the industry was essential. In September 1932, following a sharp decline in coal production, Akulov was appointed first secretary of the Donetsk regional party committee; a month later he was also appointed as the secretary of the Ukrainian party central committee responsible for the Donbass, with extensive powers.<sup>6</sup> In January 1933, three Politburo members, Andreev, Voroshilov and Ordzhonikidze, visited the Donbass. In February, following a further decline in coal production, the Politburo, with the aim of retaining workers in the industry, appointed a commission to prepare a resolution on Donbass wages and supplies,<sup>7</sup> and established a regional party secretary responsible for coal within the Donetsk committee.<sup>8</sup> On March 8, dissatisfied with reports from this commission and from the Donetsk regional committee, the Politburo appointed a further commission, with Kaganovich

<sup>4</sup> See data for twelve main food products in *Osnovnye pokazateli*, 1933, 194–5.

<sup>5</sup> See (for amounts supplied) *Kolkhoznaya trgovlya v 1932–34gg.*, i (1935), 164–7; (for prices) Table 25(b) below.

<sup>6</sup> Blinov (1967), 70–1.

<sup>7</sup> RTsKhIDNI, 17/3/914, 2 – item 7 (session of February 1); *Ocherki* (Donetsk, 1978), 265; *Istoriya Kommunisticheskoi Partii*, iv, ii (1971), 244. On March 1, consideration of this item was postponed (RTsKhIDNI, 916, 4 – item 13).

<sup>8</sup> RTsKhIDNI, 17/3/916, 19 – decision by correspondence of February 18. Terekhov was appointed to this post, and was instructed to work directly with the mines as well as the party district committees. The same decision appointed Vainov as ‘secretary for metal’.

in the chair, 'to study the situation more broadly'.<sup>9</sup> On March 20, the Politburo approved its recommendations 'in the main' (a phrase indicating that differences of view still remained), but referred them to a further higher-level commission which included Molotov and Stalin as well as Kaganovich.<sup>10</sup> Apparently much dispute took place behind the scenes. According to Stalin, a draft prepared in Narkomtyazhprom was sent back three times by the central committee members concerned; a satisfactory decree was eventually prepared at a three-day conference of 'a few workers, and rank-and-file managers and trade-union officials'.<sup>11</sup> In the course of these deliberations experienced Donbass workers were called upon to describe how the mines were managed before the revolution. Before the final decision was taken, Stalin sat with the commission 'more than one night'.<sup>12</sup>

The joint decree of the party central committee and Sovnarkom entitled 'The Work of the Donbass Coal Industry' was finally approved on April 8.<sup>13</sup> The decree, together with supplementary legislation, established what was called 'the institution (institut) of party organisers' in the mines, with extensive powers; more than half of those appointed had been party members for more than ten years.<sup>14</sup> The decree of April 8 also decided that administrators, engineers and technicians should be transferred from managerial posts in offices to work directly in production;<sup>15</sup> the personnel department of the central committee and the Donetsk regional committee controlled the implementation of this instruction. In time-honoured fashion, the

<sup>9</sup> RTsKhIDNI, 17/3/917, 1, item 1; *Industrializatsiya, 1933–1937* (1971), 613; *Istoriya Kommunisticheskoi Partii*, iv, ii (1971), 244.

<sup>10</sup> RTsKhIDNI, 17/3/918, 2 – item 3; the other members were Pyatakov and I. Kosior. Ordzhonikidze was absent on sick leave during most of this period; he was present at the Politburo session on January 16, 1933, but did not attend again until April 4.

<sup>11</sup> Stalin, *Soch.*, 1 (xiv) (Stanford, 1967), 239–40 (speech of March 5, 1937).

<sup>12</sup> ZI, January 22, 1934 (Kaganovich's report to Moscow party conference on January 17).

<sup>13</sup> RTsKhIDNI, 17/3/920, 2 – item 2; SZ, 1933, art. 148.

<sup>14</sup> *Istoriya Kommunisticheskoi Partii*, iv, ii (1971), 245. The organisers in large mines were appointed by the regional party committee; 66 out of 72 had been appointed by May 10 (RTsKhIDNI, 17/3/922, 43 – session of May 10, item 2).

<sup>15</sup> See resolution of party central committee dated May 10 (*Direktivny*, ii (1957), 378).

Politburo also recommended that the number of personnel at the level of the trusts and the mine administration should be reduced by 35 or more per cent, and that 'the foreman (*desyatnik*) is the direct and main organiser and leader' in the mines.<sup>16</sup>

According to a party history, 'the attention of the whole Communist Party of Ukraine was concentrated on overcoming the lag of the Donbass'.<sup>17</sup> The USSR Politburo kept a close watch on the implementation of the decree. In May, it concluded that the application of the decree was being 'sabotaged' at various mines, and sent a telegram to Akulov, Terekhov and I. Kosior demanding that those responsible should be expelled from the party and handed over to the courts.<sup>18</sup> Then on June 1, in spite of a letter to the centre from I. Kosior reporting 'repressions of voluntary and involuntary saboteurs', a ferocious telegram from Stalin, Molotov and Kaganovich insisted on further action:

We have heard rumours that you consider the measures you have taken are entirely sufficient. If this is true, this policy could be completely disruptive. In essence the measures you have taken are only the first step, which cannot be considered sufficient. To be victorious, the following step must be taken: self-criticism and the checking of fulfilment must be developed to the maximum in all mines and managements, people must be checked on the spot and all those from whom there is even a distant whiff of sabotage must be punished. Victory can be considered more or less guaranteed only if this is done.<sup>19</sup>

Subsequently, the decree of April 8 was extended to the rest of the coal industry, and the Politburo despatched brigades of party officials to supervise its enforcement.<sup>20</sup>

While the Politburo always kept every major aspect of economic life under review, such close involvement of the party

<sup>16</sup> RTsKhIDNI, 17/3/922, 2, 28–36 (session of May 10, item 2).

<sup>17</sup> *Istoriya Kommunisticheskoi Partii*, iv, ii (1971), 246; the coal industry was eventually discussed at a Ukrainian central committee plenum which sat June 8–11. For the Ukrainian party central committee resolution on the coal crisis dated April 14, see *Promyshlennost'* (Kiev), i (1977), 39–41.

<sup>18</sup> ZI, May 17, 1933.

<sup>19</sup> Cited by Shiokawa in Taniuchi, ed. (1984), 364–5, 381; I am grateful to Dr Shiokawa for providing me with the full Russian text of this telegram.

<sup>20</sup> *Istoriya Kommunisticheskoi Partii*, iv, ii (1971), 246.

at every level in the resolution of industrial difficulties was unusual. The methods applied in agriculture since 1929 were now applied to a major industry. The district party organisations were far more reliable and more stable in the mining areas than in the countryside; and it was presumably for this reason that political departments were not established for the coal mines analogous to those attached to the MTS. But the 'institution of party organisers' in the mines, like the political departments in agriculture, sought to achieve economic results by enforcing firm political control. Coal mining was the industry with the closest resemblance to agriculture. As in agriculture, manual labour and horses had traditionally been used to obtain riches from the earth, and were now being gradually replaced by skilled labour, machines and mechanical transport. And the proportion of ex-peasants who had recently left their villages was higher in mining than in any other industry, and they brought their work habits with them.

The main thrust of the decree of April 8 was its emphasis on the need to break down the 'office-bureaucratic method of leadership' in the coal industry. The decree stressed the importance of replacing the fashionable 'functional' system of administration, in which administration was concentrated in specialised departments serving the coalfield as a whole, by the 'production' (line-and-staff) system, in which investment, planning and the control of labour were all the responsibility of the manager of each mine and each coal face. The decision to eliminate 'functional' administration in the coal industry greatly enhanced the prestige of Kaganovich, who had campaigned in 1931 against functionalism in the Moscow textile industry, overcoming strong resistance from the textile corporation.<sup>21</sup>

The decree of April 8 also complained that the old administration, and the Donbass party organisations, were 'continuing to regard mines as places where simple hewers work, although they have already become real factories with complicated machines', which required experienced managers and a permanent work force. Abakumov, the head of the Stalinugol' trust, was denounced as the 'clearest example of these office-bureaucratic

<sup>21</sup> ZI, January 22, 1934 (speech by Kaganovich); see also *Sbornik* (1934), 131; this issue is further discussed in Shimotomai (1991), 81.

and anti-mechanisation tendencies'.<sup>22</sup> The background to this switch in emphasis was the increase in the proportion of machine-hewed coal in the Donbass to 72 per cent, as compared with 18 per cent in 1928.<sup>23</sup>

The reorganisation of administration was coupled with an even more emphatic stress on the importance of wage incentives than in the earlier legislation of September 1931 (see pp. 85–7 above). The decree of April 8 ruled that underground workers and engineers must henceforth earn more than those working on the surface, and that more emphasis must be placed on 'progressive piece rates', by which payment per unit of output would increase when production exceeded the norm. Subsequently, the Politburo decided that the wages of engineers, technicians and foremen should all be substantially increased.<sup>24</sup> On May 21, two Sovnarkom decrees set out the reforms in administration and wages in more detail.<sup>25</sup> Workers would be paid double the standard rate for all production which exceeded the norm by up to 10 per cent, and treble for all production exceeding the norm by 10 per cent or more. This was a sharp increase in progression as compared with the wage reform of September 1931.<sup>26</sup> Basic wage rates for underground workers at the coal face were also substantially increased. Simultaneously the new legislation endeavoured to simplify the complex tangle of output norms which prevailed in the industry. To this end the system of paying piece rates to workers on the basis of individual performance, which was much more prevalent in the industry after the

<sup>22</sup> E. T. Abakumov had been greatly praised in 1932 for paying proper attention to the work of that large minority of miners who were still using pickaxes; for a favourable view of his work, see Gershberg (1971), 101–3. His name is dropped from the version of the decree reprinted in *Promyshlennost'* (Kiev), i (1977), 30–5.

<sup>23</sup> *Itogi* (1933), 261; mechanisation was far less advanced in the other mining processes.

<sup>24</sup> RTsKhIDNI, 17/3/922, 2, 63–9 – item 2; the decision took effect from July 1.

<sup>25</sup> SZ, 1933, arts. 182–3; according to Blinov (1967), 72, these decrees were adopted on Akulov's initiative.

<sup>26</sup> According to the joint decree of Vesenkha and AUCCTU dated September 20, 1931, underground workers received 25 per cent additional pay for production 0–10 per cent in excess of the norm, 40 per cent for 10–20 per cent, and 80 per cent for production more than 20 per cent in excess of the norm (RGAE, 3429/1/5247, 197–207, art. 670; *Trud*, September 23, 1931).

legislation of September 1931, was now confined to underground coal-face workers. This step back to collective payment was dictated by the complexity of payment on an individual basis, not by any reconversion to 'egalitarianism'.

These improvements in wage levels also carried notable disadvantages for the miners. First, progressive piece rates were henceforth paid not for the achievements of each single shift, but on the basis of output over a whole month. Secondly, the decree of May 21 foresaw further upward revisions in output norms. It claimed that a 'large number' had not been revised for as long as two years, in spite of the technical improvements in the industry. But the overall effect of the decrees was that miners' wages increased more rapidly than productivity. Between May and October 1933, the daily wage rate in the Donbass increased by 20 per cent, while daily output rose by only 10.8 per cent.<sup>27</sup> By October the average monthly wage had reached 156r26 as compared with 113r72 in the previous February.

The decrees about the coal industry were as remarkable for what was omitted as for what was included. While bureaucratic administration and inadequate wage incentives no doubt played their part in the poor performance of the industry, other factors were of even greater importance: the very bad living conditions, above all the poor food supplies, and the poor state of repair of the large quantities of machinery introduced into the mines in the course of the five-year plan. These factors were barely hinted at in the decree of April 8, but their importance was fully appreciated by the authorities. According to his biographer, Akulov recognised that the main factors leading workers to leave the pits were the disorganised pay system, 'bad housing and unsatisfactory food supply'.<sup>28</sup> Soon after his appointment food supplies in the Donbass markedly improved. In February 1933 the industrial newspaper reported that underground workers now received meat three times a week in their canteen.<sup>29</sup> By April, according to a report to a conference of shock workers held in Stalino (Yuzovka), 'rations from centralised supply, which

<sup>27</sup> *Osnovnye pokazateli*, November 1933, 48–9; the gap between wages and productivity was somewhat greater than this, as the number of workers increased during this period.

<sup>28</sup> Blinov (1967), 72.

<sup>29</sup> ZI, February 10, 1933.

were not always available in 1932, were now obtained in full and on time'. The Donbass received a high proportion of Ukrainian food supplies: by this time 1.1 million persons in the Donbass received meals in canteens.<sup>30</sup> But these improvements were not considered to be adequate. On May 10 the Politburo adopted an unpublished resolution on food supply and public catering for coal miners; this was followed four days later by a Narkomsnab decree based on this resolution, and also unpublished.<sup>31</sup> These decisions increased the butter ration of 125,000 workers in the coal industry, provided extra rations of groats for 100,000 children, and ordered canteens to issue 100,000 daily two-course meals for miners with large families to take home. In addition, 65,000 surface workers were moved from List 1 to the Special List. The decree gave absolute priority to food supplies to the miners, forbidding Narkomsnab of Ukraine to transfer to other purposes food and consumer goods allocated to Donbass coal workers. At a time of acute famine, these were important provisions. Efforts were also made to improve the appalling housing conditions in the Donbass.<sup>32</sup>

The silence of the published decrees of April 8 and May 21 about the sensitive issue of food supplies was standard practice. Their failure to deal with the poor state of repair of coal machinery is more surprising. The question was widely discussed in the press. Coal-mining machinery frequently broke down, and the uncertainty of earnings from mechanised hewing led workers to prefer manual work.<sup>33</sup> The breakdowns were partly due to the usual problem of lack of spare parts, produced in inadequate quantities by the engineering factories.<sup>34</sup> But the *nepreryvka*, the uninterrupted week, still normal practice in the coal industry, was another cause of difficulty: insufficient time was available for repair of machinery and maintenance of the coal face. In February an article in the industrial newspaper declared that 'these huge losses cannot be tolerated any longer', and called for

<sup>30</sup> ZI, April 14, 15, 1933 (the conference was held on April 12–14).

<sup>31</sup> RTsKhIDNI, 17/3/922, 2, 37–40 – item 2; RGAE, 8043/1/80, 248–9 (art. 203). All canteens were instructed to make lower-price as well as normal-price meals available, each with the same calorific content.

<sup>32</sup> *Trud*, May 17, 1933; *Plan*, 1, 1934, 16–17.

<sup>33</sup> ZI, March 30, May 24, 1933.

<sup>34</sup> ZI, March 30, 1933.



the return of the interrupted week.<sup>35</sup> On May 10, the Politburo decided that sixteen mines should be transferred from the *nepreryvka* to an interrupted week with a common rest day;<sup>36</sup> but in most mines the *nepreryvka* continued.<sup>37</sup>

The coal industry reform, backed by the authority of Stalin and the Politburo, was treated as a model for the rest of the economy. In iron and steel, the party central committee plenum of September 1932 had already envisaged some of the changes introduced in the coal industry in the spring of 1933. Following the plenum, leading officials from Narkomtiazhprom headquarters – including Zavenyagin and Birman – were appointed as managers of iron and steel enterprises.<sup>38</sup> But the crisis in the industry at the beginning of 1933 (see pp. 362–7 above) made it abundantly clear that the decisions of the September plenum had been ineffective. From January onwards, local party agencies, no doubt prompted by the central party authorities in Moscow, undertook thorough investigations of major iron and steel works. In February and March an authoritative ‘brigade of party-state supervision’, headed by L. A. Paparde, chair of the West Siberian Rabkrin and party control commission, visited the Kuznetsk works, and published a hard-hitting report in *Pravda* critical of the management.<sup>39</sup> In May the Politburo heard a report about the Petrovsky works from local party officials and from a central committee investigator, and published an appropriate resolution.<sup>40</sup> In contrast to the coal industry, no industry-wide resolution was adopted about iron and steel. But, as in the coal industry, in major iron and steel works such as Kuznetsk, engineers were moved to the point of production, the functional

<sup>35</sup> ZI, February 24, 1933 (article by Deniskii, an engineer, marked ‘for discussion’).

<sup>36</sup> *Industrializatsiya, 1933–1937* (1971), 613; the resolution was not published.

<sup>37</sup> Even as late as July 1, 1935, the *nepreryvka* involved as many as 82.6 per cent of workers in the coal industry, as compared with 25.8 per cent for industry as a whole (*Trud* (1936), 80).

<sup>38</sup> Zavenyagin was appointed director of the Dzerzhinskii iron and steel works and Birman of the Petrovskii works in Ukraine at the end of 1932 (RGAE, 4086/2/281, 3).

<sup>39</sup> P, March 28, 1933; the report took the form of a letter to Rabkrin and the central control commission. For the brigade, see *Istoriya Kuznetskogo* (1973), 176. A self-critical article by Frankfurt appeared in *Pravda* on the previous day.

<sup>40</sup> *KPSS v rez.*, v (1971), 104–7, dated May 7, 1933; the investigator was from the organisation and instruction department of the central committee.

system of administration was abolished, and payments for piece work were more sharply differentiated. While centrally appointed party organisers were not introduced into iron and steel works, considerable efforts were made to increase party activity and party influence: in Kuznetsk, party cells in the shops were made directly responsible to the town party committee, and the number of party groups was greatly increased.<sup>41</sup>

The non-ferrous metal industries were in similar difficulties. In both January–March and April–June, production was lower than in the same period of the previous year (see p. 416, note 59 below). In October, Sovnarkom, while increasing food rations in the copper-smelting industry to the level of the coal industry, blamed bad organisation for the difficulties, and accordingly decided to introduce the coal-industry arrangements in the copper industry.<sup>42</sup>

The railways were also subjected to increased party control in 1933. On March 20, 1933, a top-secret Politburo decision called for the establishment of political departments on the railways in order to ensure ‘conscious “iron discipline” (Lenin)’. In order to keep ‘anti-Soviet elements’ out of the railways, it instructed Narkomput’ and the OGPU ‘to carry out the cleansing of the railways from class-hostile, counter-revolutionary and degenerate hooligan elements’, beginning with Ukraine, North Caucasus, the South-East and Kazan’. Henceforth the arrangements for appointing managerial staff on the railways should be analogous with those for the military. A Politburo commission was established to enforce the decision, chaired by Kaganovich.<sup>43</sup> For the moment, the decision to introduce political departments was not carried out. During the spring and summer, the transport bottleneck increasingly throttled the rest of the economy. While freight traffic gradually increased, it failed to recover to the peak attained in May 1932 (see Table 10). On July 3, a strongly worded decree of Sovnarkom and the party central committee complained that the improvements of the winter of 1931–2 had not been consolidated: the decline in goods traffic had been accompanied by ‘a shameful increase in crashes and minor

<sup>41</sup> *Istoriya Kuznetskogo* (1973), 176–8.

<sup>42</sup> GARF, 5446/57/26, 156–9 (art. 2180/508s, dated October 4).

<sup>43</sup> RTsKhIDNI, 17/162/14, 103 (item 4). On April 23, the Politburo decided to ‘militarise’ the Tomsk railway (*ibid.* 121 – item 9).

accidents'. The decree claimed that resources for the railways and living conditions for their workers had improved, and accordingly attributed these failures entirely to poor management, and called for a thorough reorganisation along the lines of the coal industry.<sup>44</sup> A further resolution publicly announced the institution of political departments, modelled on those in the Machine-Tractor Stations, in every line and railway district, as envisaged in the secret Politburo decision of March 20. This was a return to the railway practices of the civil war. The departments were appointed by the Politburo, and were responsible for the appointment and dismissal of all party members. Party organisers at a lower level were also centrally appointed, and directly responsible to the political departments.<sup>45</sup> Further measures increased wages, reformed the wage scales and reduced administrative staff, following the pattern of the coal industry.<sup>46</sup> Some additional investment was also allocated to the railways.<sup>47</sup> But the authorities were evidently aware that more needed to be done. On August 18, 1933, a high-level Politburo Commission for Transport was established, chaired by Molotov, and with Kaganovich, who had for some months been responsible for party oversight of the railways, as his deputy.<sup>48</sup>

## (B) THE OUTCOME

The effort to overcome the crisis of the winter of 1932–3 was thus pursued along two main lines. First, the more realistic plans adopted at beginning of the year were enforced: capital investment, and urban economic activities generally, were reduced to a level dictated by the food shortage. Secondly, the party sought to improve the administration of the economy by firmness and ruthlessness in squeezing greater effort from

<sup>44</sup> SZ, 1933, art. 237; *Direktivny*, ii (1957), 380–5.

<sup>45</sup> P, July 11, 1933 (resolution of July 10). The Politburo approved the names of 22 heads of political departments on July 31 (RTsKhIDNI, 17/3/927, 23–4 – decision by correspondence).

<sup>46</sup> RTsKhIDNI, 17/3/926, 10, 51–6 (decision by correspondence of July 8); increases were by amounts ranging from 5 to nearly 40 per cent. See also Hunter (1957), 53; Rees (1994); *Otchet . . . 1933* (1935), 191.

<sup>47</sup> RTsKhIDNI, 17/3/927, 11, 50, 61 (decision by correspondence of July 23).

<sup>48</sup> See Rees (1994), 75–6.

recalcitrant peasants, and from workers, specialists and administrators. The party machine and party members temporarily played a crucial part: the changes were supported by political departments in agriculture and on the railways, and by party organisers in key industries. But the firm hand was combined with a more realistic and more flexible economic policy, and greater financial stability.

(i) *Investment in crisis*

Capital investment was the outstanding victim of the more realistic plans; and its troubles continued throughout 1933. With the advent of the main building season, the building industry somewhat recovered from the drastic decline at the beginning of the year. But throughout 1933 its activity remained considerably below the 1932 level. According to official statistics, the production of mineral building materials fell by an unprecedented 10.5 per cent.<sup>49</sup> But the decline in building activity was primarily due to the reduction of the labour force: average annual employment in the industry in 1933 was nearly 25 per cent less than in 1932. The process of preparing final lists of titles, projects and estimates, and signing building contracts, dragged on far longer than the central authorities had intended. On April 11 the bureau of the Central Volga regional party committee complained that 'building in the region has hardly started', while the Lower-Volga planning journal, surveying the first six months of 1933, declared that 'building in the region is in a state of profound breakdown'.<sup>50</sup> On April 23, the Politburo, in order to secure the completion of key projects, belatedly approved a long list of those which were to receive priority in materials, equipment and transport.<sup>51</sup> The industrial newspaper ironically pointed out that 'a "record" was achieved – the signing of

<sup>49</sup> *Promyshlennost'* (1936), 8. According to a Western estimate, the production of all materials allocated to building work, including timber and glass, declined by 10.1 per cent (in 1937 prices) and 13.6 per cent (in 1928 prices) (Powell (1959), 3).

<sup>50</sup> *Istoriya* (Kuibyshev, 1974), 226–7; *Nizhnee Povolzh'e*, 4, July–August 1933, 32.

<sup>51</sup> RTsKhIDNI, 17/3/921, 6 (item 17). The appended list was 17 pages long, but covered only 2.8 of the 18 milliard rubles allocated to capital investment in 1933. See also SZ, 1933, art. 181, dated April 28.

contracts with clients was in the main completed only towards the end of May'.<sup>52</sup>

On April 27 a decree on the investment banks again insisted that all building jobs must have approved projects and estimates, and that prices and wages must conform with the legislation.<sup>53</sup> But in practice the authorities somewhat relaxed the investment controls. At a conference of the Industrial Bank a leading official stated that the bank should now relinquish its efforts to limit the provision of finance to the physical amount (ob''em) of building actually carried out; and at the conference several bank officials agreed, contrary to the practice of the previous twelve months, that financial sanctions should be applied only in exceptional cases.<sup>54</sup> A few months later, at the height of the building season, a commission of Glavugol', reverting to the old doctrine that finance must follow the plan, resolved that in the Karaganda mines 'the annual allocation for capital expenditure in 1933 should be determined not according to credit considerations but according to the technical possibilities of developing the work'.<sup>55</sup>

The more generous availability of money did not resolve the investment crisis. Reports from many industries and regions stressed that the main problem was the unprecedented scale of the labour shortage.<sup>56</sup> In June, the Glavugol' commission on Karaganda glumly reported that only 300 building workers were available out of the 1,000 needed for the new hydro-electric station, adding that 'there is no labour in Karaganda; there is none in the region'.<sup>57</sup> Labour turnover in the industry remained extremely high, amounting to 292 per cent of the average annual labour force in 1933 as against 306 per cent in 1932.<sup>58</sup>

The labour shortage was partly due to the control over their

<sup>52</sup> ZI, December 28, 1933 (article by 'L.L.').

<sup>53</sup> SZ, 1933, art. 169.

<sup>54</sup> ZI, May 14, 1933; the decrees of March 22, 1932 (see p. 376 above) and April 27, 1933, referred to the importance of checking documents (including wages and prices) but did not require the banks to withhold expenditure for non-fulfilment of the building plan in physical terms.

<sup>55</sup> RGAE, 7566/1/28, 35 (the minutes are undated but internal evidence shows that they were prepared in July or August); Karaganda was a high-priority site.

<sup>56</sup> See for example ZI, August 11, 1933 (article by 'I.Ya.'), reporting a study of ten building sites in the engineering industry.

<sup>57</sup> RGAE, 7566/1/28, 8.

<sup>58</sup> *Trud* (1936), 249, which gives monthly figures for 1932–5.

members exercised by the kolkhozy. Few workers were available through 'organised recruitment': in January–June 1933 only 27 per cent of the new workers in the central building trust were recruited by *orgnabor*, and on such sites as Magnitogorsk the percentage was still lower.<sup>59</sup> According to a new regulation, kolkhoz members could be expelled if they failed to work on the kolkhoz in two consecutive years; this further inhibited *otkhod-nichestvo*.<sup>60</sup> But the main reasons for the labour shortage, except in the areas where still worse hunger prevailed in the countryside, were the inadequate food and bad conditions on the building sites. The Central Volga regional party committee proposed to retain workers on the priority sites by providing them with bread, fish, meat, sugar and *makhorka*.<sup>61</sup> According to a resolution of Glavugol', 'the fulfilment of the capital construction programme in Karaganda is threatened with breakdown owing to the inadequate feeding of the workers and in particular owing to the lack of vegetables and fats, which creates the threat of mass absence of the workers through illness'.<sup>62</sup> Another memorandum called for the provision of a firm food allocation to the Karaganda site from the centralised stock controlled by the trust, and from its decentralised collections, and for the provision of hot food to building workers twice a day; the workers should be divided into two or three categories related to the extent to which they fulfilled their norms.<sup>63</sup>

As in the previous two years, severe labour shortages on priority sites were mitigated by using the compulsory labour of exiles or prisoners. In Karaganda, for example, 1,701 out of 3,492 building workers were 'special settlers' on May 1, 1933;<sup>64</sup> a conference called at the site by a brigade of the party central committee planned to recruit a further 3,000 'special settlers' forthwith.<sup>65</sup>

<sup>59</sup> ZI, August 12, 1933.

<sup>60</sup> ZI, August 11, 1933 (article by 'I.Ya.').

<sup>61</sup> *Istoriya* (Kuibyshev, 1974), 226–7 (resolution dated April 11).

<sup>62</sup> RGAE, 7566/1/128, 48 (dated May 15).

<sup>63</sup> RGAE, 7566/1/28, 44 (undated).

<sup>64</sup> RGAE, 7566/1/128, 13.

<sup>65</sup> RGAE, 7566/1/28, 9, 12 (dated June 3); see also *ibid.* 47. The special settlers were to be allocated both to building and to the mines; the total labour force at this time was 17,600, of which 8,100 were special settlers (RGAE, 7566/1/128, 13).

Even after all these measures capital investment declined, even when measured in current prices.

(ii) *Consumer industries in depression*

The crisis in the consumer industries also continued throughout most of 1933. In spite of the increase in investment (see p. 408 below), for Group B industries as a whole production remained below the 1932 level in July and August 1933, and increased only slightly thereafter: in October–December 1933, it was some 7 per cent greater than in the same period of 1932, but still slightly lower than in October–December 1931.<sup>66</sup> Following the new harvest, the food industry fared somewhat better than industrial consumer goods. In November 1933 production was as much as 13 per cent greater than in November 1932.<sup>67</sup> Slender evidence also indicates improvements in quality.<sup>68</sup> But in October the Politburo noted that cases of botulism had occurred in Dnepropetrovsk as a result of the ‘unsanitary state’ of the preserved food factories, decided that the head of the industry should be put on trial, and – a most unusual step – officially cautioned Mikoyan for his inadequate supervision.<sup>69</sup>

Among industrial consumer goods, the production of footwear and woollens, which depended on livestock for their raw materials, remained lower than in the previous year. In the textile industry, following the improved harvest, in November 1933 production of cottons was 11.9 per cent, and of linens as much as 34 per cent higher than in November 1932.<sup>70</sup> But the industrial managers’ journal reported a ‘very considerable deterioration in quality’ in the first few months of 1933, and

<sup>66</sup> *Osnovnye pokazateli*, December 1936, 13.

<sup>67</sup> Estimated from data in *Osnovnye pokazateli*, November 1933, 34–5.

<sup>68</sup> Compare the percentage of production by grades for confectionery and macaroni in October–December 1932 (*Osnovnye pokazateli*, January–February 1933, 94) and in January and December 1933 (*Osnovnye pokazateli*, February 1934, 151); the proportion of top-grade fish, however, declined in this period.

<sup>69</sup> RTsKhIDNI, 17/3/1932, 3–4 (session of October 15, item 11). The Politburo also accepted Voroshilov’s request that his name should be removed from the preserved food factory in Odessa.

<sup>70</sup> See data in *Osnovnye pokazateli*, November 1933, 38–9; comparable data for December 1933 have not been available.

complained that the 'inspectors often even cover up spoiled production (*brakovshchiki chasto dazhe prikryvayut brak*)'.<sup>71</sup> Later in the year the planning journal reported that in the cotton industry spinning factories had reduced the count of the yarn, while weaving factories, whose results were assessed in terms of the length of fabric produced, had sought to reduce the width of the fabric, and had stretched it too much.<sup>72</sup> The official data show a considerable increase in spoiled and low-grade production in the course of 1933 in the cotton, linen and woollen industries, and in sewn goods and footwear.<sup>73</sup> On December 17, 1933, a strongly worded Sovnarkom decree declared that the 'work of the cotton-textile industry in 1933 was unsatisfactory, particularly in relation to quality and variety of production and the struggle with spoiled production'; 'in a number of cases the industry has produced fabrics which are hardly suitable to be worn – they are torn, weak and with completely unsatisfactory dyes, colours and patterns'. The decree announced changes in the planning indicators and in the prices paid to factories so as to stimulate improved quality and reduce spoiled production.<sup>74</sup>

The industrial cooperatives, which were primarily concerned with the production of consumer goods, also suffered an acute crisis. The incomes of their members declined substantially as a

<sup>71</sup> *Predpriyatie*, 8, May 1933, 4.

<sup>72</sup> *Plan*, 2, 1933 (published in January 1934), 6–7, reviewing the first ten months of 1933.

<sup>73</sup> Compare the data for December 1932, and January and December 1933, in *Osnovnye pokazateli*, January–March 1933, 107, February 1934, 150. The figures for cotton fabrics are as follows (as a percentage of total production):

	December 1932	January 1933	December 1933
Seconds ( <i>vtoroi razbor</i> )	20.4	18.5	25.0
Spoiled		4.8	8.1

Reporting the figures for October 1933, *ibid.*, November 1933, 152, claimed that 'the increase in spoiled goods is mainly explained by a stricter inspection at the factories'; this note is not included in later publications. The figures for October 1933 are not included here, as they are not given in comparable form; they show a marked deterioration in quality as compared with the previous months of 1933.

<sup>74</sup> SZ, 1933, art. 451.



result of the successful efforts of the authorities to reduce the prices charged by the cooperatives for their production (see pp. 430–1 below). This meant that they were unable to purchase sufficient food on the free market; but food rations available to the industrial cooperatives were drastically reduced at the beginning of 1933. Consequently many workers left: the number of persons working in the industrial enterprises under Vseko-promsovet, the main cooperative system, fell from 1,319,000 on January 1, 1933, to a mere 771,000 on October 1.<sup>75</sup> An official report admitted that the 'main and decisive factor' in this decline was that 'until recently the system paid insufficient attention to providing for the social and welfare needs of members'.<sup>76</sup> As a result of this reduction in membership, production also declined.<sup>77</sup>

(iii) *The railways in trouble*

The introduction of political departments on the railways in July 1933 was intended to resolve the persistent transport crisis which ever since 1930 had been a major cause of strain throughout the economy. In agriculture and in the coal industry, where similar measures were adopted, the crisis was surmounted. But in agriculture the new political administrators were concerned with restoring elementary order at a low level of production; in the coal industry the problem was to use effectively the substantial resources already invested. With the railways the crucial problem was inadequate investment over many years.

While investment in the construction of new lines was substantially reduced in 1933,<sup>78</sup> the Soviet authorities began to

<sup>75</sup> *Promyslovaya* (1934), 14; those employed in common workshops fell from 823,000 to 510,200 in the same period (*ibid.* 13). In the whole industrial cooperative network, annual average membership declined by 23.8 per cent from 1,831,000 in 1932 to 1,395,000 in 1933 (Eason (1959), 378–80).

<sup>76</sup> *Promyslovaya* (1934), 15 (published in January 1934).

<sup>77</sup> The extent of the decline is not clear. According to the official figures, marketed production of the Vseko-promsovet network in July–September 1933 was 86.3 per cent of that in January–March 1933 (ST, 6, November–December 1933, 34, measured in planned prices of 1932), but this is incompatible with the much larger decline in membership.

<sup>78</sup> For budget allocations to the construction of new railways, compare *Otchet . . . 1932* (1932? [1933]), 72, with *Otchet . . . 1933* (1935), 75.

modify their policy of running the railways with a minimum of industrial supplies. The decline in the production of locomotives and wagons which took place in the first six months<sup>79</sup> was reversed following the legislation of July 1933 (see pp. 389–90 above). In 1933 as a whole the railways received 9.3 per cent more locos and 2.3 per cent more goods wagons than in the previous year.<sup>80</sup> A serious effort was also made to overcome the cumulative deficiency in steel rails. In 1933, in spite of the acute steel shortage, the production of rails increased by 21 per cent, as much as in the previous four years.<sup>81</sup> The supply of spare parts also increased, from 72,200 to 85,900 tons.<sup>82</sup>

But these improvements were wholly inadequate to requirements. The increase in rails was almost entirely confined to second-grade and industrial rails;<sup>83</sup> and the total amount of iron and steel consumed by the railways declined, both absolutely, and as a proportion of total Soviet iron and steel consumption.<sup>84</sup> The supply of timber to the railways also declined precipitately in 1933.<sup>85</sup> The coal shortage continued.<sup>86</sup>

In view of these deficiencies, it is not surprising that the strain on the railways increased. The industrial press continued to complain of hold-ups due to the shortage of goods wagons and

<sup>79</sup> ZI, August 22, 1933.

<sup>80</sup> *Osnovnye pokazateli*, 1933, 106. The production of goods wagons, however, declined by 10 per cent (*Proмышlennost'* (1936), 302); I have not been able to reconcile the two figures.

<sup>81</sup> *Sots. str.* (1935), 175.

<sup>82</sup> *Osnovnye pokazateli*, 1933, 107.

<sup>83</sup> *Chernaya* (1935), 57.

<sup>84</sup> Hunter (1957), 319, based on data in Shul'kin (1940), 20–8; see also *Osnovnye pokazateli*, 1933, 107, which reports a decline in the supply of rolled steel and fastenings in 1933.

<sup>85</sup> The amounts were as follows:

	1932	1933 (preliminary)
Sleepers (million)	26.7	21.1
Rough construction timber (th.m <sup>3</sup> )	1256	634
Sawn timber (th.m <sup>3</sup> )	2056	1062

(*Osnovnye pokazateli*, 1933, 107).

<sup>86</sup> GARF, 5446/27/23, 121 (Narkomput' to Molotov, dated December 3). Molotov was evidently impressed by the urgency of the problem: a note to Kuibyshev and Mezhlauk by Molotov on the Narkomput' memorandum reads 'this must be settled not later than 5/xii'.

their poor state of repair;<sup>87</sup> by December 1933 the percentage of rolling stock under repair was higher than in December 1932.<sup>88</sup> The amount of freight carried in October, the peak month in 1933, was only 1.2 per cent higher than in the previous peak month, October 1931.<sup>89</sup> This small increase in freight failed to keep pace with the increased demand for rail transport. While the strain on the railways was lessened by the decline in production of building materials in 1933, the total amount of goods awaiting rail transport increased in the course of the year from 1.4 million to 1.7 million wagon loads; this was equivalent to 34 as against 28 days' traffic.<sup>90</sup> The solution to the transport crisis lay in a much greater increase in the resources allocated to the railways.

*(iv) The advance of heavy industry*

In striking contrast to the continued crisis or depression in the other sectors of the economy, heavy industry began to recover as early as March 1933, four or five months before the new harvest began to alleviate the general shortage of food. The industry continued to advance throughout the year. According to official statistics, production in December 1933 was 12 per cent greater than in December 1932 and as much as 35 per cent above the low point of January 1933 (see Table 5(c)). This progress was in marked contrast to the decline of Narkomtyazhprom production in the summer of 1930, and to the stagnation in 1931 and 1932. The industry had at last returned, at a higher level of production, to the pattern of consistent and continuous growth which characterised the years from the scissors crisis of 1923 until March 1930.

By April 1933 Narkomtyazhprom was already confident enough to resume publication of regular 'conjunctural' reports

<sup>87</sup> See, for example, ZI, September 3, 1933.

<sup>88</sup> The average daily percentage of unfit locomotives rose from 20.8 to 22.7 per cent and of unfit wagons from 4.4 to 5.1 per cent (*Osnovnye pokazateli*, 1933, 106).

<sup>89</sup> *Osnovnye pokazateli*, 1933, 104–5; in terms of ton-kilometres freight carried increased by 10.6 per cent in the same period owing to the increasing length of haul.

<sup>90</sup> *Zheleznodorozhnyi transport* (1970), 198 (Narkomput' report for 1933 cited from the archives); *Osnovnye pokazateli*, 1933, 101, however, claims a reduction in 'goods not yet loaded'.

in the industrial newspaper. The first report covered the first twenty days of April.<sup>91</sup> Subsequently notes on the performances of the major industries appeared a few days after the end of each month, followed about two weeks later by more substantial reports, which included information on labour productivity and costs.<sup>92</sup> The notes for April already claimed that in the ten days April 21–30 coal ‘exceeded the production record for all preceding periods’, while the daily output of pig iron had ‘reached a new record for the month as a whole and for individual days’. In absolute terms pig-iron production had achieved ‘first place in the world’ (production in the United States and other industrial countries was still languishing as a result of the world economic crisis). The notes also recorded ‘a certain improvement in all major industries’.<sup>93</sup> The later report for January–April also claimed that, as a result of the drastic economies in the labour force, productivity in April 1933 had risen to some 12.2 per cent above the level of April 1932.<sup>94</sup> But, in view of the experience of the previous year, these early reports warned against the danger of a seasonal summer decline.

As the year advanced, this caution proved to be unjustified. The report for June already claimed that ‘heavy industry has to a considerable extent overcome the normal seasonal decline’.<sup>95</sup> The last report published in 1933, covering January–November, proclaimed the achievement of ‘new victories’: production in this period was 11 per cent above the January–November 1932 level, and this was achieved with a smaller labour force; productivity had increased by as much as 14.4 per cent. Many new types of production had been mastered, particularly mass production of vehicles and tractors. Even the two most troublesome industries – coal and ferrous metals – continued the advance already noted in the spring. In November, coal production reached 94.4 per cent of the monthly plan, and in January–November it was 17.4 per cent greater than in the same period of 1932. For the first time since 1930 production of crude and rolled steel as well as pig-iron

<sup>91</sup> ZI, April 28, 1933.

<sup>92</sup> Thus the first results for May appeared in ZI, June 6, 1933, and a more detailed report in ZI, June 21, 1933.

<sup>93</sup> ZI, May 10, 1933.

<sup>94</sup> ZI, May 21, 1933.

<sup>95</sup> ZI, July 18, 1933.

also increased substantially. The report acknowledged that the production of iron and steel was still far behind the plan, so that the balance of ferrous metals remained 'extremely strained', and that the performance of the non-ferrous metal and oil industries was unsatisfactory.<sup>96</sup> But the note of satisfaction or even triumph was unmistakable.

In acclaiming these successes, Soviet statements frequently stressed the crucial role of the new forms of industrial administration. The tone was set by a further resolution on the Donbass coal industry approved by the party central committee on December 5, 1933, which declared that 'these successes were achieved as a result of carrying out a series of measures to eliminate organisational distortions and office-bureaucratic methods of leadership, which were sharply condemned by the decision of . . . April 8'. However, the administrative changes of 1933–4, like the administrative upheaval in 1930, and the many others which haunted the Soviet economy throughout its history, voraciously consumed the time and energy of management.<sup>97</sup> A further defect of the 1933 reform, like the other moves to stabilise the system in this period, was that it effectively proscribed further experimentation – or at any rate strictly limited its scope. In the long term such ossification was fatal to the Soviet system. But in the short term the administrative reform resulted in clearer lines of command.

The decrees of April 8 and July 3 on the coal industry and the railways also sought to strengthen the role of the party and of party officials at every level of administration. But in this respect their effect was quite limited, and they were soon superseded. Narkomtyazhprom insisted throughout 1933 that party organisations must not interfere with the detailed administration of industry, and that one-person management must be paramount within the enterprise. Twelve days after the publication of the decree on the coal industry, M. Kaganovich told the Narkomtyazhprom collegium that local organisations must be prevented

<sup>96</sup> ZI, December 21, 1933; notes on specific industries also appeared *ibid.* December 9, 1933.

<sup>97</sup> At a conference of Leningrad engineers, Pozern, a regional secretary, complained that some administrators, while saying nothing openly, believed that 'the Bolsheviks are reorganising again and not letting us work properly' (ZI, July 9, 1933).

from interfering in 'operational work', and insisted that in future 'no-one should remove the manager of a factory without our agreement'.<sup>98</sup> In August, following vigorous complaints in the industrial newspaper, the district party secretary in Nadezhdinsk was dismissed by the regional party committee for trying to prevent quality steel produced in the Nadezhdinsk iron and steel works from being despatched to the Chelyabinsk tractor factory.<sup>99</sup> And in November the industrial newspaper firmly took the side of management in what it described as a 'savage "struggle for power"' between the manager and the party secretary of the 'Bol'shevik' factory in Leningrad. According to the newspaper, the party secretary, with the support or acquiescence of Rabkrin, the party district committee and the town commission on the party purge, gave his backing to a certain Gaspar'yants, the bullying party secretary of one of the major shops in the factory. Gaspar'yants secured the unjust dismissal of the hard-working deputy manager of the shop, who had once briefly been a Trotskyist, and the expulsion from the party of seven of its nine party engineers; all this had undermined the authority of the management with the workers. Gaspar'yants was expelled from the party for 'Leftist deviations and criminal activities'.<sup>100</sup> In a similar case in Narkomsnab, the manager of a sugar refinery in Ukraine complained that the party secretary devoted himself to 'minute-by-minute supervision and countermanding of my actions'; he had stirred up dissatisfied and undisciplined workers against the manager with the acquiescence of the district party and its control commission.<sup>101</sup>

The case for strictly separating party and management functions was pressed strongly in a discussion article by the irrepressible Birman, now manager of the 'Petrovsky' iron and steel works in Dnepropetrovsk. Birman admitted that managers sometimes ignored party organisations, but directed his main fire against factory party secretaries and town party committees, with

<sup>98</sup> ZI, April 21, 1933.

<sup>99</sup> ZI, August 15, 18, 1933; in the course of the dispute the chairman of the district soviet tried to prevent the works from using the long-distance telephone, and was also dismissed.

<sup>100</sup> ZI, November 26, 1933 (Kricher); see also succeeding issues.

<sup>101</sup> RGAE, 8043/1/318, 21-3 (letter dated July 31); the manager, Smoilovskii, who also complained of 'anti-semitic attitudes', had himself been sent to work in the trust by the party central committee at the beginning of 1932.

their endless and pointless meetings devoted to criticising the management. Birman did not of course propose that the party should be excluded altogether from industrial affairs; but he argued that large factories should be within the competence of regional rather than town party committees, and that the factory party organisation should direct its attention to such matters as the poor facilities in hostels and the tendency of the quantity of food to diminish between its arrival in the factory and its appearance on the canteen plates.<sup>102</sup> According to Paramonov, then the manager of the Chelyabinsk coal trust, this attitude was strongly supported by Ordzhonikidze. When Paramonov made the mistake of visiting Ordzhonikidze together with the Chelyabinsk regional party secretary to ask for more excavators, he got a stern and negative response: 'Do you think that they will suddenly appear from nowhere if you call on me with the regional party secretary?':

He [Ordzhonikidze] believed [Paramonov comments] that a party attitude (*partiinnost'*) meant a strong devotion to the party, an ability to see the politics in economic matters. But Sergo [Ordzhonikidze] strongly opposed the confusion of party and economic functions.<sup>103</sup>

Meanwhile a distinct change in approach to problems of industrial administration had already occurred at a higher party level. When the Politburo appointed two party brigades to investigate the serious lag in production in the non-ferrous metals industry, they were headed not by party representatives but by Shakhmuradov, head of the industry, and Pyatakov, a senior deputy People's Commissar for Heavy Industry.<sup>104</sup> And when

<sup>102</sup> ZI, January 18, 1934; in April 1929, Birman, then head of the Ukrainian steel trust Yugostal', unsuccessfully led a bitter attack on Rabkrin interference in industry at the XVI party conference (see vol. 3, p. 69, and Rees (1987), 174–8). An article in ZI, August 21, 1933, defended Birman's right to one-person management against criticisms which appeared in the local press (the article, signed 'Yu.F.', was presumably by Figatner).

<sup>103</sup> Paramonov (2nd edn, 1970), 318–19; this incident took place in February 1934.

<sup>104</sup> *XVII s'ezd* (1934), 174–5 (Ordzhonikidze); this is a sharp contrast with the events in the coal industry in January 1933, when Politburo members Andreev and Voroshilov were sent to the Donbass with Ordzhonikidze (see p. 381 above).

Postyshev, in a major address to a conference of the Kharkov engineering industry, dealt with the administrative problems of 'mastering new technology', his approach was much more pragmatic than that taken by the party leadership towards the coal industry and the railways earlier in the year.<sup>105</sup> Under such headings as 'Don't Waste a Single Minute of Working Time or a Single Rotation of the Machine', Postyshev proposed measures to achieve the 'consolidation of the working day' (a frequent phrase at this time) and the maximum use of machine capacity. Workers should not spend time in conversation and smoking, and should not extend their breaks; the work-place and production planning should be better organised; machines should be properly greased and repaired; the inspection of output should be improved; training should be improved; the powers of the foreman and the engineer should be enhanced. The role of the party secretary and the party committee in the factory was hardly mentioned. This advice from a high party official would have been highly acceptable to industrial officials and managers; it was directed towards strengthening their position.

Postyshev's speech was accompanied by an order of Narkomtyazhprom along similar lines based on a survey of factories in the main industrial areas of the Russian republic. Claiming that 'only 5 or 5½ out of seven hours are used productively', the order recommended that in appropriate cases third shifts should be abolished and work consolidated in the other two shifts.<sup>106</sup> The businesslike approach to the problems of mastering technology was also pursued by Bukharin. In his report to the Donetsk conference on technical propaganda he ignored the statements in the resolution of April 8 on reorganisation and the role of the party, and singled out its phrases on the need to replace 'simple hewers' by skilled workers, and by engineers and technicians who display 'more initiative'. Bukharin argued that the main problem in the Soviet economy was the gap between the technical level of its machines and the level of skill of its labour force, and praised the Izotov movement (see pp. 306–7 above) for its careful study

<sup>105</sup> P, September 29, 1933 (speech at first Kharkov town production-technical conference of engineering factories); wearing another hat, Postyshev at this time took a harsh line towards Ukrainian nationalism.

<sup>106</sup> ZI, September 28, 1933 (order dated September 27, signed by M. Kaganovich).



of production conditions, its precise knowledge of the use of machines, and above all for its *'ability to pass experiences to others'*.<sup>107</sup>

Throughout 1933 Narkomtyazhprom continued familiar and often fruitless efforts to improve quality of production. The quality campaigns were half-hearted and ambiguous, as Narkomtyazhprom was also remorselessly pressing its factories for greater output. But some improvement did take place. Powerful consumers, notably the military, pressed their suppliers to improve quality; some less powerful consumers, including the sovkhozy and kolkhozy, received party support. According to an American engineer, in the Putilov works 'both men and women. . . are doing better work, and working more quickly, than they were two years ago'.<sup>108</sup> On December 8, 1933, TsIK and Sovnarkom intervened with a strongly worded decree. The decree condemned the 'criminal carelessness' displayed in relation to quality and the completeness of machines, and ruled that the production of poor-quality output was to be treated as a criminal offence, for which heads of trusts, managers of enterprises and administrative-technical staff could be sentenced to deprivation of liberty for a period of not less than five years.<sup>109</sup> The new decree does not seem to have been used frequently after its initial impact. Following the December 1933 decree, a widely publicised circular from Vyshinsky and the president of the Supreme Court made it clear that cases must be brought in a discriminating manner, steering a course between 'unnecessary' charges which would bring the agencies of justice into discredit and a too 'liberal' attitude to those who were really guilty. All trials must have an organising and educating function, and be directed 'not only at individuals, but also at the system which gave rise to wastefulness and carelessness'. Trials must mobilise industry to improve its work. Shock workers should be brought in to act as voluntary prosecutors; trials, and the decisions of the

<sup>107</sup> ZI, December 8, 9, 1933.

<sup>108</sup> BDFA, IIA, xi (1986), 260. This was cited in a report by Bullard, dated September 13, 1933; Bullard concluded, however, 'there is little support for a belief in a general rise in the level of efficiency'.

<sup>109</sup> SZ, 1933, art. 442. An earlier decree had ruled much more gently that 'mass and systematic' poor-quality production should be punished by *up to* five years' deprivation of liberty (SZ, 1930, art. 9, dated November 23, 1929).

courts, should be reported extensively in the press and discussed at factory meetings.<sup>110</sup> Even in the milder atmosphere of the end of 1933, exhortation and judicial action rather than economic incentives were presented as the primary means of overcoming deficiencies.

In reporting the successes and failures of heavy industry, Soviet official statements, and the press generally, paid little attention to the importance of adequate food supplies. The decree on the Donbass dated December 5, for example, merely briefly noted 'the further improvement of the material conditions of underground workers and technical personnel in the mines', and called for still further improvements. But rations and canteen meals were certainly a major factor in the improved performance of heavy industry.

The supply of potatoes and vegetables from allotments attached to factories also increased.<sup>111</sup> Likhachev, the dynamic manager of the ZIS vehicle factory, called on the manager of Ballbearing Factory No. 1 to compete in developing greenhouses and mushroom beds for the following winter. The latter, not to be outdone, pointed out that his factory already grew all its own cabbage, and declared 'it is time for us, Ivan Alekseevich, to get away from depending on the state for food'.<sup>112</sup> A spokesman for the ZIM vehicle factory at Gorky even claimed that some departmental managers 'devote as much attention to the question of supply for the workers as to the supply of the factory with metal'.<sup>113</sup>

The availability of adequate rations and canteen meals at key factories assisted the substantial decline of labour turnover in Narkomtyazhprom from a monthly average of 10.6 per cent in 1932 and 10.4 per cent in January–March 1933 to only 7.7 per cent in October–December.<sup>114</sup> Control over rations placed a powerful instrument in the hands of management for the

<sup>110</sup> ZI, January 14, 1934.

<sup>111</sup> See ZI, November 12, 1933 (Narkomtyazhprom conference on results of reorganisation of workers' supply); for increased production on allotments, see also ST, 6, November–December 1933, 124–5.

<sup>112</sup> ZI, August 11, 1933; an extensive press campaign followed this exchange.

<sup>113</sup> ZI, November 12, 1933.

<sup>114</sup> *Tyazhelaya* (1934), 209; this figure includes dismissals, likely to have been high in the chaotic conditions at the beginning of the year, as well as voluntary resignations.

improvement of labour discipline and productivity. According to the deputy People's Commissar responsible for the ORSy, the new system brought about an 'undoubted *increase in the power of the factory manager*'.<sup>115</sup> A report on the work of the Kuznetsk coal trust pointed out that mine managements dealt with absenteeism 'primarily by depriving absentees of their right to use ration cards for a certain period, or by dismissing them, immediately evicting them from their accommodation'.<sup>116</sup> Managers as well as workers were anxious about their rations. The former manager of a sugar refinery complained to Mikoyan that in the two months since his dismissal 'I and my family are, firstly, without a ration, and, secondly, evicted from our flat and living in three places'.<sup>117</sup> Moreover, in the tighter labour market of 1933, it was more difficult than in previous years to obtain a new job following dismissal. The partial return of the fear of unemployment, particularly when the ration card depended on the job, noticeably increased managerial authority.

The ration card was used not only to retain or to discipline workers, but also as a positive incentive to improve productivity. In the oil trust Azneft', shock workers were given a 950-calorie dinner, while other workers had to make do with 650 calories.<sup>118</sup> Elsewhere shock workers were themselves divided into several ration categories.<sup>119</sup> These arrangements were generally related to the performance of a brigade or even a whole shop rather than of each individual. But towards the end of 1933 Pyatakov, at a high-level conference on the work of ORSy, called for '*individual differentiated supply, depending on the quality of work of each person*'. Echoing Lenin's famous phrase about NEP, he enthusiastically proclaimed that with the new system 'we are creating the food basis of heavy industry seriously and for a long time'.<sup>120</sup>

<sup>115</sup> ZI, November 12, 1933 (Piterskii); see also *Predpriyatie*, 17, September 1933, 3.

<sup>116</sup> RGAE, 7566/1/52, 9 (dated June 1933).

<sup>117</sup> RGAE, 8043/1/318, 136 (probably written August 9, 1933, but misdated 1932 in file).

<sup>118</sup> ST, 6, November–December 1933, 123–4.

<sup>119</sup> *Ibid.*, November–December 1933, 121; *Predpriyatie*, 12, June 1933, 31.

<sup>120</sup> ZI, November 12, 1933; for Lenin's phrase see vol. 3, p. 166, note 28.

## CHAPTER SIXTEEN

### 1933 IN RETROSPECT

In 1933 the economic situation was the worst since 1921/22, the first year of NEP. The shadow of the famine, in which millions of peasants starved to death, haunted all economic activity. Yet the improved performance in the last few months of the year proved to be the starting-point for the industrial boom of 1934–6, the greatest pre-war triumph of the Soviet economic system.

#### (A) CAPITAL INVESTMENT

In 1933, for the first time since the early 1920s, capital investment declined even when measured in current prices. In the non-agricultural sectors of the economy, it fell by 2.3 per cent (see Table 2).<sup>1</sup> In real terms the reduction was substantially greater: the cost of building increased by 3 per cent (see p. 422 below), and the cost of capital equipment increased considerably.<sup>2</sup>

Investment in almost every sector was affected: the decline as measured in current prices amounted to 10 per cent in transport and 8–9 per cent in industry. Investment in Narkomtyazhprom fell by as much as 12.8 per cent. The decline was particularly large in the case of the coal, electric power and chemical industries, and also in engineering, where major tractor, vehicle and heavy engineering plants were almost complete, and plans to build additional factories were postponed. Investment continued to increase in the iron and steel industry, where the failure to

<sup>1</sup> Investment in agriculture will be discussed in vol. 5. Broadly, investment in machinery declined, while investment in the devastated livestock sector began to recover.

<sup>2</sup> The prices of most types of Soviet-produced machinery have not been available for 1932 and 1933; they increased considerably in the case of metal-cutting machine-tools (see Moorsteen (1962), 158–61, 193, citing price lists for 1932 and 1933). Moreover, in 1933 the proportion of capital equipment imported from abroad declined; the nominal prices of foreign equipment were considerably lower than the prices of Soviet-produced equipment, so this would also have increased the cost of equipment. On the decline in 'real accumulation' in 1933, measured in 1932 prices, see the alternative estimates in Table 1(b).

complete open-hearth furnaces and rolling mills imposed severe restrictions on the rest of industry. Investment also increased in the oil industry: previous curbs on oil investment, the unwise reaction to success, resulted in an unexpected decline in production (see p. 414 below). Investment in the light and food industries increased by 5.9 per cent in Narkomsnab and as much as 31.9 per cent in Narkomlegprom. In light industry this reversed the previous sharp decline.<sup>3</sup> At the XVII party congress in January 1934, Lyubimov, People's Commissar for the industry, proudly announced that the first stages of new textile combines in West Siberia and Central Asia were near completion, and that numerous other factories were under construction.<sup>4</sup> Nevertheless, in real terms investment had not even returned to the level of 1929.<sup>5</sup> Investment in the food industry followed a different course. In spite of the shortage of agricultural raw materials, investment increased steadily during the five-year plan (see vol. 3, tables 2 and 4; and Table 3 below). This was to enable the construction of large food processing plants, including meat combines, which would replace small-scale food production (see pp. 480–1 below).

In spite of the general decline in industrial investment in 1933, in real terms investment in Group A industries was still more than treble the 1928 level, and some 50 per cent higher than in 1930. Building work was well advanced on many sites. While the import of equipment had declined, the supply of Soviet-manufactured equipment increased (see p. 412 below). Much imported equipment was still available for installation: it had arrived during the previous year or two, and was held in store, awaiting the completion of the building work.<sup>6</sup>

Throughout 1928 to 1932, the amount of 'incomplete construction', building work which had been carried out on unfinished projects, rapidly increased. By the beginning of 1933, it amounted to the equivalent of 75 per cent of gross annual

<sup>3</sup> See Table 3; all these figures are in current prices.

<sup>4</sup> *XVII s'ezd* (1934), 454.

<sup>5</sup> See *Sots. str.* (1935), 468–9.

<sup>6</sup> PKh, 2, 1934, 21, 27 (Tochinskii and Rikman); Magnitogorsk was a striking example. Equipment (both imported and home-produced) available for installation in the economy as a whole was valued at 752 million rubles on January 1, 1933, and 840 million rubles on January 1, 1934; over 80 per cent of this was in Narkomtyazhprom (*Finansy* . . . 1933 (1935), 16–17, 20–1).

capital investment. But as a result of the increased rate of completion in 1933, the ratio of newly completed capital stock to annual capital investment was much higher than in previous years, and the further increase in incomplete construction was quite small.<sup>7</sup> In Group A industry, many projects started in 1929 or 1930 were ready or almost ready for production.<sup>8</sup> Major projects completed in 1933 included:<sup>9</sup>

Synthetic rubber factory, Efremov, near Tula (May 29): started up;  
 Tractor factory, Chelyabinsk (June 1): official opening;  
 Uralmash heavy engineering works, Sverdlovsk (July 15): official opening;  
 Aluminium factory, Zaporozh'e (July 17): first aluminium smelted;  
 Blast-furnace no. 1, Azov works (August 11), Mariupol': started up;  
 Nickel works, Ufalei, near Chelyabinsk (October 4): first nickel smelted;  
 Ferroalloy works, Zaporozh'e (October 10): started up;  
 Ferroalloy works, Zestafoni, near Chiatura, Georgia (October 30): started up;  
 Blast-furnace no. 1, Zaporozhstal', Zaporozh'e (November 16): started up;  
 Locomotive works, Lugansk ('fundamental reconstruction') (November 27): accepted by government commission;  
 Chemical combine, Bobriki, near Tula (December 24): official opening.

This list suffers from the familiar ambiguity attached to the starting-up of new factories. At one extreme, the Zestafoni ferro-alloy works, 'started up' on October 30, 1933, was not accepted by a governmental commission until three years later on November 5, 1936. At the other extreme, some shops of Uralmashzavod had already been handed over to production as early as July 1931,<sup>10</sup> and the factory was accepted by a

<sup>7</sup> See Arakelyan (1938), 87, 80, and Davies, ed. (1984), 177-9.

<sup>8</sup> PKh, 1-2, 1933, 55-8 (Knyaz'kov).

<sup>9</sup> *Ekonomicheskaya zhizn'* (1961), 287-93.

<sup>10</sup> *Ural'skii zavod* (Sverdlovsk, 1933), 11.

government commission on May 27, 1933, seven weeks before the official opening.<sup>11</sup> But the authorities were now much more aware of the complexities of starting-up, and took a more sophisticated attitude towards it. The well-informed industrial journalist A. Khavin, while conceding that '*the interests of the economy require start-ups in spite of incompleteness*',<sup>12</sup> distinguished three stages of completion among the major new factories in the summer of 1933: (1) the Stalingrad tractor factory, completed in 1930, was approaching full capacity; (2) the Gorky vehicle and Berezniki chemical works, 'completed' in 1931–2, were struggling to master capacity; (3) the Chelyabinsk tractor factory and the Bobriki chemical works were merely 'entering upon start-up'.<sup>13</sup> The original investment plan for 1933 apparently made no provision for funds to put right deficiencies resulting from early starting-up; but this plan was later revised.<sup>14</sup>

The two most important new factories were those at Chelyabinsk and Sverdlovsk. The Chelyabinsk factory, after assembling prototypes in the winter of 1932–3, unloaded its first tractor from the conveyor belt on May 15.<sup>15</sup> This was six months later than the original schedule, a delay strongly advocated by Soviet engineers on the site. But even this delay did not bring about a smooth mastering of the complex ten-ton caterpillar tractors which the plant was producing: the factory, with a capacity of 20,000 tractors a year, manufactured only 1,638 in June–December 1933 and did not reach its full monthly capacity until March 1935.<sup>16</sup> Heroic last-minute exertions were still required to complete factories in time for their official opening. To complete Uralmashzavod in Sverdlovsk, 7,000 citizens from the city and from nearby kolkhozy supplemented the normal labour force and worked without pay.<sup>17</sup> Unlike the major projects completed in 1930 and 1931, both factories impressed

<sup>11</sup> *Ekonomicheskaya zhizn'* (1961), 289.

<sup>12</sup> ZI, March 26, 1933; the same line was taken by Frankfurt, manager of the Kuznetsk works (ZI, March 24, 1933), but he also strongly stressed the losses involved in over-hasty completion (P, March 27, 1933).

<sup>13</sup> ZI, June 14, 1933.

<sup>14</sup> ZI, February 27, 1933; no statistics have been available on the investment devoted to these purposes.

<sup>15</sup> *1933 god* (1934), 151.

<sup>16</sup> Dodge (1960), 278.

<sup>17</sup> Unpelev (1960), 171.

their rare foreign visitors even shortly after their official completion. John Scott noted that at Chelyabinsk 'everything was working well', and described Uralmashzavod as 'one of the best-looking plants I have ever seen'; its first mechanical department was 'a beautiful piece of work', as was its foundry, 'completely mechanized and laid out according to the American technique'.<sup>18</sup> The Counsellor at the British Embassy, sceptical about almost every aspect of the Soviet system, described the completion of the Chelyabinsk factory in favourable terms, noting its potential significance as a tank factory.<sup>19</sup> He also reported the conclusion of an expert visitor that heavy machinery plants elsewhere in Europe 'pale before "Uralmashstroy"': in modernity of equipment it ranked among the foremost in the world; "there is no type of equipment for heavy industry which the plant cannot make".<sup>20</sup>

In 1933 major additions were also made to partly completed plants. On February 23, the sixth generator started work at Dneproges. Manufactured at Elektrosila, Leningrad, this was the first Soviet generator at the power station (the other five were American).<sup>21</sup> The first Soviet blooming mill, completed at the Izhora works in 1931 (see p. 22 above) was belatedly installed at Makeevka in June 1933.<sup>22</sup> With this installation, and the start-up at Zaporozh'e of the plants due to consume Dneproges power, the idle investments of previous years began to be brought into use.

## (B) INDUSTRIAL PRODUCTION

Even according to official figures, the production of large-scale industry did not increase by more than 8.2 per cent in 1933, and total industrial net production increased by 4.5 per cent (see Tables 5(a) and 1(a)). The production of Group A industries, on which so many resources had been lavished, increased by a mere 10 per cent, and of Group B industries by 5.9 per cent (see Table

<sup>18</sup> Scott (1942), 103, 112–13; these visits were in the summer of 1933.

<sup>19</sup> BDFA, IIA, xi (1986), 140–1 (Strang to Simon, June 5).

<sup>20</sup> *Ibid.*, 201–2 (Strang to Simon, July 18).

<sup>21</sup> P, February 25, 1933; *Ekonomicheskaya zhizn'* (1961), 285; Yantarov (1935), 85–92. The generator was started up on Red Army Day, a week earlier than Vinter thought desirable.

<sup>22</sup> *Ekonomicheskaya zhizn'* (1961), 289.



5(a)). These official figures suffered from the same exaggerations as in previous years, so the real increase in production must have been slight, if it occurred at all.<sup>23</sup>

Against this bleak background, some industries expanded rapidly, including coal, power and iron and steel. The increased production of crude and rolled steel followed two years of stagnation and decline. While imports of ferrous metals were considerably reduced, the net availability of rolled steel and steel pipes within the USSR increased slightly, and the production of quality steel increased by 30 per cent. This provided the basis for the increased output of machinery. The official record shows an increase in production of 'machinebuilding and metalworking' by 15 per cent, including an increase of armaments production by about 10 per cent (see Tables 5(a) and (b)). Western estimates show a similar rate of increase. According to Moorsteen, production of civilian machinery rose by 14.3 per cent.<sup>24</sup>

All the increase in Narkomtyazhprom production was attributed to 'new factories' constructed since 1917, the vast majority of which had been built since October 1, 1928; production by factories categorised as 'old' and 'reconstructed' declined.<sup>25</sup> The increase in production at the four new tractor and vehicle factories and the associated ball-bearing factory was responsible for as much as 28 per cent of the total net increase in Group A production.<sup>26</sup> The annual report on the state budget characterised 1933 as 'the breakthrough year in mastering new enterprises of heavy industry'.<sup>27</sup>

<sup>23</sup> The estimated decline in small-scale industry in 1933 may, however, have been exaggerated, as the level of production assumed for 1932 was unrealistically high (see p. 304, note 10 above).

<sup>24</sup> Moorsteen (1962), 310 (measured in 1937 prices).

<sup>25</sup> New factories were defined as factories completed since 1917 or factories in which the value of fixed productive capital had, by January 1 of the year concerned, more than quadrupled since October 1, 1928 (*Tyazhelaya* (1934), 147). Production in new factories increased by 1,514 million rubles, but as a result of the reduced production in the other categories total production rose by only 1,461 million rubles. (*Tyazhelaya* (1934), 147; these data exclude mining and quarrying.)

<sup>26</sup> Estimated from data for the individual factories in *Tyazhelaya* (1934), 150-4. These figures do not include the Chelyabinsk tractor factory; they are biased upwards by the high 1928 prices of this output.

<sup>27</sup> *Otchet . . . 1933* (1935), 174.

The iron and steel industry was an exception to this general pattern. The new works accounted for only 28.6 per cent of the total increase in production. Major new facilities had been installed at existing plants in the course of 1932 and 1933.<sup>28</sup> There was also some improvement in the efficiency with which existing blast-furnaces and open-hearth furnaces were utilised: output increased sharply in June–September during the competition for best performance organised by Narkomtyazhprom.<sup>29</sup> But efficiency was not restored to the level which prevailed at the end of the 1920s. Coke shortages were still endemic; and hold-ups were reduced only slightly.<sup>30</sup>

Most 'quality rolled steel' was produced by the 'Spetstal' corporation, headed by the young Bolshevik engineer Tevosyan; it overfulfilled its plan in 1933, and was thanked by Ordzhonikidze for its services.<sup>31</sup> Some 'Spetstal' factories were new, such as 'Elektrostal' near Moscow, established in 1916 and vastly expanded during the first five-year plan, and the Chelyabinsk ferro-alloy works completed in 1930–1. But most quality steel was produced at existing works, notably the Krasnyi Oktyabr' works at Stalingrad, where three new rolling mills were installed during the first five-year plan; Krasnyi Oktyabr' claimed to be at the level of advanced foreign factories in its methods of steel production.<sup>32</sup> Smaller and older plants also played their part. Production in the ten Ural plants of Vostokostal' increased by over 30 per cent in 1933.<sup>33</sup> The circumstances were not favourable. According to a Narkomtyazhprom report, these factories suffered from 'old worn-out unsuitable equipment, and a lack of experienced technical personnel'.<sup>34</sup> Modernisation was carried out with relatively limited investment: while fixed productive capital stock in the iron and steel industry as a whole increased by 117 per cent in 1932 and 1933, in Vostokostal' it

<sup>28</sup> See *Chernaya* (1935), 154–5, 157–63.

<sup>29</sup> RGAE, 4086/2/143, 67–72; ZI, July 23, 1933.

<sup>30</sup> See data in *Chernaya* (1935), 92–5; results are not given separately for the new furnaces at existing factories, so this evidence is somewhat uncertain.

<sup>31</sup> ZI, January 12, 1934.

<sup>32</sup> ZI, December 29, 1933; its production of quality steel began in 1930.

<sup>33</sup> RGAE, 4086/2/43, 2, 5–6; 4086/2/367, 23; production increased from a mere 11,900 tons in 1928/29 to 123,400 tons in 1933, following the party decision of May 1930 (see vol. 3, p. 205).

<sup>34</sup> RGAE, 4086/2/43, 4.

increased by only 33 per cent.<sup>35</sup> Nevertheless, by the end of 1933 the annual report of Vostokostal' could claim with some justification '*undoubted successes in eliminating the backwardness of the Urals iron and steel industry*'.<sup>36</sup> By 1933 the charcoal-based Nadezhdinsk works manufactured 35 grades of quality rolled steel, part of which was despatched to the Chelyabinsk tractor factory and to the aircraft industry; the iron and steel journal described this as 'one of the greatest achievements' of the Ural industry. The Beloretsk works became the main producer of wire for electrodes and airframes; the Lys'va works mastered the production of vehicle and aircraft sheet steel.<sup>37</sup> More effective inspection departments, with more qualified personnel, were established at all Vostokostal' factories; in consequence the amount of spoiled production declined, and the quality of output improved.<sup>38</sup>

In contrast, the oil industry was in serious crisis. After its rapid development in 1930 and 1931 (see p. 21 above), it stagnated for over two years. In 1933 gross production of the industry was 2 per cent less than in 1932.<sup>39</sup> The failure was largely due to inadequate investment, in turn a result of the decline in the import of oil equipment; in 1933 the import of oil-drilling equipment had been reduced to one-seventh of the record level of 1930,<sup>40</sup> and home production was unable to fill the gap.<sup>41</sup> The situation was exacerbated by the short-sighted failure to explore and prepare new wells during the boom years of 1930–1. While the production of crude oil stagnated in 1932 and 1933, the industry was confronted with a rapidly increasing demand for oil products for tractors, lorries and aircraft and for the engineering

<sup>35</sup> Arakelyan (1938), 87 (for the industry as a whole); data in RGAE, 4086/2/74, 60 and 4086/2/365, 88 were used to estimate growth of fixed capital in Vostokostal'. These figures considerably exaggerate the rate of increase in fixed capital: the initial stock is undervalued and the increases are added on not in fixed but in current prices.

<sup>36</sup> RGAE, 4086/2/367, 2 (report dated March 16 [1934]).

<sup>37</sup> RGAE, 4086/2/367, 23–6; Clark (1956), 311; *Sovetskaya metallurgiya*, 4, 1933, 176–8.

<sup>38</sup> RGAE, 4086/2/367, 47–8.

<sup>39</sup> *Tyazhelaya* (1934), 117; these figures are in 1926/27 prices.

<sup>40</sup> See *Vneshnyaya* (1960), 303–36.

<sup>41</sup> For the change in capital stock in this period, see *Promyshlennost'* (1936), 167, 193.

industry generally. The oil shortage haunted the Soviet economy throughout 1933. Voroshilov complained to Molotov, as chair of STO, that in February many garrisons had received no petrol, and in consequence 'the absence of any stocks puts the motorised and mechanised sections into an impossible position in the event of military action, as the machines cannot move from the spot'.<sup>42</sup> In the Far East, the local authorities complained that the lack of even second-grade petrol threatened all economic activities from military construction to fishing.<sup>43</sup> In Ukraine, kerosene for use as tractor fuel was in such short supply that tractors frequently had to cease operations.<sup>44</sup> Appeals for additional kerosene for sale to consumers for lighting were peremptorily rejected.<sup>45</sup> To mitigate the crisis, exports of light oils were drastically reduced below the planned figure, which was already lower than actual exports in 1932. As a result, the internal consumption of petrol and kerosene expanded in 1933.<sup>46</sup> But the increase was far from sufficient. The lack of crude oil also restricted the growth of the oil-consuming industries.<sup>47</sup> To cope with the crisis the Politburo belatedly allocated additional investment to the industry.<sup>48</sup> Eventually this was one of the few industries in which investment exceeded both the 1933 plan and the financial expenditure in the previous year.<sup>49</sup> But at the end of the year a Narkomtyazhprom survey still called for 'the more energetic development of exploration and an accelerated rate of drilling'.<sup>50</sup>

<sup>42</sup> GARF, 5446/27/23, 203 (dated February 27, 1933).

<sup>43</sup> GARF, 5446/27/50, 125 (telegram from Khabarovsk to Molotov, dated March 24).

<sup>44</sup> GARF, 5446/27/50, 211 (telegram from Chubar' to Kuibyshev, dated May 13); for a similar telegram from Sheboldaev (North Caucasus) to Kuibyshev, see *ibid.* 215 (also dated May 13).

<sup>45</sup> GARF, 5446/27/50, 242, 245 (telegram from Gorky region to Molotov, dated July 17, and reply from Kuibyshev dated July 21).

<sup>46</sup> Petrol available for internal consumption increased from 0.44 million tons (2.46 million production minus 2.02 exports) to 1.07 million (2.37–1.30), kerosene from 3.03 (3.86–0.83) to 3.25 (3.82–0.57) (see *Promyshlennost'* (1936), 170, 196, *Vneshnyaya torgovlya* (1960), 129).

<sup>47</sup> See ZI, December 15, 1933 (Grigor'ev and Kuz'min), *Plan*, 2, 1933, 3–5.

<sup>48</sup> RTsKhIDNI, 17/3/927, 2 (session of August 1, item 6); RTsKhIDNI, 17/3/928, 18 (decision by correspondence, August 7).

<sup>49</sup> See Table 3; and for 1933 plan (450 million rubles) GARF, 5446/1/71, 63 (art. 23, dated January 5).

<sup>50</sup> ZI, December 21, 1933.

The lag in non-ferrous metals was equally troublesome, and was frequently on the agenda of the Narkomtyazhprom collegium.<sup>51</sup> In 1932 the principal source of complaint was the difficulty of mastering the new production facilities (see p. 148 above); in 1933 ore-mining was also in great difficulties. By 1933 copper ore required deeper mining, and its copper content was poorer than that mined two or three years previously.<sup>52</sup> The difficult conditions and the remoteness of the sites made the industry particularly unattractive to workers: a Narkomtyazhprom report described the lack of underground workers at Krasnoural'sk and elsewhere, and called for improved rations and better housing.<sup>53</sup> Similar conditions prevailed in the lead and zinc industries.<sup>54</sup> The number of workers in non-ferrous metals declined in 1933.<sup>55</sup> Production of lead declined, production of copper failed to increase, and production of zinc increased much more slowly than planned. The production of aluminium, nickel and other metals new to Soviet experience also lagged far behind the plan.<sup>56</sup> Total production of the industry rose by only 1.8 per cent,<sup>57</sup> while imports of all these metals were greatly reduced. Thus in both 1932 and 1933 internal consumption was substantially lower than in 1931 (see Table 8). In September 1933 the head of the industry bluntly admitted that 'to our shame we have failed to meet every plan'; and urged that 'it is high time to close the gap!'<sup>58</sup> Production did somewhat improve in the second half of 1933; but this was merely a first step.<sup>59</sup>

The poor performance of the consumer goods industries was due to the decline in agricultural raw materials. The published

<sup>51</sup> See, for example, ZI, August 20, October 11, 1933.

<sup>52</sup> ZI, September 24, 1933 (Shakhmuradov).

<sup>53</sup> ZI, August 20, 1933; the dwellings were described as 'real bughouses'. See also ZI, September 24, 1933.

<sup>54</sup> ZI, September 24, 1933.

<sup>55</sup> *Promyshlennost'* (1936), 259.

<sup>56</sup> For aluminium, see PKh, 2, 1934, 52-4 (Fedot'ev).

<sup>57</sup> *Tyazhelaya* (1934), 135.

<sup>58</sup> ZI, September 24, 1933.

<sup>59</sup> Production (in million rubles at 1926/27 prices):

	<i>Jan.-Mar.</i>	<i>Apr.-June</i>	<i>July-Sept.</i>	<i>Oct.-Dec.</i>	<i>Whole year</i>
1932	121	136	141	136	534
1933	113	126	151	154	544

(*Tyazhelaya* (1934), 135).

official statistics reported an increase in production of Group B industry by 5 or 6 per cent.<sup>60</sup> These figures are extremely misleading. The largest items in Group B are textiles, which showed an increase of 3.8 per cent, and food, drink and tobacco, which in this famine year was purported to increase by 9.3 per cent (see Table 5(a)). But for textiles the data in physical terms show a decline in the production of woollen fabrics, and an increase in cotton fabrics which is largely due to an unexplained residual item.<sup>61</sup> Nearly all the increase in food, drink and tobacco was accounted for by large-scale flour milling and bread baking and the increased production of vodka and other alcoholic drinks.<sup>62</sup> A confidential Soviet report was much franker; it showed a substantial increase in vodka production, omitted from the published reports, but nevertheless indicated a decline in food, drink and tobacco as a whole by as much as 6 per cent.<sup>63</sup>

While the lag in particular industries could in principle be corrected by a reallocation of priorities, other weaknesses were inherent consequences of central planning. The defects of the centralised supply system had long been a target for criticism,<sup>64</sup> as had 'storming', the concentration of production into the last days of every month, quarter and year.<sup>65</sup> Complaints about the shortage of spare parts were louder and more agonised in 1933. A survey of Southern iron and steel works showed that their stock of spare parts was small and poorly organised; and that factories designated to produce them had failed to do so.<sup>66</sup> The iron and steel works often had to make spare parts for capital equipment themselves, with poor production facilities and inadequately

<sup>60</sup> *Promyshlennost'* (1964), 36 (all industry); *Sots. str.* (1935), 3 (large-scale industry). Confidential reports showed increases of 2.3 per cent (for the four industrial commissariats) and 1.0 per cent (for Union and local industry) (*Osnovnye pokazateli*, 1933, 31; 1935, 6).

<sup>61</sup> *Sots. str.* (1935), 254, 252.

<sup>62</sup> *Promyshlennost'* (1936), 19–21 but see Table 6(d) for production of vodka in physical terms.

<sup>63</sup> Estimated from data in *Osnovnye pokazateli*, 1933, 33.

<sup>64</sup> See vol. 3, pp. 485–6; Carr and Davies (1969), 833–4; and pp. 265–70 above.

<sup>65</sup> In his speech to the Kharkov engineering factories, Postyshev strongly condemned 'storming', describing it as 'widespread at our factories' (ZI, September 29, 1933).

<sup>66</sup> ZI, April 21, 1933 (L. Lomov); the survey was carried out in the second half of February and the beginning of March.

qualified personnel.<sup>67</sup> One authority complained that 25–30 per cent of orders for machinery came from customers who already possessed the relevant machines in store but could not acquire or manufacture spare parts for them, and found it easier to order a new machine.<sup>68</sup> No specialised facilities had been established for major repairs and modifications to tractors and other machinery which had already been in use for several years.<sup>69</sup>

While established machinery lacked spare parts, newly delivered machinery often suffered from ‘incompleteness (*nekomplektnost'*)’. Many components or units for complex machines were bought in by the main producer from other factories, which were often subordinate to a different administrative authority. The coordination of these supplies proved very difficult at a time of great scarcity and changing priorities. At a conference on this theme organised by the industrial newspaper in May 1933, the representative of the railways bitterly complained that electric locomotives were delivered without engines:

It would be better if in the annual plan each consumer was given less, but complete . . . If you give us a diesel locomotive, give us all the rest – without it we don't need the diesel.

Several speakers suggested that the manufacturer of a complicated machine should be responsible for installing it. There was strong support for the view that every machine should have a ‘general complete supplier’ who, like General Electric in the United States, took responsibility for the complete order and subcontracted it.<sup>70</sup> The delivery of incomplete machines had been declared illegal in a series of decrees dating back to March 27, 1932, but with little effect. In August Vyshinsky prosecuted a group of industrial officials for delivery of combine harvesters to West Siberia which were unusable because nearly half of them lacked magnetos.<sup>71</sup> But *nekomplektnost'* proved to be an inherent problem of Soviet planning.

<sup>67</sup> ZI, April 21, 1933 (L. Lomov).

<sup>68</sup> ZI, May 12, 1933 (Perel'man).

<sup>69</sup> ZI, April 5, 1933 (Shpekterov).

<sup>70</sup> ZI, May 29, 1933.

<sup>71</sup> ZI, August 22, 1933; see also p. 350 above.

## (C) LABOUR AND LABOUR PRODUCTIVITY

The number of persons employed in the non-agricultural sectors of the economy declined by 4.1 per cent in 1933 (see Table 15(a)). Employment in construction declined by as much as 24.5 per cent; there was a smaller reduction in industry and on the railways. The number of scientists, and of students of all kinds, was drastically reduced.<sup>72</sup> The length of the courses at factory schools (FZU) was reduced from two years to six or twelve months, and they concentrated more closely on the rapid training of skilled workers.<sup>73</sup> But in the school years 1932/33 and 1933/34 the total number employed in education continued to increase, as did the number of pupils in primary and secondary schools.<sup>74</sup> And the number of doctors continued to increase, though this did not prevent the deterioration in the health of the population.<sup>75</sup>

The reduction in non-agricultural employment, a reversal of all previous trends, was enforced by drastic measures. The internal passport was introduced in all major towns during 1933; the issue of ration cards was restricted; firmer wage controls were established. But net immigration into the towns continued to take place, though at a much slower rate than in previous years (see Table 14(b)).

In industry, contrary to the general trend, employment increased in the most successful industries. In the coal industry the number of manual workers increased by 11 per cent, in iron and steel by 6 per cent. In the tractor and vehicle industry, new factories were still coming on stream, and the increase was as much as 19 per cent.<sup>76</sup>

<sup>72</sup> *Sots. str.* (1935), 624; *Kul'turnoe stroitel'stvo* (1956), 201. The number of scientists is given for January 1 of each year, not the annual average. For the reduction in research, see Lewis (1979), 12–14.

<sup>73</sup> Narkomtyazhprom order dated August 16, 1933, TsIK and Sovnarkom decree dated September 15 (RGAE, 4086/2/367, 74; SZ, 1933, art. 357); these measures are described in Fitzpatrick (1979), 226. For the campaign to reduce the number of white-collar workers, see pp. 369–70 above.

<sup>74</sup> *Kul'turnoe stroitel'stvo* (1956), 80–1; the number of teachers increased by 7.3 per cent in 1932/33 and a further 8.6 per cent in 1933/34.

<sup>75</sup> *Sots. str.* (1935), 547; the increase in 1933 was 6.0 per cent.

<sup>76</sup> *Tyazhelaya* (1934), 205; in the branches of heavy industry included in this source, the total number of workers declined from 2021.8 to 1975.4 thousands, or by 2.3 per cent. These figures are all annual averages. However, in spite of the increase in production throughout heavy industry in the second half of 1933,



In the previous two years, labour productivity stagnated or declined; but in 1933 it began to increase. In the building industry, the decline in the supply of building materials was much less rapid than the decline in the labour force, so the amount of building work per person employed increased. In large-scale industry, Soviet statistics, based on exaggerated production figures, recorded an increase in labour productivity of 13 per cent. But even a conservative western estimate indicated an increase of over 4 per cent.<sup>77</sup>

#### (D) STABILISATION OF COSTS

After rising rapidly in the previous two years, the costs of production were much more stable in 1933. In industry, an increase of 2.9 per cent was recorded.<sup>78</sup> The improvement as compared with 1932, when costs were reported to have risen by 6.8 per cent, was substantial.

In the light and food industries, costs increased. Labour productivity increased, and the cost of labour per unit of output slightly declined, but this was outweighed by the increase in the prices of agricultural raw materials.<sup>79</sup>

In heavy industry, however, according to official figures, costs declined by 4 per cent.<sup>80</sup> In its reports, Narkomtyazhprom optimistically claimed that Dol'nikov's 'anti-party' proposals to increase the prices of capital goods had been refuted in practice and that heavy industry was 'beginning to repay the huge sums

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the number of workers employed in the heavy industries listed in *Trud* (1936), 92, amounted to only 3,116,800 on January 1, 1934, as compared with 3,098,000 on January 1, 1933; the number of workers declined in the oil-extracting, cement and engineering and metalworking industries and increased in the electric-power, coal, iron-ore, chemical and iron and steel industries.

<sup>77</sup> Industrial labour declined by 2.6 per cent; but according to Nutter's estimate in 1955 prices civilian industrial production increased by 1.9 per cent (Nutter (1962), 527). In 1928 prices the increase was 6.0 per cent (Nutter (1962), 525).

<sup>78</sup> PKh, I, 1935, 260. According to another source, if charges in prices of inputs, etc. are ignored, costs fell by 1.0 per cent (PKh, 9, 1935, 107 – Turetskii).

<sup>79</sup> For a breakdown of the cost increases, see *Osnovnye pokazateli*, 1933, 261; for labour productivity, see *ibid.* 268.

<sup>80</sup> *Tyazhelaya* (1934), 225. According to a later source, the decline was only 1.6 per cent if changes in input prices are taken into account (PKh, I, 1935, 260–1).

expended on sustaining it'.<sup>81</sup> The Narkomtyazhprom newspaper noted that the firmer controls over the workers' wage bill made a major contribution;<sup>82</sup> according to Narkomtyazhprom data, productivity increased by 14.0 per cent, the average wage by only 7.8 per cent.<sup>83</sup> This achievement was less formidable than it appears. Production costs continued to increase in the coal industry, in iron and steel and in oil extraction, though at much slower rates than in the previous two years.<sup>84</sup> Costs declined consistently and substantially only in newly established industries and factories or when new types of output were brought into mass production. As usual, the most rapid reduction was in the vehicle and tractor industry (26.6 per cent) and the machine-tool industry (30.2 per cent).<sup>85</sup> While the cost of inputs rose in these industries due to the replacement of imports by Soviet products, this was outweighed by the decline in the previously very high unit labour costs.<sup>86</sup>

Even in industries in which costs were still rising, many factories and mines now began to show improvements.<sup>87</sup> Although iron and steel costs generally increased, in Vostokostal', where production costs increased by as much as 27 per cent in 1932, they remained constant in 1933.<sup>88</sup> Narkomtyazhprom

<sup>81</sup> ZI, September 21, 1933 (report on January–June), November 22, 1933 (report on January–September).

<sup>82</sup> See ZI, January 8, 1934 (Lebedinskaya and Lokshin).

<sup>83</sup> *Tyazhelaya* (1934), 207, 213; average wages of white-collar workers rose by 9.2 per cent and of engineering and technical workers by 12.2 per cent. Labour productivity is measured on a quarterly and wages on a monthly basis.

<sup>84</sup> *Tyazhelaya* (1934), 225. the increases were 3.6 per cent (coal), 5 per cent (iron and steel), 9.8 per cent (oil).

<sup>85</sup> *Ibid.* (1934), 226.

<sup>86</sup> *Ibid.* 233. The cost of producing a tractor at the Kharkov factory, for example, fell from 4,460 to 3,602 rubles, even though the introduction of Soviet materials increased input costs by 334 rubles.

<sup>87</sup> For examples from the oil and coal industry, see *ibid.* 225, 227.

<sup>88</sup> According to the Vostokostal' report for 1932, the full factory cost of gross production in 1932, including price changes, supplementary expenditure and losses from stoppages was 203 million rubles when measured at 1931 costs and 257 million rubles at 1932 costs, representing a cost increase of 27 per cent (RGAE, 4086/2/74, 30, dated April 8 [1933]); according to the report for 1933, the comparable figures for 1933 were 306.5 million rubles at 1932 costs and 306.0 million rubles at 1933 costs, indicating that costs remained stable in 1933 (RGAE, 4086/2/365, 1). Measures listed included strict control over numbers employed, more frequent dismissals for violating discipline, and extensive use of technically-based work norms (RGAE, 4086/2/367, 56, 58, 60–2).

officials exhorted the rest of heavy industry to emulate these accomplishments:

In the lagging industries there are factories and even whole trusts and corporations which have reduced costs in comparison with last year. This circumstance demonstrates that better results could be achieved in these industries if *all possibilities were utilised*.<sup>89</sup>

Several major iron and steel works, including the 'Rykov' works in Enakievo, 'Serp i Molot' and 'Krasnyi Oktyabr', pledged that they would refute Dol'nikov in practice by refusing a state subsidy.<sup>90</sup> The pledge was rash, because total direct and indirect losses on iron and steel amounted in 1932 to as much as 850 million rubles, as compared with gross production valued at 1,300 million rubles at 1926/27 prices.<sup>91</sup>

In capital construction a fierce campaign for economy was waged throughout the year, with startling results. The number of white-collar workers was drastically reduced; prices for local building materials and horse-drawn transport, which had escalated in 1932, were brought more firmly under control;<sup>92</sup> work norms were substantially increased. These improvements were not sufficient to counteract the continued increase in the cost of materials, and total costs still rose by 3 per cent.<sup>93</sup> Nevertheless, following the large cost increases of 1931-2, the change was dramatic. A TsUNKhU survey of construction costs characterised 1933 as 'undoubtedly a breakthrough year'.<sup>94</sup>

<sup>89</sup> ZI, January 8, 1934 (Lebedinskaya and Lokshin).

<sup>90</sup> ZI, January 12, 1934.

<sup>91</sup> Direct losses amounted to 450 million rubles and losses on subsidised inputs to the industry amounted to a further 400 million rubles (ZI, March 17, 1933); figures supplied by Dol'nikov, but not challenged by his critics. In *Vostokostal'*, total gross production in 1933 was valued at 227 million rubles in 1926/27 prices, 256 million rubles at 1933 wholesale transfer prices and 377 million rubles at 1933 costs; losses were estimated at 140 million rubles (see RGAE, 4086/2/365, 1-2).

<sup>92</sup> See report of conference on reduction of building costs, July 13, 1933, in *Stroitel'naya promyshlennost'*, 7, 1933, 1.

<sup>93</sup> See the table in *Stoimost'* (1935), 12. Similar data for particular building organisations show cost increases ranging from 1.1 to 3.5 per cent in 1933 (*Stroitel'naya promyshlennost'*, 11, 1934, 23; 6, 1935, 9; 12, 1936, 10).

<sup>94</sup> *Stoimost'* (1935), 4; this introduction to the survey was written by Kraval', who by this time was head of TsUNKhU.

## (E) FINANCE

In January 1933, in their resolutions on the annual plan, the plenum of the party central committee and the session of TsIK set out financial policy in identical terms:

Oblige all party, soviet and economic organisations to achieve without any qualifications:

- a) observance of strictest budgetary and credit discipline in both revenue and expenditure;
- b) the resolute application of *khozraschet* and of contract discipline between economic agencies;
- c) prohibition of any capital construction at all which is outside the plan.<sup>95</sup>

The TsIK resolution on the unified state budget for 1933 also called for 'strictest observance' of state prices.<sup>96</sup>

*(i) The budget and public finance*

This was not the first occasion on which the Soviet government had called for financial stringency. The novelty in January 1933 was that the budget was drawn up in accordance with the stern resolutions. Budgetary expenditure as a whole was planned to increase by only 10 per cent, as compared with the huge increase of almost 50 per cent in 1932 (see Table 22(b)). The 'national economy' item was scheduled to increase by a mere 3.8 per cent; higher rates of increase were budgeted for defence, education and health, but price rises meant that expenditure was planned to decline in real terms.<sup>97</sup> Budgetary revenue was planned to increase by as much as 13 per cent, so as to produce a substantial surplus. While no specific reference was made to the currency in the proceedings of TsIK, this increase in the budgetary surplus conformed to the secret decision to withdraw 1,000–1,500 million rubles from circulation (see p. 326 above).

A budget surplus – and financial stability generally – could not be achieved with retail prices fixed at their existing level.

<sup>95</sup> *KPSS v rez.*, iii (1954), 186, dated January 10; SZ, 1933, art. 38, dated January 26. With constitutional propriety the TsIK resolution omitted the word 'party'.

<sup>96</sup> SZ, 1933, art. 39, dated January 30.

<sup>97</sup> For the defence estimates, see pp. 318 and 325 above and 432, n. 136 below.

Following the large price increases of 1932, average retail prices in socialised trade reached double or more the 1928 level (see Table 25(a) and pp. 194–5 and 309 above). But these increases failed to keep pace with the continued growth of purchasing power. The 1933 budget estimates implicitly assumed that further retail price increases, effective from January 1 (see p. 428 below), would be required in order to obtain the planned revenue. But the supply of food and consumer goods was less than planned, and the price rises of January 1 did not yield sufficient turnover tax to enable the budget to be balanced. The problem was solved by unplanned increases in fixed prices. In consequence, revenue rose by 32 per cent, well over double the rate of growth planned in the budget (see Table 22(a)). Over 80 per cent of the additional revenue was obtained through turnover tax and the tax on commercial trade.<sup>98</sup> Further budgetary revenue was obtained from the mass loans. All employees were under great pressure to increase their subscriptions. While the total wage bill increased by only 6.8 per cent in 1933, the gross receipts from mass loans rose by 26 per cent.<sup>99</sup>

Expenditure increases were restricted by firm control over employment and wages; the increase in the total wage bill by only 6.8 per cent was a degree of stability without precedent in the history of the Soviet economy. Nevertheless, budgetary expenditure exceeded the estimates in 1933, primarily as a consequence of the agricultural crisis.<sup>100</sup> But expenditure increased less rapidly than revenue, by only 20 per cent, and as a result the nominal budget surplus, estimated at 1,780 million rubles, reached 4,487 million rubles. In 1933 budgetary expenditure on heavy industry (including electric power) was lower than the estimates for the first time in many years, and a mere 0.8 per cent higher than in 1932. This remarkable result was achieved by strictly limiting

<sup>98</sup> Retail trade turnover (excluding public catering) increased by 7,897 million rubles, and turnover tax plus the tax on commercial trade (the 'special commodity fund') by 7,468 million rubles (see Tables 11 and 25(a)).

<sup>99</sup> For the wage bill, see *Trud* (1936), 22–3; for loan receipts, see Table 22, note c; for an account of the impact of the loan campaign, see BDFA, IIA, xi (1986), 154 (Bullard to Strang, June 12, 1933).

<sup>100</sup> An unexplained increase also took place in the item 'accounts with the State Bank', which was 707 million rubles greater than the estimate (*Otchet. . . 1933* (1935), 99); it is tempting to suspect that this may conceal defence expenditure.

allocations both to capital investment and to the current expenditure of loss-making industries.<sup>101</sup> Subsidies to cover losses declined for the first time in several years.<sup>102</sup>

In the Soviet economy even a substantial budget surplus did not necessarily result in financial stability, as bank loans did not form part of the budget. In previous years substantial increases in bank loans resulted in an increase in currency in circulation even though the budget was in surplus. But in 1933, for the first time since the currency reform of 1924, the recorded amount of currency in circulation ceased to increase. According to the official figures, it declined by 19 per cent between January 1 and July 1 (see Table 24), and remained stable in the second half of the year, when the new harvest and the building season normally resulted in an increase in currency. The net reduction over the year amounted to 1,551 million rubles, as compared with the planned reduction of 1,000–1,500 million. These are puzzling figures. The quarterly plans for 1933 imply that currency in circulation fell only slightly over the year as a whole.<sup>103</sup> It seems

<sup>101</sup> Allocations were as follows (million rubles):

	1932	1933
Capital investment	6667	6643
Working capital, etc. [including subsidies]	3760	3874
	10427	10517

(estimated from *Otchet. . . 1932* (1932? [1933]), 5, 68–9, 170–80; *Otchet. . . 1933* (1935), 5, 70–1, 173–6).

The above items include allocations to heavy industry from both the all-Union and the republican budgets, including allocations to local power stations. 'Working capital, etc.' includes 'formation and supplementing of working capital', 'operational expenditure' and a small amount of expenditure on 'loans outside the budget'; these headings conceal subsidies to cover losses.

<sup>102</sup> All-Union budget allocations to working capital of heavy industry amounted to 1,704 million rubles in 1931, 3,532 million in 1932 and only 3,479 million in 1933 (*Otchet. . . 1931* (1932), 179; *Otchet. . . 1932* (1932? [1933]), 173; *Otchet. . . 1933* (1935), 174).

<sup>103</sup> Planned currency issue (+) or withdrawal (–) (million rubles):

January–March	–820 <sup>a</sup>	July–September	+ 700 <sup>c</sup>
April–June	0 <sup>b</sup>	October–December	0 <sup>d</sup>

<sup>a</sup> GARF, 5446/57/21, art. 1926, dated December 29, 1932. The decree gives this figure as the budget surplus, and states that it should be used to remove currency from circulation.

<sup>b</sup> GARF, 5446/57/23, 177–80, art. 520/95s, dated March 20.

<sup>c</sup> GARF, 5446/57/24, 165, art. 1173/257ss, dated June 8; maximum figure.

<sup>d</sup> RTsKhIDNI, 17/3/930, 7–8, decision dated September 4.

unlikely that the actual withdrawal of currency was greater than the sum of the quarterly plans. But even if the amount of currency in circulation merely remained stable in 1933, this was a revolution as compared with the rapid increase in previous years. An economic survey on the occasion of the sixteenth anniversary of the revolution briskly summarised these achievements:

*Stabilisation of the financial system.* Increase of trade turnover. Removal of a considerable amount of money from circulation. Financial restriction and financial discipline. Improvement of the circulation of paper money.<sup>104</sup>

(ii) *Enforcement of financial discipline*

The drive for stable finance was enforced by the restoration of some traditional financial controls. Since 1930, following the abolition of the long-established agencies of State Financial Supervision (see vol. 3, pp. 316–17), budget grants had been supervised through frequent investigations by Rabkrin, supplemented by occasional forays by the Commission for Fulfilment of Sovnarkom. But on December 9, 1932, a decree of Sovnarkom called for much more thorough control over expenditure by the central and local agencies of Narkomfin. They were instructed to carry out ‘investigations and inspections’ both of establishments entirely financed by the state budget, and of budget grants to self-financing units (such as factories).<sup>105</sup> A Financial and Budgetary Inspectorate was established within Narkomfin, intended to fill the hiatus left by the abolition of State Financial Supervision. Within a few months the Narkomfin journal praised the ‘adequately energetic’ inspections carried out by most financial departments, which had disclosed ‘crude violations’ of financial discipline.<sup>106</sup> In the annual budget report for 1933, however, Narkomfin noted that many republics and regions had delayed setting up Inspectorates for many months, and concluded that

<sup>104</sup> ZI, November 7, 1933. This was a paragraph in a set of theses published as an anonymous editorial; the style is Bukharin’s.

<sup>105</sup> SZ, art. 505; these activities were to be carried out without any increase in Narkomfin staff.

<sup>106</sup> FSKh, 7, April 1933, 1–2 (editorial).

'in practice 1933 was merely a beginning'.<sup>107</sup> But the new control arrangements helped to create an atmosphere in which Narkomfin officials began to lose their fear that financial prudence might be treated as economic sabotage. Narkomfin was rapidly resuming its traditional image as a strict guardian of the public purse.

Financial discipline was also supported far more strongly than in previous years by mass campaigns organised by the party and the soviets. According to the annual Narkomfin report, the campaign involved 'hundreds of thousands of the best shock workers in factories, works, MTS, sovkhosy and kolkhozy', as well as the voluntary financial sections of soviets, and groups of women activists and the Komsomol.<sup>108</sup> The most remarkable novelty in these campaigns was the informal 'socialist competition to fulfil the financial plan', initiated in the summer of 1933 by the Gorky region and its powerful party secretary Zhdanov. The competition, which involved as many as thirty regions, was organised not between financial departments but between the different party organisations and soviet executive committees, and was coordinated by a radio hook-up between regions.<sup>109</sup> In the Gorky region, the campaign also involved competition between districts and villages. Following the pattern long established for socialist competition in industry, the most successful villages were praised and rewarded, the most backward were demeaned with the 'order of the snail'. Strong administrative sanctions were also applied. On August 10 a radiogram to local officials in the Gorky region from Zhdanov and the chairman of the regional soviet threatened 'severe repressions' if financial questions were ignored, and a fortnight later a number of heads of district financial departments were summarily dismissed.<sup>110</sup> Thus the turn to financial stability in 1933 was supported by methods similar to those used in 1929-31 to impose the ambitious production and investment plans which were the main cause of financial instability.

<sup>107</sup> *Otchet. . . 1933* (1935), 140-1.

<sup>108</sup> *Ibid.* 141-2.

<sup>109</sup> *Ibid.* 142; FSKh, 13, September 1933, 2-7.

<sup>110</sup> FSKh, 15, September 1933, 4-5; FSKh, 16-17, October 1933, 1-2; in a nationwide check of 1,508 state revenue inspectors 157 were dismissed and another 119 classified as 'due for replacement' (*ibid.* 18-20, December 1933, 5 - Abolin).



## (iii) Prices

As we have seen, fixed prices in state and cooperative retail trade were again increased in 1933. But in 1933, for the first time since 1928, the huge gap between free-market (*kolkhoz*-market) prices and fixed prices began to close. This marked the beginning of the price revolution which culminated in the abolition of rationing in 1935, and in the abolition of most state subsidies to industry in 1936. The price changes of 1933 therefore deserve to be examined in some detail.

From January 1, retail prices of most foods, including rationed foods, and of several important manufactured goods were increased.<sup>111</sup> Further increases took place later in the year.<sup>112</sup> Retail prices in state and cooperative trade in 1933 were 13 per cent higher than the annual average for 1932 (see Table 25(a)); the prices of food products rose particularly rapidly.<sup>113</sup> Passenger rail fares and postal charges were increased by over one-third.<sup>114</sup>

Prices in state commercial shops were also increased.<sup>115</sup> The

<sup>111</sup> Retail prices of goods in planned supply in cooperative trade rose by 10 per cent in the towns and 16 per cent in the countryside. The goods affected included flour, bread, meat, margarine, sunflower oil, sugar, herrings, preserves, salt, sweets (*karamel'*), matches, soap and footwear; prices of clothing and some other manufactured goods were increased only in the countryside (*Itogi. . . po torgovle*, June 1933, 138–9). For a monthly price index, see *Itogi. . . po torgovle*, May 1933, 94–6. For other price increases in the first months of 1933, see Malaf'ev (1964), 189–90.

<sup>112</sup> In August the Politburo increased what it described as the 'extraordinarily low' prices of rationed bread by about 50 per cent, so that they amounted to one-seventh or one-eighth of the commercial price (RTsKhIDNI, 17/3/928, 27, 67 – decision by correspondence of August 13). According to a Western report, the price of rye bread in retail cooperatives increased by 70 per cent in the middle of August, and the price of other kinds of bread was doubled (B DFA, IIA, xi (1986), 262 – Bullard to Coote, September 13, 1933). See also *Itogi. . . po tovaroborotu*, January 1934, 106–7, showing an increase in the retail urban price of bread by over 60 per cent between June and September, and Malaf'ev (1964), 189–90, who mistakenly states that the increase took place in March.

<sup>113</sup> The price of vodka, which already incorporated a mark-up of over 800 per cent on the wholesale price, was apparently not further increased in 1933.

<sup>114</sup> SZ, 1933, arts. 56 and 57 (decrees of Sovnarkom dated February 5 and 16). The increase in passenger fares was authorised by the Politburo on February 4; fares paid from the defence budget were also to be increased, and the estimates revised accordingly (RTsKhIDNI, 17/3/915, 13 – decision by correspondence).

<sup>115</sup> RGAE, 8043/1/79, 135–52 (art. 76, decree dated March 1, based on decree of KTF dated February 17, which also abolished the so-called 'average-higher

effort to reduce these prices, initiated by the central committee plenum of October 1931 (see p. 96 above), had temporarily failed. State commercial trade was further expanded with the opening of special shops for the sale of bread and meat off the ration at high 'special commercial prices' in Moscow, Leningrad and Kharkov.<sup>116</sup> The amount available was small at first, and the bread shops were besieged by huge numbers of purchasers, including many collective farmers from Ukraine and elsewhere. Many queues contained two or three hundred people from first thing in the morning until late at night; sometimes people queued all night.<sup>117</sup> By the end of 1933 several thousand special bread shops had been established in 330 towns; and in addition several hundred shops sold meat, milk and other foods at commercial prices.<sup>118</sup> Food sales at commercial prices greatly exceeded the plan, amounting to 15.8 per cent of all retail trade in food production in 1933 as compared with 5.2 per cent in 1932.<sup>119</sup> Most sales took place after the new harvest.<sup>120</sup> Increased sales of

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prices' for food and manufactured goods, which were intermediate between normal retail and commercial prices).

<sup>116</sup> RTsKhIDNI, 17/3/916, 92-3, decision dated February 28; RGAE, 8043/1/79, 227-8; sales began on March 2-3. The price of white bread was 2r50k - 3r and of meat 15r per kilogram; the average daily wage in 1933 was only 4r29 (*Trud* (1936), 17).

<sup>117</sup> RTsKhIDNI, 17/3/916, 92-3; RGAE, 8043/1/324, 103, 243, 320-34; 8043/1/79, 227. Sales in March amounted to 18,000 tons, the equivalent of a ration of 1 kg a day for 600,000 persons. Sales were restricted to 2 kg of bread per person, but on April 1 the Politburo resolved to restrict sales to 1 kg, and authorised the OGPU to seize any bread which purchasers attempted to resell, fining them 50-100 rubles (RTsKhIDNI, 17/3/919, 25-6; see also GARF, 5446/57/23, 206, art. 624/114s, dated April 2).

<sup>118</sup> RGAE, 8043/1/325, 8-9; 8043/1/80, 112-6 (Narkomsnab decree of April 17, art. 160); RTsKhIDNI, 17/3/922, 17 (decision by correspondence of May 7 on free sale of stated amounts of butter and cheese in Moscow and Leningrad); GARF, 5446/57/24, 122-3, art. 1069/223s, dated May 27, extending bread sales to 36 towns). *Kolkhoznaya torgovlya*, i (1935), 10, reported that on January 1, 1934, there were 4,637 trading units for bread (including 3,554 shops) and 731 for other food (including 587 shops); somewhat higher figures were given by Mikoyan (*XVII s'ezd* (1934), 180).

<sup>119</sup> *Sovetskaya torgovlya* (1935? [1936]), 74.

<sup>120</sup> Sales in 1933 increased as follows (million rubles at current prices):

<i>Jan-Mar.</i>	<i>April-June</i>	<i>July-Sept.</i>	<i>Oct-Dec.</i>
911	1168	1304	2048

(*Osnovnye pokazateli*, 1933, 199).

industrial consumer goods at higher prices were also permitted in Moscow, Leningrad, Kharkov, Vladivostok and Khabarovsk.<sup>121</sup>

The authorities made great efforts to prevent unauthorised increases in wholesale or retail prices. In 1933, financial controls began to bite; and producers were eager to push up their selling prices in order to fill the gap in their financial resources. A Leningrad correspondent, complaining that 'many sellers have begun to be "tricky"', reported that even Elektrosila had forced up its prices.<sup>122</sup> Narkomtyazhprom factories, encouraged by the authorities to manufacture consumer goods as a side-line, frequently sold them at illegitimately high prices.<sup>123</sup>

Prices charged by artisan cooperatives increased very rapidly following the permissive decree of July 1932 (see pp. 221–2). By February 1933 they were often more than double those for the equivalent factory production,<sup>124</sup> and the economic newspaper strongly criticised the 'Nepman spirit' which this revealed.<sup>125</sup>

Substantial additional powers to supervise the implementation of fixed prices were acquired by KTF in 1933 (for KTF, see p. 205 above).<sup>126</sup> And on April 26 a Sovnarkom decree denounced the 'inflation of prices recently permitted by the industrial and invalid cooperatives', and ruled that KTF or its plenipotentiaries should approve the transfer prices of all artisan goods manufactured from state supplies at fixed prices; these prices should be fixed with only a 'small increase' above those for state industry. Artisan products manufactured from by-products or samozagotovki could be sold at higher prices, but they were to be fixed by the price agencies at no more than 20–30 per cent above the prices of state industry. Only a restricted number of artisan products could be sold 'on the basis of the position on the

<sup>121</sup> RTsKhIDNI, 17/3/934, 4 (session of November 15, items 11 and 12).

<sup>122</sup> ZI, April 23, 1933 (Tamarin).

<sup>123</sup> See for example ZI, February 2, 1933 (Eremchenko, Pavlovo); the costs of these products were in any case high owing to the primitive methods and small scale of the production (see ZI, February 21, 1933 – Zlatnikov).

<sup>124</sup> ZI, February 2, 1933 (Eremchenko, Pavlovo); according to this source, artisan prices were a mere 50 per cent of factory prices before the revolution, and 75 per cent in the 1920s.

<sup>125</sup> EZh, March 6, 1933; see also EZh, February 17, 28, March 8, 1933. The cooperatives defended high prices on the grounds that they had to pay excessive prices to state industry for raw materials (EZh, February 26, 28, 1933).

<sup>126</sup> For details see ST, 2, March–April 1933, 157.

consumer market' or 'at prices formed on the market'.<sup>127</sup> This marked a considerable retreat from the 'neo-Nep' of July 1932. In the fierce campaign to keep prices down, KTF was supported by exhortation and administrative pressure from Rabkrin, Narkomfin and Narkomsnab.<sup>128</sup> Even the publication of information about high unofficial prices was now condemned as 'INTRINSICALLY AGAINST THE STATE' and the journal in which they appeared was described as a 'bulletin for speculators'.<sup>129</sup>

The effort to reduce kolkhoz market prices also continued throughout 1933. These were admittedly prices 'formed on the market', in the famous phrase of the decree of May 20, 1932. But in 1933 the official trade journal continued to insist that 'prices formed on the market' were not 'freely-formed prices', and branded those who thought otherwise as 'kulak theoreticians'. The journal argued that market prices must be formed 'in a Soviet way' (po-sovetski):

The process of forming prices on the kolkhoz market must not be spontaneous; it is a process which we organise.<sup>130</sup>

A further article added that attempts to equate 'prices formed on the market' with 'free-market prices' were 'a distortion of the policy of the party'.<sup>131</sup> In spite of these sophistries the authorities did not seek to fix or regulate prices on the kolkhoz market, no doubt recalling the utter failure of such attempts in the winter of 1931–2. 'We have not read any lectures to the collective farmers', Mikoyan told the XVII party congress in January 1934, 'we have not prepared any directives about price reduction'.<sup>132</sup> Instead, market prices were influenced by the manipulation of supplies and prices in state and cooperative trade. Prominent among these measures were the special food shops (see p. 429

<sup>127</sup> SZ, 1933, art. 161.

<sup>128</sup> See ZI, May 17, June 17, July 3, 1933.

<sup>129</sup> ZI, September 16, 1933 (article by 'V.T.'). The journal concerned was *Byulleten' sprosa i predlozheniya* (Bulletin of Supply and Demand), issued ten times a month, and edited by Morgunov, a critic of Birbraer.

<sup>130</sup> ST, 2, March–April 1933, 7 (Nodel'); the 'kulak theoreticians' were Koptev and Bagdasarov. For earlier comments along these lines see pp. 141 and 242 above.

<sup>131</sup> *Ibid.*, 5, September–October 1933, 57 (N. Popov).

<sup>132</sup> *XVII s'ezd* (1934), 181.

above). According to Mikoyan, it was Stalin who advanced this 'remarkable idea . . . in order to reduce prices on the kolkhoz market by the pressure of state economic intervention'.<sup>133</sup>

Kolkhoz market prices reached their peak in February, immediately before the introduction of the special state food shops. According to the official index, by this time they had reached nearly twenty times the 1928 level. Between February and July they declined by nearly 15 per cent, and by December they had fallen by 40 per cent. (See Table 25(b).) By the autumn of 1933, kolkhoz-market prices had fallen to approximately the level of the prices in the special commercial shops; and this enabled state commercial prices to be reduced.<sup>134</sup> By the end of the year, the Narkomsnab journal looked forward to a 'growth of open trade, embracing one product after another'. Sales via closed supply would remain for the time being, but the increase in open trade would enable closed trade to be abolished altogether towards the end of the second five-year plan.<sup>135</sup>

## (F) THE DEFENCE SECTOR

Following the extremely rapid increase of defence expenditure of all kinds in 1931 and 1932, the resources allocated to the defence sector in 1933 were cut back. The actual expenditure of the state budget on Narkomvoenmor was less than the estimates, and approximately the same as in 1932.<sup>136</sup> The budget figures are in current prices; in real terms, expenditure undoubtedly declined. Capital construction financed from the defence budget was reduced by 31 per cent, though it still considerably exceeded the 1931 level.<sup>137</sup>

<sup>133</sup> *Ibid.* 180.

<sup>134</sup> Compare the kolkhoz-market prices in *Kolkhoznaya trgovlya* (1934), 30–7, with the commercial prices in *Itogi. . . po tovarooborotu*, January 1934, 109–110.

<sup>135</sup> ST, 6, November–December 1933, 22–8 (Nodel').

<sup>136</sup> For 1932, see RGAE, 4372/91/1824, 56–5 and GARF, 8481/10/148,5; for 1933, see RGAE, 4372/91/17, 4. Expenditure amounted to 4,298 million rubles, as compared with the estimate of 4,738 million rubles, and an actual expenditure in 1932 variously given as 4,034 and 4,308 million rubles.

<sup>137</sup> In 1932 it amounted to 900 million rubles (RGAE, 4372/91/1824, 56–5), and in 1933 to 620 million rubles, 58 million rubles less than the estimate (RGAE, 4372/91/3217, 4).

Capital investment in the armaments industries, financed under the national economy heading of the state budget, was also drastically reduced.<sup>138</sup> Investment in the armaments industries had increased less rapidly in 1932 than construction in Narkomvoenmor; and in 1933 it probably did not exceed the 1931 level in real terms. The reduction mainly affected investment in facilities for producing artillery, small arms, explosives, and other traditional military products; but investment in the aircraft and tank industries was also somewhat reduced.

Armaments production, following the large investments of 1931 and 1932, continued to increase in 1933. It declined by as much as 25 per cent in January–March,<sup>139</sup> but over the year as a whole it increased by 10–15 per cent, more rapidly than industrial production as a whole.<sup>140</sup> While the production of traditional weapons declined, the production of aircraft and tanks continued to increase rapidly.<sup>141</sup>

In spite of the reduction in expenditure in 1933, armaments production and productive capacity were much larger than before the accelerated development of 1931–2, and technology was much more sophisticated. Soviet mastery of the air was publicly proclaimed in the form of record ascents into the stratosphere, and attempts to achieve air records.<sup>142</sup> In spite of the disastrous crashes of the autumn of 1933 (see pp. 351–2 above), the work of the aviation industry, including its success in manufacturing automatic machine tools, was acknowledged by high government awards.<sup>143</sup> Soviet armaments production and

<sup>138</sup> According to one source, dated January 1934, it declined by 30 per cent, from 758 to 533 million rubles (RGAE, 4372/91/1824, 34); according to another source, dated May 20, 1937, it declined from 778 to 604 million rubles (RGAE, 4372/91/3217, 115).

<sup>139</sup> RGAE, 4372/91/1735, 16–5.

<sup>140</sup> According to one source, military production of the armaments industries increased from 1,176 to 1,289 million rubles (see Table 5(b)); according to another source, the increase was from 1,094 to 1,265 million (RGAE, 4372/91/2112, 37–6). These figures, for gross production in 1926/27 prices, exclude civilian production of the armaments industries and armaments production by civilian industry; they also exclude shipbuilding.

<sup>141</sup> See Table 6(c); and RGAE, 4372/91/2527, 9.

<sup>142</sup> For the ascent of the first Soviet stratostat on September 29, 1933, see VIZh, 12, 1979, 78.

<sup>143</sup> RTsKhIDNI, 17/3/934, 11, 34, 36 (Politburo decision by correspondence, November 6 – joint proposals of Narkomtyazhprom and Narkomvoenmor).

technology were now believed to rival those of the other great powers (see pp. 475–6 below).

### (G) FOREIGN TRADE UNDER CONTROL

In 1933, the drive for a positive balance of foreign trade was resumed against the background of agricultural disaster. Agricultural exports declined still further in the first six months of 1933. With the famine reaching its grim climax, grain exports amounted to only 359,000 tons as compared with 753,000 and 1,499,000 tons in the same months of 1932 and 1931. In September 1933, the leading émigré economic journal commented that 'Soviet agricultural exports fell not because the world market placed obstacles in its way, but for internal reasons – the crisis of agricultural production and the tense food situation in the country.'<sup>144</sup> After the improved harvest, agricultural exports, including grain exports, substantially increased; but for 1933 as a whole they were still only 78 per cent of 1932, and a mere 42 per cent of 1931. (See Table 13(a).) Grain exports amounted to 1.77 million tons, as compared with the revised plan of 2.4 million tons.<sup>145</sup>

As in the previous year, exports of industrial products were more successful. Timber exports increased in physical terms, and oil exports remained substantial in spite of the acute shortage of oil within the Soviet Union. The export of a variety of other industrial products also increased. Total exports from the industrial group of goods increased slightly in physical terms, and decreased by only 10 per cent in value terms. (See Tables 13(a) and (b).)

Although gold production seems to have increased substantially in 1933, exports were reduced from 69 to 60 tons;<sup>146</sup> gold sales had been considerably greater than production in 1931 and 1932 (see pp. 119, n. 70 and 315, n. 35 above), and the authorities evidently decided not to reduce stock still further. The campaign to sell works of art and antiques continued. On May

<sup>144</sup> BP (Prague), cviii (August–September 1933), 4.

<sup>145</sup> For actual export, see Table 13(a); the revised plan is given in GARF, 5446/57/25, 53–82, art. 1579/340ss, dated July 26, 1933.

<sup>146</sup> See Dohan (1969), 843, 853.

19, the commissariat of education was instructed to make available paintings by Renoir, Degas, Van Gogh and Cézanne for sale abroad.<sup>147</sup> On September 25, Sovnarkom approved a very long list of items made of precious metals located in Leningrad museums; these were to be sold abroad unless they were of 'special value'.<sup>148</sup> But these depredations did not earn substantial sums of foreign currency.

Earnings from all exports declined by 14 per cent in 1933. A drastic cut in imports was already envisaged in the state budget, which estimated customs duties at only 140 million rubles as compared with 282 million received in 1932 (see Table 22(a)). In 1932, agricultural machinery and vehicles were the main victims of the reduction in imports; in 1933, drastic cuts had to be made in imports of capital equipment. A renewed self-sufficiency campaign cajoled and ordered Soviet industry to manage without imported machinery. On February 21, Narkomtyazhprom announced that planned orders for equipment valued at 21 million gold rubles had been cancelled. A few days later, a leading article, spread across four columns of the front page of the industrial newspaper, declared that '*there is very little which is not manufactured at Soviet factories*'.<sup>149</sup> A machine-tool conference pronounced the optimistic verdict that '*the import of machine tools as a mass import has passed into a fable; it must be forgotten*'.<sup>150</sup> By the end of April, *Pravda* was able to claim that the import of equipment for the leather, textile, building and food industries had completely ceased, and that 'with some exceptions' electric furnaces, loading, pumping and welding equipment, diesel engines and various kinds of electrical machinery would no longer be imported.<sup>151</sup>

In 1933 as a whole, the import of 'machinery and apparatus', together with machine parts, was reduced by 60 per cent. The cuts were sharply differentiated. Imports of equipment for the mining, iron and steel and petroleum group of industries were reduced only slightly, and within this sub-total imports of rolling-mill equipment were considerably increased.

<sup>147</sup> GARF, 5446/57/24, 89 (art. 982/203ss).

<sup>148</sup> GARF, 5446/57/26, 74-105 (art. 2111/477ss).

<sup>149</sup> ZI, March 1, 1933.

<sup>150</sup> RGAE, 7881/1/50, 4-5 ob., cited in *Sovetskie arkhivy*, 3, 1982, 28.

<sup>151</sup> P, April 30, 1933.



A second campaign was directed against the import of metals for use in Soviet industry. Prominent Soviet journalists and economic officials sought to encourage the use of Soviet metal by strongly attacking the poor quality of imported German and British steel.<sup>152</sup> In 1933, the imports of rolled steel and of most non-ferrous metals were reduced (see pp. 412 and 416 above). But imports could not be avoided in the case of some other key metals, which were not produced, or were produced in insufficient quantities, within the USSR. The initial cuts in imports of nickel and other non-ferrous metals proved too drastic. The import quotas of nickel and copper were increased, and nickel and aluminium were temporarily transferred to Narkomtyazhprom from the stocks of the Committee of Reserves.<sup>153</sup> In the outcome, imports of aluminium and nickel were maintained at the 1932 level, and imports of ferro-alloys and steel pipes substantially increased. But the total import of metals, the second largest group of all imports, was reduced by 59 per cent.<sup>154</sup>

In private the Soviet authorities acknowledged that the import cuts, while necessary, were severely hampering the economy. A secret Gosplan report claimed that low imports were a 'limiting factor' on the rate of development in 1933. Low imports resulted in low stocks of non-ferrous metals, and consequent interruptions in supply. The low level of imports of wool, leather and agricultural raw materials restricted increases in production of consumer goods. The failure to purchase merchant ships abroad meant that most sea freight was carried by foreign ships. The author of the report called for renewed borrowing abroad, so that imports could be substantially expanded in future years.<sup>155</sup>

As a result of these very severe import cuts, 1933 was the first year since 1929 in which foreign trade was in surplus; exports exceeded imports by 147 million foreign-trade rubles, or as much as 42 per cent. Addressing the XVII party congress in February 1934, the People's Commissar for Foreign Trade proclaimed that the drastic reduction of the import of capital equipment was a tribute to the success of the Soviet engineering industry; and he

<sup>152</sup> ZI, March 11 (Maierov), 24 (Sorokin), 1933.

<sup>153</sup> GARF, 5446/57/24, 153-4 (art. 1141/250ss, dated June 4).

<sup>154</sup> For an itemised list of imports, see *Vneshnyaya torgovlya* (1960), 301-67.

<sup>155</sup> GARF, 5446/27/24, 32-19 (memorandum by D. Efimov, dated April 11, 1933).

hailed the positive balance of foreign trade as 'a tremendous success of the Soviet Union and the Lenin-Stalin line'. He mocked the 'campaign of slander' by the capitalist press, singling out for criticism 'a "scientific" institute like Birmingham, in which a group of double-dyed Whiteguards are located, and which even tried to prove "scientifically" that the Soviet Union would certainly bankrupt itself'.<sup>156</sup>

The significance of the improvement in the foreign trade balance was acknowledged by foreign observers. The British Ambassador in Moscow even concluded that the Soviet Union was 'succeeding better than most countries' in its policy of self-sufficiency: 'their foreign trade department, owing to the monopoly, is more effective than protective tariffs and advisory boards'.<sup>157</sup> The French chargé d'affaires in Moscow anticipated that the foreign trade surplus, together with the forthcoming Soviet economic boom, 'poses a problem for the economists, industrialists and agriculturalists of capitalist countries', and he warned that the Soviet Union would undertake an export drive in Asia and the Middle East.<sup>158</sup> The émigré research group in Prague was more sceptical. Their *Bulletin*, while acknowledging that 'a positive foreign trade balance of over 100 million rubles was achieved for the first time in the whole existence of Soviet power', expressed considerable doubt about the prospects for the substantial increases in agricultural exports on which the expansion of imports depended.<sup>159</sup>

At the beginning of the year, Stalin declared that 1933 would be 'the last year of difficulties'.<sup>160</sup> In July, the managers' journal, in an editorial headed 'The First Six Months of the Last Year of

<sup>156</sup> Rozengol'ts at *XVII s'ezd* (1934), 509-11; see also his article in *Vneshnyaya torgovlya*, 1-2, 1934, 2-3.

<sup>157</sup> Viscount Chilston to Sir J. Simon, February 23, 1934 (Woodward and Butler, eds. (1958), 662).

<sup>158</sup> Payart to Barthou, May 20, 1934, MAE, Europe 1930-1940, URSS, vol. 1036, 234-40.

<sup>159</sup> BP (Prague), cxii (April 1934), 1-8; the Prokopovich group in Prague, which collaborated with the Russian Department of Birmingham University, two years previously provided material for the Birmingham publication about the Soviet balance of payments to which Rozengol'ts took such exception.

<sup>160</sup> His phrase was frequently cited (e.g. by Tal' in *ZI*, July 8, 1933), but does not appear in his published works.

Difficulties' was able to announce a steady improvement in production, costs and productivity in heavy industry.<sup>161</sup> Later in the month, Ordzhonikidze assured an audience of engineers that 'the difficulties we have today are trivial': 'we are on the eve of a tremendous upsurge in our national economy'.<sup>162</sup> On the occasion of the fourth annual Day of Industrialisation, August 6, the industrial newspaper noted that four years previously, on August 6, 1929, the major industrial projects had hardly been started, whereas now they were completed; in 1933, as in 1929, the curve of industrial production was rising, and the agricultural curve was following it.<sup>163</sup> The newspaper failed to point out that the intervening years had shown that industrial advance would be crippled unless there were some development of agriculture. Before the end of the year, Ordzhonikidze offered an optimistic assessment at a conference of shock workers:

We have got through the most difficult period. We are going forward the whole time. Incidentally, I was recently at the Dnepropetrovsk group of factories in Ekaterinoslav and saw that the mood of the workers was entirely different from last winter. Then there were all kinds of complaints – shortages of potatoes, and this, that and the other, and now the mood is different . . .

We will advance, and no swine, whether imperialist Japan, or Hitler or millions of Hitlers will stop this advance. (*Stormy applause.*)<sup>164</sup>

To a certain extent Ordzhonikidze's assessment was shared by detached or even hostile observers. In more measured tones than the euphoric American ambassador Bullitt (see p. 359 above), the new British ambassador Chilston reported favourably on the economic and political situation, acknowledging that 'the famine of the spring and summer has, after all, been weathered without catastrophe from the party's point of view' and that 'no rifts in the Government and party are at present perceptible to

<sup>161</sup> *Predpriyatie*, 13, July 1933, 1.

<sup>162</sup> ZI, July 20, 1933 (speech to conference of engineers and technicians of Moscow region).

<sup>163</sup> ZI, August 6, 1933; for a description of the state of the sites in 1929 see vol. 3, pp. 93–4.

<sup>164</sup> Ordzhonikidze, ii (1957), 515 (speech of November 10, published from the archives).

outsiders'.<sup>165</sup> A few weeks later he added that the Soviet government had 'reason to feel that the efforts which they have made to impress the world have borne fruit'.<sup>166</sup> The confidential Annual Report of the British Foreign Office on the Soviet economy took the same line:

While the outlook during the first six months was far from bright, there seems to be a certain justification, in the light of the progress made in the basic industries in the closing months, for the increasing optimism with which the authorities regard the future. Light industry and transport are still deplorably backward, but the big new plants in the main are showing improved efficiency, and the country has become vastly more self-sufficient in many branches of production.<sup>167</sup>

The émigré Menshevik journal, while claiming that the population 'is undergoing more and more suffering', also admitted that '*industry in the Soviet Union is undoubtedly growing*', and reported that 'there is no doubt that successes in coal and metal this year are very great'.<sup>168</sup> Trotsky also noted the 'technical successes and the mitigation of the food scarcity' and declared that 'there is not an honest worker in the whole world who will not rejoice over this'.<sup>169</sup> But he also predicted a 'further intensification of the methods of the dictatorship'.<sup>170</sup>

<sup>165</sup> Woodward and Butler, eds., vii (1958), 620 (despatch of December 18).

<sup>166</sup> *Ibid.* 662 (despatch of February 23, 1934).

<sup>167</sup> BDFA, IIA, xvii (1992), 51.

<sup>168</sup> SV (Paris), cccviii (November 25, 1933), 8–11 (Yugov); this was a review of industry covering the first nine months of 1933.

<sup>169</sup> *The Militant* (NY), April 18, 1934, cited in *Writings of Leon Trotsky (1933–34)* (NY, 1972), 276 (article dated March 31, 1934; his article praising the technical achievements of the Red Army and the quality of its soldiers, which appeared in *Saturday Evening Post*, May 26, 1934, is reprinted *ibid.* 246–59 (article dated March 13)).

<sup>170</sup> *Writings of Leon Trotsky (1933–34)* (NY, 1972), 225 (article dated January 20, 1934, which appeared in *The Militant* (NY), February 10, 1934).

## CHAPTER SEVENTEEN

# URBAN SOCIETY IN TRANSITION

The industrialisation drive began a profound transformation of Soviet society. In the words of Moshe Lewin, this was a 'society in flux'. Peasants moved into the towns in large numbers; a smaller number of townsfolk moved to the countryside to assist in managing the new kolkhozy and sovkhozy; at every level of urban society, people changed their jobs with unprecedented frequency. An education drive accompanied the industrialisation drive.

Between the population census at the end of 1926 and January 1, 1933, the urban population increased from 26.3 million to approximately 39.7 million. Only about one-fifth of this increase resulted from the natural growth of the population; the remaining four-fifths was due to the migration of peasants to the towns. Most peasant migration took place in the three years 1930–2; the peak was reached in 1931, when it amounted to some 4 million persons. (See Table 14.)

Nearly two-thirds of the increase in urban population took place in larger towns with a population of more than 100,000; they included about half the total urban population by 1933 (see Table 14(a)). Remarkable increases took place in towns which hardly existed when the first five-year plan was launched in 1929. Magnitogorsk, a village in 1926, emerged as a substantial town with 172,000 inhabitants by January 1, 1934; the population of Kuznetsk increased from 3,900 to 208,000. Other towns where major construction sites were located also expanded rapidly: these included Sverdlovsk (the site of Uralmash) (+ 225 per cent) and Chelyabinsk (+ 278 per cent) in the Urals; Stalingrad on the Volga (+ 155 per cent); and Zaporozh'e in the Ukraine, which included the Dnepr power station (+ 267 per cent).<sup>1</sup>

### (A) NON-AGRICULTURAL EMPLOYMENT

Table 15(a) shows that the employed non-agricultural population almost doubled between 1927/28 and 1933, from 9.4 million to

<sup>1</sup> *Sots.str.* (1935), 540–1.

18.1 million persons. These figures omit the self-employed. In terms of full-time equivalents, in 1927/28 the figure for non-agricultural employment should be increased by at least two million to obtain the total gainfully-occupied population, amounting to nearly twelve million in all.<sup>2</sup> The equivalent figure for 1933, however, needs to be increased by only a million or so.<sup>3</sup>

On the other hand, the figures for 1933 omit those engaged in non-agricultural activity in the Gulag system, including those incarcerated in labour camps and the 'special settlers' (*spetsperselentsy*) under OGPU control. The total figures for those involved are shown in Table 18; they amounted to 179,000 on January 1, 1930, and 1,583,000 on January 1, 1934. The special settlers include children and other persons not engaged in work, and a substantial number of families entirely or largely engaged in agriculture. No precise figure is available for those engaged in non-agricultural activities. In 1933 it included the workers engaged in the construction of the Volga-Moscow canal (many of them had been transferred from Belomorkanal, the White Sea Canal), in the development of Dal'stroi (including the Kolyma goldfields) and in railway construction in the Far East.<sup>4</sup> Many building workers, and an increasing number of industrial workers, were special settlers at the major sites in the Urals and beyond; these included Magnitogorsk, Kuznetsk and Berezniki. In May 1932 in Southern Siberia, 71,000 prisoners (including family members) were attached to Siblag working at gold prospecting, in coal mines and at Kuznetskstroï.<sup>5</sup> In all, some

<sup>2</sup> This includes self-employed and cooperative artisans (1,370,000), builders (300,000) and private traders (300,000) (see Redding (1958), 95, who estimates the total self-employed and in cooperatives at 2,370,000 (in man-years)).

<sup>3</sup> About 700,000 self-employed (again in terms of full-time equivalents) were engaged in artisan activities (see Redding (1958), 114, 246, 286-7); the number of self-employed in building and trade must have been quite small.

<sup>4</sup> *Svobodnaya mysl'*, 13, 1992, 77 (Khlevnyuk); RGAE, 4372/91/3222, 42-1.

<sup>5</sup> *EKO*, 8, 1991, 191-2 (Krasil'nikov); in addition, 35,000 were attached to timber settlements and 149,000 to agricultural settlements in the North Siberian camps of Siblag. By December 1933 the number of camp inmates on the BAM project (see pp. 171, n. 151, and 276 above) reached 62,000 (*Otechestvennaya istoriya*, 4, 1993, 167, 174 - Elantseva). On March 8, 1933, in view of the incompleteness of the BAM project, the Politburo transferred one-third of its 1933 allocation from BAM to the construction of a second track on part of the Trans-Siberian railway; this work, except for bridges and communications, was also allocated to the OGPU (RTsKhIDNI, 17/162/14 - item 12).

800,000–1,000,000 prisoners may have been engaged in non-agricultural labour in 1933.

Allowing for both self-employed and prisoners, the number gainfully-occupied in non-agricultural activities therefore probably increased from about 12 million in 1927/28 to about 20 million in 1933 (see Table 15(b)). This was a substantially more rapid increase than that of the urban population as a whole. The gainfully-occupied proportion of the urban population rose for several reasons. The unemployed were absorbed into the labour force; many urban women took up paid employment in place of housework; young men and women from the countryside, with no dependents, took up work in the towns; older men and some older women moved to the towns without their families.

The increase in the number employed in large-scale industry and building accounted for over 63 per cent of this huge expansion. Education was the only other sector to expand at this rate; this was primarily a result of the rapid growth in the number of school teachers.<sup>6</sup>

In every sector, the proportion of white-collar workers substantially increased; in industry it rose from 5.9 per cent of the total labour force on January 1, 1929, to 8.5 per cent on January 1, 1933, but was drastically reduced during 1933 (see Table 16(a)).

The very rapid expansion of non-agricultural employment characteristic of the years 1928–31 came to a halt in 1932. In industry and building the labour force increased much more slowly in the first six months of 1932 than in the previous two years, and ceased to grow altogether in the middle of the year.<sup>7</sup> The number employed in building declined by 28 per cent between July 1, 1932 and July 1, 1933. In the spring and summer of 1932 the serious food shortages in the towns discouraged the rural population from transferring to urban employment (see pp. 185–6 and 239–40 above). Subsequently, during the devastating famine which ravaged many regions in the countryside in the winter of 1932 and the spring of 1933, the state

<sup>6</sup> The number of school pupils increased from 11,466,000 in 1927/28 to 21,397,000 in 1932/33, the number of school teachers from 346,000 to 615,000 (*Kul'turnoe stroitel'stvo* (1956), 80–1); for more advanced education, which expanded even more rapidly, see pp. 448–9 below.

<sup>7</sup> See vol. 3, tables 15 and 17; and Tables 16(c) and 17 below.

restricted movement into the towns, and reintroduced internal passports (see pp. 290–1 and 368–70 above). At the same time, the determination of the state to bring inflation under control led to the imposition of strict administrative restrictions on both the wage-bill and the numbers employed.

## (B) INDUSTRIAL WORKERS

In the course of the first five-year plan the composition of the industrial labour force changed considerably. In 1929, the average length of employment (*stazh*) of industrial workers was twelve years; and over half of them had begun work before the 1917 revolutions. More than half of all workers were sons and daughters of manual workers – ‘hereditary proletarians’.<sup>8</sup> In 1930 the huge increase in non-agricultural employment eliminated almost all unemployment. It also led to a significant change in the composition of the industrial labour force. The proportion of young inexperienced workers and female workers increased, though the proportion of workers directly recruited from the countryside remained approximately constant (see vol. 3, pp. 126–7). In 1931–3 the proportion of young, inexperienced and female workers continued to increase. The percentage of manual workers in industry under 23 years of age rose from 24.7 on January 1, 1930 to 41.3 in January 1, 1933. As many as 62.4 per cent of the new recruits in 1931 were under 23 years of age.<sup>9</sup> The percentage of women employed in industry increased from 28.7 on January 1, 1928 to 36.8 on January 1, 1934;<sup>10</sup> the proportion rose substantially even in Group A industry.<sup>11</sup> Female recruits tended to be even younger than male recruits, and consistently occupied lower-grade posts. The more experienced men moved into higher skill grades, transferred into administration or to further education, or were sent into the countryside to assist in collectivisation.<sup>12</sup>

<sup>8</sup> See Davies, Harrison and Wheatcroft, eds (1994), 97, 101 (Barber).

<sup>9</sup> *Sots. str.* (1934), 344–5; these figures include apprentices.

<sup>10</sup> *Sots.str.* (1935), 494.

<sup>11</sup> The increase was from 11.1 per cent on January 1, 1928 to 24.0 per cent on January 1, 1933 (*Profsoyuznaya perepis*, i (1934), 20).

<sup>12</sup> For the percentages of men and women under 23, see *Sots.str.* (1934), 344–5; for women’s grades, see *Profsoyuznaya perepis*, i (1934), 23–4.



In 1928 women accounted for 30 per cent of the net increase in the number of industrial workers; in 1931 this figure had increased to 45 per cent. In 1932 and 1933, the number of industrial workers declined slightly, but the number of female industrial workers continued to rise; between January 1, 1932, and January 1, 1933, the number of male workers fell by 222,000.<sup>13</sup>

Even in 1929 and 1930, nearly half the new recruits in industry came directly from agriculture. In 1931 the proportion increased to nearly 60 per cent, and remained at this level in 1932–3.<sup>14</sup> The proportion of new recruits who were children of peasant fathers was even higher, ranging from 54 per cent in transport engineering and cotton textiles to 70 per cent in the cement and ceramic-materials industry.<sup>15</sup> A substantial minority of the new recruits, ranging from 20 to 30 per cent in the main industries, retained a direct connection with agriculture, mainly with the *kolkhozy*.<sup>16</sup> Some peasants moved directly from the countryside to work in industry; others undertook temporary or seasonal work, often as building labourers, as their first non-agricultural job.<sup>17</sup>

Thus by 1932–3 this was to a considerable extent a new labour force. The average length of employment in industry was halved, from twelve to six years.<sup>18</sup> The educational level of the new recruits, and of the labour force as a whole, was low. Of the new recruits in 1932–3, 10 per cent were unable to read or write, as compared with only 4.5 per cent in 1928–9.<sup>19</sup> Of the total

<sup>13</sup> Estimated from data in *Sots. str.* (1935), 494.

<sup>14</sup> The census of trade-union members carried out in 1932–3 showed that of the new recruits remaining in industry at the time of the census 49.4 per cent came directly from agriculture in 1930, 59.8 per cent in 1931, and 57.8 per cent in 1932–3 (unweighted average of the ten industrial trade unions whose returns are reported in *Profsoyuznaya perepis'*, i (1934), 94–155); see also vol. 3, p. 127, note 149.

<sup>15</sup> *Profsoyuznaya perepis'*, i (1934), 26, 138–9.

<sup>16</sup> See Barber (1978), 26. The definition of 'connection' was that 'they themselves, or jointly with their family, hold land in personal use or are members of *kolkhozy*'; workers with only a house and vegetable garden (*ogorod*), but no sown area and work animals, were not included (*Profsoyuznaya perepis'*, i (1934), 71).

<sup>17</sup> Vdovin and Drobizhev (1976), 119.

<sup>18</sup> Barber (1978), 34.

<sup>19</sup> Estimated from data in *Profsoyuznaya perepis'*, i (1934), 94–155 (unweighted average for ten industrial unions).

number of workers in the trade-union census of 1932–3, 26 per cent had never attended school; of those who had attended school, the average length of schooling amounted to only 3.8 years.<sup>20</sup> The level of education was naturally higher in the engineering trade unions; over 20 per cent of those who had attended school at all in the electrical and aircraft, vehicle and tractor unions had attended for 6.5 years or more.<sup>21</sup>

The initial plans to provide formal education and training in industrial skills for the new workers were overwhelmed by the large numbers of new recruits and restricted by financial constraints. The Factory-Apprenticeship Schools (FZU) flourished in the early 1930s, providing 2½–3-year courses which combined industrial and general education; as many as 568,000 young workers, many the children of manual and white-collar workers,<sup>22</sup> were recorded as apprentices at the beginning of 1932 (see Table 16(a)). But in 1933 the length of the course was reduced to 6–12 months, and numbers were reduced substantially.<sup>23</sup> Various schemes provided shorter courses, both full-time and part-time. In June 1932, the 'tekhminimum' was introduced, aiming to provide a minimum standard through a combination of short courses and training on the job.<sup>24</sup> Campaigns for the tekhminimum flourished during 1933. But the vast majority of recruits to industry were trained on the job without even part-time courses, and did not receive formal qualifications.<sup>25</sup>

The growth of the working class was accompanied by a protracted effort to increase its representation in the party. Between January 1, 1929, and January 1, 1933, the number of party members (including candidate members) increased from 1,535,000 to 3,555,000; the proportion of workers by current occupation remained constant at 44 per cent, while the proportion of workers by social origin increased slightly from 61 to 64 per cent.<sup>26</sup> The proportion of all factory manual and

<sup>20</sup> *Ibid.* 49 (unweighted average for ten industrial unions).

<sup>21</sup> *Ibid.* 49.

<sup>22</sup> See *Profsoyuznaya perepis'*, i (1934), 27n. The total number in FZU and FZU-type schools reached over a million in 1931/32 (Fitzpatrick (1979), 200).

<sup>23</sup> See Straus (1990), 101, referring to Narkomtyazhprom order dated August 16, 1933.

<sup>24</sup> See *ibid.* 287; *Profsoyuznaya perepis'*, i (1934), 53.

<sup>25</sup> See Fitzpatrick (1979), especially 199–204 and 225–6.

<sup>26</sup> Sadler (1979), 135.

white-collar workers who were party members remained constant at about 10 per cent: in 1932–3 the proportion of trade union members belonging to the party varied from 2 per cent among seasonal and 8 per cent among permanent workers in the peat industry to 13–16 per cent in engineering and iron and steel.<sup>27</sup> The proliferation of party factory committees, cells and groups which was characteristic of 1929–30 (see vol. 3, pp. 137–8) was taken further in 1931. The ‘cell’ was notionally the primary party organisation. But early in 1931 the official party journal stressed that the party group of a brigade of shock-workers must be considered the primary organisation, rather than the party cell at the higher level of the shop or the factory.<sup>28</sup> A central committee resolution dated March 21, 1931, even authorised the transformation of party groups into ‘link cells (*zvenyaicheiki*)’ when they contained at least 15 party members.<sup>29</sup> In *Elektrozavod*, Moscow, the 65 shop cells were split up into as many as 133 shop cells, 66 shift cells, 8 link cells and 102 party groups.<sup>30</sup>

The complexity of party organisation and the increasing number of factory cells were criticised in the party press in the winter of 1931–2.<sup>31</sup> The disturbances in the textile factories of Ivanovo-Voznesensk in April 1932, which also influenced workers in Moscow and elsewhere, evidently persuaded the party leaders that factory party organisations must be brought under much firmer central control.<sup>32</sup> The confusion in party organisation in the factories provided a pretext. In May 1932, Kaganovich stressed the need to concentrate in each factory on ‘a definite number of strong shop or section (*korpus*) cells headed by strong party officials’;<sup>33</sup> and an editorial in *Pravda* called for ‘the strengthening and amalgamation of shop party organisa-

<sup>27</sup> *Profsoyuznaya perepis'*, i (1934), 59.

<sup>28</sup> *Partiinoe stroitel'stvo*, 5, 1931, 1 (Postyshev); see also Sadler (1979), 78–9.

<sup>29</sup> *Spravochnik partiinogo rabotnika*, viii (1934), 417–19.

<sup>30</sup> Sadler (1979), 87.

<sup>31</sup> See *ibid.* 89–93.

<sup>32</sup> See Shimotomai (1991), 78–80, and pp. 188–91 above.

<sup>33</sup> P, June 7, 1932 (speech of May 14).

<sup>34</sup> P, June 8, 1932. A central committee resolution dated August 7, 1932, more cautiously ruled that the number of cells in an enterprise should not increase to ‘40–50–60 or even more’, but still listed factory committees, shop cells, shift cells, link cells and party groups as appropriate units within enterprises (*Spravochnik partiinogo rabotnika*, viii (1934), 430–1).

tions'.<sup>34</sup> With the formal cessation of all recruitment to the party when the party purge was launched at the end of 1932, party membership began to fall. By January 1, 1934, the number of party members and candidates amounted to only 2,701,000 as compared with 3,555,000 a year previously; and with the continuous movement of workers from the factory floor into higher positions the role of 'workers by present occupation' in the party began to decline.<sup>35</sup> The importance of the full-time party officials in the factory was greatly enhanced, and the role of rank-and-file party members diminished.<sup>36</sup>

During the first 2½ years of the five-year plan, the policy of narrowing wage differentiation between skills and industries continued; and though piecework was more widespread than timework, the party was officially silent about the relative merits of the two systems (see vol. 3, pp. 267–72). With Stalin's speech to the industrial managers of June 23, 1931, all anachronistic genuflections to the principle of equality were swept aside. Experiments in workers' participation through production communes were soon brought to an end; the party henceforth strongly encouraged greater wage differentiation, and the universal application of piece rates, even of progressive piece rates (see pp. 85–8 and 385–6 above). The extensive wage survey of October 1934, when compared with the previous survey of March 1928, revealed a growth in inequality in 17 of the 26 industries surveyed.<sup>37</sup> But the increase in inequality was surprisingly small. A comparison with June 1914 showed that wage differentiation within the industrial workforce remained much lower in 1934 than before the revolution. The upper 20 per cent of workers received 44 per cent of the wage bill in 1914, 35.6 per cent in 1928, and 37.3 per cent in 1934.<sup>38</sup> It should be noted, however, that shockworkers, and experienced skilled workers generally, received substantial remuneration in kind. Skilled and

<sup>35</sup> For party membership, see Rigby (1968), 52, 116.

<sup>36</sup> See Merridale (1990), 188–9.

<sup>37</sup> See Bergson (1944), 100–2, which compares the quartile ratios of the wage frequency distributions for each industry (for his definition of the quartile ratio, see his pp. 51–2).

<sup>38</sup> See *ibid.* 120–5. According to two Soviet economists, wage differentiation was reduced between 1930 and 1934 (*EKO*, 5, 1978, 20 – Rabkina and Rimashevskaya), but their method and data are not explained; see comments in *Journal of Economic Literature*, xxii (1984), 1077–8 (Bergson).

highly productive workers were allocated supplementary rations, the size of which varied considerably between factories. Long-settled skilled workers tended to live in new blocks of flats or in older housing which were congested but had some public amenities.<sup>39</sup> In contrast, migrant and new workers tended to live in shanty towns on the periphery of both old and new towns, separated from the long-settled workers, without a sewage system, drawing water from a communal stand-pipe, and frequently without electricity.

### (C) THE SPECIALISTS AND THE RULING ELITE

‘When we divide the party into societies, almost into classes, where is the ideal for which we strove?’

E. I. Kalinina, 1931<sup>40</sup>

The growth of the urban labour force was accompanied by an equally rapid expansion of professional and other qualified personnel. In the years 1928–33 an average of almost 40,000 students graduated annually, as compared with 23,000 annually in the mid-1920s.<sup>41</sup> The total number of graduates was recorded as 462,000 at the beginning of 1933 as compared with 233,000 at the beginning of 1928.<sup>42</sup> The number of graduates employed in industry increased even more rapidly.<sup>43</sup> A high proportion of students during the first five-year plan were former workers: according to one estimate, some 100,000 students in higher education in 1932/33, 20 per cent of all students, were *vydvizhentsy* (promotees) – former workers from the bench. Over a half of all

<sup>39</sup> For the example of Moscow, see Hoffman (1990), 278–9; see also pp. 454–5 below.

<sup>40</sup> Letter to her husband M. I. Kalinin, member of the Politburo and president of TsIK (VIK, 10, 1989, 108).

<sup>41</sup> *Kul'turnoe stroitel'stvo* (1956), 204; for the mid-1920s see Davies, ed. (1990), 36.

<sup>42</sup> *Vtoroi, i* (1934), 512–13; *Nar.kh. 1958* (1959), 674. The armed forces are not included in the figure for 1928; the figure for 1932 presumably includes them, as the increase is greater than the number graduating in that period.

<sup>43</sup> The number of graduates employed in the industries covered by an incomplete survey increased from 21,400 on May 1, 1930 to 45,200 on November 1, 1933 (*Sostav* (1936), 32–3); for this survey see n. 48 below).

students were children of workers.<sup>44</sup> The *vydvizhentsy* made their way to higher education through various channels, including the *rabfaki*, the 'workers faculties' which improved the qualifications of potential students of low educational standard, and the FZU, which were often an intermediate step for the children of white-collar workers and specialists, enabling them to enter higher education as part of the working-class quota. These years also saw the very rapid expansion, from a low initial level, of the number of semi-professionals who had completed secondary specialised education, including technicians and nurses. At the end of 1932 the total number was estimated at 904,000. Thus the total number of persons with higher and secondary specialised education amounted to 1,366,000.<sup>45</sup>

This rapid expansion involved a substantial reduction in the quality of education. Courses were shortened and simplified, and more narrowly specialised. Admission standards were lowered; but students who were former ex-workers and sons and daughters of workers partly compensated for their lack of formal education by hard work and enthusiasm.

The number of employees categorised as 'leading officials and specialists' expanded even more rapidly. In industry between 1930 and 1933, the number of manual and white-collar workers increased by 71 per cent, and the number of trained specialists by 202 per cent, but the total number of 'leading officials and specialists' increased by as much as 271 per cent, from 3.6 to 7.7 per cent of the number of industrial workers. In consequence, 'practicals' without specialist training rose from one-fifth to one-half of the total number of leading posts.<sup>46</sup>

The proportion of leading officials and specialists who belonged to the party rose substantially in 1930-3. In industry

<sup>44</sup> Fitzpatrick (1979), 187-9; these figures exclude military higher education.

<sup>45</sup> *Vtoroi, i* (1934), 512-13. At this time 'practicals' without formal training but occupying equivalent posts to those of specialists were often also deemed to be specialists, bringing the estimated total number of specialists to as many as 2,737,200 (*loc.cit.*).

<sup>46</sup> *Sostav* (1936), 31. The increase in the proportion of engineering and technical staff in the total workforce was probably a natural consequence of the greater complexity of technology. Granick points out that the use of continuous-flow production, coupled with the employment of untrained and inexperienced workers, required a great increase in supervision (Granick (1967), 87). But does this account satisfactorily for the *quadrupling* of the number of foremen and chargehands?

it increased from 23 per cent to 30 per cent of the total. Among directors of enterprises and their deputies, party membership became the norm, increasing from 29 to 70 per cent. But at the bottom of the administrative ladder, among foremen and charge-hands, the proportion of party members even declined slightly, from 36.5 to 34.9 per cent.<sup>47</sup>

Very great efforts were made during these years to promote workers to leading posts. A survey of 861,000 'leading officials and specialists' carried out on November 1, 1933, disclosed that, among the former manual workers covered by the survey, as many as 54 per cent had begun working in the administration or as a specialist during the course of the five-year plan; as many as 70 per cent of the workers who had acquired a specialist education had completed it since 1927.<sup>48</sup> But the former workers still held only a minority of these leading positions, amounting to only 30 per cent of the total number of all leading officials and specialists in the survey, 22 per cent of those with secondary specialised education and a mere 11 per cent of those with a higher education.<sup>49</sup> In industry, the proportion of former workers, not surprisingly, was substantially higher. In industrial enterprises they held 49 per cent of administrative and specialist posts.<sup>50</sup> Former workers were also prominent in Rabkrin.<sup>51</sup> In the course of the drive against the 'bourgeois specialists' in 1929-31 many former workers were brought into Narkomfin and Gosplan, both middle-class strongholds in the 1920s: by November 1933, 12-13 per cent of their staff were former workers.<sup>52</sup> But former workers rarely attained the highest posts in the commissariats. In Narkomfin and Gosplan, neither of the commissars, and none of their deputies, were former workers;<sup>53</sup> and even in industry only 9 per cent of the 1,693 top posts in the commissariats were

<sup>47</sup> *Sostav* (1936), 32-3.

<sup>48</sup> *Ibid.*, vvedenie, 8-9. The survey covered posts ranging from the chairman of Sovnarkom to factory foremen. It did not include the party apparatus, the NKVD and the military, teachers in schools and technical colleges, medical personnel and the personnel employed by rural soviets. For details of its coverage see *Sostav* (1936), *predislovie*.

<sup>49</sup> *Ibid.* 8-11.

<sup>50</sup> *Ibid.* 34.

<sup>51</sup> *Ibid.* 290; they occupied 45 per cent of the 7,294 posts.

<sup>52</sup> *Ibid.* 320, 328.

<sup>53</sup> *Ibid.* 322, 332.

occupied by former workers.<sup>54</sup> Rabkrin was the exception: former workers held four of its seven top posts.<sup>55</sup>

At the centre of the Soviet administrative machine, the position was radically different. Six of the thirteen chairmen and deputy chairmen of the TsIK and Sovnarkom of the USSR, and nine of the 27 heads of departments and their deputies, were former workers.<sup>56</sup>

The number of women occupying the posts covered by this survey was small, amounting to 87,000 out of the total of 861,000; the proportion was about the same in industry.<sup>57</sup> And by the end of 1933 not even one woman was a People's Commissar of the USSR or his deputy, even in Rabkrin.

Thus the dictatorship of the ex-proletariat was a dictatorship of men, and was strongly entrenched only in Sovnarkom, TsIK and Rabkrin, and in administrative posts at the level of director and foreman. The top posts in the commissariats, and specialist activities everywhere, remained primarily the province of the male middle class.

The amorphous group of 861,000 people covered by the 1933 survey, though incomplete, corresponded to the Soviet élite in a broad sense, and amounted to perhaps 5–7 per cent of the employed population.<sup>58</sup> This élite received substantially higher incomes than the workers, even the skilled workers. A detailed survey of industrial earnings was undertaken in September–October 1934, a few months after the end of the period discussed in this book. This shows that the earnings of even the lowest management grade covered, the foreman, were twice or three times as high as those of the average worker (see Table 21). Only the small minority of workers in the most skilled grade (less than 1 per cent of the total) in each industry more or less consistently earned as much as their foremen. Nine-tenths of all workers in the

<sup>54</sup> *Ibid.* 20.

<sup>55</sup> *Ibid.* 292–3.

<sup>56</sup> *Ibid.* 282.

<sup>57</sup> *Ibid.* 8–11, 20.

<sup>58</sup> The following approximate percentages of the employment in different commissariats were covered by the survey: industrial, 8.2; railway transport, 6.2; water transport, 4.1; posts and telegraphs, 4.5. (Compare *Sostav* (1936), 18, 173, 177, 238 with total employment data in Table 15(a); higher administrative personnel appear under Administration in this table, so the above percentages are slightly overestimated.)



industries surveyed earned less than the average foreman's wage, less than half the average wage of heads of shops or their deputies, and less than one-third of the average wage of chief engineers.

A comparison of the 1934 survey of earnings with a similar survey for 1928 showed that in nineteen industries in which earnings of engineering-technical personnel were compared with those of manual workers the earnings ratio moved in favour of the engineering-technical personnel in fifteen industries and in favour of workers only in four. For all industries the unweighted earnings ratio for the nineteen industries rose from 2.38:1 to 2.92:1.<sup>59</sup>

In this grim period of rationing and shortage, their higher money incomes enabled the leading officials and specialists to purchase more food on the free market. And in respect of rationed goods they were at least as well supplied as the workers in their own industry. The Narkomsnab decree of January 13, 1931, which formalised the existence of four ration Lists and three population groups within each List, ruled that engineering and technical staff engaged in production or employed in factory laboratories should be included in Group Ia, with the industrial workers, and not in Group II, with the white-collar workers, who received lower rations.<sup>60</sup> And in the course of 1931–2 special dining rooms and retail shops were introduced for engineering and technical workers in many factories and provided a greater variety of food and manufactured goods than was available to the ordinary worker.<sup>61</sup>

Within the general category 'leading officials and specialists', smaller groups of high officials were much more privileged. The total number of 'leading officials and specialists' in the USSR at the end of 1933, including those not covered by the survey of November 1, must have amounted to some 1¼–1½ million persons – perhaps three or four million people including dependent family members. But only 380,000 people were included in the category 'commanding personnel' (*nachsostav*) (this presumably included family members, and was additional to those engineering and technical workers who were included in

<sup>59</sup> SS, xi (1959–60), 230–4 (Yanovitch).

<sup>60</sup> *Byulleten' Narkomsnaba*, 1931, art. 41.

<sup>61</sup> See Lampert (1979), 143. Shock workers also received privileged access to rations (see p. 406 above).

the four standard ration Lists).<sup>62</sup> The nachsostav apparently received bread and meat in quantities nominally equal to the rations on the Special List. But they also received much higher allocations of other foods, available only in minute quantities to those on the normal Lists. For example, the allocation of butter per head to nachsostav in the first quarter of 1932 was three times as great as the allocation to persons on the Special List.<sup>63</sup> In the second quarter of 1932, the nachsostav were allocated 705 boxes of eggs, while all other individual rations, for at least 35 times as many people on the Special List and List 1, amounted to only 5,000 boxes.<sup>64</sup>

A specially privileged group of top officials within the élite received particular consideration. In Moscow, of the 110,000 people (including families) entitled to various kinds of special supply, 8,600 responsible officials (24,400 persons including their families) were allocated an entitlement of industrial consumer goods valued at 90 rubles per person in April–June 1932, while the majority of those on special supply had to be content with an entitlement of 40 rubles (35,000 persons) or a mere 15 rubles (50,900 persons).<sup>65</sup> These entitlements were received through a small number of closed shops (*zakrytye raspredeliteli*). The highly privileged Closed Shop No.1 (ZR-1) supplied some 5,000 key officials (21,000 including their families) in April–June 1932. The list of categories is a roll-call of the ruling group. It includes top officials from the central party committee and central control commission, Sovnarkom and TsIK of the USSR and RSFSR, the People's Commissariats, the trade unions, the Comintern and the trade-union international Profintern, and the Moscow party and soviet; the heads and deputies of all-Union corporations and trusts; directors and sometimes deputy directors of major research institutes and educational establishments; procurators of the USSR and RSFSR and their deputies; heads of the editorial boards of central newspapers; 125 individual scholars; and a

<sup>62</sup> RGAE, 8043/1/53, 349.

<sup>63</sup> Estimated from data in RGAE, 8043/1/53, 352–3, 349. The initial ration for nachsostav of 0.53kg per head per month was cut to 0.17kg; the initial ration for the Special List was 0.19kg, and was cut to an average of 0.045kg for the Special List and List 1. Lists 2 and 3 received no butter ration.

<sup>64</sup> RGAE, 8043/1/55, 109–11; no eggs were allocated to List 2.

<sup>65</sup> RGAE, 8043/1/312, 45; the children of the most privileged group were entitled to 67 rubles.

small number of personal pensioners and other notables approved on an individual basis.<sup>66</sup> These key shops were subject to the very close attention of Mikoyan personally, and were thus ensured of priority as compared with ordinary shops. Thus in May 1932, at a time when many urban citizens outside the privileged circle were suffering from severe malnutrition, Mikoyan sharply criticised as 'completely shameful' the shortage of cigarettes in the two privileged Moscow shops for 'responsible officials', and instructed his subordinate to supply them with cigarettes in the grades and quality required.<sup>67</sup>

On major state and party occasions lavish supplies of food were made available off the ration for those attending. The 500 delegates and guests at the party plenum of September 1932 were allocated per person, for a period of 15 days, 20 kilograms of meat, 8 kilograms of fish, 1.2 kilograms of cheese and even 600 grams of caviare; at this time the highest individual meat ration, when it was available, was 3 kilograms a month. One thousand guests at a banquet in the spring of 1933, the worst period of famine, were allocated 800 grams of meat and fish per head for a single meal.<sup>68</sup>

An even smaller group of party and state officials, with their families, enjoyed extraordinary privileges over and above those so far described. These included the members of the Politburo and the People's Commissars of the USSR. They were supplied with food and manufactured goods from special funds. They lived in well-guarded blocks of flats in which even the porters, furnace-men and repair-workers received rations on the Special List. They had instant access to the best doctors, to the well-equipped Kremlin hospital, and to special rest-homes. They had the right to use special coaches on the railways, for which abundant food was provided.<sup>69</sup>

These arrangements and these priorities were repeated with

<sup>66</sup> Several alternative lists, with minor variations, will be found in RGAE, 8043/1/312, 46–40.

<sup>67</sup> RGAE, 8043/1/310, 45 (memorandum dated May 13); on August 23 Narkomsnab agreed to a request from the central committee apparatus to supply 200,000 cigarettes in the grades and quality it stipulated (RGAE, 8043/1/310, 26).

<sup>68</sup> Osokina (1993), 70.

<sup>69</sup> *Ibid.* 64, 66–7. On March 23, 1932, the Politburo approved a restricted list of top officials entitled to use special railway coaches (RTsKhIDNI, 17/3/877, 46); on the same day, March 23, rations generally were sharply reduced (see pp. 182–3 above).

minor variations everywhere. Thus in the new town of Magnitogorsk, the three or four hundred foreign specialists, the director of the combine and his assistants, the secretary of the city party committee, the chief of the OGPU, and a few of the best prisoner specialists, used the foreigners' store, Insnab, which was stocked with 'a good quantity of all the necessary food products' and 'a fair variety of rather poor quality drygoods'; prices were much lower than in other shops.<sup>70</sup> But in Magnitogorsk shops for ordinary workers, even skilled building workers such as riggers, while nominally entitled to high rations, received 'no meat, no butter and cheese, no sugar or milk' throughout the winter of 1932-3, and could rarely find soap, salt and other manufactured goods.<sup>71</sup> At the bottom of the scale, the 'special settlers' received rations through the OGPU system and did not have access to a state or cooperative shop.<sup>72</sup> This hierarchy of shops was matched by a hierarchy of dining rooms. According to an American visitor, 'there were eating places of at least five different grades' in Magnitogorsk: for high officials of the plant and famous foreign specialists; for Russian engineers and technicians; for shock workers; for ordinary labourers; and for exiled kulaks.<sup>73</sup>

Accommodation in Magnitogorsk was similarly graded, from the comfortable houses and bungalows of the Berezki suburb, where the foreigners and the high Soviet officials lived, through the hastily erected and overcrowded blocks of flats for foremen and skilled workers, to the sordid and disease-ridden barracks, mud huts and communal tents, in which the vast majority of the free workers and all the special settlers lived.<sup>74</sup>

All these developments ran counter to the strong belief in

<sup>70</sup> Scott (1942), 86-7.

<sup>71</sup> *Ibid.* 78-9; the monthly rations to which riggers were nominally entitled, as listed by Scott, correspond to the top rations of the Special List.

<sup>72</sup> Kotkin (1988), 392. At the beginning of 1933 the first five shops of the workers' supply system (this did not include Insnab) were reassigned as follows: No. 1 - GPU; No. 2 - city party committee; No. 3 - responsible officials; No. 4 - special workers; No. 5 - chief officials of the labour colony (*ibid.* 389-90).

<sup>73</sup> Chamberlin (1934), 112-13.

<sup>74</sup> See Scott (1942), 86; Kotkin (1988), chs III and IV. Gugel', the director of the combine, installed himself in the best house in the American village and completely refurnished it with fine furnishings (Hoover, AER, Box 4, R. W. Stuck ms, pp. 132-3). At the other extreme the clusters of mudhuts were popularly known as 'Shanghai' in Kuznetsk and elsewhere as well as Magnitogorsk (Kotkin (1988), 257-8; Dominique (1934), 130-2).

greater material equality between citizens which was one of the guiding principles of the October revolution. The principle of equality continued to have some practical as well as ideological influence throughout the 1920s. Wage differentiation between different grades of worker was deliberately if intermittently reduced; and the partmaksimum notionally continued to operate. The partmaksimum, introduced in 1922, was a ceiling, fixed by the government, above which the earnings of party members must not increase, so that party members in high positions earned less than their non-party colleagues.<sup>75</sup> But this self-denying ordinance was undermined throughout the 1920s by the extensive and growing privileges in accommodation, medical facilities and material goods extended to the élite, particularly at the highest levels where party members predominated. Then in June 1931 Stalin's attack on '“leftist” equalisation' encouraged greater income differentiation between workers (see pp. 71–2 above). The triumph of inequality was symbolised by the secret Politburo decision of February 8, 1932, to abolish the partmaksimum.<sup>76</sup>

The emergence and consolidation of a privileged and powerful élite was obvious to foreign journalists, engineers and diplomats. In the 'careful apportionment of dining-room facilities', W. H. Chamberlin commented, 'one seemed to see, on a small scale, the class or caste stratification of Soviet society'.<sup>77</sup> A senior British diplomat noted the existence of a 'new urban bourgeois class', better-fed, well-dressed, and using the more expensive restaurants:

The Five-year Plan is . . . breaking the egalitarian structure of Soviet society and bringing a class of non-proletarians and ex-proletarians into positions of privilege and authority . . . The new *bourgeois*, it would seem, are more firmly entrenched than [the Nepmen], for upon their continued existence depends the execution of the plan itself.<sup>78</sup>

<sup>75</sup> *Izvestiya TsK*, 7, 1990, 147. According to the original decisions of 1922, earnings above the stipulated amount were allocated by the party to members in need.

<sup>76</sup> WKP 162, 81–4; *Izvestiya TsK*, 7, 1990, 167.

<sup>77</sup> Chamberlin (1934), 113.

<sup>78</sup> BDFA, IIA, x (1986), 381 (Strang to Reading, November 3, 1931); BDFA, IIA, xvi (1992), 146 (Strang to Simon, May 14, 1932). See also *ibid.* xvi (1992), 255 (Bullard to Simon, December 5, 1932).

## CHAPTER EIGHTEEN

### CONCLUSIONS

In 1931–3 the Soviet Union plunged into a profound economic and social crisis, from which it began to emerge only in the last few months of 1933. In belated response to the crisis, the Soviet authorities – and Stalin personally – gradually relinquished the rash over-confidence which characterised their economic policies at the beginning of the period; by the end of 1933 both the annual plans and the draft second five-year plan were far more realistic. The crisis also imposed on the authorities an anguished search – in both principle and practice – for a more flexible economic system. In the system which had emerged by the end of 1933, market and quasi-market elements, and economic incentives, played a definite though subordinate role; this system continued without fundamental change until 1985.

These modifications in policy and system did not alter substantially the objectives of the regime. Economic policy sought the most rapid possible development of the capital goods and armaments industries, and was enforced in spite of famine in the countryside and hunger in the towns. While in some respects the economic system became more flexible, the dominant trend in both the economy and the political regime was to strengthen the central levers of power and the repressive apparatus.

#### (A) ECONOMIC POLICY

The annual plan for 1931 was the most exaggerated of all the plans of the Stalin period. The leaders believed that the economy could and must rapidly overtake the industrialised countries. At the beginning of 1931, Kaganovich boasted that ‘we will be masters of the whole world’, while Stalin – in what became his most well-known utterance – warned ‘Either we overtake the advanced countries in ten years, or they will do us in.’ In March, the investment plan for 1931 was even increased to facilitate the fulfilment of the plan. In May, Kuibyshev announced extremely ambitious targets for 1937, based on the greatly increased targets for the first five-year plan adopted in 1930. In June, Stalin urged

a conference of business managers: 'drive away all those "wise men", so-called wise men, who talk to you about realistic plans'. These ambitions were supported by the second collectivisation drive and the associated second wave of dekulakisation.

But grim reality was already undermining the foundations of these ambitions. Three weeks before Stalin's June speech, over one-third of the major capital projects under construction in heavy industry were moth-balled in the hope of freeing sufficient resources to enable the remainder to be completed on schedule. In the summer, discussions began behind the scenes about the need to adopt more realistic plans; and from the end of the year the increased five-year plan targets of 1930 were tacitly ignored.

Policies and plans were adjusted to the economic realities slowly and intermittently. The 1932 plan was still extremely ambitious. The struggle to achieve it was carried out against the background of a growing economic crisis, resulting partly from over-investment, but mainly from the catastrophic decline of agriculture which the attempt to increase investment had inadvertently helped to produce. The situation was exacerbated by external factors. The shift of the terms of trade against Soviet exports during the world economic crisis was a major cause of the balance of payments crisis at the end of 1931; and the Politburo was forced to impose substantial import cuts in order to limit foreign debt. Simultaneously the turn of Japan to aggression led the Soviet Union to increase defence expenditure. Then throughout 1932 the food crisis worsened. Food exports were reduced, further disrupting the balance of payments. Against this sombre background, industrial production increased by a mere 14 per cent, even according to the official record, and non-agricultural activities increased by no more than 10 per cent in real terms. These unfavourable developments convinced the authorities that they must further moderate their plans. The annual plan for 1933, for the first time since annual planning began in the mid-1920s, incorporated an actual decline in investment. Simultaneously the draft second five-year plan was cut back.

Although this shift to greater realism was forced on the Politburo by economic crisis and plan failure, this chastening experience brought about permanent changes in their approach to economic policy. Plans remained tense and demanding, but they were henceforth set within a more realistic framework.

Economic policy continued to concentrate on the capital goods industries, but the needs of the consumer also began to receive some attention, in practice as well as in words.

The vast increase in investment in 1929–31, aggravated by the over-ambitious plans, also resulted in an ignominious collapse of the financial strategy. The first five-year plan envisaged a substantial reduction in costs and prices, continuing throughout the five years. But in practice the huge increases in state expenditure in 1929–32 were not fully met by budgetary revenue; and led to extensive currency issues. Prices on the free market rapidly increased, food prices reaching at least sixteen times their 1928 level by the end of 1932. In the state sector, inflation was partly repressed by central control of wholesale prices, and of retail prices in socialised trade. To keep down wholesale prices in industries such as coal and steel, where costs were rising, the state budget provided large subsidies to cover current expenditures, in addition to outright grants, which covered nearly all capital investment. With retail trade, however, such inflexibility was impossible. From February 1931 onwards the state was compelled to raise more revenue in order to prevent currency circulation spiralling out of control. This was achieved partly by increasing retail prices of food and consumer goods in normal state and cooperative trade, and partly by sales of the same products at higher 'commercial prices' in special state shops. By 1933 retail prices in socialised trade were at least double the 1928 level. In 1933 inflation was gradually brought to a halt, partly as a result of the price increases, partly as a result of the curb on state expenditure. Free-market prices began to decline for the first time since 1927; and the increases in the costs of production and investment characteristic of the previous two or three years were brought to a halt. In the peace-time years 1934–6 and 1949–53, after the period dealt with in this volume, the state succeeded in combining a high rate of investment with a more or less stable currency.

## (B) THE POLITICAL AND ECONOMIC SYSTEM

In the course of 1931–3, periods of greater repression and greater relaxation alternated. In their broad trends, January–April 1931,



October 1931–March 1932 and August 1932–April 1933 were periods of greater repression, while April–October 1931, April–July 1932 and May–December 1933 were periods of greater relaxation. But the general tendency was towards a much more centralised and repressive social and political order.

The range of published economic information was considerably reduced. The systematic publication of all kinds of prices had already ceased in 1930, and, with occasional exceptions, was not resumed until after Stalin's death. Most statistical journals and statistical bulletins of all kinds ceased publication altogether, including *Statisticheskoe obozrenie*, a prestigious monthly journal, and *Ezhemesyachnyi byulleten'*, the substantial monthly statistical bulletin of Vesenkha. Until 1930 the annual control figures were available to the public in a substantial volume. But the volume on the 1931 plan was not published, merely circulated privately 'for official use'. The material published about the 1932 plan was less full than that about the 1931 plan, and the press reports about the 1933 plan were even more skimpy. Monthly statistics on many aspects of the economy were made available only in confidential bulletins printed in a few hundred copies, though in 1933, with the improvement in the prospects for industry, more industrial statistics appeared in the press.

The range of public discussion was also restricted. During these years the bastions of militant marxist ideology erected in 1929–30 began to fall one by one. The Politburo condemned Utopian schemes, including the immediate construction of 'socialist towns', the abolition of schools in favour of looser and more experimental forms of education, and the introduction of a new revolutionary calendar. At the same time, professional approaches which had been dismissed as 'bourgeois' were partly rehabilitated. But this did not involve any move towards pluralism of opinions. The militant marxist approaches which predominated in 1930 disappeared from public discourse. In key areas of knowledge such as economics and history the boundaries of discussion were narrowed, particularly after the publication of Stalin's letter to *Proletarskaya revolyutsiya* in October 1931. The party resolution on literature in April 1932 liberated writers from the dogmatic persecution of RAPP, the Russian Association of Proletarian Writers, but instead they were harassed by the authoritarian imposition of 'socialist realism'.

More permanent administrative structures were established,

and this made for greater stability. But it also involved the reinforcement of the mechanisms of authoritarian control. In the industrial enterprise, democratic or pseudo-democratic experiments were eliminated in 1931–2, including the workers' communes and collectives, and the practice of the election of foremen and of one of the deputy factory directors by the workers themselves. Hierarchical 'one-person management' predominated, supported by a wage system in which workers' earnings increasingly depended on their individual productivity. At the end of 1933 the power of the People's Commissars was strengthened by the abolition of the long-established collegia (committees) of the commissariats.

Simultaneously powerful instruments of coercion and fear were intermittently but inexorably augmented at the expense of normal administrative orders and of methods of persuasion. In the party, the last opposition groupings were repressed by imprisonment and exile towards the end of 1932; and in 1933 a large-scale purge was partially directed not only against the small minority of dissidents but also against those who were insufficiently obedient. In industry and on the railways, the persecution of specialists which had been widespread in the days of the Industrial Party trial had become far less severe. But specialists remained under the threat of prosecution for disobedience or inefficiency. Occasional trials involving Soviet specialists, notably the agriculturalists' trial in March 1933 and the Metro-Vickers trial in April, provided grim reminders of the power of the OGPU. 'Speculation' and other forms of private economic activity outside permitted limits were harassed, prosecuted and banned. Strikes and other forms of worker unrest were ruthlessly suppressed. While most urban employees of the state remained free to change their jobs, the introduction of internal passports in the major towns in 1933 imposed a more effective control over the movement of the population than the tsarist internal passport system which was abolished in 1906. And increasing numbers of citizens were incarcerated in prisons, labour camps, and special settlements, or sent into administrative exile.

While both repression and hierarchical control increased in 1931–3, the main features of the system are not captured by the current Russian characterisation of it as an 'administrative-command' or 'administrative-repressive' system, or by the

Western models which treat the regime as a variant of totalitarianism, or alternatively as a technocracy in which the state's concept of efficiency is imposed from above through a hierarchy.

The Soviet economic system – in 1931–3 and more generally thereafter – differed from these three models in several important ways.

First, as we have seen, decisions were actively influenced by senior administrators, both within and outside the Politburo, and even by leading factory directors. Objections from these sources to the over-optimism which had dominated the Politburo played a significant part, together with the crisis in the economy, in modifying the economic policies of Stalin and the party leadership. From 1933 onwards, plans, though taut, were relatively realistic, and much greater care was taken, by Stalin personally and by his entourage, to consult senior administrators and specialists.

Secondly, in their everyday conduct of affairs the leading officials, managers and specialists did not simply act as *vintiki*, cogs in the machine. To carry out their duties to the state and the plan, factory managers had to be quasi-entrepreneurial. Within certain limits they systematically broke the official rules, assisted by a vigorous stratum of 'pushers' (*tolkachi*), who sought out scarce materials. On the other hand, because penalties for failing to fulfil the quantitative plan targets were severe, managers, specialists and officials responded cautiously to pressures from above which sought to encourage innovation and risk.

Thirdly, the ordered hierarchy of control was disrupted by political campaigns, controlled through the party machine, which sought to overcome inertia or stagnation. Striking examples are provided by the counter-planning campaigns in 1930–2 which stirred up activists to impose increased plans on reluctant managements, and the party campaigns in 1933 to improve performance in the coal industry and on the railways. At every level, from the Politburo and the commissariat to the factory, the economic administration and the party machine remained in permanent tension.

Fourthly, the mass of ordinary citizens influenced the operation of the system by their reactions to the policies of an apparently all-powerful state. In industry, labour shortages, endemic since 1931, enabled workers to exercise a certain

independence. Managers found that if they increased norms too much, or sought to impose a more exacting discipline, their workers would depart for other jobs.

Finally, the economic system as a whole was substantially modified in these years, in both concept and practice. In 1929 and 1930 party leaders and senior economic officials envisaged the socialist economic system as one in which all means of production were owned by the state, or by cooperatives controlled by the state. In this system the state would plan all aspects of production, including capital and labour, investment and consumption, production and distribution. Private ownership, and the market, in all their aspects, would vanish. 'Trade' was renamed 'supply' in order to indicate that it was not subject to the laws of the market. It was universally assumed that not only the central allocation of producer goods within industry, but also the rationing of consumer goods, would remain permanent aspects of socialism. Moreover, many marxist economists and senior Communist officials, including Krzhizhanovsky, head of Gosplan, envisaged that the socialist system would soon become an economy in kind, in which money had been replaced by some kind of labour token.

By the autumn of 1930 this model of state socialism had already been modified in one important respect. After a period in which it seemed that the transition to a moneyless economy would soon be accomplished, the Soviet authorities reverted to a strong emphasis on the importance of a stable currency. While the role of money remained strictly limited, the more stable currency enabled several important adjustments to the economic system. At the industrial conference at the beginning of 1931 Ordzhonikidze argued that *khozraschet* (economic accounting) and financial controls should enable a fundamental reform of economic organisation. Once the aggregate plans for the major materials had been agreed at the centre, details would be settled in a contract between supplier and client, and each side would bear material responsibility. Thus the rights and obligations of managers would be legally supported by horizontal relations between enterprises, facilitating and complementing the vertical hierarchy through which the Politburo, the commissariats and the corporations issued orders to the enterprises. Both vertical and horizontal relations would be supported by financial sanctions.

This ingenious scheme had almost no immediate effect, in view of the tension of the plans, the continued inflation, and the scarcity of every type of good. Nevertheless, contract relations between state enterprises eventually became an important if secondary feature of the Stalinist economy, backed by an elaborate structure of state and departmental arbitration, re-established during 1931. The Soviet interpretation of the role of *khozaschet* in a socialist system still remained ambiguous, however. Molotov insisted that *khozaschet* within industry reflected the market relations which still persisted in the economy outside the state sector, and would not be a feature of the fully socialist economy. This view persisted for some years, although somewhat oddly at variance with the recognition that money was a constituent part of socialism.

The re-emphasis on the role of money also enabled the tacit abandonment of a second pillar of the model of socialism which prevailed in 1930: the assumption that labour would be administratively planned and directed. The doctrine that no labour market existed in a socialist economy continued to prevail; in theory labour was allocated through a planning mechanism. In practice, however, increasing emphasis was placed on the importance of economic incentives, to the worker as well as to the enterprise. The campaign against 'petty bourgeois equalisation' was a prominent feature of these years, strongly emphasised by Stalin in his speech to economic managers in June 1931. Wages would provide an incentive to greater skill and higher productivity, both through increased differentiation of the basic wage-scales, and through the introduction of individual piece-work wherever feasible. While some major restrictions were imposed on the free movement of labour, most workers in practice retained the right to change their job, and many of them frequently exercised this right. Wages, and other material incentives such as housing, were used to attract labour to unpopular jobs and regions. This was a 'quasi-market' rather than a true or complete labour market: wage-scales, though manipulated by enterprises in response to labour shortages, were fixed centrally by the state.

The 1930 model of socialism envisaged that retail distribution would be undertaken through some form of goods rationing. The reinstatement of the ruble also enabled this assumed feature of socialism to be replaced. As early as the spring of 1931 the central

authorities called for 'the all-round development of Soviet trade' ('torgovlya', as distinct from 'snabzhenie' – supply), and forthwith abolished the rationing of most industrial consumer goods. This change in perspective was primarily a flagrantly opportunistic device to cope with the inadequate level of supplies, which made it impossible to honour even a very low ration of many goods. But it was also apparent that if rationing continued wage incentives would remain weak and clumsy. In February 1932 the XVII party conference envisaged that a rapid improvement in supplies would enable the abolition of all consumer rationing, including food rationing.

At this moment the Soviet leadership envisaged that all prices would be fixed centrally, but that production would be so arranged that supply would roughly equal demand. Even sales by peasants on the bazaar or 'market' would be at regulated 'Soviet prices', roughly equal to those charged in state shops. Given the huge excess of purchasing power, and the relatively low level of retail prices in state shops, this arrangement was not at all attractive to the peasants. In May 1932 the worsening food situation led the authorities to embark on a profound economic manoeuvre. The amount of grain and other food products delivered compulsorily to the state was reduced, and peasants were permitted to sell any remaining production on the kolkhoz market at free-market prices. In a parallel manoeuvre to encourage the increased production of industrial consumer goods, artisans were also permitted to trade at market prices instead of regulated prices. The 'khozraschet' reform of 1931, together with the kolkhoz-market reforms of the spring of 1932, were seen as establishing two distinct and complementary channels of trade. Firstly, trade within state industry was directly planned trade. The basic conditions of exchange, and the identity of both the buyer and the seller, were largely determined by the plan, though put into practice via the operative independence provided by khozraschet. Secondly, commodity circulation took place on the market via economic incentives not direct planning. State enterprises primarily engaged in the first type of trade, but also participated in trade on the market; kolkhozy took part in both types of trade.<sup>1</sup>

<sup>1</sup> See Amfiteatrov (1933), 5–15.

The reforms of the spring of 1932, the so-called 'neo-NEP', failed to solve the food crisis. But the kolkhoz market, on which prices were determined by supply and demand, remained a permanent feature of the Stalinist economic system. In the summer of 1932 far-reaching proposals were made to extend the scope of the economic reform. These included the freeing of state prices so that they balanced supply and demand, for producer goods as well as for consumer goods, and a fundamental reform in investment planning. Investment would be financed by repayable loans rather than non-returnable budget grants; capital projects would be self-financing, so that investment funds would be directed towards more profitable activities. These proposals were not accepted; and 'trade' within the Stalinist system had a strictly limited meaning. Prices in state and cooperative wholesale and retail trade continued to be fixed by the state. For producer goods, central allocation of supplies at low fixed prices continued, together with the centralised supply system. And all major and many minor investment projects continued to be determined centrally, and to be financed by outright grants. But retail prices of consumer goods were adjusted with the aim of balancing supply and demand.

The more flexible system based on economic levers which was introduced during 1931-3 was much weaker than the administrative-command system enforced through the powers of the central authorities. But it played an indispensable auxiliary role in the operation of the economy.

### (C) RESULTS OF THE FIRST FIVE-YEAR PLAN

The first five-year plan was originally scheduled for completion on September 30, 1933. Within a few months of its adoption in the spring of 1929, however, a campaign encouraged by the central authorities called for 'the five-year plan in four years'. Simultaneously, plans for all the major capital goods industries were greatly increased. (See vol. 3, pp. 187-225.)

In January 1933, the central committee plenum triumphantly announced that by the end of 1932 the five-year plan had been fulfilled 'not in five, but in four years (more precisely, in four years and three months)'; against the background of the collapse of capitalism, this was 'the most outstanding fact in modern

history'. The plenum claimed that the five-year plan for capital investment in industry had been exceeded over the 4¼ years by 24 per cent. Industrial production in 1932 was 219 per cent of the 1928 level, and had reached 93.7 per cent of the target set for the fifth year of the plan. During the course of the four years the productivity of labour in industry had risen by 38 per cent, 'somewhat lagging behind the plan.'<sup>2</sup>

Conveying a superficial impression of objectivity, these extravagant claims sought to inspire Soviet citizens in desperate conditions of famine and crisis. Based on a comparison with the five-year plan adopted in the spring of 1929, they passed over in silence the extensive upward revisions approved by the XVI party congress in July 1930. In Stalin's day this phase of Soviet policy was never mentioned in the Soviet press.

But even in terms of the plan adopted in the spring of 1929 the claim that the main quantitative targets had been achieved lacked any serious foundation. The capital investment figures were given in current prices, and thus compared the incomparable. The five-year plan assumed that investment costs would steadily decline, but in practice they rose substantially, particularly in 1931 and 1932. Even the published Soviet data indicate that in real terms investment in industry was not 24 per cent greater but some 20 or 25 per cent less than the plan.<sup>3</sup>

The claims for industrial production were equally unjustified. The figure of 93.7 per cent referred only to large-scale industry, and ignored the substantial decline which had taken place in

<sup>2</sup> *KPSS v rez.*, iii (1954), 174–6.

<sup>3</sup> The cost of building work was planned to decline by as much as 50 per cent, and the costs of all investment, including capital equipment and installation, by 28 per cent over the five years (*Pyatiletnii plan* (1930), i, 55). In the outcome, according to a rough Soviet estimate, investment costs, after falling slightly in 1929, increased as follows (1929 = 100):

1930	1931	1932	1933
101	115	141	142

(*Nashe stroitel'stvo*, 7, April 1934, 298 – Bagdat'ev). Applying these figures to industry, the investment of 24.8 milliard rubles in current prices amounted to some 20–21 milliard rubles in 1929 prices and substantially less than this in the planned current prices of the five-year plan, because investment costs were planned to decline by 28 per cent; this should be compared with the plan of 19.1 milliard rubles. For similar estimates for investment in the economy as a whole, see Zaleski (1971), 246.



small-scale industry. In turn the achievements of large-scale industry were exaggerated by the use of 1926/27 prices, the distorting effects of which have been frequently referred to in these pages. Independent Western estimates for the increase in industrial production between 1928 and 1932 vary from 41 to 72 per cent, as compared with the official figure of 102 per cent.<sup>4</sup>

Labour productivity in large-scale industry certainly did not increase by 38 per cent between 1928 and 1932. The number of workers increased by at least 82 per cent over the period, and a productivity increase of 38 per cent would have resulted in a production increase of 150 per cent, substantially greater than even the official claims.<sup>5</sup> All Western estimates have concluded that productivity declined between 1928 and 1932.

The specific plans for the capital goods (Group A) industries adopted in the spring of 1929 were, with a few exceptions, achieved not in 1932 but between 1933 and 1938, in six to eight years rather than five. Most of the goals of the revised five-year plan were not reached until after the second world war.<sup>6</sup> The plans for the light and food (Group B) industries, though more modest, were also far less successful. The official claim that the output of Group B industries increased by 87 per cent between 1928 and 1932 required outrageous manipulations of the underlying data.<sup>7</sup> The fundamental problem for the Group B industries was the lack of agricultural raw materials. Although the supply of home-produced raw cotton substantially increased, the reduction in imports meant that the total supply was barely maintained. The decline in both food crops and farm animals

<sup>4</sup> See Zaleski (1971), 259; Davies (1978), 67. The highest estimate (by Hodgman) is for large-scale industry only; the lowest estimate (by Nutter) probably underestimates the growth in production (see Davies (1978), 32–57).

<sup>5</sup> The plenum stated that the production of large-scale industry in 1932 was 119 per cent greater than in 1928. The increase of 82 per cent refers to manual workers only, excluding white-collar employees, engineers and technicians (estimated from data in *Sots. str.* (1935), 486, 492); total employment in large-scale industry increased by 109 per cent (*Trud* (1936), 10–11).

<sup>6</sup> For the revised targets, see Zaleski (1971), 119; for actual production, see Nutter (1962), 420–59.

<sup>7</sup> For the claimed increase in production, see *Itogi* (1933), 254; for the manipulations, see p. 417 above, Davies (1978), 40–3, and BP (Prague), cxiii (May 1934), 3–5. The official figure is for large-scale industry; the increase for all Group B industry, including small-scale industry, was later given as 56 per cent (*Promyshlennost'* (1957), 32).

meant that the increase in the production of the food industry was due to the transfer of food processing from the peasant economy and the urban household to industry; there was a sharp reduction both in food consumed by the peasants, and in food purchased on the market by the urban population. In support of its claim that 'growth of the standard of living of the working people of the USSR' had taken place, the plenum of January 1933 reported that the average industrial wage had risen by 67 per cent without mentioning the far more rapid rise in the cost of living.<sup>8</sup> In contrast, Western studies estimate that real wages per person employed declined by 30–50 per cent in 1928–32.<sup>9</sup> These figures take no account of the substantial decline in the quality of consumer goods during the five-year plan.<sup>10</sup>

The decline of small-scale industry was ignored by the January 1933 plenum. This decline had not been anticipated by the five-year plan. Small-scale industry consisted mainly of individual or cooperative artisans supplying the consumer market, most of them peasants working in the countryside on a seasonal or part-time basis. It produced about a quarter of all industrial production in 1928. The five-year plan proposed that the rapid expansion of large-scale industry would be accompanied by a slower but considerable expansion of small-scale production, amounting to 49 per cent.<sup>11</sup> But, in practice, agricultural raw materials, in increasingly short supply from 1928 onwards, tended to be diverted to large-scale industry. In the towns, many artisan activities were closed down and their production transferred to the factories. Some artisans moved into large-scale industry or other state employment; others were labelled 'petty capitalists', and expropriated and exiled. In the countryside, kolkhozy frequently abandoned or suppressed artisan activity. Artisan production of footwear, garments, knitwear and fur

<sup>8</sup> *KPSS v rez.*, iii (1954), 180.

<sup>9</sup> See Vyas (1978), 120–2; the urban labour force increased more rapidly than the urban population, so urban consumption per head of population fell less sharply than urban consumption per employed person.

<sup>10</sup> Thus many chinaware factories now manufactured three or four instead of dozens of types of goods, and the products were 'a crude unceremonial violation of the interests of the consumer'; the proportion of woollen goods made from pure wool declined from 56.2 to 12.2 per cent between 1930 and 1933 (BP (Prague), cxiii (May 1934), 8–9, citing Soviet publications).

<sup>11</sup> *Pyatiletnii plan* (1930), i, 132; this figure includes flour-milling.

products was largely replaced by factory production. The census of small-scale industry in 1933 showed that the most prominent artisan activities were flour-milling, baking and woodworking, together with metalworking and cobbling, which largely consisted of repair work. In 1933 production of small-scale industry as a whole amounted to less than half that of 1928/29.<sup>12</sup> This decline was disguised in the official statistics, which achieved an increase in the production of small-scale industry by excluding 'private industry' from the total.<sup>13</sup>

The January plenum also failed to mention the failure of the plan for housing. Annual urban housing construction was planned almost to quadruple by 1932/33 as compared with the low level of 1927/28, but in fact it increased by 35 per cent.<sup>14</sup> In view of the rapid growth of the urban population, floor-space per urban inhabitant declined from 5.7 to 4.7 square metres.<sup>15</sup> The targets of the first five-year plan for the production of consumer goods and the construction of housing were not achieved until after the second world war.

<sup>12</sup> These figures may somewhat exaggerate the decline, as the 1928/29 census of small-scale industry included, and the 1933 census excluded, urban artisan enterprises which did not use mechanical motive-power and employed only one or two workers. (*Nar.kh.* (1932), 86-7; *Sots str.* (1935), 10-5). Flour-milling has been excluded, as its value consists mainly of raw material.

<sup>13</sup> According to the table in *SSSR v tsifrah* (1934), 10, the output of small-scale industry ('excluding private industry') increased from 1.3 milliard rubles in 1928 to 4.9 milliard rubles in 1933 (preliminary figures); 'private industry' included the production of all individual and family artisans. The census of small-scale industry showed total production as follows (million rubles):

1928/29 <sup>a</sup>		1933 <sup>b</sup>	
Gross turnover including	Gross output excluding	Gross output including	Gross output excluding
flour-milling	flour-milling	flour-milling	flour-milling
5322	3245	3694	1426

<sup>a</sup> *Nar.kh.* (1932), 84-7; current 1928/29 prices.

<sup>b</sup> *Sots.str.* (1935), 4-13; 1926/27 prices. These figures are somewhat underestimated in comparison with 1928/29 (see previous footnote).

The total figures for 1928/29 and 1933 were never brought together in Soviet sources at the time.

<sup>14</sup> See Zaleski (1971), 320.

<sup>15</sup> See *ibid.* 320, 346-7. In 1926/27 investment in urban housing had probably reached only about one-fifth of the pre-war level (see EHR, 2nd series, xxix (1986), 269).

The five-year plan also envisaged a substantial increase in foreign trade. Import and export plans were not included in the five volumes of the five-year plan, presumably on grounds of commercial secrecy, but a draft foreign trade plan published in the Gosplan journal at the time proposed that exports should increase to 2,048 million rubles in 1932/33, as compared with 792 million rubles in 1927/28. Exports in real terms did increase substantially in 1930 and 1931, mainly as a result of large grain exports. While the Soviet agricultural crisis resulted in a substantial fall in exports in 1932, they were still 58 per cent higher than in 1927/28. But terms of trade turned sharply against agricultural goods during the world economic crisis; in world prices exports were 27 per cent below the 1927/28 level in 1932, and 37 per cent below in 1933. Imports had to be reduced accordingly, with repercussions throughout industry.<sup>16</sup>

The financial strategy proposed in the five-year plan combined greatly increased industrial efficiency with financial prudence, so that the doubling of investment in industry would be almost entirely financed from the increased profits of industry itself. The plan proposed an increase in labour productivity in industry by as much as 110 per cent, which, together with economies in fuel and raw materials, would enable a reduction in industrial production costs by as much as 35 per cent; the resulting savings would be used both to finance investment and to reduce the retail prices of industrial goods by 23 per cent.<sup>17</sup> But when the plan was adopted the economy had already soared into inflation. During the next few years labour productivity at first increased slowly, and then declined. In the desperate effort to fulfil the plan, the

<sup>16</sup> The main data are as follows (million rubles):

	1927/28 <i>Actual</i>	1932/33 <i>Plan</i>	1932 <i>Actual</i>	1933 <i>Actual</i>
<i>Imports:</i>				
Current world prices	946 <sup>a</sup>	1923 <sup>b</sup>	704 <sup>a</sup>	348 <sup>a</sup>
1927/28 world prices	946 <sup>a</sup>	1923 <sup>b</sup>	996 <sup>c</sup>	537 <sup>c</sup>
<i>Exports:</i>				
Current world prices	792 <sup>a</sup>	2048 <sup>b</sup>	575 <sup>a</sup>	495 <sup>a</sup>
1927/28 world prices	792 <sup>a</sup>	2048 <sup>b</sup>	1253 <sup>c</sup>	1162 <sup>c</sup>

<sup>a</sup> *Sots.str.* (1935), 567–9.

<sup>b</sup> Estimated from data in PKh, 4, 1929, 90–3 (Kaufman).

<sup>c</sup> Zaleski's estimates (see Zaleski (1971), 253).

<sup>17</sup> See Carr and Davies (1969), 983.

labour force in industry – and in the state sector generally – rose far more rapidly than planned; between 1928 and 1932, the number of workers in large-scale industry increased by over 80 per cent as compared with the plan of 32 per cent.<sup>18</sup> Simultaneously the strain on resources resulted in an increase of inputs per unit of output, instead of the planned decline. Costs of production at first failed to fall, and then rapidly increased, except in the case of products manufactured on a large scale for the first time, such as tractors and lorries. The familiar cycle of repressed inflation developed. In 1932–3 the savage effort to achieve a new financial equilibrium was more or less successful. But retail prices in socialised trade, instead of declining by 23 per cent as compared with 1928, had doubled or more than doubled, while free-market food prices had risen to between ten and twenty times the 1928 level (see Table 25(a) and (b)).

Thus the outcome of the five-year plan did not correspond even in rough outline to its original goals. The attempt to establish the Soviet Union as a great industrial and military power within a decade was entirely incompatible with the improvement of the standard of living and the maintenance of financial equilibrium. In practice, the central authorities almost unflinchingly sought to consolidate their control over capital and labour, and to direct resources towards the achievement of their major priorities in heavy industry. Balanced planning – and the living conditions of the population – were not permitted to stand in their way.

## (D) THE TRANSFORMATION OF INDUSTRY<sup>19</sup>

### (i) *Capital goods and armaments*

While the five-year plan was not achieved even in the high-priority industries, much new industry was constructed. Accord-

<sup>18</sup> Increase for manual workers (excluding apprentices) estimated from data in *Sots.str.* (1934), 332–3, 334–5. For plan for 1932/33, see *Pyatiletnii plan* (1930), i, 131.

<sup>19</sup> The following account deals with the period up to the end of 1933 covered by this volume. Although the first five-year plan was officially completed at the end of 1932, no new five-year plan was approved in 1933. Few new projects were started in the course of 1933, which was primarily a year in which capital investment started in previous years was consolidated.

ing to official figures, fixed capital stock in industry almost trebled between October 1, 1928, and January 1, 1934, and the increase was even greater in the capital goods industries.<sup>20</sup> These figures are greatly exaggerated.<sup>21</sup> But the physical data on the basic production capacity of major capital goods industries indicate that it approximately doubled during the five-and-a-quarter years from October 1, 1928, to January 1, 1934. The capacity of power stations trebled. In the iron and steel industry, blast-furnace capacity increased by 111 per cent, and open-hearth capacity by 63 per cent, and several more large open-hearth furnaces were nearing completion. In the engineering industries, the stock of machine tools more than doubled; as the machine tools installed during these years were on average more powerful than older machines, the stock in terms of horse-power increased by as much as 150 per cent. Nearly three-quarters of this expansion took place in the three years 1931–3. (See Table 4.) This very rapid expansion provided a certain justification for the saying popular among Bolsheviks that in Soviet industrialisation ‘the coat was sewn on to the button’, rather than the button to the coat.

An enormous effort was devoted to the construction of a few dozen major enterprises in the capital goods industries. The 18 largest projects in the iron and steel, engineering and non-ferrous metal industries absorbed 30 per cent of the total investment in these industries during the four-and-a-quarter official years of the plan.<sup>22</sup> A number of the new enterprises became very widely known among Soviet citizens. Most prominent were the Dnepr

<sup>20</sup> See Davies, Cooper and Ilić (1991), table 4.

<sup>21</sup> The capital stock in the initial year is underestimated, thus raising the rate of growth. Additions to stock are measured in current prices, so no allowance is made for the increase in the cost of investment in 1931–3. Like most capital investment data, the stock is measured in terms of inputs to capital construction, and so no allowance is made for any increase in input costs per unit of completed capacity.

<sup>22</sup> 2,748 out of 9,071 million rubles (the latter figure includes capital repair). For the investment in individual projects, up to January 1, 1933, see *Osnovnye ob'ekty* (1934), 31, 42; for the investment already made in individual projects before October 1, 1928, which I have deducted, see *Ob'ekty novogo stroitel'stva* (1930); total investment in the three industries may be found in the tables in Davies, Cooper and Ilić (1991). I have selected the three iron and steel projects, ten machine-building projects and five non-ferrous projects on which expenditure was greatest during the plan.

power station, the Magnitogorsk and Kuznetsk iron and steel works, the Stalingrad, Kharkov and Chelyabinsk tractor factories, the Saratov combine-harvester factory, the Nizhnii-Novgorod (Gorky) automobile works and the Uralmash heavy engineering works in Sverdlovsk. Most of these giant factories did not form part of the first five-year plan adopted in the spring of 1929, or appeared there in a much less ambitious form. Dneprostroi was an exception. The plan did not include the Kharkov, Nizhnii-Novgorod or Saratov works at all, and the joint pig-iron production of Magnitogorsk and Kuznetsk was planned at a mere 930,000 tons, as compared with the 3.5 million ton capacity of the final project. The final project of Uralmash had five times the capacity of the original design.<sup>23</sup>

Even with the immense outlays on the largest projects, investment in all the new factories constituted only a minority of total capital investment. In the iron and steel industry, where the Ural-Kuznetsk combine received over-riding priority, only 42 per cent of the new pig-iron capacity installed and operating by January 1, 1934, was in the new factories. Most new capacity took the form either of new furnaces installed at existing works (32 per cent) or of upgrading furnaces or bringing them back into use (26 per cent).<sup>24</sup> And in the engineering and metalworking industries, only 38 per cent of the metalcutting machine tools installed between January 1, 1929, and January 1, 1934, were installed in factories constructed during the first five-year plan. Of the remaining 62 per cent, 46 per cent were installed in factories already working before 1917, and 16 per cent in factories established between 1918 and 1928.<sup>25</sup> Although the large new combine-harvester, tractor, vehicle and heavy engineering works launched the Soviet Union into new industries using modern technology, much of the increase in engineering production was obtained in pre-revolutionary large and medium-size plants as a result of reorganisation, increased specialisation of output, and substantial extensions to the existing plant. An American survey of 46 engineering enterprises showed that between 1928/29 and

<sup>23</sup> For the completion of the Chelyabinsk tractor factory and Uralmash in 1933, see pp. 410–11 above.

<sup>24</sup> Estimated from data in *Chernaya metallurgiya* (1935), 42.

<sup>25</sup> *Oborudovanie* (1935), ii, 168–71, 174.

1932 their production increased by 210 per cent even though their fixed capital stock increased by only 59 per cent.<sup>26</sup>

Together with the heavy engineering, tractor and vehicle industries, the armaments industries provided the most striking examples of the introduction of advanced technology. The production of tanks began only in 1929/30, and thereafter expanded rapidly. A successful aircraft industry already existed in pre-revolutionary Russia, but during the first five-year plan this small base was transformed. The total stock of aircraft and tanks expanded enormously from a very low level, the stock of guns more than doubled, and the number of rifles increased from 1.5 to 2.5 million.<sup>27</sup> Confidential Soviet reports prepared at the beginning of 1934 admitted that the ultimate military capacity of the United States, after a relatively lengthy mobilisation period, would far exceed that of the Soviet Union, that the potential capacity of Japan and France to produce aircraft also exceeded the Soviet capacity, and that the Soviet stock of lorries was very considerably smaller than that of the other great powers. But the reports also claimed that Soviet production of artillery pieces in the first year of war would exceed that of Japan and France, and that tank production and technology were 'not inferior to the armies of the most important capitalist states'. The reports pointed out that the Soviet stock of tanks exceeded that of the United States, France and the United Kingdom taken together, and the development of the vehicle and tractor industry had provided drivers and mechanics, and a network of repair shops, petrol stores and garages which would be available for military purposes.<sup>28</sup> In his report to the XVII party congress in January 1934, Voroshilov publicly acknowledged or boasted about these successes, claiming that since 1930 the army 'has become as it were a different army in principle, in relation to the quantity and quality of its armament, its organisational structure and the military preparedness of its cadres'. According to Voroshilov,

<sup>26</sup> Granick (1967), 50-1; Granick claims that these data are reasonably realistic. Some of the factories included, however, such as the ZIS vehicle works in Moscow and 'Elektrosila' in Leningrad, expanded so considerably that they could more properly have been classified as new factories.

<sup>27</sup> See Edmondson and Waldron, eds. (1992), 259 (Davies).

<sup>28</sup> RGAE, 4372/91/1824, 41; RGAE, 4372/91/2196, 25, 15-14, 12-11. These are Gosplan reports dated January 1934, prepared on the occasion of the XVII party congress. At this time Germany had hardly begun to rearm.



though the poor state of the railways and the decline in the number of horses presented the army with considerable transport problems, mechanical horse-power per soldier had increased from 2.6 in 1929 to 7.74 in 1933, and was 'considerably higher than in the French and American armies and even higher than in the British army, which is the most mechanised'.<sup>29</sup> These optimistic assessments are not sharply at variance with those by Western specialists.<sup>30</sup>

These developments, together with the expansion of all kinds of artillery production, placed heavy and unprecedented demands on Soviet industry for complex technology and materials of higher quality and more sophisticated workmanship, particularly when higher priority was afforded to armaments production from 1931 onwards. Together with the demands of the tractor and vehicle industries, the demands of the armaments industries precipitated sections of Soviet industry into acquiring the most advanced world technology of the 1930s.

Even in the capital goods industries, however, the available investment was wholly inadequate to cover all the projects approved by the Politburo and Sovnarkom. Only a few major industries, and a few major projects within these industries, consistently received the highest priority.

The oil industry provides a striking example of the problem of priorities. It had been the greatest industrial success of NEP. In the mid-1920s it received about one-seventh of all industrial investment, and an exceptionally large amount of foreign technical assistance and imported machinery.<sup>31</sup> Its share in total investment gradually declined in the late 1920s, but extensive exploration and test drilling continued. As early as 1931 the industry was the first to fulfil its five-year plan; it made a considerable contribution to exports (see Table 13(a)). But this success evidently persuaded the authorities that the industry could manage with relatively fewer resources. During the five-year plan, its share of industrial investment was reduced from 12 to 4 per cent.<sup>32</sup> In the two main oilfields, Azerbaijan and

<sup>29</sup> *XVII s'ezd* (1934), 228–32.

<sup>30</sup> See Tupper (1982), 28, which concludes that in 1934 'no other army could match these stock figures'.

<sup>31</sup> See vol. 3, p. 18, and Davies, Cooper and Ilić (1991), Table 5.

<sup>32</sup> See (for 1928/29) vol. 3, table 4; (for 1932) Table 3 below.

Groznyi, exploratory drilling was reduced; the house journal of Gosplan complained that the Groznyi oil trust 'simply consumed its fixed capital'.<sup>33</sup> The total supply of pumps, compressors, pipes and other items was substantially reduced in both 1931 and 1932.<sup>34</sup> In its report on the results of the five-year plan in the fuel industries, Gosplan insisted that 'immediate and decisive assistance to oil is necessary at all costs . . . Any delay will bring about harmful consequences which will not be able to be put right for a long time.'<sup>35</sup> Investment in the industry was increased in 1933, in spite of the decline in total industrial investment (see Table 3). But production rose hardly at all, and remained below the peak year 1931.

In contrast to the oil industry, investment in non-ferrous metals increased rapidly. In 1929/30 it amounted to only one-third of oil investment; in 1932 it exceeded it.<sup>36</sup> The production of lead and zinc, while lagging far behind the plan, increased substantially. In spite of intensive efforts, however, the production of copper ore and refined copper, crucial for the electrical and armaments industries, failed to increase at all between 1929/30 and 1933; no substantial increase took place until 1935-6.<sup>37</sup> Owing to the reduction of imports, the total supply of copper in 1932 and 1933 was even less than in 1929 (see Table 8). The copper industry failed for several reasons. First, copper ore was located at remote sites - at Krasnoural'sk in the Urals, in

<sup>33</sup> *Plan*, 2, 1933, 4-5.

<sup>34</sup> According to a Gosplan report printed from the archives, in which the prices used for imports are doubtless unrealistically low, the supply of capital equipment and 'major materials' declined as follows (million rubles):

	1930	1931	1932
Soviet production	126	116	95
Imports	29	23	6
Total	155	138	101

(*Industrializatsiya, 1929-1932* (1971), 185, dated December 20, 1932; see also ZI, August 27, 1932, January 29, 1933). How the prices were calculated is not stated. For alternative import figure in foreign-trade prices, see *Vneshnyaya torgovlya* (1960), 303-30.

<sup>35</sup> *Industrializatsiya, 1929-1932* (1971), 186.

<sup>36</sup> See vol. 3, table 4; and Table 3 below.

<sup>37</sup> See Nutter (1962), 420-1.

Siberia, and even in Kazakhstan. The largest project, at Balkhash in Kazakhstan, was described by Serebrovsky, the head of the industry, as 'the Magnitogorsk of our non-ferrous metallurgy'. But conditions were even worse than at Magnitogorsk. It lacked a railway, and water had to be delivered to the site on horseback in barrels.<sup>38</sup> Secondly, copper deposits had been far less adequately investigated than the iron deposits in the Urals and the Kuznetsk basin. As late as August 1931, Serebrovsky admitted that 'detailed industrial prospecting and preparation of sites for mining lags catastrophically'. Thirdly, while the industry received substantial financial resources, it was treated in practice as less important than iron and steel.<sup>39</sup> 'In the circles of our business managers,' an editorial in the industrial newspaper complained, 'non-ferrous metallurgy is still treated as a kind of *second-priority* industry.' In times of shortage, power for the industry was switched off first, and its freight was pushed to the back of the queue.<sup>40</sup> The copper mines lagged far behind the processing works, and were treated worse than the iron-ore mines. No housing was built, and the miners were worse paid than in equivalent jobs in other industries. In consequence large numbers of skilled workers left the mines.<sup>41</sup>

These problems were made more acute by the exceptionally extravagant plans adopted in 1929–31. As early as August 1929, the Council for Labour and Defence resolved to produce 150,000 tons of copper in 1932/33 (see vol. 3, p. 188), and in April 1931 at a congress of non-ferrous metal workers Serebrovsky called for the production of 1,100,000 tons in 1938.<sup>42</sup> Too many projects were started at once; investment was split between the expansion of existing facilities and the construction of giant plants in Krasnoural'sk, Karaganda and Balkhash. The state of construction was typified by the Krasnoural'sk plant, which like Balkhash was described as 'the Magnitogorsk of the copper industry'.<sup>43</sup> On

<sup>38</sup> *XVII konf.* (1932), 32; B, 16, August 31, 1931, 56.

<sup>39</sup> This was in spite of Serebrovsky's impassioned appeals. 'All freight should be exempted from the general rules,' he declared, 'and treated as equal to freight for the military, bearing in mind that the non-ferrous industry has defence significance' (B, 16, August 31, 1931, 56).

<sup>40</sup> ZI, December 18, 1932.

<sup>41</sup> ZI, October 18, 1932 (Serebrovsky's 'Travel Notes').

<sup>42</sup> ZI, April 13, 1931.

<sup>43</sup> ZI, March 6, 1933 (Pyatakov).

January 1, 1932, the plant was officially 'completed'; but this was extremely premature (see p. 148 above). In March 1933 a report to the Narkomtyazhprom collegium still described the plant as 'in the starting-up period'. In August a further report complained that the mines lacked underground workers and the housing situation was 'extremely tense'.<sup>44</sup> In face of the failure to complete any of the new copper plants, a remarkably frank article in *Pravda* by the senior metallurgist Bardin, declaring that the copper industry had 'marked time for three years', argued that resources should not be allocated to new sites, when Krasnoural'sk and the extensions to the older Ural plants were all far from complete.<sup>45</sup> The head of the principal project institute, however, insisted that this was not compatible with achieving 325,000 tons in 1937, 'the minimum requirement', and called for continued investment in Balkhash.<sup>46</sup> The importance attached to the Balkhash project by the authorities was indicated by the appointment of V. I. Ivanov, a tough ex-worker, as head of construction, and of John Calder as its principal foreign adviser; Ivanov and Calder had worked together in the same roles at the Stalingrad tractor factory in 1930.<sup>47</sup> A large number of expropriated kulaks worked on the site in appalling conditions.<sup>48</sup> By the end of 1932 about 60 million rubles had been spent, more than on Krasnoural'sk.<sup>49</sup> But in May 1932 the collegium of Narkomtyazhprom had already heard a report from a foreign expert who complained that research on the location and quality of the raw material was quite inadequate; eventually Sovnarkom decided that the first stage of the project could not be completed until 1936-7.<sup>50</sup> The Soviet leaders had taken a long while to learn to be more realistic. Meanwhile, the scattering of investment had delayed production at the more developed but underfunded sites.

<sup>44</sup> ZI, June 3, August 20, 1933.

<sup>45</sup> P, August 20, 1932.

<sup>46</sup> ZI, October 20, 1932 (Podol'skii).

<sup>47</sup> Sutton (1971), 55; *XVII konf.* (1932), 97-8. For Ivanov's previous conduct, see vol. 3, 250-1, 374.

<sup>48</sup> Sutton (1971), 55.

<sup>49</sup> ZI, October 20, 1932 (preliminary figure).

<sup>50</sup> ZI, May 22, 1932, September 20, 1933.

*(ii) Consumer goods*

The capacity of some consumer goods industries was also increased substantially during the five-year plan.<sup>51</sup> In the textile industries, the shortage of raw material led to the abandonment of most of the plans to construct new factories or extend existing ones; even according to the official figures, fixed capital increased by a mere 13 per cent. But other light industries, including the footwear and clothing industries, switched from domestic and small-scale production to factory production. According to the official figures, the production capacity of the large-scale knitwear and clothing industry increased more rapidly than that of large-scale industry as a whole. More than half the increase in the total capacity of Group B industries took place in the food industry. In these years of general agricultural impoverishment, the supply of food crops and meat and dairy products to the state increased substantially; and this led to the decision to construct large modern food processing factories. Mikoyan reported to the XVII party conference that, with Stalin's support, modern canning factories, bakeries and fodder-processing plants were being constructed, 550 factories altogether. Soviet engineers visited Europe and the United States and acquired capital

<sup>51</sup> According to the official figures, which exaggerate the rate of growth (see p. 473, n. 21 above), fixed production stock in census industry increased as follows in Group B industries (million rubles in current prices):

	<i>Oct. 1, 1928</i>	<i>Jan. 1, 1934</i>	<i>Jan. 1, 1934</i> <i>(Oct. 1, 1928 = 100)</i>
Cotton textiles	1448	1638	113
Knitted goods	42	129	307
Clothing	39	144	369
Other	477	825	173
Total textiles	2006	2736	136
Leather, fur and footwear	194	381	196
Food, drink and tobacco	1531	3209	210
Other Group B	551	1212	220
Total Group B	4282	7538	176
All census industry	10262	29007	283

(For sources, see Davies, Cooper and Ilić (1991), table 4, including notes s, t and u). 52 per cent of the increase in production stock in Group B industries took place in the food industry.

projects and working drawings, and foreign specialists were working in the USSR.<sup>52</sup> Soviet facilities for producing equipment for the food industry were considerably expanded. As much as 55.5 per cent of the total stock of metal-cutting machine tools in factories producing specialised machinery for the food industry was added after October 1, 1928, as compared with 53.4 per cent in engineering as a whole, and a mere 36.8 per cent in factories producing specialised machinery for light industry.<sup>53</sup>

The crowning glory of the programme, involving considerable imports of American equipment, was the construction of four giant meat combines in Moscow, Leningrad, Semipalatinsk and Baku.<sup>54</sup> Mikoyan reported to the XVII party congress that the Moscow, Leningrad and Baku combines had recently been completed, with conveyor belts and transporters, gigantic refrigerators, huge boilers for fat, and special sanitary clothing and showers for the workers – ‘the wonders of American meat technology have been transferred to our soil . . . only the last breath of the animal is not utilised’.<sup>55</sup> Soviet readers of Upton Sinclair’s popular novel exposing the Chicago meat-packing industry, *The Jungle* (1906), were thus provided with a rare indication that some changes for the better had apparently taken place in the capitalist world. But in view of the shortage of raw materials, the expansion of factory production of clothing and food was an outstanding case of the construction in the midst of poverty of an edifice appropriate to a time of plenty.

### (iii) *The problem of balance*

The problem of insufficient inputs did not merely affect the consumer goods industries. In this shortage economy, the failure to achieve equal priority for related projects had repercussions

<sup>52</sup> *XVII konf.* (1932), 80, 82–6. In 1928/29, 10,358 slaughter houses and meat-processing factories employed 35,000 workers; by January 1, 1932, 521 meat factories employed the same number of workers (PKh, 1, 1934, 102 (Kurskii)).

<sup>53</sup> Estimated from data in *Oborudovanie* (1935), ii, 130–1. Food machinery factories worked somewhat more intensively than machine-building factories as a whole, 2.1 shifts per day as compared with 2.0 (*Oborudovanie* (1935), v, 47–8) (these data refer to March 1932).

<sup>54</sup> PKh, 1, 1934, 110 (Kurskii); *XVII konf.* (1932), 86. According to Mikoyan, ‘cde. Stalin once told Moscow comrades that the Moscow meat combine is as important for Moscow as an iron and steel works’ (*XVII konf.* (1932), 90).

<sup>55</sup> *XVII s’ezd* (1934), 187.

throughout industry. Thus the Leningrad and Nizhnii-Novgorod regions were chronically short of power in 1931–2. In Leningrad in 1932 the expanded peat-burning station was unable to work at full capacity owing to the poor quality of the peat, but the major new hydro-electric station was not complete. In consequence, a number of large factories had to be disconnected from the power supply.<sup>56</sup> The Nizhnii-Novgorod hydro-electric station was also not completed on time, and when completed worked well under capacity; in consequence even the new automobile works had sometimes to be disconnected from the supply.<sup>57</sup> In contrast, Dneproges, the Dnepr hydro-electric station, which was afforded super-priority throughout the first five-year plan, was completed almost on time, but lacked customers for its output. Its first generator supplied its first current to industry on May 1, 1932, and during the next few months the remaining four American generators, made by GEC, were installed. With the installation of the first Soviet generator, manufactured at Elektrosila, Leningrad, in March 1933, the first stage of Dneproges was complete, with a capacity of 260,000 kw.<sup>58</sup> When the Dneproges project was approved in 1926, sceptics argued that the grandiose Dneprokombinat, the group of new factories which would consume Dneproges power, could not be completed on time. By the spring of 1929 Sovnarkom had already approved outline plans for Dneprokombinat, according to which in 1932/33 nearly 60 per cent of the power would be absorbed by large new aluminium and ferro-alloy factories to be completed at Zaporozh'e.<sup>59</sup> As late as August 1931, a senior Vesenkha official, contrasting the balanced development of the '*planned socialist economy*' with the uncertainties of capitalism, insisted 'there is no need to fear a lag in completion [of Dneprokombinat] behind Dneproges'.<sup>60</sup> In practice, however, progress with Dneprokombinat was extremely slow. The usual delays and confusion in project preparation were exacerbated in the case of Dneprokombinat because the Soviet Union lacked experience in the

<sup>56</sup> ZI, February 29, 1932.

<sup>57</sup> ZI, January 11, 1932 (Flakserman), May 22, 1932 (report of May 20 sitting of collegium of Narkomtyazhprom).

<sup>58</sup> Yantarov (1935), 77–92; Ribardièrè (Paris, n.d. [1933]), 55.

<sup>59</sup> Carr and Davies (1969), 899, 910–12; *Pyatiletnii plan* (1930), ii, i, 41.

<sup>60</sup> B, 15, August 15, 1931, 52, 70–1 (Zavenyagin).

production of aluminium and ferro-alloys. But the main cause of the delay was the failure of the combine to secure the same high degree of priority as the power station. In May 1933, Vinter, responsible for the construction of Dneproges, complained in relation to the combine of the 'lack of the dynamic purpose and enthusiasm which so greatly assisted the construction of the Dnepr dam'.<sup>61</sup> Construction of the aluminium plant was subject to a long series of delays.<sup>62</sup> The first sample of aluminium was produced in July 1933, but the plant was not fully working until May 1935.<sup>63</sup> The ferro-alloy plant was almost equally delayed.<sup>64</sup> In consequence, only one-third of the capacity of the power station was utilised by the autumn of 1933.<sup>65</sup>

The lack of balanced development was also a serious problem within every industry, however important. The iron and steel industry provides a characteristic example. The failure to develop open-hearth furnaces and rolling mills to process pig-iron at the same pace as the blast-furnaces which produced the pig-iron has frequently been mentioned in these pages. An even more insidious problem was the lack of sufficient investment to enable all processes to be established with compatible levels of technology. In both the established Ukrainian works and the Ural-Kuznetsk combine the blast-furnaces, open-hearth furnaces and steel mills were modern and of high capacity. But the mines and processing plants supplying fuel and raw materials to the furnaces were far less advanced. In consequence coke contained more ash and moisture than in Germany or the United States. The sorting and enrichment of iron-ore suffered a similar lag; hardly any equipment for the agglomeration of ore had been installed. Fire-resistant brick, which had previously been imported, was of poor quality. In consequence of these technical factors, the relative lack of skill of the workers, and the irregular supply of materials, the new capital equipment was used much less intensively than in Germany or the United States. Coke consumption per unit of output was higher; hold-ups were more frequent at every stage of the metallurgical cycle. The iron-ore

<sup>61</sup> ZI, May 30, 1933 (conference about the combine held on May 28).

<sup>62</sup> ZI, February 11, June 1, 1932.

<sup>63</sup> *Ekonomicheskaya zhizn'* (1961), 289, 300, 314.

<sup>64</sup> *Ibid.* 291; Yantarov (1935), 138, 141-2.

<sup>65</sup> *Ibid.* 92.



charge had to be changed more frequently than in the United States or Germany. The Bessemer furnaces had to be repaired after every 500–600 smelts as compared with 3,000 in the United States. The efficiency with which the furnaces were utilised was considerably lower in the USSR when measured by the two main criteria – production of pig-iron per unit volume of blast-furnace and of crude steel per unit area of open-hearth furnace. Even in 1933 efficiency by both these criteria remained lower than in 1929. Finally, in spite of the impressive increase in the range of steel products which the Soviet industry could manufacture, the quality of output was low by international standards, and the percentage of rejected production was high.<sup>66</sup> In a survey at the end of 1933, leading engineers frankly noted that the industry was still inferior to that of the advanced countries:

The struggle to achieve world technical indicators for iron and steel must be waged by improving the quality of work at every stage of the metallurgical cycle. During the first five-year plan we learned to build plant which was at the most technically advanced level, in the second five years we must master their full production capacity and learn to master the technological process so that we can obtain metal of the highest quality . . .<sup>67</sup>

The Soviet political leaders, and the leading party members working in industry, believed that all the difficulties were no more than growing pains, and would be overcome by the central planning system. The vast improvement in performance during the next three years (1934–6) provided strong support for this optimism. But the experience of the next half-century indicated that some of the most serious problems encountered during the first five-year plan were due to more fundamental weaknesses in the Soviet system.

<sup>66</sup> For data on the performance of the Soviet industry, see *Chernaya* (1935); for international comparisons, see *ZI*, November 7, 1933 (Lauer), January 26, 1934 (article by Zvorykin, Rishin and Abramov; on Abramov see pp. 293–4 above). These conclusions broadly concur with those of the survey article in *BP* (Prague), cxi (January 1934), 5–6.

<sup>67</sup> *ZI*, January 26, 1934.

## (E) LOCATION OF INDUSTRY

In the 1920s, as before the revolution, modern industry was primarily located in four main regions. The Central Industrial region round Moscow mainly produced consumer goods. In three regions heavy industry was well developed. The engineering industries were concentrated in the North West region round Leningrad. The charcoal-based iron industry had been established in the Urals in the eighteenth century, and this region was now technically backward. The centre of coal mining and the modern iron and steel industry was in Ukraine. Factory industry was almost entirely absent in Central Asia and Kazakhstan, in Siberia, and in many of the provinces of European Russia; the Transcaucasus had little modern industry apart from its internationally famous oil industry. (See vol. 3, pp. 23–8.)

The five-year plan launched what was intended to be a fundamental shift in industrial location; a large volume of 600 pages dealt with the regional aspects of the plan.<sup>68</sup> Three principles underpinned Soviet location policy. First, on social and political grounds it was essential to bring about 'the economic and cultural advance of national republics, and backward areas and regions'.<sup>69</sup> As a result of planned socialist industrialisation, the Soviet Union would catch up the advanced capitalist countries, and the backward republics and regions would catch up the more advanced regions of European Russia. The Communist Party did not hesitate to describe Central Asia and similar areas as 'backward'. They were backward in the level of their productive forces; industrial and agricultural output per head of population were far lower than in the more advanced regions. Most of the population was illiterate, and modern medical services hardly existed. The national regions were also seen as backward in their social and economic structure, because they were largely in a pre-capitalist stage of development; the October revolution would enable them to advance from poverty and feudal exploitation to socialism, without going through capitalism first.

<sup>68</sup> *Pyatiletnii plan* (1930), iii (*Raionnyi razrez plana*).

<sup>69</sup> *KPSS v rez.* (1954), ii, 573 (XVI party conference resolution on the five-year plan, April 1929).

The second principle of location policy was that the rich untapped natural resources of the Soviet hinterland should no longer be neglected. In Kazakhstan, for example, according to the five-year plan:

industries of general importance to the USSR and favoured with local natural resources (non-ferrous metals, oil and chemicals) can make a decisive shift to large-scale production, while simultaneously local industry based mainly on reworking local agricultural raw materials can also develop considerably. This approach fully corresponds to the general principles of industrialisation, to the natural resources of Kazakhstan and to its local interests.<sup>70</sup>

Thirdly, defence considerations made it essential to develop industry far from the frontiers, where it would be free from the threat of invasion and aerial bombardment; the Central Asian republics, Kazakhstan and West Siberia were all conveniently located in this respect.

Practical exigencies militated against the consistent application of these principles. Pre-revolutionary experience, and any dispassionate contemporary calculation of costs, showed that it was cheaper to develop industry in Ukraine, and still cheaper in Leningrad, where many families had industrial experience, and rail transport and other facilities were much better developed. And if defence needs made it essential to develop heavy industry away from the frontier, the Urals and West Siberia could be developed much more easily than more backward Central Asia and Kazakhstan. Nevertheless, the five-year plan provided that industry should be expanded more rapidly in the main under-developed national regions than in the USSR as a whole.<sup>71</sup>

In the broadest terms, the location of industry followed the plan. (See Tables 5(d) and 16(b).) Industrial production, and the number of workers employed in industry, expanded more

<sup>70</sup> *Pyatiletnii plan* (1930), iii, 310.

<sup>71</sup> While production of Vesenkha-planned industry in the USSR as a whole was planned to increase by 168 per cent between 1927/28 and 1932/33, production in Central Asia was planned to increase by 188 per cent and in Kazakhstan by 332 per cent. Production in the Urals was also planned to expand rapidly (+277 per cent), while production in Siberia and the Far East was planned to increase more rapidly than in any other region (+413 per cent). *Ibid.* iii, 554-5.

rapidly in Central Asia and Kazakhstan, and in the Urals and West Siberia, than in the rest of the USSR, while industry in Ukraine and the Central region expanded more slowly. In one significant respect, however, development did not follow the planned direction. The industry of Leningrad and the surrounding North Western region was scheduled to expand more slowly than Soviet industry as a whole; in fact it expanded much more rapidly. In the North West, unemployed labour and spare capacity were abundantly available at the beginning of the five-year plan. But, even after this surplus was absorbed, this region, industrially more advanced than anywhere else in the USSR, was easier to develop than any other, and in the desperate effort to fulfil the plan the temptation was not resisted.

Industry in Kazakhstan and Central Asia developed from a very low level. While 9.4 per cent of the Soviet population lived in these republics, they contained only 1.5 per cent of those employed in large-scale industry; and most industrial workers were Russians.<sup>72</sup> During the first five-year plan, the number employed in the large-scale industry of these regions increased from 52,000 to 158,000 (see Table 16(b)). Considerable efforts were made to train, and to exploit, young Kazakh and Central Asian workers. Several thousand Kazakhs were sent to the Donbass, Baku and the Urals to work in the mines; hundreds of Uzbeks were sent to the Central region to work in textile and agricultural engineering factories. Within the republics, many more indigenous workers were trained in short-term courses, or on the job by Russian workers.<sup>73</sup> In consequence, the proportion of Kazakhs and other indigenous nationalities increased rapidly.<sup>74</sup> But many new industrial workers came from the

<sup>72</sup> For industrial employment, see Table 16(b); for population (at the time of the December 1926 census) see *Nar.kh.* (1932), 402–3.

<sup>73</sup> *Istoriya sovetского rabocheho klassa*, ii (1984), 210–11; *Istoriya industrializatsii* (Alma-Ata), i (1967), 367–9.

<sup>74</sup> Thus in the Kazakh republic the number of industrial workers increased as follows (thousands):

	<i>January 1, 1929</i>	<i>January 1, 1933</i>
Kazakhs	3.0	25.2
Other nationalities	9.7	34.4
	<u>12.7</u>	<u>59.6</u>

(estimated from data in *ibid.* i (1967), 401).

Russian Republic or Ukraine: special drafts of party members, young communists and other workers were persuaded and cajoled to migrate to such inhospitable locations as Karaganda in Kazakhstan and the textile combine in Tashkent.<sup>75</sup> The increase in the industrial working class in these areas took place against the background of the forcible transfer of a large part of Central Asian agriculture to the production of cotton, and the forcible settlement of the nomadic Kazakhs, many of whom died from starvation in the subsequent famine, or emigrated from Kazakhstan. In 1930 and 1931, peasant victims of dekulakisation, from the Russian Republic and Ukraine, and from within Kazakhstan and Central Asia, were deported as 'special settlers' or as prisoners in labour camps. In Kazakhstan alone by the end of 1931 some 45,000 ex-kulaks were labouring on construction sites, in the newly opened Karaganda coal-mines, and in agricultural settlements supervised by the OGPU.<sup>76</sup> Kazakh peasants, former nomads, fled or were sent in large numbers to Central Asia as well as to the Urals and elsewhere: by 1933 some 13,000 Kazakhs were working on the railways and in the factories of the neighbouring Kirgiz republic.<sup>77</sup> In the newly established industries of these areas, indiscipline and unrest were endemic. In the first four months of 1931, for example, 842 employees of the Turksib railway were arrested by the OGPU, including 500 categorised as ex-kulaks.<sup>78</sup>

In establishing industry in the underdeveloped areas, the needs of the USSR as conceived by the central authorities received overwhelming priority. While some factories for the reworking of farm products were constructed in accordance with the prescription of the five-year plan, their usefulness was mitigated by the disastrous decline of farming. Thus by the end of 1933, a meat combine, praised by Mikoyan as a giant modern factory designed by an American-Soviet team in Chicago, was well advanced in Semipalatinsk. But while it was being built the Kazakh cattle which were to furnish it with raw material had declined during

<sup>75</sup> *Istoriya sovetskogo klassa*, ii (1984), 211.

<sup>76</sup> Ivnikskii (1972), 305.

<sup>77</sup> *Osushchestvlenie* (Frunze, 1976), 203.

<sup>78</sup> *Istoriya industrializatsii* (Alma-Ata), i (1967), 271-2; the arrests amounted to 1.8 per cent of the labour force.

the disastrous collectivisation drive to less than a quarter of their previous numbers.<sup>79</sup>

The pressing needs of the industrialisation drive in these republics involved a major shift in investment as compared with the five-year plan. For Kazakhstan, the plan approved in 1929 envisaged only a modest investment in the Karaganda coal-mines – 14 million rubles, leading to an output of 120 thousand tons in 1932/33.<sup>80</sup> But in 1930–1 the needs of the Magnitogorsk works, greatly expanded as compared with the plan, led to the adoption of an emergency plan for Karaganda; a STO decree on September 9, 1931, envisaged that production would reach 3.5 million tons in 1932 and at least 12 million tons in 1934.<sup>81</sup> This was a fantasy: in spite of all efforts, output reached only 0.7 million tons in 1932 and 1.8 million in 1934. The maximum pre-war output was 6.3 million tons in 1940.<sup>82</sup> While both investment and production in the Kazakh coal industry exceeded the original five-year plan,<sup>83</sup> all other industries, with the exception of the chemical industry, lagged far behind.<sup>84</sup> All the major projects except the Karaganda coal mines were greatly delayed: some 80 per cent of the industrial investment carried out in Kazakhstan during the five-year plan took place in the last two years of the plan. As a result, the regional party committee reported that ‘the serious process of industrial capital construction began in Kazakhstan only in 1931’ – the projects completed during the plan were ‘mainly small enterprises which do not determine the decisive direction’ of Kazakh industrialisation.<sup>85</sup> The railway line from Karaganda to Balkhash was still in process of construction in 1933; the copper mine and plant at Balkhash, due for completion in 1933/34, had to be serviced by a handful of

<sup>79</sup> The number of cattle in Kazakhstan amounted to 7.3 million in 1927/28 and 1.7 million on July 1, 1933; the number of sheep and goats declined from 22.5 to 2.9 million, a mere 13 per cent of the 1927/28 level. (*Pyatiletnii plan* (1930), iii, 588–9; *Sots. str.* (1935), 368–9.)

<sup>80</sup> *Pyatiletnii plan* (1930), iii, 309.

<sup>81</sup> *Istoriya industrializatsii* (Alma-Ata), i (1967), 279.

<sup>82</sup> *Promyshlennost'* (1936), 134–5; *Promyshlennost'* (1957), 142.

<sup>83</sup> Investment in the coal industry amounted to 53 million rubles (*Istoriya industrializatsii* (Alma-Ata), i (1967), 414).

<sup>84</sup> *Istoriya industrializatsii* (Alma-Ata), i (1967), 414, 418.

<sup>85</sup> *Ibid.*, i (1967), 407–9 (dated December 15, 1933, printed from the local party archives).

lorries and camels, and were hardly begun.<sup>86</sup> And little progress was made in Uzbekistan and the other republics with the construction of cotton textile factories which were intended to turn the republics from suppliers of raw cotton into suppliers of finished textiles. During the first five-year plan, only some small spinning and weaving establishments were completed.<sup>87</sup>

In all these areas, the contrast between the small islands of modern technology and the vast oceans of poverty and squalor which surrounded them was particularly stark. In the summer of 1933 a Moscow visitor to East Siberia, a region afforded special priority in view of its defence importance, noted that the 'special constructions' for defence were developing well in a number of places and should be completed by 1935 or 1936. But skilled workers and engineers moved even to these priority projects 'very unwillingly', and frequently returned to the European USSR. Everywhere else, even in the towns, 'great backwardness' predominated. The railway stations were packed with 'wandering ragged people', including former peasants, workers who were changing jobs, and 'riff-raff'. Thefts and murders were frequent; criminal gangs of several hundred people operated in the Bratsk district. Disease was widespread. Even in the big towns there was no street lighting.<sup>88</sup>

Central Asian industry, and particularly industry in Kazakhstan, were particularly badly affected by the agricultural disasters of 1932–3. In 1932, with the exception of coal, the output of all products of the mining industry declined, even though the number employed in industry increased by 37 per cent.<sup>89</sup>

## (F) THE ROLE OF WESTERN TECHNOLOGY

In several of the key industries of the first five-year plan the Soviet Union had inherited substantial successful experience from the days of tsarism – notably in the iron and steel industry. But

<sup>86</sup> For the planned railway line and copper combine, see *Pyatiletnii plan* (1930), iii, 311–12, 318; for the difficulties of construction, see *Ocherki*, ii (Alma-Ata, 1962), 86; and p. 478 above.

<sup>87</sup> *Za rekonstruktsiyu tekstil'noi promyshlennosti*, 7, 1932, 4.

<sup>88</sup> GARF, 5446/27/24, 106–100 (letter from S. Petropavlovskii to Mezhlauk, dated September 10, describing his one month's visit in July–August).

<sup>89</sup> *Istoriya industrializatsii* (Alma-Ata), i (1967), 419–20, 422.

even in the iron and steel industry the new plants were constructed on a scale and at a technological level not previously known in Russia. The new chemical and copper-smelting plants, and the Dnepr hydro-electric power station, also provide examples of the establishment of a technology far in advance of previous Soviet experience. And with the construction of modern aluminium, combine-harvester, lorry, heavy engineering, ball-bearing and armaments factories, the Soviet Union, while sometimes building on small-scale development in the late tsarist and early post-revolutionary period, was venturing for the first time to adopt on a large scale the advanced new technology developed in the United States and Western Europe during and after the first world war. The extremely rapid development of these industries which took place in the early 1930s would not have been possible without technical assistance and the import of capital equipment from the industrialised countries.

In the first two years of the plan, Soviet officials travelled to the United States, Germany and elsewhere to visit factories, to negotiate technical assistance contracts for the major projects, and to purchase equipment. Young Soviet engineers spent substantial training periods in United States' and German factories. The number of technical contracts reached a peak by the end of 1930, when 124 were in force. Most major new plants – including iron and steel works and tractor factories – were Soviet adaptations of Western designs, largely built to Western drawings and specifications.<sup>90</sup> Foreign firms prepared the designs for most of the major new plants, but the Soviet authorities insisted that the foreign specialists should work directly with Soviet specialists in all stages of the work. Contracts were normally negotiated competitively with more than one foreign design company, and the Soviet side made direct arrangements themselves with all the foreign companies involved in a project. The close involvement of Soviet managers and engineers in all design decisions frequently resulted in indecision and confusion. But from the Soviet point of view it had the merit of keeping decisions in Soviet hands, and of training inexperienced Soviet personnel to take over design work themselves.

<sup>90</sup> On the technical-assistance contracts, see vol. 3, pp. 36, 124–5, 216–18.



The collaboration was far from smooth. In the course of 1931–2, many contracts were broken off; the number in force declined from 124 on January 1, 1931, to 74 on January 1, 1932, and 46 on March 1, 1933.<sup>91</sup> Western engineers complained that inexperienced Soviet engineers were permitted to make harmful changes in their designs, and that political interference was rife. For their part the Soviet authorities criticised the caution and conservatism of Western specialists. Once construction was under way, they frequently sought to economise on foreign currency by cancelling contracts or failing to renew them. In May 1931, the Politburo sharply criticised the ‘extremely unsatisfactory situation and complete lack of organisation’ in the arrangements for technical assistance to industry, which had often led to ‘the simple enrichment of foreign firms’; it called for contracts with a list of firms to be abrogated, and insisted on more stringent controls of the contracts, under the supervision of the OGPU.<sup>92</sup> Later in the same month a STO decree cancelled ten contracts and insisted on more stringent conditions for many others.<sup>93</sup> But on several of the most important projects foreign technical assistance was so essential that, in spite of all vicissitudes, ways were found of continuing it throughout the construction period. At Magnitogorsk, relations between the McKee Co. and the Soviet authorities were so tense that the original contract was broken, the activities of the McKee Co. were restricted to the furnaces and mines, and Soviet organisations took over all the auxiliary services. But new contracts were made for the rolling mill and the coke plant with two German firms and a second American firm. Further disputes followed, but the revised contract with McKee was not finally broken until October 1932, when most of the plant was already built.<sup>94</sup>

Large numbers of foreign engineers and skilled workers were

<sup>91</sup> VI, 7, 1968, 187; Kasyanenko (1966), 145.

<sup>92</sup> RTsKhIDNI, 17/162/10, 28, 30–2 (session of May 5, item 16).

<sup>93</sup> Kasyanenko (1966), 145; see also Cooper (1975), 185–7.

<sup>94</sup> See *Magnitostroi* (1934), 3; Scott (1942), 69. In August 1932, the Politburo instructed Pyatakov to enquire into the possibility of breaking the contract with McKee ‘without sharpening relations’. Pyatakov’s negotiations were apparently successful: in October, the Politburo accepted Pyatakov’s proposal to break the contract (RTsKhIDNI, 17/162/13, 62, 129 – session of August 16, item 38, decision of October 16, no. 81/54). The chronology of the various versions of the story is not entirely the same.

involved in constructing the new mines and factories and putting them into operation. Some foreigners worked within the framework of the contracts with foreign firms, many others were hired independently. When the five-year plan began in the autumn of 1928, only 379 foreign specialists and 505 foreign workers were employed in the Soviet Union.<sup>95</sup> But by 1932, according to Soviet estimates, there were as many as 9,200 specialists and 19,800 workers, a scattered community, including their families, of some 35,000 people.<sup>96</sup> A hundred or more foreign engineers and workers were employed at every major construction site and in the first stages of the operation of every major new factory.<sup>97</sup> The presence of foreign engineers in major factory departments, and of large groups of foreign workers on the factory floor, undoubtedly played a considerable role in accelerating the assimilation of advanced technology. In the Nizhnii-Novgorod factory, for example, the foreign workers were highly skilled, and played a major part in training Russian workers; 35 of 181 foreign staff were appointed as foremen.<sup>98</sup>

Foreign engineers played an important part not only in the design and construction of new factories but also in the design of new products manufactured by both old and new factories. The 'Lenin' metal works and the Putilov works in Leningrad developed the production of steam turbines in 1928–32 under licence from Metro-Vickers, and under the supervision of Metro-Vickers staff; the large 24,000 kW turbine made in the USSR for the first time in 1930 received its principal components from the Trafford Park factory in Manchester.<sup>99</sup> Even as late as the beginning of 1933 the Central Design Bureau of the machine-tool industry employed 11 foreign and 25 Soviet designers; one of the principal foreign designers, an American, was responsible for heavy machine tools and equipment for locomotive shops.<sup>100</sup>

<sup>95</sup> Kolomenskii (1930), 17.

<sup>96</sup> VI, 7, 1968, 187; *Leninskii plan* (1969), 205.

<sup>97</sup> Thus more than 150 were employed at Elektrozavod (ZI, May 1, 1932), 200 at Rostsel'mash, 134 at the Berezniki chemical combine (ZI, April 9, 1932), and 181 at the Nizhnii-Novgorod vehicle works (*Istoriya industrializatsii* (Gor'kii, 1968), 183).

<sup>98</sup> *Istoriya industrializatsii* (Gor'kii, 1968), 183–7 (undated report, written some time after October 31, 1932).

<sup>99</sup> *Machinery*, vol. 94, January 21, 1959, 165–6 and April 8, 1959, 777–8.

<sup>100</sup> See Cooper (1975), 346.

Similar arrangements existed in the armaments industries. Thus in 1930 a special commission headed by Khalepskii visited the United States and Britain to study the tank industry; the Soviet Union purchased Vickers and Christie tanks, and in 1931 decided to produce Soviet tanks based on these designs.<sup>101</sup> Before the Nazis came to power in 1933 'a large group of German specialists' worked at Soviet artillery factories.<sup>102</sup> At the end of 1929, the head of the Red airforce, Baranov, and the aircraft designer, Tupolev, visited the United States to purchase air-cooled aero-engines; and French and American aero-engines were built in several Soviet factories under licence.<sup>103</sup> Much of the activity of such product design bureaux was concerned with the analysis, adaptation and selection of existing foreign products: in every industry most new Soviet products were adaptations of foreign models.

In all the new and modernised industries, much of the most important machinery was imported from abroad, mainly from the United States, Germany and Britain. Five of the six generators installed in the Dnepr hydro-electric station were imported from the United States (see p. 411 above);<sup>104</sup> at other large power stations the generators were supplied by Metro-Vickers and other Western firms.<sup>105</sup> In the absence of a Soviet heavy engineering industry capable of supplying capital equipment to the iron and steel industry, blast-furnaces, open-hearth furnaces and rolling mills, among the largest and most up-to-date in the world, were all imported from Germany and the United States during the first five-year plan.

The best general data on machinery imports are supplied by the thorough census of the stock of capital equipment carried out on April 10, 1932 (partly revised to include data up to the end of 1933).<sup>106</sup> This showed that most of the machine tools used in both

<sup>101</sup> See Cooper (1976), 12–13.

<sup>102</sup> *Sovetskii tyl* (1974), ii, 117.

<sup>103</sup> See Sutton (1971), 220, 227–30; Kerber (1973), 80–2.

<sup>104</sup> Ribardiére (n.d. [1933]), 85–6.

<sup>105</sup> Sutton (1971), 169.

<sup>106</sup> The part of the census referring to the machine-building and metal-working industry was published in 1935 by TsUNKhU in five volumes containing 600 pages of tables and annotations under the general titles *Perepis' oborudovaniya promyshlennosti SSSR, 1932–1934gg. Oborudovanie metalloobrabatывayushchei promyshlennosti*. Kristin, head of the sector of industrial records of

pre-revolutionary and Soviet industry were imported. Of the pre-revolutionary machine tools still in use in Soviet industry on April 10, 1932, 75.7 per cent had been imported. During the three-and-a-quarter years between January 1, 1929 and April 10, 1932, the machine-tool stock increased by 68 per cent; of the additional 73,182 machine tools supplied to industry, 58.1 per cent were imported. In the engineering industry, the proportion imported in 1929–32 was even higher.<sup>107</sup> Moreover, these figures do not fully reflect the role of imported machines, which tended to be both more sophisticated and more powerful than those manufactured in the USSR: for example, while 65.4 per cent of machine tools supplied to the engineering industry between January 1, 1931 and April 10, 1932 were imported, as much as 80.8 per cent of the total additional horsepower came from imported machines.<sup>108</sup> The ‘coat sewn on to the button’ was largely of foreign manufacture. Towards the end of the period, owing to the balance of payments crisis, the role of imports declined. In 1933, only 56.5 per cent of machine tools were imported in the engineering industry; as Soviet production did not increase in 1933, the stock of machine tools increased more slowly.<sup>109</sup> A machine-tool conference held in 1933 prematurely announced that ‘the import of machine tools, as a mass import, has passed into a fable, it must be forgotten’.<sup>110</sup> In fact, although imports were reduced still further after 1933, several thousand machine tools were imported annually throughout the rest of the 1930s.

While Soviet industry relied heavily on the more advanced capitalist West for know-how and capital equipment during the first five-year plan, the urgent need for ‘economic and technical independence’ was never forgotten. In several modern industries, pre-revolutionary Russia already had its own successful design as

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TsUNKhU, and Podgaetskii were in charge of the census; the informative annotations were written by the well-known economist Kvasha. A further census covering all industrial equipment was carried out in November 1934, but never published in detail.

<sup>107</sup> *Oborudovanie* (1935), i, 49–50.

<sup>108</sup> *Ibid.* i, 55; for the even higher proportion of imported semi-automatic and automatic types of various machine tools, see *ibid.* 67–9.

<sup>109</sup> *Ibid.*, i, 32, 60–5.

<sup>110</sup> *Sovetskie arkhivy*, 3, 1982, 28, citing the archives.

well as production capacity; thus Russian industry designed and produced its own locomotives and aircraft before 1917. This independent design capacity was damaged but not destroyed after the revolution by the collapse of the economy and the emigration of senior specialists. In 1929 the leading locomotive and aircraft specialists were arrested and the main aircraft and locomotive design bureaux were transformed into 'prison bureaux' under the OGPU (see pp. 36–7 above). But this unpleasant arrangement did not prevent progress. The Soviet Union acquired and experimented with foreign locomotives in the first years of the five-year plan, and even adapted the United States' heavy 23-ton freight locomotive. But this was eventually rejected as too sophisticated and too heavy for Soviet conditions, and the Soviet-designed FD 20-ton locomotive, originally known as 'TO-OGPU', became the main locomotive of the 1930s; a prototype was built in 1931, and production began in 1933.<sup>111</sup> In the Central Design Bureau for aircraft at the 'Menzhinsky' factory in Moscow, Polikarpov designed the VT-11 (I-5) fighter aircraft; this eventually became the main fighter to be produced in the early 1930s.<sup>112</sup>

In a wider range of industries where know-how and production capacity were absent or limited, the early 1930s were years in which Soviet specialists – and Soviet workers – acquired, or began to acquire, the ability to manufacture advanced Western products, and to adapt their design to Soviet conditions. In the iron and steel industry, while most of the key equipment had to be imported until the completion of the heavy engineering works at Sverdlovsk and Kramatorsk, one of the five new blooming mills installed in 1930–3 was manufactured at the Izhora works near Leningrad (see p. 22 above). The last of the six large generators installed at Dneproges was manufactured in the USSR (see p. 411 above). By 1933, electrical engineering

<sup>111</sup> Westwood (1982), 97–9; ZI, November 28, 1933. The latter source wrongly states that the FD model was approved at the end of 1930, but even early in 1932 the planners still intended that the 23-ton locomotive should be the main one to be produced (see, for example, Levin (1932), 77). The locomotive was designated 'FD' after Feliks Dzerzhinskii, head of the Cheka/OGPU from its foundation in 1917 until his death in 1926.

<sup>112</sup> Nemecek (1986), 10–11; Shavrov (1978), 409–11. The success of the locomotive and aircraft design bureaux was rewarded by their liberation from OGPU control.

factories in Leningrad, Moscow and Kharkov had greatly expanded the range and sophistication of their production; Monkhouse, one of the Metro-Vickers engineers put on trial in April 1933 (see pp. 337–9 above), wrote in relation to the electrical industry that ‘the achievements of the Soviet authorities in the field of industrial development during the four years 1929–1932 have without question been astonishing’.<sup>113</sup>

In the aircraft industry, in the 1920s both the design and the production of airframes were far more advanced than the production of engines; Soviet engine designs were copies, with minor modifications, of low-power foreign models.<sup>114</sup> The early 1930s saw a determined effort to overcome the backwardness of both the design and the production of aero-engines. In 1930 a group of aircraft engineers who were party members complained in a note to the central committee that none of the forty aircraft engines designed within the USSR in 1917–29 had been installed in an aircraft, and called for the establishment of experimental manufacturing facilities; after the intervention of the Politburo a central institute for aircraft engines, TsIAM, was established in Moscow.<sup>115</sup> Soviet experiments with rocket engines were also quite advanced. The small-scale experiments during the first five-year plan, partly carried out by volunteers in their spare time, were consolidated with the establishment of the rocket research institute in October 1933.<sup>116</sup> At first, most airframe design was undertaken in the central design bureau under the OGPU, and in the bomber-design group in the long-established aircraft research institute TsAGI. But by 1933 a substantial number of design bureaux had been established under various auspices.<sup>117</sup> By this time the parallel competitive design of alternative models was already a successful feature of the aircraft industry.

The balance of payments crisis accelerated the Soviet effort to replace the import of capital equipment and technical assistance

<sup>113</sup> Monkhouse (1933), 191; for his impressions of the industry, see pp. 185–204. For informative Soviet descriptions of the industry, see P, January 25, ZI, April 22, December 27, 1933; for a critical account of work practices and working conditions at Elektrozavod, Moscow, by an American worker, see Smith (1937), *passim*.

<sup>114</sup> Davies, ed. (1990), 203 (Cooper and Lewis).

<sup>115</sup> *Byli industrial'nye* (1970), 110–17 (Charomskii).

<sup>116</sup> Astashenkov (1969), 49–67.

<sup>117</sup> Lewis (1979), 134–6; Shavrov (1978), 408–9.

by independent Soviet production. The rapidly growing machine-tool industry at first concentrated on the mass production of a few relatively simple machines. In 1931 specialised machine-tool factories produced only 18 types of machine, and six models accounted for 69 per cent of all specialised production.<sup>118</sup> But the Soviet industry did not yet produce the high-productivity machine tools required by the tractor, vehicle and aviation industries. A campaign to increase the production of new machine tools formed part of the drive to reduce machinery imports at the beginning of 1932. In April, Alperovich, head of the Machine-Tool Corporation, reported to a session of the Narkomtyazhprom collegium that new models would constitute one-third of all output in 1932. Ordzhonikidze strongly supported the new strategy:

It is essential to transfer decisively to production of the latest machine-tool designs, without fear of a possible 'hold-up' due to the transfer of production of the best models. We do not need out-of-date models.<sup>119</sup>

Two months later, on June 1, 1932, a Narkomtyazhprom order called for production of a range of more sophisticated machine tools.<sup>120</sup> Alperovich's optimistic goal was not achieved for several years; but in 1932–3 production of the simpler machines was reduced as the effort began to bring the new models into production. During the first five-year plan, machine-tool research, design and experimental facilities were considerably increased, and in 1933 research and development were brought together in the Experimental Scientific Research Institute for Machine Tools, ENIMS, which incorporated the main design bureau for the industry and had its own experimental factory attached;<sup>121</sup> machine tools also continued to be designed and tested at the main factories.

<sup>118</sup> Estimated from data in Cooper (1975), 551–4; 8,962 out of a total of 16,658 machines were made in the specialised industry, the rest outside the industry (*ibid.* 531).

<sup>119</sup> ZI, April 6, 1932.

<sup>120</sup> See Cooper (1975), 67–9, 121–3, 361–3. For the earlier debate about mass production of universal machine tools versus batch production of special machine tools, see vol. 3, pp. 223–4.

<sup>121</sup> See Cooper (1975), 304–5.

Thus in several major industries strong R and D facilities had been built up by the end of 1933. The Soviet authorities were confident that their planned state industries would now outpace capitalist industry in innovation as well as in production. In the ensuing decades these expectations were put to the test.



## TABLES

*Note:* in all tables, — = not applicable.

n.a. = not available in sources used.

( ) = calculated as residual by present author.

Metric tons (tonnes) are used throughout the volume.

Table 1. National income, 1928–1933 (million rubles)

(a) By sector of origin (million rubles at 1928 prices)

	1928	1929	1930	1931	1932	1933 <sup>a</sup> (approx.)
Census industry	5829	7874	10972	15160	18160	20998 <sup>b</sup>
Small-scale industry	1812	1662	1640			
Timber	1404	1696	1814	1686	1667	
Fishing	132	158	158	245	267	
Agriculture	10154	9986	10267	9900	9279	
Building	1870	2368	3348	5374	5428	4435 <sup>b</sup>
Transport (freight)	1411	1552	1809	1990	2193	2281 <sup>c</sup>
Trade	2736	3010	3509	3860	4254	4607 <sup>c</sup>
Public catering	80	111	162	300	700	875 <sup>c</sup>
Other (hunting, etc.)	619	562	726	704	704	1055
Customs duties	272	250	370	302	255	
Total	26318	29228	34778	39520	42909	44110 <sup>a</sup> 44325 <sup>a</sup>

Sources: RGAE, 1562/3/197, 21, except where otherwise stated.

Notes: The series for 1928–1932 is obtained from the archival file of Materials on the national income, 1931 and 1932. It was estimated, apparently in 1933, by the methods used in *Materials* (1985), which was issued in September 1932; the data for 1928–30 are slightly revised as compared with the data in *Materials*, reproduced in our vol. 3, p. 489. In 1934 TsUNKhU was in process of preparing revised national income estimates for 1931 and 1932; it claimed these had a fuller coverage than the above series. In the new estimates, the national income, in 1928 prices, amounted to 41,100 million rubles in 1931 and 44,544 million in 1932; the estimates for industry were increased by about 10 per cent and for agriculture had been somewhat reduced. But the rate of growth in 1932 is approximately the same in both series, except that in the new series building increases by 6.7 per cent as compared with 1 per cent in the above series. Data for 1928–30 have not been included in the new series.

The series in the archive, while undoubtedly exaggerating the rate of growth, consistently show a lower rate of growth than that in standard official published series for the national income in 1926/27 prices (see *Sots. str.* (1934), 20–1; *Sots. str.* (1935), xlv):

Annual rate of growth (per cent)						
	1929	1930	1931	1932	1933	1933 (1928 = 100)
Archival series in 1928 prices	11.1	19.0	13.6	8.6	(2.8–3.3)	168
Published series in 1926/27 prices	15.6	21.1	16.9	11.2	6.6	194

<sup>a</sup> This series is based on memoranda in the archives proposing estimates of the rate of growth of national income and of some major sectors of the economy, measured not in 1928 but in 1932 prices. For the total national income, one estimate suggests a rate of increase of 3.3 per cent in 1933 (from 82.5 to 85.2 milliard rubles) (RGAE, 1562/3/197, 29); another suggests 2.8 per cent (from 82.9 to 85.2 milliard rubles) (RGAE, 1562/3/137, 13). The sum of the individual sectors (44,412 million rubles) only roughly equals the totals derived from the two percentage rates of growth (2.8 and 3.3).

<sup>b</sup> According to RGAE, 1562/3/197, 29–30, industrial production measured in 1932 prices increased by 4.5 per cent in 1933, while building declined by 18.3 per cent. These coefficients have been applied to the figures for 1932 in 1928 prices.

<sup>c</sup> No new estimates have been traced for these sectors in the archives; the 1933 figures are based on the rate of growth for the sector in the published series in 1926/27 prices.

(b) By end-use (million rubles)

	1928 prices				1932 prices			
	1928 <sup>1</sup>	1929 <sup>1</sup>	1930 <sup>1</sup>	1931A <sup>2c</sup>	1931B <sup>3d</sup>	1932	1932A <sup>6</sup>	1932B <sup>7k</sup>
National income	25650 <sup>b</sup>	28379 <sup>b</sup>	33812 <sup>b</sup>	37934 <sup>b</sup>	(42051) <sup>b</sup>	(44070) <sup>b</sup>	89306	82931
Consumption	21306	22575	23177	22705	27765 <sup>ke</sup>	28227 <sup>6</sup>	64293	59535
Accumulation fund <sup>a</sup>	4345	5804	10635	15228	14286 <sup>4</sup>	15843 <sup>4</sup>	25013	23396
Real accumulation <sup>a</sup>	3697	4801	9230	13669	14029 <sup>5f</sup>	16512 <sup>5f</sup>	23516	20260
								20245 <sup>h</sup>

Sources: <sup>1</sup> *Materials* (1985), 127.

<sup>2</sup> *Ibid.* 95-6 (heading on p. 96 should read '1928 prices' not 'current prices').

<sup>3</sup> RGAE, 1562/3/135, 42 (dated February 1934).

<sup>4</sup> *Ibid.* 53 (dated approximately February 1934).

<sup>5</sup> RGAE, 1562/3/138, 4 (dated June 1934).

<sup>6</sup> RGAE, 1562/3/135, 59 (dated March 13, 1934).

<sup>7</sup> RGAE, 1562/3/137, 12 (n.d. - evidently prepared later than the other estimates).

<sup>a</sup> Accumulation fund = National income minus consumption (referred to by the Soviet sources as 'non-production consumption', i.e. consumption by individuals and institutions, not used in production).

<sup>b</sup> Real accumulation = Accumulation fund - Losses  $\pm$  Deficit/Surplus on Balance of Trade.

<sup>c</sup> Obtained as sum of consumption and accumulation, so does not precisely equal national income by sector of origin in Table 1(a).

<sup>d</sup> Preliminary estimate issued in October 1932.

<sup>e</sup> Revised estimate; not compared in source with 1928-30, which years have not been revised.

<sup>f</sup> Estimated on different basis from consumption in 1931A; in current prices 1931A is 33,381 and 1931B 45,555; evidently 1931B includes turnover tax whereas 1931A is 'net of excises'.

<sup>g</sup> Losses have not been deducted; 1932 figure is not compatible with 'Accumulation fund' figure in same column.

<sup>h</sup> The revised estimate 1932B is accompanied by a detailed table (on 11.7-20) of consumption totalling 30,416 million rubles for the non-agricultural population; this may be compared with 34,147 million in the estimate 1932A (RGAE, 1562/3/135, 59). No revision is made of estimates for earlier years. It should be noted that if 1932A is compared with 1933, national income in 1933 declines by 4.6 per cent. This is compatible with the substantial decline in investment in 1933, and the undoubted decline of consumption which took place in this famine year.

<sup>b</sup> According to RGAE, 1562/3/249, 1, this figure for 'real accumulation' includes 2,442 million rubles increase in the paper value of stocks as a result of the price increases in the course of 1932. 1,931 million rubles of the gap between the accumulation fund and real accumulation is due to the export surplus (measured at internal prices); and 2,569 million to losses and errors in the national-economic balance.

Table 2. Gross capital investment by branch of the economy (socialised sector), 1930-1933 (million rubles at current prices)<sup>a</sup>

	1930 <sup>1</sup> Fulfilment	1931 Plan <sup>2</sup>	1931 Fulfilment <sup>1w</sup>	1931 Fulfilment <sup>4</sup>	1932 Plan <sup>6</sup>	1932 Fulfilment <sup>4</sup>	1933 Plan	1933 Fulfilment <sup>11</sup>
Industry <sup>b</sup>	4280	6615	6663	6858 <sup>1</sup>	10058 <sup>p</sup>	9712	10109 <sup>7,8s</sup>	9461 <sup>t</sup>
Electrification: regional <sup>c</sup>	457	850	511	549	800	719		
Transport <sup>d</sup>	1682	3320	2601	2694 <sup>m</sup>	3480	3472 <sup>m</sup>	2976 <sup>8</sup>	3099
Communications	100	260	180	184	260	186	215 <sup>9</sup>	184
Trade <sup>e</sup>	341	592 <sup>j</sup>	596	260 <sup>n</sup>	654 <sup>4</sup>	351 <sup>n</sup>	308 <sup>7</sup>	703
Education <sup>f</sup>	237	377	239	239	300	250	300 <sup>9</sup>	234
Health and social security <sup>f</sup>	130	215	117	141	205	148	175 <sup>9</sup>	173
Municipal economy	268	400	270	336	680	465	560 <sup>9</sup>	562 <sup>u</sup>
Urban housing <sup>g</sup>	253	350	320	352	300	433	220 <sup>10</sup>	395
Administration	96	240	202	243	(131) <sup>r</sup>	310	(989) <sup>v</sup>	864 <sup>v</sup>
Total excluding agriculture	7843	13217	11699	11856	16868	16046	(15852)	15675
Agriculture (I): low series <sup>h</sup>	n.a.	3242 <sup>k</sup>	n.a.	2317 <sup>o</sup>	n.a.	2589 <sup>o</sup>	2148 <sup>7,8</sup>	1864 <sup>o</sup>
Agriculture (II): high series <sup>i</sup>	2622	4090 <sup>3</sup>	4079	3910 <sup>5</sup>	4255	4432 <sup>5</sup>	n.a.	4842 <sup>5</sup>
Total including								
Agriculture (I)	n.a.	16459	n.a.	14173	n.a.	18635	8000 <sup>8</sup>	17539
Total including								
Agriculture (II)	10465	17307	15778	15766	21123	20478	n.a.	20517

- Sources: <sup>1</sup> *Materials* (1985), 426–30.  
<sup>2</sup> *Narodno-khozyaistvennyi plan 1931* (1931), 90, except where otherwise stated.  
<sup>3</sup> *Ibid.* 50.  
<sup>4</sup> *Sotsialisticheskoe stroitel'stvo* (1935), 464–5, except where otherwise stated.  
<sup>5</sup> *Ibid.* 287.  
<sup>6</sup> *Nashe stroitel'stvo*, 2, 1932, 58; *Otchet . . . 1932* (1932? [1933]), ob. zapiska, 170–9.  
<sup>7</sup> PKh, 1, 1933, 35–46.  
<sup>8</sup> *KPSS v rez.*, iii (1954), 185.  
<sup>9</sup> RGAE, 4372/30/28, 46–9 (report of Gosplan to Sovnarkom and STO dated December 31, 1932).  
<sup>10</sup> GARF, 5446/1/71, 50–63 (art. 23, dated January 5, 1933).  
<sup>11</sup> *Sotsialisticheskoe stroitel'stvo* (1936), 366–7.

- Notes: <sup>a</sup> Classification is normally by government department, so that expenditure is on department concerned, not on branch of economy, except where otherwise stated. Capital investment from own resources and labour of collective farmers and cooperatives, and value of labour participation in road construction, have been deducted from the 'Fulfilment' in each year so as to make this column comparable with the 'Plan' column.  
<sup>b</sup> Includes state industry and producer cooperatives.  
<sup>c</sup> Electrification on budgets of municipal authorities, industry, etc., appears as part of those items; for 1930 and 1931 this item includes agricultural and local stations.  
<sup>d</sup> Includes civil aviation, as well as rail, water, road and (incompletely) local transport.  
<sup>e</sup> Consumer cooperatives, foreign trade and other items; the changes in the classification of data under this heading are particularly impenetrable.  
<sup>f</sup> Education and health investment by industry, transport, etc., appears as part of those items.  
<sup>g</sup> Municipal and cooperative housing only; large housing expenditures were included in industrial investment, and smaller amounts under other items.  
<sup>h</sup> Includes budget allocations excluding cost of purchase of animals, so also excludes investment by work and funds of collective farmers and kolkhozy, and value of growth of animals. These data are given by branch of economy, not by commissariat.  
<sup>i</sup> Includes agricultural buildings, implements and machinery, investment in power stations and auxiliary industry, housing, land consolidation, purchase of animals, growth of animals. These data are given by branch of economy, not by commissariat.  
<sup>j</sup> Narkomsnab, Narkomvneshtorg and consumer cooperatives (excluding industry).  
<sup>k</sup> 4090 (total, see following row) less purchase of animals, value of growth of herd, and 370 million rubles' value of labour of collective farmers, plus 80 million rubles for science and cadres. There may be

some double-counting in the deductions, as some of the labour may have been devoted to growth of animals (estimated at 210 million rubles in all).

<sup>l</sup> All state and cooperative industry.

<sup>m</sup> Includes investment in industrial output from transport organisations.

<sup>n</sup> As note <sup>j</sup>; also includes expenditure on non-industrial investment of other cooperatives, and (where applicable) of Komzag.

<sup>o</sup> State budget allocation to agriculture less cost of purchase of animals and buildings; the deduction made here is too large, as part of the latter purchases was financed by the kolkhozy from their own funds (million rubles):

	1931	1932	1933
Budget allocation	3005	3051	2478
Purchase of animals and buildings <sup>A</sup>	688	462	614

<sup>A</sup> *Sots.str.* (1935), 287.

<sup>p</sup> Obtained by adding separate plan figures as follows (million rubles):

Heavy industry	7829
Light industry	416 <sup>B</sup>
Timber industry	482
Food industry	1158
Cooperatives	173 <sup>C</sup>

<sup>B</sup> Obtained from *Vypolnenie narodno-khozyaistvennogo plana*, June and January–June 1932, *Stroitel'stvo*, 4; this figure may be higher than that in annual plan.

<sup>C</sup> Industrial, invalid, fishing and hunting cooperatives from source<sup>5</sup>.

<sup>q</sup> Consumer cooperatives plus Narkomvneshtorg.

<sup>r</sup> This residual item is evidently too small; industrial investment may include some double-counting between cooperatives and other items; part of timber industry may have been classified with agriculture, so that further double-counting has resulted.

<sup>s</sup> Four People's Commissariats; 1932 fulfilment for this classification was 10,206 million rubles (*Sotsialisticheskoe stroitel'stvo* (1935), 466–7).

<sup>t</sup> Four People's Commissariats plus industrial cooperatives (200 million rubles).

<sup>u</sup> Includes Moscow underground construction (*Metrostroï*).

<sup>v</sup> Includes Administration; and evidently also includes various special allocations.

<sup>w</sup> Preliminary figures, classified by Soviet statistical agency by the same criteria as those used for 1928–29 in our vol. 3, table 2; and in this table for 1930.

Table 3. Gross capital investment in state and cooperative industry by type of industry, 1930-1933 (million rubles at current prices)

	1930 <sup>1</sup>	1931 <sup>1</sup>	1932 <sup>1</sup>	1933 <sup>1</sup>
Electric power <sup>a</sup>	395	550	719	609
Coal	309	599	782	561
Oil	350	415	452	483
Peat	72 <sup>2</sup>	139 <sup>3</sup>	164 <sup>3</sup>	123 <sup>3</sup>
Other	3 <sup>2</sup>	(24) <sup>b</sup>	(25) <sup>b</sup>	(110) <sup>b</sup>
Total fuel	(734) <sup>c</sup>	1177 <sup>3</sup>	1423 <sup>3</sup>	1277 <sup>3</sup>
Iron ore	35 <sup>2</sup>	73 <sup>3</sup>	90 <sup>3</sup>	104 <sup>3</sup>
Ferrous metals <sup>d</sup>	418	836	1422	1650 <sup>c</sup>
Non-ferrous metals	150	320	544	406
Vehicles and tractors	169	363	332	261
Rail and other transport	49	92	184	150
Agricultural	79	122	61	16
Machine tools	33	65	79	44
Electrical	72	100	150	94
Other	(456)	(779)	(1404)	(1183)
Total machine-building and metalworking <sup>f</sup>	858 <sup>2</sup>	1521 <sup>3g</sup>	2210 <sup>3</sup>	1748 <sup>3</sup>
Chemicals 'A' <sup>h</sup>	329 <sup>2</sup>	653 <sup>3</sup>	899 <sup>3</sup>	643 <sup>3</sup>
Coking chemical	63 <sup>2</sup>	170 <sup>3</sup>	188 <sup>3</sup>	159 <sup>3</sup>
Other heavy industry <sup>i</sup>	(165)	(813)	(1010)	(824) <sup>j</sup>
A. Total heavy industry	3147	6113	8505	7420 <sup>j</sup>
Textiles	193	122	144	209
Footwear	47	54	55	70
Other light industry <sup>k</sup>	(78)	(100)	(190)	(234) <sup>l</sup>
B. Total light industry <sup>m</sup>	318	276	389	513 <sup>l</sup>
C. Total timber and woodworking <sup>n</sup>	200	382	444	409 <sup>o</sup>
D. Total food and drink <sup>p</sup>	} 270	} 416	632	723 <sup>q</sup>
E. Komzag			118	93
F. Other state industry	—	8	16	83
G. Cooperative industry	179	213	328	352
Total large-scale industry (A-G)	4114	7407	10431	9593
Of which,				
'machinebuilding' armaments <sup>4</sup>	130	354	600	444
'chemical' armaments <sup>4</sup>	89	128	158	89
Total armaments <sup>4</sup>	219	480	758	533



Sources: <sup>1</sup> *Sots.str.* (1935), 466–9, except where otherwise stated.

<sup>2</sup> *Itogi VSNKh* (1932), 110–20.

<sup>3</sup> *Tyazhelaya promyshlennost', 1931–4* (1935), 9.

<sup>4</sup> See SS, xlv (1993), 597 (Davies), and RGAE, 4372/91/871, 67. The coverage of the data for 1930 is not as comprehensive as that for 1931–3; comparable increase in 1931 was 74 per cent (see p. 116 above).

Notes: The data from sources <sup>2</sup> and <sup>3</sup> are 'at actual cost (po fakticheskoi stoimosti)'; the data from source <sup>1</sup> are merely stated to be 'in prices of corresponding years', but are believed to have been calculated in the same way.

These data do not include a small item of expenditure on investment in small-scale industry, but they do include cooperative industry and some other industries omitted in vol. 3, table 4, and are, therefore, not strictly comparable with that table. Vol. 3, table 4, apparently does *not* include investment in armaments industries, except for October–December 1930.

<sup>a</sup> Regional power stations.

<sup>b</sup> This figure is a mere residual in 1931–3, and includes discrepancies between the individual items in sources <sup>1</sup> and <sup>2</sup>.

<sup>c</sup> Given as 754 in *Itogi VSNKh* (1932), which gives somewhat higher figures for coal and oil than those in our table.

<sup>d</sup> This figure is said to include investment in iron ore, but in 1931–2 is approximately the same amount as the figure in *Tyazhelaya promyshlennost' 1931–4* (1935), which does not include ore.

<sup>e</sup> Includes whole of Dneprokombinat. Investment in iron ore and manganese (104 million rubles, according to *Tyazhelaya promyshlennost' 1931–4* (1935)) has been deducted by us.

<sup>f</sup> Includes investment in the armaments industry, part of 'other machine-building'.

<sup>g</sup> Given in *Itogi VSNKh* (1932) as 1,404 million rubles.

<sup>h</sup> Includes investment in poison gas, explosives and other chemicals for military purposes.

<sup>i</sup> Includes paper, building materials and other industries.

<sup>j</sup> Includes 'ear-marked outlays (tselevye zatraty)', 670 million rubles.

<sup>k</sup> Includes matches, fats and perfumes, pharmaceuticals, ceramics, salt and printing.

<sup>l</sup> Includes ear-marked outlays, 15 million rubles.

<sup>m</sup> People's Commissariat of Light Industry.

<sup>n</sup> People's Commissariat of Timber Industry.

<sup>o</sup> Includes ear-marked outlays, 37 million rubles.

<sup>p</sup> Narkomsnab industry.

<sup>q</sup> Includes ear-marked outlays, 8 million rubles.

Table 4. Stock of machine tools in metalworking and machine-building industries by age of machine tool, January 1, 1934

<i>Date of installation</i>	<i>Number (thousands)</i>	<i>% of total</i>	<i>Horse-power (thousands)</i>	<i>% of total</i>
Before 1908	10.0	8.3	28.9	6.5
1908-17	22.7	18.8	74.8	16.8
1918-27	16.8	13.9	53.6	12.0
1928	4.5	3.7	14.4	3.2
All manufactured before Jan. 1, 1929	54.0	44.7	171.7	38.5
1929	6.5	5.4	20.1	4.5
1930	12.8	10.6	43.5	9.8
1931	19.3	16.0	71.4	16.0
1932	16.6	13.8	75.0	16.9
1933	11.5	9.5	63.4	14.2
Total installed 1929-33	66.7	55.3	273.4	61.4
Total of above: Jan. 1, 1934	120.7	100.0	445.1	100.0
Reported stock on Jan. 1, 1934	118.5		414.7	

*Source:* *Oborudovanie* (1935), ii, p. 16.

*Note:* The discrepancy between the total number of machine tools in the groups listed and the reported stock is partly because the date of manufacture of some machine tools is not known (these are omitted from the groups) and partly because machine tools withdrawn between the census date of

April 10, 1932 and January 1, 1934 are included in the groups but not in the reported stock (3,017 machine tools were withdrawn in 1932 and 4,099 in 1933 – *Oborudovanie* (1935), i, pp. 27, 32).

Table 5. Industrial production in value terms

(a) Gross production of industry, by industry, 1930-1933 (million rubles at 1926/27 prices)

	1930	1931	1932	1933	Total
	large-scale	large-scale	large-scale	large-scale	small-scale <sup>2e</sup>
Fuel and power	2092	2682	3038	3280	2
Iron and steel	1147	1185	1437	1711	0
Other metals <sup>1</sup>	382	385	462	538	0
Building materials and glass	633	755	838	759	34
Rubber and asbestos	339	462	621	615	0
Metalworking, etc.	1197	1321	1792	1792	381
Machine-building <sup>a</sup>	3772	6230	7616	9030	13
Chemicals <sup>a</sup>	774	1066	1165	1467	51
Woodworking <sup>b</sup>	1078	1254	1572	1655	134
Food, drink and tobacco	4810	5859	6627	7241	2747
Textiles: cotton	2943	3128	3526	3656	4
woollen	703	692	654	663	11
linen	324	225	216	216	0
silk	171	183	199	235	1
other <sup>c</sup>	272	281	510	527	51
Clothing and knitwear	2023	2708	2701	2759	81
Leather, fur and footwear	1606	1856	1952	1791	72
Paper and printing	500	504	594	691	25
China and earthenware <sup>1</sup>	71	89	119	126	12
Other <sup>d</sup>	(2862)	(3295)	(3192)	(3289)	(75)
Total	27699	34159	38831	42041	3694
Group A	14293	18479	21551	23743	593
Group B	13406	15680	17280	18298	3102
Total on 1913 definition	25837	32263	36878	39934	—
Group A	12664	16815	19852	21960	—
Group B	13173	15448	17026	17974	—

*Sources:* except where otherwise stated, *Promyshlennost'* (1936), 3–22.

<sup>1</sup> *Sots. str.* (1935), 14–15.

<sup>2</sup> *Sots. str.* (1935), 4–13.

*Notes:* This series, which includes state, cooperative and private industry, is continuous with the series in vol. 3, pp. 500–1, and the notes there should be consulted for the coverage of individual items.

<sup>a</sup> Includes armaments production (see Table 5b).

<sup>b</sup> From 1932 includes some auxiliary enterprises which were previously not recorded; the value of their production in 1931 was approximately 140 million rubles. Woodworking does not include timber-cutting and hauling (see note <sup>d</sup> below).

<sup>c</sup> From 1932 onwards includes felt and fulling industry, valued at 155 million rubles in 1932 and 140 million rubles in 1933.

<sup>d</sup> Includes timber-cutting and hauling, valued at 1,510 million rubles in 1932 and 1,564 million rubles in 1933.

<sup>e</sup> The data for small-scale industry (from a 1935 publication) are not entirely compatible with the data for large-scale industry (from a 1936 publication), but the differences appear to be minor. The data for small-scale industry do not include the fish industry, but do include timber-cutting and hauling (1.6 million rubles).

(b) Gross production of armaments, 1930–1933  
(million rubles at 1926/27 prices)

	1930	1931	1932	1933
Tanks	0	57	175	230
Aircraft	50	73	202	442 <sup>1</sup>
Guns, ammunition, etc.	(262)	(443)	(670)	(516)
Total classified as machinebuilding	312	573	1056	1188
Chemicals	72	110	110	101
Total	384	683	1176 <sup>a</sup>	1289

*Sources:* except where otherwise stated, see SS, xlv (1993), 596 (Davies).

<sup>1</sup> RGAE, 4372/91/2112, 37–6 (military output of Chief Administration of Aircraft Industry, so may include production other than aircraft).

*Note:* This table does not include (a) civilian production of armaments industry, amounting to 433 million rubles in 1930 and 802 million rubles in 1933, and (b) armaments production by civilian industry, the value of which is not known.

<sup>a</sup> Individual items add up to 1,166.

(c) Gross production of heavy industry by months and quarters, 1930-1933 (million rubles at 1926/27 prices)

	1930 Series 1 <sup>1a</sup>	1930 Series 2 <sup>2b</sup>	1931 Series 1 <sup>1a</sup>	1931 Series 2 <sup>2b</sup>	1932 Series 2 <sup>2b</sup>	1932 Series 3 <sup>3c</sup>	1933 Series 2 <sup>2b</sup>	1933 Series 3 <sup>3c</sup>
January	737	675	883	810	1115		1140	
February	736	680	837	780	1110		1115	
March	845	780	1006	925	1200		1280	
April	810	750	986	920	1195		1260	
May	800	740	959	910	1160		1280	
June	803	730	1047	1005	1180		1350	
July	782	720	1022	965	1150		1300	
August	814	745	1100	1020	1130		1360	
September	907	830	1144	1100	1210		1400	
October	891	825	1243	1185	1310		1480	
November	891	840	1177	1125	1215		1395	
December	1095	950	1279	1210	1380		1540	
January-March	2318	2135	2725	2515	3425	3371	3535	3485
April-June	2413	2220	2993	2835	3535	3467	3890	3803
July-September	2503	2295	3266	3085	3490	3440	4060	3989
October-December	2802	2615	3699	3520	3905	3847	4415	4473
Total for year	10035	9265	12683	11955	14335	14125	15900	15750
Total for year (Series 3)	8879 <sup>4</sup>			11657 <sup>4</sup>		14125 <sup>4</sup>		15750 <sup>4</sup>
Total for year (Series 3 including seasonal industries) <sup>d</sup>	9088 <sup>4</sup>			11916 <sup>4</sup>		14414 <sup>4</sup>		16009 <sup>4</sup>

Sources: <sup>1</sup> *Itogi VSNKh* (1932), 46–7.

<sup>2</sup> *Tyazhelaya promyshlennost' . . . ot XVI k XVII* (1934), 7.

<sup>3</sup> *Ibid.* 132.

<sup>4</sup> *Ibid.* 117.

Notes: All figures exclude seasonal industries except where otherwise stated (see note <sup>d</sup> below).

<sup>a</sup> Group A industry subordinate to Vesenkha in 1931.

<sup>b</sup> Industry subordinate to Narkomtyazhprom. Narkomtyazhprom was established in January 1932, and 1930–1 figures have been reclassified in the Soviet source to cover comparable industry (see, however, note <sup>c</sup> below). All the figures in Series 2 are *approximate*, as they have been estimated by the present author from a graph showing monthly output; I obtained quarterly and annual figures by adding these estimates of the monthly figures.

<sup>c</sup> Although these figures appear in the same sources as the graph used to derive Series 2, they differ somewhat from this series, especially the totals for 1930–1. Presumably the quarterly data in Series 3 have been adjusted downwards to take account of the transfer of industries/factories out of Narkomtyazhprom in 1932–3, and the earlier monthly figures in Series 2 are, therefore, relatively too high; it will be seen that the difference is at most 5 per cent.

<sup>d</sup> Seasonal industries include the peat industry, and that part of the brick and timber industries which was subordinate to Narkomtyazhprom.

(d) Gross production of large-scale industry by regions, 1928 and 1933  
(million rubles at 1926/27 prices)

	1928 <sup>1</sup>		1933 <sup>2</sup>	
	Amount	Per cent	Amount	Per cent
<b>RSFSR</b>				
Centre	6759	42.9	15843	37.5
North and North-West	2058	13.1	6742	16.0
South-East	1534	9.7	3964	9.4
Urals and West Siberia	1065	6.8	3458	8.2
East Siberia and Far East	275	1.7	718	1.7
<b>Total RSFSR</b> (excluding Kirgizia, Kazakhstan and Siberia)	11569 <sup>a</sup>	73.5	(30725)	72.7
Ukraine plus Crimea	2928	18.6	7607	18.0
Belorussia	205	1.3	821	1.9
Transcaucasus	616	3.9	1877	4.4
Central Asia	332	2.1	920	2.2
Kazakhstan	89	0.6	311	0.7
<b>Total USSR</b>	15746 <sup>b</sup>	100.0	42261	100.0

Sources: <sup>1</sup> *Industralizatsiya, 1938-1941* (1973), 191-5.

<sup>2</sup> *Sots. str.* (1935), 32.

Notes: The administrative regions of the RSFSR for 1933 have been regrouped by the present author, so they may not precisely correspond to the regions used in the source for 1928.

<sup>a</sup> Total adds to 11,691, presumably because part of the data for the economic regions refers to areas outside the RSFSR.

<sup>b</sup> Total adds to 15,861, presumably because certain regions have been double-counted in the source under economic areas of the RSFSR and under the other republics.

## (e) Indexes of industrial production, 1913, 1927/28–1933

## (i) 1913 = 100

	1927/28	1928	1929/30	1930	1931	1932	1933
Nutter:							
(in 1927/28 prices) <sup>1a</sup>	102		134		143	144	152
(with 1955 weights) <sup>2a</sup>	107		141		136	145	148
Official: all industry <sup>3</sup>		132		193	233	267	281
large-scale industry <sup>3</sup>		152		249	307	352	381

## (ii) Previous year = 100

	1931	1932	1933
Nutter: (in 1927/28 prices) <sup>1a</sup>	107 <sup>b</sup>	100	106
Moorsteen and Powell: all industry <sup>4b</sup>	107	104	107
Hodgman: large-scale industry <sup>5</sup>	118	105	111
Official: all industry <sup>3</sup>	120	115	105
large-scale industry <sup>3</sup>	123	115	108

Sources: <sup>1</sup> Nutter (1962), 525–6.

<sup>2</sup> Nutter (1962), 527–8.

<sup>3</sup> *Promyshlennost'* (1957), 31.

<sup>4</sup> Moorsteen and Powell (1966), 622.

<sup>5</sup> Hodgman (1954), 73.

Notes: For a General Note on these series, see vol. 3, p. 507.

<sup>a</sup> Excluding armaments and miscellaneous machinery.

<sup>b</sup> In 1937 prices.



Table 6. Industrial production in physical terms, 1930–1933

(a) Intermediate products

	1929/30	1931	1932	1933
Electric power (milliard kWh) <sup>1</sup>	8.3	10.7	13.5	16.4
Quality steel (th.tons) <sup>2a</sup>	227	422	683	888
Cement (th.tons) <sup>1</sup>	3006	3336	3481	2710
Building brick (million) <sup>1b</sup>	4750 <sup>c</sup>	4680	4900	3823
Window glass (m.m <sup>2</sup> ) <sup>3c</sup>	43.1	33.4	29.5	29.8
Sawn timber (m.m <sup>3</sup> ) <sup>4d</sup>	23.0 <sup>e</sup>	25.0	25.7	27.3
Roofing iron (th.tons) <sup>2</sup>	315	157	98	103

Sources: <sup>1</sup> *Promyshlennost'* (1936), 25–30.

<sup>2</sup> *Chernaya metallurgiya* (1935), 58.

<sup>3</sup> *Promyshlennost'* (1964), 343.

<sup>4</sup> Powell (1957), ii, 195–6.

Notes: For production of coal, oil and iron and steel see Table 7 below.

<sup>a</sup> For quality steel, see p. 304 above, and Clark (1956), 309–12. The definition of 'quality steel' was widened in 1933; on the older definition, production amounted to 146,000 tons in 1929/30 and 302,000 tons in 1931 (see *Sovetskaya metallurgiya*, 9–10, 1932, 588).

<sup>b</sup> This series apparently includes both large-scale and small-scale industry but excludes 'self-procurement' of bricks, primarily bricks manufactured by peasants for their own use. In 1930 total brick production amounted to 5,649 million, including 3,349 by large-scale industry, 1,126 by small-scale industry and 1,172 self-procurement (see vol. 3, p. 516, and *Materials* (1985), 349, which does not explain how the figure for self-procurement, not found in any other source, was estimated). According to Powell (1957), ii, 288, the figures for 1932 and 1933 include bricks produced by kolkhozy; excluding these, production amounted to 4,736 million in 1932 and 3,504 million in 1933.

<sup>c</sup> Includes both white glass (*bemskoe steklo*) and semi-white glass.

<sup>d</sup> These figures exclude 'self-procurement' of sawn timber by the rural population, but in 1930–2 have been increased above the normal published figures to include 'self-procurement' by state organisations (e.g. by Narkomput' for the railways, 1.4 million m<sup>3</sup> in 1930) (see *Materials* (1985), 454, and Powell (1957), ii, 211–14). According to *Materials* (1985), 344, total production in 1930 amounted to 32.9mm<sup>3</sup>, including 22.4 large-scale, 1.3 small-scale and 9.2 self-procurement (of the 9.2, 1.4 was by Narkomput') (see also vol. 3, p. 517).

<sup>e</sup> 1930.

## (b) Engineering industries

	1929/30	1931	1932	1933
Diesel engines (th.h.p.) <sup>a</sup>	103	158	96	92
Other engines (th.h.p.) <sup>b</sup>	163	181	452	996
Steam turbines (th.kW) <sup>c</sup>	24	208	239	635
Steam boilers (th.m <sup>2</sup> )	166	124	163	197
Generators (th.kW)	228	576	1164	737
Electrical machines (th.kW) <sup>d</sup>	807	1301	2036	1773
Metalcutting machine tools (units) <sup>1e</sup>	8228	18772	20510	23250
Looms (units)	4392	294	300	1928
Sewing machines (th.) <sup>2</sup>	538	503	328	282
Calculating machines (arithmometers) (th.) <sup>2</sup>	12.8	30.1	41.3	54.5
Typewriters (units)	0	139	1442	4021
Locomotives (units) <sup>f</sup>	828	944	1079	1329
Goods wagons (th. in 2-axle units)	21.0	23.4	23.1	21.6
Lorries (units) <sup>3g</sup>	3151	4005	23845	39465
Motor cars (units) <sup>3h</sup>	224	0	34	10259
Tractors (units)	9097	38105	50640	78138
Tractors (th.15h.p. equivalent units) <sup>i</sup>	6.9	28.9	50.4	81.3
Tractor ploughs (th.) <sup>4j</sup>	40	297	231	263
Horse-drawn ploughs (th.) <sup>4</sup>	1999	227	37	80
Bicycles (th.)	35	81	128	132
Clocks and watches (th.)	240	3002	3585	4122
Electric light bulbs (m.)	33	44	54	70

Sources: Except where otherwise stated, *Promyshlennost'* (1936), 25–30.

<sup>1</sup> *Promyshlennost'* (1936), 292.

<sup>2</sup> *Ibid.* 308.

<sup>3</sup> *Ibid.* 304.

<sup>4</sup> *Ibid.* 300.

Notes: <sup>a</sup> The coverage of this series is slightly wider than that given in vol. 3, p. 508, where production in 1929/30 is given as 99.4.

<sup>b</sup> This series includes oil engines (except diesels), including ships' engines, engines using light fuel, and vehicle and tractor engines. The latter began to be produced only in 1931; production amounted to 16th.h.p. (1931), 314 (1932) and 844 (1933). (For breakdown, see *Promyshlennost'* (1936), 285.) The coverage is slightly wider than that given in vol. 3, p. 508, where production in 1929/30 is given as 152.0.

<sup>c</sup> The output in 1929/30 was exceptionally low; output in 1928/29 was given as 82.0, but, unlike output in 1929/30, this included incomplete turbines (lacking condensers and auxiliary equipment) (see *Promyshlennost'* (1936), 285).

- <sup>d</sup> Includes AC and DC motors, engines for electric locomotives and trams, cranes, etc. (for breakdown, see *Promyshlennost'* (1936), 290–1). Coverage is slightly wider than in vol. 3, p. 508, where production in 1929/30 is given as 767.
- <sup>e</sup> Includes simple sharpening and polishing machine tools. Coverage is narrower than the series given in vol. 3, p. 508, where production in 1929/30 is given as 13,447 units for all metalworking machine tools.
- <sup>f</sup> Includes both main-line and industrial steam and electric locomotives.
- <sup>g</sup> Includes lorries using imported engines (1929/30 1,062; 1931 1,936; 1932 496; 1933 nil) and also chassis for buses and fire engines, but does not include lorries assembled from imported components (1929/30 2,171; 1931 13,398; 1932 1,207; 1933 nil) (*Promyshlennost'* (1936), 304).
- <sup>h</sup> Does not include motor-cars assembled from imported components (1929/30 223; 1931 3,170; 1932 326; 1933 nil) (*Promyshlennost'* (1936), 304).
- <sup>i</sup> Power on the hook – estimated from total h.p. A later series varies slightly from the above (*Promyshlennost'* (1957), 226).
- <sup>j</sup> Measured in terms of number of beams. In 1930 nearly all ploughs contained two beams; by 1933 four-beam ploughs predominated.

## (c) Armaments

	1929/30 <sup>1a</sup>	1931 <sup>2</sup>	1932 <sup>2</sup>	1933 <sup>2</sup>
Tanks and tankettes <sup>b</sup>	170	928	3347	3640
Aircraft <sup>b</sup>	899	1489	2487	4116
Aircraft engines <sup>3</sup> : number	1409	1610	4918	7771
th.hp.	448	573	1679	3111
Artillery pieces <sup>c</sup>	952	1823	2046	1797
Machine-guns (th.) <sup>c</sup>	9.7	48.7	68.9	32.7
Rifles and carbines (th.) <sup>c</sup>	126	184	286	241

Sources: <sup>1</sup> See Edmondson and Waldron, eds. (1992), 254–5 (Davies).

<sup>2</sup> RGAE, 4372/91/2527, 9 (report dated January 21, 1935).

<sup>3</sup> GARF, 8418/10/148, 47 (report to Molotov dated January 1935).

Notes: <sup>a</sup> These figures probably refer to 1929/30 rather than 1930, except in the case of aircraft engines; the report to Molotov gives substantially higher figures for tanks and aircraft in 1930, presumably because of the high level of production in October–December 1930.

<sup>b</sup> The figures for tanks and aircraft are higher than those given in Source <sup>1</sup> above, presumably because the latter include only the specialised tank and aircraft industry.

<sup>c</sup> Some of these figures are substantially different from those cited in Source <sup>1</sup>; no explanation has been found.

## (d) Consumer goods

	1929/30	1931	1932	1933
Finished cotton textiles (m.m.)	2351 <sup>a</sup>	2242	2417	2422
Finished woollen textiles (m.m.)	115 <sup>a</sup>	108	89	86
Linen textiles (m.m.)	186 <sup>a</sup>	140	136	143
Leather footwear (m. pairs):				
census industry	75.4 <sup>a</sup>	86.7	84.7	80.3
non-census industry	37.2 <sup>1a</sup>	n.a.	n.a.	n.a.
Household soap (th.t.)	207 <sup>a</sup>	212	261	177
Butter (th.t.)	41 <sup>a</sup>	83	72	124
Vegetable oil (th.t.):				
large-scale industry	318 <sup>a</sup>	321	410	287
Sugar (unrefined) <sup>b</sup> (th.t.)	823	1486	827	995
Confectionery <sup>c</sup> (th.t.)	241 <sup>a</sup>	504	511	429
Vodka (th.hectolitres) <sup>2</sup>	5852	7523	6857	6536
Beer (th. hectolitres)	3383	3920	4143	4315
Preserves (m.jars)	160 <sup>3</sup>	n.a.	906 <sup>d</sup>	900 <sup>d</sup>
Tobacco (th.t.)	33.1 <sup>a</sup>	43.9	49.9	48.4
Cigarettes (milliards)	61.7 <sup>a</sup>	64.8	57.9	62.7

Sources: Except where otherwise stated: *Promyshlennost'* (1936), 25–9.

<sup>1</sup> *Materials* (1985), 362.

<sup>2</sup> *Promyshlennost'* (1936), 612.

<sup>3</sup> See vol. 3, p. 509.

Notes: These figures do not allow for reduction in quality.

<sup>a</sup> 1930.

<sup>b</sup> Mistakenly listed as 'granulated' in vol. 3, p. 509.

<sup>c</sup> Data for 1930 and 1931 cover enterprises which in 1932 produced 83.2 per cent of all confectionery (so figures for these years should be increased by some 20 per cent for comparability with 1932 and 1933).

<sup>d</sup> Jars and cans in standard units containing 400g. Only 389,000 in 1932 and 383,000 in 1933 were hermetically sealed.

Table 7. Monthly industrial production in physical terms, 1930–1933

(a) Coal (thousand tons)<sup>a</sup>

	1930 <sup>1</sup>	1931 <sup>1</sup>	1932 <sup>2</sup>	1933 <sup>2</sup>
January	4361	4542	5941	5591
February	4257	3928	5593	5310
March	4787	4326	5814	6020
April	4411	4487	5535	5942
May	3991	4360	5144	5856
June	3936	4485	5151	6077
July	3414	4424	4863	6234
August	3019	4406	4541	6293
September	2910	4548	4611	6465
October	4085	5301	5146	6945
November	4404	5114	4816	6457
December	4789	5733	5791	7467
Total for year	48392	55653	(62945)	(74655)

(Sources to and notes to Tables 7(a)–(f) appear after Table 7(f).)

(b) Crude oil (thousand tons)<sup>b</sup>

	1930 <sup>1</sup>	1931 <sup>1</sup>	1932 <sup>1</sup>	1933 <sup>1</sup>
January	1256	1691	1877	1482
February	1137	1562	1740	1452
March	1358	1811	1969	1703
April	1460	1775	1865	1695
May	1545	1829	1914	1863
June	1494	1860	1853	1785
July	1596	2002	1847	1693
August	1629	2013	1821	1920
September	1646	1946	1657	2042
October	1722	1988	1705	2085
November	1728	1987	1575	1926
December	1785	1869	1559	1796
Total for year	18356	22331	21380	21441
Revised total (1936)				
excluding gas <sup>4</sup>	18451	22392	21413	21489
including gas <sup>4</sup>	18923	23162	22319	22458

## (c) Pig-iron (thousand tons)

	1930 <sup>1</sup>	1931 <sup>1</sup>	1932 <sup>3</sup>	1933 <sup>3</sup>
January	414	388	489	464
February	386	316	419	418
March	440	394	480	514
April	430	416	511	558
May	446	410	547	578
June	440	416	519	635
July	428	401	516	660
August	403	402	496	627
September	396	407	542	654
October	407	445	568	676
November	410	452	533	675
December	416	426	538	652
Total for year	5017	4871	(6158)	(7111)

## (d) Crude steel (thousand tons)

	1930 <sup>5</sup>	1931 <sup>5</sup>	1932 <sup>5</sup>	1933 <sup>5</sup>
January	500	487	540	479
February	458	382	486	440
March	510	468	513	499
April	492	486	521	515
May	514	483	526	530
June	488	470	487	574
July	463	435	460	581
August	453	438	433	603
September	473	475	467	635
October	492	500	478	671
November	518	494	495	658
December	503	500	522	652
Total for year	5864	5620	5927	6842

(e) Rolled steel (thousand tons)

	1930 <sup>5</sup>	1931 <sup>5</sup>	1932 <sup>5</sup>	1933 <sup>5</sup>
January	393	337	420	356
February	374	266	356	329
March	407	362	403	382
April	384	374	395	408
May	388	349	373	397
June	384	345	335	407
July	370	320	313	411
August	356	316	287	386
September	407	341	317	423
October	402	395	352	472
November	398	370	347	430
December	416	383	389	478
Total for year	4678	4159	4288	4882

(f) Tractors (units)<sup>c</sup>

	1930 <sup>1</sup>	1931 <sup>1</sup>	1932 <sup>1</sup>	1933 <sup>1</sup>
January	285	1673	5099	4770
February	405	894	5534	4620
March	579	2064	4351	5451
April	954	2621	5408	6830
May	1142	3481	2787	6539
June	1124	3492	1598	7142
July	1031	2716	3784	7299
August	732	3697	4137	7682
September	1275	3790	3814	7836
October	1633	4495	4637	7897
November	1403	4663	3512	4156
December	2168	5634	5101	8041
Total for year	12731	39220	49762	78263

Sources to Tables 7(a)–(f):

<sup>1</sup> *Osnovnye pokazateli*, 1933, 36–9.

<sup>2</sup> *Ibid.* 1935, p. xxi.

<sup>3</sup> *Ibid.* 1935, pp. xxxiv–v.

<sup>4</sup> *Promyshlennost'* (1936), 173, 171.

<sup>5</sup> *Chernaya* (1935), 63–4.

Notes: <sup>a</sup> These figures are in physical terms, including brown coal and anthracite. The equivalent figure in hard-coal equivalent is 53,680 (1931), 61,142 (1932) and 71,852 (1933) (*Promyshlennost'* (1964), 192).

<sup>b</sup> Excluding gas. These figures are for oil extracted; the percentage of oil processed was 87.7 (1930), 89.0 (1931), 94.4 (1932) and 85.9 (1933) (estimated from *Promyshlennost'* (1936), 173, 197).

<sup>c</sup> Rough monthly figures for 1932 and 1933 in *Osnovnye pokazateli*, 1935, p. xxvi, differ somewhat from those in the table, but the annual totals are approximately the same.

The increase in tractor production in horse-power equivalent was greater than the increase in physical terms, as the average h.p. per tractor (on the hook) increased from 11.4 in 1929/30 to 20.6 in 1933 (estimated from *Promyshlennost'* (1936), 27).

Table 8. Production and import of non-ferrous metals, 1929–1933  
(thousand tons)

		1929	1930	1931	1932	1933
Copper	Production	35.5 <sup>a</sup>	44.5 <sup>a</sup>	44.3	45.0	44.3
	Import	25.1	20.6	25.1	12.0	7.9
	Total	60.6	65.1	69.4	57.0	52.2
Zinc	Production	3.0 <sup>a</sup>	4.3 <sup>a</sup>	8.9	13.7	16.6
	Import	34.1	38.3	23.7	10.6	5.8
	Total	37.1	42.6	32.6	24.3	22.4
Lead	Production	5.5 <sup>a</sup>	8.6 <sup>a</sup>	15.5	18.7	13.7
	Import	44.3	50.2	41.9	33.8	16.4
	Total	49.8	58.8	57.4	52.5	30.1
Nickel	Production	-	-	-	-	-
	Import	1.0	2.9	3.8	4.0	3.5
	Total	1.0	2.9	3.8	4.0	3.5
Aluminium	Production	-	-	-	0.9	4.4
	Import	6.5	10.0	20.3	10.5	10.6
	Total	6.5	10.0	20.3	11.4	15.0

Sources: Production: *Promyshlennost'* (1936), 26–7;

Imports: *Vneshnyaya torgovlya* (1960), 311–12, 345.

Note: <sup>a</sup> Economic year 1928/29 or 1929/30.



Table 9. Allocation of rolled steel, 1931 (thousand tons)

(a) By end-user

	1. Claims (May 1931) <sup>a</sup>	% of total	2. Planned allocation (May 1931) <sup>a</sup>	% of total	3. Planned allocation (sum of quarterly plans)	% of total	4. Actual allocation	% of total	Col. 4 as % of col. 1	As % of col. 2	As % of col. 3
Vesenkha industry	5706	62.3	4181	57.3	4471	67.8	3461	66.7	60.7	82.8	77.4
District power stations	134	1.5	81	1.1	68	1.0	60	1.2	44.8	74.1	88.2
Special [defence]	362	4.0	304	4.2	365	5.5	242	4.7	66.9	79.6	66.3
Transport	1148	12.5	877	12.0	916	13.9	620	11.9	54.0	70.7	67.7
Narkomzem	235	2.6	94	1.3	89	1.4	59	1.1	25.1	62.8	66.2
Narkomsnab	149	1.6	56	0.8	61	0.9	44	0.8	29.5	78.6	72.1
Narkomvneshtorg	13	0.1	5	0.1	5	0.1	4	0.1	30.8	80.0	80.0
Narkom of Posts and Telegraphs	23	0.3	11	0.2	9	0.1	5	0.1	21.7	45.5	55.6
Tsentrosoyuz	12	0.1	5	0.1	5	0.1	6	0.1	50.0	120.0	120.0
Other	68	0.7	34	0.5	38	0.6	12	0.2	17.6	35.3	31.6
Union Total	7850	85.8	5646 <sup>b</sup>	77.4	6027	91.4	4512	86.9	57.0	79.9	74.9
Republics	1265	13.8	646	8.9	550	8.3	506	9.7	40.0	78.3	92.0
Market	22	0.4	2	0.0	0	0	0	0	0	0	0
Export	16	0.2	14	0.2	14	0.2	9	0.2	56.3	64.3	60.0
Not distributed/ reserve	—	—	987	13.5	n.a.	n.a.	163	3.1	—	16.5	—
Total	9153	100.0	7294 <sup>c</sup>	100.0	6591	100.0	5190	100.0	56.7	71.2	78.7
Of which, imports	—	—	870	11.9	—	—	1202	23.2	—	138.2	—

## (b) By origin and type of use

	<i>Claims (February)</i>	<i>Planned allocation (February)</i>	<i>Claims (May)</i>	<i>Planned allocation (May)</i>	<i>Planned allocation (sum of quarterly balances)</i>	<i>Actual allocation</i>
Internal production	n.a.	6153	n.a.	6224	n.a.	3729
Available surpluses <sup>d</sup>	n.a.	150	n.a.	200	n.a.	259
Imports	n.a.	870	n.a.	870	n.a.	1202
Total available	n.a.	7173	n.a.	7294	n.a.	5190
Type of use:						
For production	6450	5345	6145	4649	4815	4090 <sup>e</sup>
For construction	2322	1329	3008	1659	1776	1100 <sup>e</sup>
Reserve	0	500	0	987	0	? <sup>e</sup>
Total allocation	8771	7173	9153	7294	6591	5190

Source: *Sovetskaya metallurgiya*, 5-6, 1932, 305, 307, 308, 310, 312.

Notes: These figures exclude quality steel, and include some rejected production, unlike those in Table 7(e). An extensive commentary on these figures appears in *Sovetskaya metallurgiya*, 5-6, 1932, 306-14 (I.I.Spivak).

<sup>a</sup> The earlier series (February 1931) for Claims and Planned Allocation (*loc.cit.*) shows types of rolled steel but is not subdivided by end-user.

<sup>b</sup> Sum of individual items is 5648.

<sup>c</sup> Sum of individual items is 7297.

<sup>d</sup> Including mobilisation of internal resources; old rails, etc.

<sup>e</sup> These figures are approximate, as data were not available on the distribution of steel retained by iron and steel works (1,221,000 tons in total) between production and construction. These approximate figures include the 163,000 tons listed as 'not distributed' in Table 9(a). See *Sovetskaya metallurgiya*, 5-6, 1932, 311, 313.

Table 10. Average daily number of railway goods wagons loaded, by months and quarters, 1929-1933 (in terms of standard 2-axle wagons<sup>a</sup>)

	1929	1930	1931	1932	1933
January	32394	42844	38754	52658	46310
February	31964	42298	36046	48365	46390
March	35878	45878	43912	49327	48325
April	37401	48061	49330	54024	52239
May	32452	48371	51525	55417	53813
June	38815	51039	54635	53031	51896
July	39838	47466	52442	48815	49950
August	41001	45013	51129	48565	51059
September	42227	46749	53694	52525	54087
October	45224	48340	55004	53621	56126
November	45686	47212	55384	50924	55431
December	40589	42603	49601	49665	48866 <sup>b</sup>
January-March <sup>c</sup>	33412	43673	39571	50117	47008
April-June <sup>c</sup>	36103	49157	51830	54157	52649
July-September <sup>c</sup>	41022	46409	52355	49968	51699
October-December <sup>c</sup>	43833	46052	53330	51403	53474
Yearly average <sup>c</sup>	38593	46323	49272	51411	51208
Annual load carried (m.t.) <sup>2d</sup>	187.6	238.7	258.3	267.9	268.1

Sources: <sup>1</sup> Except where otherwise stated: *Osnovye pokazateli*, 1933, 104-5.

<sup>2</sup> *Sots. str.* (1935), xxii.

Notes: <sup>a</sup> See *Osnovnye pokazateli*, 1935, 112 for confirmation that this is the unit of measurement.

<sup>b</sup> Misprinted as 38866.

<sup>c</sup> Calculated from monthly data by present author.

<sup>d</sup> Commercial trains only (i.e. excludes goods carried on lines not attached to Narkomput').

Table 11. Retail trade turnover by social sector, 1930-1933 (million rubles at current prices)

	1930	1930	1930	1931	1931	1931	1932	1932	1932	1933	1933	1933
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
State retail trade	3094	1189	4283	4997	1550	6547	8913	4082	12995	16418 <sup>c</sup>	5745 <sup>c</sup>	22163 <sup>c</sup>
Cooperative retail trade	8046	5254	13300	11450	6728	18178	14475	8034	22509	13030	8209	21240
Total socialised retail trade	11140	6443	17583	16447	8278	24725	23388	12117	35504	29448	13954	43403
Public catering	1140	150	1290	2340	400	2740	4184	668	4852	5701	686	6387
Total socialised	12280	6593	18873	18787	8678	27465	27572	12785	40357	35149	14640	49789
Urban private and bazaar trade	4000 <sup>1b</sup>	-	4000 <sup>1b</sup>	6500 <sup>1b</sup>	-	6500 <sup>1a</sup>	8527 <sup>3d</sup>	-	8527 <sup>3d</sup>	11500	-	11500
Total retail trade	(16280)	6593	(22873)	(25287)	8678	(33965)	36099	12785	48884	(46649)	14640	(61289)
Of this, commercial trade <sup>a</sup>	?	(2000) <sup>c</sup>	4000 <sup>2</sup>	6301 <sup>2</sup>								

Sources: Except where otherwise stated, *Sovetskaya torgovlya v 1935* (1936), 59-61.

<sup>1</sup> Malafeev (1964), 131, citing the archives.

<sup>2</sup> *Sovetskaya torgovlya* (1935) [1936], 52.

<sup>3</sup> RGAE, 1562/3/137, 16-20.

Notes: <sup>a</sup> Trade by state or cooperative organisations at higher prices.

<sup>b</sup> The source states that urban population acquired agricultural products to this value 'on the private market', 65-70 per cent of which was acquired from peasants. Part of this figure, therefore, represents sales by private traders and individual urban citizens.

<sup>c</sup> According to *Sovetskaya torgovlya* (1935) [1936], 52, commercial trade by Glavtorg in 1931 amounted to 663 million rubles, but this represents only one segment of commercial trade. The tax on all types of commercial trade (special commodity fund) in 1931 amounted to 1,070 million rubles, as compared with 1,902 million rubles for a commercial trade of 4,000 million rubles in 1932 (see Table 22(a)). This would imply a total commercial trade of about 2,000 million rubles. But according to *Tovaroborot* (1932), 118, the inclusion of commercial trade results in an increase of the retail price index by 11.3 per cent in 1931; this is difficult to reconcile with a figure as low as 2,000 million rubles.

<sup>d</sup> This includes all purchases on the private market by the non-agricultural population: agricultural products 7,444 million rubles; industrial products 1,083 millions. 'Kolkhoz bazaar trade' alone is given in *Sovetskaya torgovlya v 1935* (1936), 59, as 7,500 and is often given as 7-8,000 millions (e.g. Malafeev (1964), 170).

<sup>e</sup> Includes Orsy (excluding public catering in Orsy): urban - 3,825; rural - 1,025; total - 4,845.

Table 12. Food rations  
(a) Number of persons receiving individual food rations, 1931-1933  
(thousands)

	Special List		List 1		List 2		List 3		All Lists	
	Manual workers	Total <sup>a</sup>	Manual workers	Total <sup>a</sup>	Manual workers	Total <sup>a</sup>	Manual workers	Total <sup>a</sup>	Manual workers	Total <sup>a</sup>
Jan.-March 1931 <sup>1</sup>	2512	6618	2531	5144	2329	6201	2438	12469	9810	30432
April-June 1931 <sup>2</sup>	2784	6867	3304	6263	2841	6804	n.a.	n.a.	n.a.	n.a.
Oct.-Dec. 1931 <sup>1</sup>	3969	8146	4757	8528	3854	7970	3440	12099	16020	36743
Jan.-March 1932 <sup>1</sup>	4278	8602	5064	9460	4096	8236	3955	11716	17393	38014
April-June 1932 (plan) <sup>2b</sup>	4376	8789	5357	9841	4159	8473	n.a.	n.a.	n.a.	n.a.
July 1932 <sup>3c</sup> (plan)	4664	9210	6105	10657	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
July-September 1932 <sup>4d</sup>	4937	9776	6663	11579	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Oct.-Dec. 1932 <sup>5</sup>	5039	10029	6381	11299	4181	8560	4039	11692	19640	41580
Oct.-Dec. 1933 <sup>5</sup>	4728	9845	6096	11838	4172	9080 <sup>c</sup>	3044	9098	18040	39789 <sup>c</sup>

- Sources:* <sup>1</sup> GARF, 6759/2/206, 7.  
<sup>2</sup> RGAE, 8043/1/53, 349.  
<sup>3</sup> GARF, 6759/1/3, 128–32.  
<sup>4</sup> GARF, 6759/2/191, 79–81.  
<sup>5</sup> *Sovetskaya torgovlya* (1935?[1936]), 106.

*Notes:* This table does not include servicemen, the OGPU, those confined in prisons, camps and special settlements, or leading personnel; it also excludes the agricultural population and various special industries or activities which received food allocations.

The number of persons in Lists 2 and 3 was not determined centrally from April–June 1932 onwards. Instead, central food allocations were made to the local authorities, who were supposed to supplement them from local resources and themselves determine the number of persons receiving rations, and sometimes the size of rations (see Table 12(b) below). The number of persons in Lists 2 and 3 in October–December 1932 and October–December 1933 was presumably an estimate by the central authorities; in practice the rations in these Lists were rarely supplied in full.

<sup>a</sup> Includes white-collar workers of all kinds, and dependents (including children).

<sup>b</sup> Dated March 1, 1932. The Special List was increased to 4,607 thousand workers and a total of 9,150 thousand persons on April 29, 1932 (materials dated April 21 to order dated April 29, 1932 – RGAE, 8043/1/61, 263–5).

<sup>c</sup> Dated July 3, 1932.

<sup>d</sup> Includes all changes up to September 16.

<sup>e</sup> Individual items total 39,861; 9,080 is evidently a misprint for 9,008.

(b) Amount of food ration, by List and category, 1931-1932  
(in kilograms a month)

	<i>Bread</i> (per day)		<i>Groats</i>		<i>Sugar</i>		<i>Meat</i>		<i>Fish</i>		<i>Butter</i>		<i>Margarine</i>		<i>Vegetable oil</i>	
	(a)	(b)	(a)	(b)	(c)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(c)
<i>January-March 1931</i>																
Special List	0.8	0.4	3.0	1.5	1.5	1.5	4.4	2.2	2.5	2.0	0.4	—	0.4	— <sup>c</sup>	0.4	0.2
List 1	0.8	0.4	2.5	1.5	1.5	1.5	2.6	1.3	2.0	1.4	0.2	—	0.2	—	0.2	—
List 2 <sup>a</sup>	0.8	0.4	1.5	0.85	0.85	1.0	0.8	1.0	2.0	1.0	—	—	—	—	—	—
List 3 <sup>a</sup>	0.7	0.3	1.0	0.5	0.5	0.8	—	—	—	—	—	—	—	—	—	—
<i>October-December 1931</i>																
Special List	0.8	0.4	3.0	1.5	1.5	1.5	4.4	2.2	2.5	2.0	0.4	—	0.4	—	0.6	0.2
List 1	0.8	0.4	2.5	1.5	1.5	1.5	2.0	1.0	2.0	1.4	0.2	—	0.2	—	0.4	0.2
List 2	0.8	0.4	1.5	0.85	0.85	1.0	1.0	—	2.0	1.0	—	—	—	—	—	—
List 3	0.75	0.35	1.0	0.5	0.5	0.8	—	—	—	—	—	—	—	—	—	—
<i>January-March 1932</i>																
Special List	0.8	0.4	3.0	1.5	1.5	1.5	4.4	2.2	2.0	0.4	—	—	0.25	—	0.75	0.4
List 1	0.8	0.4	2.5	1.5	1.5	1.5	2.0	1.0	1.4	—	—	—	0.15	—	0.5	—
List 2	0.8	0.4	1.0	0.5	0.5	0.8	1.0	—	—	—	—	—	—	—	—	—
List 3	0.75	0.35	0.5	0.5	0.5	0.8	—	—	—	—	—	—	—	—	—	—
<i>April-June 1932</i>																
Special List	0.8	0.4	3.0	1.5	1.5	1.0	0.8	2.4	1.0	—	0.2	—	0.4	—	0.6	0.4
List 1	0.8	0.4	2.5	1.5	1.5	0.8	0.6	1.4	—	—	—	—	0.2	—	0.4	—
List 2	b	b	1.0	0.5	0.5	0.4	0.4	—	—	—	—	—	—	—	—	—
List 3	b	b	0.5	0.5	0.5	0.2	0.2	—	—	—	—	—	—	—	—	—

Tables

*July-September 1932*

Special List	0.8	0.4	1.5	—	—	1.0	0.8	1.0	—	1.0 <sup>d</sup>	0.3 <sup>d</sup>	—	—	—	—	—	0.5 <sup>f</sup>	—	—
List 1	0.8	0.4	1.2	—	—	—	0.8	0.6	0.5	—	0.65 <sup>d</sup>	—	—	—	—	—	0.4 <sup>f</sup>	—	—
List 2	b	b	—	—	—	—	0.4	0.4	—	—	—	—	—	—	—	—	—	—	—
List 3	b	b	—	—	—	—	0.2	0.2	—	—	—	—	—	—	—	—	—	—	—

*October-December 1932*

Special List	0.8	0.4	2.25	1.2	1.0	1.0	0.8	—	—	—	1.0 <sup>d</sup>	0.3 <sup>d</sup>	—	0.2	—	—	0.4	0.2	0.2
List 1	0.8	0.4	2.0	1.2	1.0	0.8	0.6	—	—	—	0.65 <sup>d</sup>	—	—	—	—	—	0.4	—	—
List 2	b	b	—	—	—	—	0.4	0.4	—	—	—	—	—	—	—	—	—	—	—
List 3	b	b	—	—	—	—	0.2	0.2	—	—	—	—	—	—	—	—	—	—	—

— indicates that no ration was allocated to this group.

(a) Manual workers (*raboachie*).

(b) Other employed persons; dependents.

(c) Children (included in (b) when not given separately).

Source: GARF, 6759/2/206, 8.

Notes:

Workers in coal industry, and underground workers, received supplementary rations of flour, sugar, meat, vegetable oil and sugar.

Leading personnel received substantially larger rations than those stated for the Special List.

The food ration was frequently not available in full.

In 1931 a regular ration of tea and eggs was also supplied.

<sup>a</sup> In April-June 1931 the bread and groats ration, and in July-September 1931 the size of the bread ration for Lists 2 and 3 were determined locally.

<sup>b</sup> Size of ration determined locally.

<sup>c</sup> Ration fixed for individual enterprises at 1-3kg.

<sup>d</sup> Herrings; the rationing of all fish apart from herrings was abolished in March 1932 (see p. 206 above).

<sup>e</sup> A ration of 0.4kg a month was allocated in April-June 1931, but in no other quarter, for manual workers in the Special List.

<sup>f</sup> Solely for manual workers in harmful factory shops, and for underground workers.



Table 13. Foreign trade, 1931-1933

(a) Exports in value terms  
(million rubles at current world prices)

	1931	1932	1933
Grain	157.6	58.3	46.5
Other products of agriculture <sup>a</sup>	46.0	38.1	23.9
Livestock and poultry products	66.4	37.8	28.2
Fur	56.2	42.3	38.6
Other products of farming <sup>b</sup>	16.1	6.9	6.1
Total products of farming <sup>b</sup>	342.3	183.4	143.2
Timber and products	115.2	82.2	78.3
Food, drink and tobacco	83.4	51.9	38.7
Oil	115.7	107.3	75.7
Other mining	38.1	24.0	25.9
Other industries	116.6	126.2	133.8
Total industrial	469.0	391.5	352.4 <sup>c</sup>
Total exports	811.2	574.9	495.7

(Sources and Notes to Tables 13(a)-(d) appear after Table 13(d).)

(b) Exports in physical terms  
(thousand tons)

	1931	1932	1933
Grain	5183	1819	1771
Other products of agriculture <sup>a</sup>	222	360	166
Livestock and poultry products	109	83	74
Fur	2.96	3.11	3.5
Other products of farming <sup>b</sup>	53	31	36
Total products of farming <sup>b</sup>	5570	2296	2051
Timber and products	6099	5709	6296
Food, drink and tobacco	807	662	595
Oil	5224	6106	4894
Other mining	3751	2854	3575
Other industries	327	341	505
Total industrial	16208	15671	15865
Total exports	21779	17968	17917

(c) Imports in value terms  
(million rubles at current world prices)

	1931	1932	1933
Tea	12.6	7.8	5.8
Sugar	0.0	2.6	0.5
Other food products	34.4	41.3	9.3
Total food, drink and tobacco	47.0	51.7	15.6
Total animal products	55.0	36.3	28.6
Agricultural machines	97.6	0.6	2.5
Other machines and apparatus	240.7	216.0	87.8
Machine parts	98.8	60.4	21.5
Vehicles, etc.	37.6	8.4	3.0
Ocean-going ships	11.6	8.1	4.0
Other metals and metal goods	291.7	166.4	78.8
Total metals and metal goods	778.0	459.9	223.1
Total electrical goods, etc.	68.8	77.8	25.4
Cotton	40.6	17.9	9.9
Wool	32.2	24.0	21.5
Other spinning materials and products	18.5	10.0	7.4
Total spinning materials and products	91.3	51.9	38.8
Other	64.9	26.4	16.7
Total imports	1105.0	704.0	348.2

(d) Quarterly imports and exports  
(million rubles at current world prices)

	All 1929	All 1930	Jan.-March 1931	April-June 1931	July-Sept. 1931	Oct.-Dec. 1931	All 1931
Imports to USSR	880.6	1058.9	251.1	266.1	286.9	300.8	1105.0
Exports from USSR	923.7	1036.4	195.9	170.2	227.2	217.8	811.2
Deficit (-)/Surplus (+)	+43.1	-22.5	-55.2	-95.9	-59.7	-83.0	-293.8

1932

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	Jan.-March 1932	Apr.-June 1932	July-Sept. 1932	Oct.-Dec. 1932	All 1932	Jan.-March 1933	April-June 1933	July-Sept. 1933	Oct.-Dec. 1933	All 1933
Imports to USSR	192.1	213.2	147.6	145.8	698.7 <sup>d</sup>	88.4	102.5	83.4	73.9	348.2
Exports from USSR	144.5	130.7	135.7	153.0	563.9 <sup>d</sup>	112.1	112.5	142.8	128.3	495.7
Deficit (-)/Surplus (+)	-47.6	-82.5	-11.9	+7.2	-134.8 <sup>d</sup>	+23.7	+10.0	+59.4	+54.4	+147.5

Sources to Table 13(a)-(d): Derived from monthly data in *Vneshnyaya torgovlya Soyuz SSSR: statisticheskii obzor*, vypusk 11 and 12, nos. 81, 84, 87, 90, 93, 96, 99, 102 (March, June, September, December 1932, March, June, September, December 1933).

Notes to Table 13(a)-(d):

<sup>a</sup> *Zemledelie*.

<sup>b</sup> *Sel'skoe khozyaistvo*.

<sup>c</sup> This item includes silver and other precious metals to the value of 37.6 million rubles, as compared with less than 8.6 million in 1932.

<sup>d</sup> Revised figures for 1932 give Imports 704.0 Exports 574.9 Deficit 129.1 (cover whole calendar year; quarterly figures are up to December 25).

(e) Exports by receiving country  
(million rubles at current world prices)

	1929	1930	1931	1932	1933
Germany	215.1	205.7	129.3	100.5	85.7
United States	42.7	40.9	22.7	17.2	14.0
United Kingdom	202.6	279.9	266.1	138.5	87.0
France	42.5	44.1	28.3	28.7	22.9
Italy	32.9	53.1	39.7	27.0	22.2
Poland	13.3	14.1	7.5	4.8	4.3
Czechoslovakia	8.4	4.1	5.1	1.4	1.1
Sweden	2.2	5.1	6.7	6.2	5.9
Latvia	78.0	52.3	27.8	9.8	2.4
Persia	69.6	60.3	32.5	25.4	12.0
China	23.4	28.5	25.0	23.8	18.0
Mongolia	10.0	17.8	37.3	41.4	38.6
Others	179.2	230.5	183.2	150.2	180.8
Total	923.7	1036.4	811.2	574.9	494.9

Source: *Sots. str.* (1935), 588–9.

(f) Imports by country of origin  
(million rubles at current world prices)

	1929	1930	1931	1932	1933
Germany	194.6	250.8	410.6	327.7	148.1
United States	177.2	264.4	229.9	31.7	16.6
United Kingdom	54.7	80.1	73.4	91.9	30.6
France	31.7	29.7	15.0	4.3	5.2
Italy	7.7	10.8	29.8	27.1	16.9
Poland	19.3	38.8	31.2	5.6	13.0
Czechoslovakia	18.4	27.1	35.7	10.3	4.9
Sweden	17.1	19.5	15.6	21.6	4.6
Latvia	16.6	14.8	14.5	5.8	0.3
Persia	60.7	44.4	46.5	49.9	8.4
China	34.6	24.5	17.1	18.2	21.5
Mongolia	15.3	19.7	28.8	19.3	17.3
Others	232.7	234.2	156.9	90.6	60.8
Total	880.6	1058.8	1105.0	704.0	348.2

Source: *Sots. str.* (1935), 592–3.

Table 14. Urban population (thousands)

(a) Total urban population, and population of large towns,  
1926, 1931 and 1934

	<i>December 17, 1926</i>		<i>April 1, 1931</i>		<i>January 1, 1934</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Large towns <sup>1a</sup>	11,220	42.6	15,561	48.6	19,797	49.8
Total urban population	26,316 <sup>1</sup>	100.0	32,000 <sup>2b</sup>	100.0	39,739 <sup>1c</sup>	100.0

*Sources:* <sup>1</sup> *Sots.str.* (1935), 539–41.<sup>2</sup> *Nar.kh.* (1932), xxii–xxiii.*Notes:* <sup>a</sup> Towns with more than 100,000 inhabitants on January 1, 1934; estimated from list of town populations in source.<sup>b</sup> January 1, 1931.<sup>c</sup> January 1, 1933.

(b) Number of persons entering and leaving towns, 1928–1933

	<i>Entering towns</i>	<i>Leaving towns</i>	<i>Net immigration</i>
1928	6477	5415	1062
1929	6958	5566	1392
1930	9534	6901	2633
1931	10810	6710	4100
1932	10608	7886	2719
1933	7416	6644	772

*Source:* *Trud* (1936), 7.*Note:* These figures suffer from double-counting and exaggerate the net immigration into towns. But the proportions between years are approximately correct.

Table 15. Number of persons active in the non-agricultural sector

(a) Number of employed persons in the non-agricultural sector  
by branch of the economy 1927/28 and 1930–1933  
(annual average, thousands)

	1927/28 <sup>1</sup>	1930 <sup>1</sup>	1931 <sup>2</sup>	1932 <sup>2</sup>	1933 <sup>2</sup>
Large-scale industry <sup>a</sup>	3033	4264	5483	6481	6229
Small-scale industry	408	290	336	248	327
Building	684	1623	2549	3126	2361
Railways	957	1084	1320	1527	1474
Water transport	110	132	177	196	189
Other transport	188	283	430	500	642
Posts and telegraphs	95	153	197	224	258
Trade	515	815	1078	1411	1375
Public catering, etc.	73	181	365	515	532
Banking, etc. (kredit)	91	101	116	128	132
Education	777	921	1153	1347	1463
Health	406	477	562	647	681
Administrative, economic and other establishments	} 1244	1470	1712	1918	1753
Municipal enterprises		131	182	237	373
Domestic work	368	} 399	} 352	} 342	} 292
Day work	432				
Total	(9381)	(12323)	(16014)	(18846)	(18080) <sup>b</sup>

Sources: <sup>1</sup> See vol. 3, table 14(a).

<sup>2</sup> *Trud* (1936), 10–11.

Notes: For comments on the coverage of this table, see notes to table 14(a) in vol. 3. It excludes the armed services, the self-employed, and also excludes forestry and fishing as well as agriculture.

<sup>a</sup> Includes hired labour in industrial cooperatives.

<sup>b</sup> An additional 116,000 persons are not specified in the original table.

(b) Approximate number of gainfully-occupied persons  
in the non-agricultural sector, 1927/28 and 1933  
(millions)

	1927/28	1933
Employed <sup>1</sup>	9.4	18.1
Self-employed	2.4 <sup>2</sup>	1. <sup>3</sup>
Prisoners	—	0.8–1 <sup>4</sup>
	11.8	c.20

Sources: <sup>1</sup> See Table 15(a).

<sup>2</sup> See p. 441, note 2 above.

<sup>3</sup> See p. 441, note 3 above.

<sup>4</sup> See pp. 441–2 above.

Table 16. Number of employed persons in large-scale industry  
(thousands)

(a) All employed persons, by type of employment, 1929 and 1931-1934  
(January 1 of each year)

	1929 <sup>1</sup>		1931 <sup>1</sup>		1932 <sup>1</sup>		1933 <sup>1</sup>		1934 <sup>3</sup>	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Manual workers <sup>a</sup>	2656	82.8	3899	78.6	4703	74.3	4676	73.1	4966	77.4
Apprentices	133	4.1	353	7.1	568	9.0	463	7.2	274	4.3
Ancillaries(MOP) <sup>b</sup>	132	4.1	192	3.9	278	4.4	336	5.3	345	5.4
White-collar <sup>c</sup>	189	5.9	326	6.6	486	7.7	543	8.5	436	6.8
Engineers and technicians (ITR)	97 <sup>2d</sup>	3.0 <sup>d</sup>	193 <sup>2d</sup>	3.9 <sup>d</sup>	291 <sup>2d</sup>	4.6 <sup>d</sup>	377 <sup>2</sup>	5.9	392	5.1
Total	3207	100.0	4963	100.0	6326	100.0	6395 <sup>c</sup>	100.0	6413 <sup>c</sup>	100.0

Sources: <sup>1</sup> Except where otherwise stated, *Sots. str.* (1934), 332-3, 344-5.

<sup>2</sup> *Trud* (1936), 91.

<sup>3</sup> *Trud* (1934) (1935), 36.

Notes: <sup>a</sup> *Rabochie*.

<sup>b</sup> Junior ancillary personnel (includes janitors, messengers, cleaners, etc.).

<sup>c</sup> *Sluzhashchie*; in this table includes all office workers except ITR.

<sup>d</sup> Data for 1929-32 are for 'administrative and technical personnel', which includes higher administrative personnel (*Trud* (1936), 369-70).

<sup>e</sup> In addition, 167.4 thousand 'not divided by category' in 1933, 153.2 thousand in 1934.

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(b) All employed persons, by region, 1929 and 1932  
(annual average, thousands)

	1929		1932	
	Number	Per cent	Number	Per cent
Centre	1353	40.2	2193	34.8
North and North West	442	13.1	875	13.9
South-East	241	7.2	555	8.8
Urals and West Siberia	324	9.6	678	10.8
East Siberia and Far East	53	1.6	149	2.4
Total RSFSR (excluding Kirgizia, Kazakhstan and Crimea)	2413	71.7	4450	70.6
Ukraine plus Crimea	765	22.7	1425	22.6
Belorussia	46	1.4	112	1.8
Transcaucasus	91	2.7	157	2.5
Central Asia	33	1.0	93	1.5
Kazakhstan	19	0.6	65	1.0
Total USSR	3366	100.0	6303	100.0

Source: Estimated from data in *Sots. str.* (1934), 310–11.

(c) Manual workers, 1931–1933 (quarterly average)<sup>a</sup>

	1931 <sup>1</sup>	1932 <sup>1</sup>	1933 <sup>2</sup>
January–March	3830	4666	4473
April–June	3921	4723	4439
July–September	4294	4650	4562
October–December	4624	4635	4832
Annual average	4167	4669	4576

Sources: <sup>1</sup> *Sots. str.* (1934), 324–5.

<sup>2</sup> *Trud* (1934) (1935), 63.

Note: <sup>a</sup> Unlike the equivalent table 15(b) in vol. 3, this table *excludes* apprentices, for which quarterly data in 1931–3 are incomplete.



Table 17. Monthly number of persons employed in building, January 1, 1930 to January 1, 1934  
(thousands; 1st of each month)

	1930	1931	1932	1933
January	789	1855	2973	2738
February	819	1896	2975	2330
March	871	1983	2948	2127
April	1115	2143	3038	2069
May	1394	2340	3097	2112
June	1836	2571	3308	2279
July	2008	2800	3376	2415
August	1954	2738	3249	2356
September	1983	2906	3203	2384
October	2113	3122	3270	2489
November	2116	2997	3225	2636
December	1949	2862	2975	2553 <sup>a</sup>
Annual average	1623	2549	3126	2361

Source: *Trud* (1936), 244.

Notes: For the coverage of these figures see vol. 3, p. 529, note.

<sup>a</sup> 2,407,000 on January 1, 1934.

Table 18. Number of persons confined in GULAG camps, and number of 'special settlers', January 1, 1930 to January 1, 1934  
(thousands)

	<i>In camps</i> <sup>1</sup>	<i>'Special settlers'</i> <sup>2</sup>
1930	179	—
1931	212	n.a.
1932	269	1317
1933	334	1142
1934	510	1073

Sources: <sup>1</sup> *Argumenty i fakty*, 45, 1989 (Zemskov);  
*Sotsial'no-politicheskie nauki*, 7, 1990 (Dugin).

<sup>2</sup> *Sotsiologicheskie issledovaniya*, 10, 1991, 4–5 (Zemskov).

Note: These figures exclude persons confined in prisons, and in the labour colonies of the People's Commissariat of Justice. The 'special settlers (spetspereselentsy)', mainly deported kulaks, include children and other dependents; and persons engaged in agricultural activities. See pp. 33–5 and 441–2 above. According to the Stalin–Molotov circular of May 8, 1933, about 800,000 persons were in places of confinement apart from camps and colonies at that time; the circular proposed that the number should be reduced to 400,000 within two months.

Table 19. Quarterly labour turnover in large-scale industry, 1930–1933  
(as percentage of labour force)

		<i>Jan.–March</i>	<i>April–June</i>	<i>July–Sept.</i>	<i>Oct.–Dec.</i>	<i>Total for year</i>
1930	1. All industry	32.8	41.4	41.3	37.1	152.6
	Coal	66.3	79.0	88.4	61.5	295.2
	Iron and steel	29.6	38.4	42.8	33.8	144.6
	Engineering <sup>a</sup>	20.7	25.4	26.4	23.2	95.7
	Chemical	26.8	32.6	36.4	28.3	124.1
	Cotton textile	11.4	17.8	11.6	21.1	61.9
1931	1. All industry	32.2	34.2	35.8	35.1	137.3
	Coal	55.5	53.4	50.5	45.8	205.2
	Iron and steel	27.4	31.2	35.8	32.5	126.9
	Engineering <sup>a</sup>	20.4	23.5	25.3	27.0	96.2
	Chemical	24.9	26.0	27.7	31.1	109.7
	Cotton textile	14.6	18.0	19.2	17.0	68.8
1932	1. All industry	30.3	33.6	37.6	34.5	136.0
	Coal	49.8	46.4	50.5	42.6	189.3
	Iron and steel	25.6	29.4	34.6	28.2	117.8
	Engineering <sup>a</sup>	21.0	24.3	26.9	27.3	99.5
	Chemical	31.6	31.4	34.5	31.7	129.2
	Cotton textile	13.9	18.4	21.7	18.5	72.5
	2. Building	69.8	76.4	82.8	77.0	306.0
1933	1. All industry	32.4	30.0	32.1	28.3	122.8
	Coal	33.5	32.8	29.5	26.0	121.8
	Iron and steel	27.2	22.7	25.2	23.2	98.3
	Engineering <sup>a</sup>	27.2	23.4	22.2	20.7	93.5
	Chemical	33.7	27.1	27.7	23.8	112.3
	Cotton textile	18.8	17.3	13.3	12.1	61.5
	2. Building	77.7	70.0	76.6	67.2	291.5

Sources: Industry: Calculated from monthly data in *Sots. str.* (1934), 342–3.

Building: Calculated from monthly data in *Trud* (1936), 249.

Notes: For definition of labour turnover, see vol. 3, pp. 279, 531.

<sup>a</sup> Includes electrical industry.

Table 20. Average monthly earnings in non-agricultural employment, 1928, 1930-1933

(in rubles and kopeks)

	1928	1930	1931	1932	1933
All employed persons	65.54	83.78	98.96	127.72	140.52
Large-scale industry	72.50	86.25	98.67	122.75	138.50
Small-scale industry	53.08	68.58	86.42	104.25	123.83
Building	83.00	90.17	103.58	125.75	136.75
Railways	71.58	85.83	96.58	124.67	136.42
Water transport	75.33	96.83	106.08	125.75	142.42
Other transport	70.50	95.58	106.58	128.25	144.83
Posts and telegraphs	64.67	63.33	85.75	111.08	120.83
Trade	65.25	74.42	89.25	112.58	111.92
Public catering	51.92	64.83	69.75	88.25	93.50
Banking	81.75	99.92	126.50	152.83	177.33
Education	56.50	81.50	104.42	136.08	147.08
Health	53.17	66.58	78.17	104.00	117.75
Administration etc.	75.25	97.50	122.58	161.92	196.17
Municipal enterprises	58.00	67.83	91.58	121.08	127.42
Domestic workers and temporary day work	20.92	35.92	40.25	69.00	65.33

*Source:* Estimated from data in *Trud* (1936), 10-17, excluding agriculture, forestry and fishing.

*Note:* For comments on coverage of this table, see p. 539 above and notes to table 14(a) in vol. 3.

Table 21. Distribution of managers and workers by size of monthly earnings and by industry, September–October 1934  
(as per cent of total number in group)

	0–200r	200.1–300	300.1–500	500.1–1100	1100.1+	Average earnings (rubles)
<i>Coal</i>						
Chief engineer, etc. <sup>a</sup>	0	1.1	7.4	61.3	30.2	1002
Head of shop and deputies	0.1	0.5	26.0	66.8	4.8	639
Shop engineer	0	2.3	25.6	55.9	16.2	855
Charge hand (desyatnik)	2.6	24.8	68.1	4.5	0	355
Worker: all grades	69.4	20.7	8.6	1.3		174
<i>Iron and steel</i>						
Chief engineer, etc.	0	0.7	2.1	48.2	49.0	1182
Head of shop and deputies	0	1.2	14.4	65.4	18.0	839
Shop engineer	2.2	5.6	31.0	56.4	4.8	603
Foreman	0.6	4.9	50.9	41.2	2.4	533
Worker: all grades	65.9	24.0	9.0	1.1		187
Grade 8 worker (0.75%)	0.9	3.0	43.6	52.6		523
<i>Metalworking and machinebuilding</i>						
Chief engineer, etc.	0.2	2.2	9.8	71.1	16.7	853
Head of shop and deputies	0.5	2.6	37.6	57.3	2.0	580
Foreman	1.6	17.0	67.9	13.4	0.1	397
Worker: all grades	61.6	26.3	10.8	1.3		196
Grade 8 worker (0.92%)	2.3	19.2	58.5	20.0		407
<i>Textiles<sup>b</sup></i>						
Chief engineer, etc.	0	3.7	22.6	70.6	3.1	663
Head of shop and deputies	2.0	13.3	48.4	36.2	0.1	473
Foreman	4.2	31.8	56.8	7.2	0	349
Worker: all grades	88.9	9.0	2.0	0.1		140
Grade 18 worker (0.64%)	4.8	48.5	44.4	2.3		302

Sources: Data for managerial staff are from *Zarplata inzhinerno-tehnicheskikh rabotnikov* (1936), as follows: coal, pp. 56–7; iron and steel, 70–1; metalworking and machinebuilding, 72–3; textiles, 76–7.

Data for workers are from *Zarabotnaya plata rabochikh* (1935), 260–85.

Notes: <sup>a</sup> Production chief (zaveduyushchii proizvodstvom), technical manager (tekhnoruk) and chief engineers.

<sup>b</sup> Managerial staff is for all textile industry, workers are for cotton textiles only. As the wage-level was higher in cotton textiles than in other textiles, the data above slightly underestimate the differential between managerial staff and workers.

Table 22. State budget in comparable classification, 1931-1933  
(million rubles at current prices)

## (a) Net revenue

	1931 Plan <sup>1</sup>	1931 Fulfilment <sup>1</sup>	1932 Plan <sup>4</sup>	1932 Fulfilment <sup>4</sup>	1933 Plan <sup>6</sup>	1933 Fulfilment <sup>6</sup>
Turnover tax on spirits	3835 <sup>2</sup>	4180 <sup>2</sup>	14926	17612	21696	23088
Turnover tax, etc. on other products	5558	6422				
Special commodity fund	600	1070	985	1902	1700	3894
Tax on non-commodity operations	—	29	90	134	162	161
Cinema tax	—	—	200	81	100 <sup>7</sup>	78 <sup>7</sup>
Customs dues	300	281	120	282	140	161
Personal income tax	300	329	—	114 <sup>d</sup>	140 <sup>d</sup>	196 <sup>d</sup>
Housing/cultural tax(-es)	150	260	800	942	1270	1369
Industrial tax: private sector	180	128	—	—	—	—
Tax on super-profit	18	10	—	—	—	—
Agricultural tax:						
socialised sector	500					
individual sector	381 <sup>3</sup>	77 <sup>3</sup>	600	122 <sup>5c</sup>	172 <sup>c</sup>	227 <sup>c</sup>
Levy on individual peasants	—	—	—	338 <sup>5</sup>	432	548
Taxes and deductions from profits:				166	30	170
socialised sector <sup>a</sup>						
Transferred from local budgets	2827	1203	1263	1541	1191	1290
Other revenue <sup>b</sup>	249	363	—	—	—	39
State loans: net receipts <sup>c</sup>	205	281	397	465	1192	1759
Carried forward from previous year	1306	2610	3352	2960	2682	3135
	—	731	—	599	—	—
Total net revenue	16029	18356	22731	27257	30907	36115

(Sources and Notes appear after Table 22(b).)

## (b) Net expenditure

	1931 <sup>1</sup> Plan	1931 <sup>1</sup> Fulfilment	1932 <sup>4</sup> Plan	1932 <sup>4</sup> Fulfilment	1933 <sup>6</sup> Plan	1933 <sup>6</sup> Fulfilment
Industry: heavy	} 4851 <sup>f</sup>	} 6613 <sup>f</sup>	} 8107 <sup>f</sup>	} 9760	} 10211	} 10009
light						
timber						
Electrification	768	580	625	675	538	509
Other industry <sup>g</sup>	455	587	700	714	630	804
Food industry	} 1215	} 1749	} 2802	} 2646	} 748	} 445
Narkomsnab: other <sup>h</sup>						
Artisan cooperatives						
Total on industry	0	0	0	0	2194	2563
	7289	9529	12234	15222	16245	16084
Agriculture	2378	2694	3482	3724	2914	3919
Net expenditure on transport and posts <sup>i</sup>	13	573	331	1087	733	823
Municipal economy and housing	31	25	40	96	15	88
Foreign trade	197	241	164	134	70	66
Committee of reserves (STO)	—	—	—	—	780	1098
Other	39	34	133	107	380	299
Total on national economy	9947	13096	16385	20369	21138	22376
Social and cultural	1230	1248	1557	1706	2393	2306
Defence: published figure	1290	1288	1279	1296	1450	1420
Special armies	100	100	118	116	124	127
OGPU and convoy armies	106 <sup>8</sup>	108 <sup>8</sup>	143 <sup>9</sup>	138 <sup>9</sup>	157	131
Administration	180 <sup>k</sup>	208 <sup>k</sup>	324	423	534	755
Transferred to lower budgets	1315	1345	1499	1725	1949	2562
Other, including reserves <sup>j</sup>	461	350	1054	711	1383	1951
Reduction in administrative and managerial expenditure	-100	-102	-125 <sup>l</sup>	-117 <sup>l</sup>		

Total net expenditure	14529	17641	22231	26367	29128	31628
State budget 'surplus'	1500	715	500	889	1780	4487
Real direct defence expenditure <sup>10m</sup>	1790	1852	4751	4034	4719	4298

Sources: <sup>1</sup> *Otchet* . . . 1931 (1932), 4-7, except where otherwise stated.

<sup>2</sup> *Ibid.* 153.

<sup>3</sup> *Ibid.* 48-9, 69.

<sup>4</sup> *Otchet* . . . 1932 (1932? [1933]), 4-9, except where otherwise stated.

<sup>5</sup> *Ibid.* 52-3.

<sup>6</sup> *Otchet* . . . 1933 (1935), 4-9, except where otherwise stated.

<sup>7</sup> *Ibid.* 148.

<sup>8</sup> *Otchet* . . . 1931 (1932), 118.

<sup>9</sup> *Otchet* . . . 1932 (1932? [1933]), 95.

<sup>10</sup> GARF, 8418/10/148, 5 (information material, dated January 1935, for Molotov's report to VII Congress of soviets).

#### Notes:

<sup>a</sup> Includes income tax paid by cooperatives and local enterprises.

<sup>b</sup> Includes: revenue from state properties, state insurance and issue of coinage; dues (*poshliny*); (in 1932 and 1933) state levy on freight and passenger tickets and revenue from insurance of passengers; and (in 1933) social insurance payments used for student grants, and levies for issue of foreign passports and for *propiiska* (registration of residence). The levies introduced in 1932 and 1933 were primarily devices for acquiring additional revenue; no fresh items on the expenditure side of the budget corresponded to them.

<sup>c</sup> Excludes the part of revenue which was expended on repayments, lottery winnings and interest. Net receipts from loans include loans from state organisations (insurance etc.). Receipts from mass loans from population were approximately as follows (fulfilment, million rubles):

	1931	1932	1933
Gross receipts	1746	2550	3224
Outlays (interest, repayment, etc.)	183	315	559
NET RECEIPTS	1563	2236	2666

(*Otchet* . . . 1931 (1932), 165-72; *Otchet* . . . 1932 (1932? [1933]), 162-9; *Otchet* . . . 1933 (1935), 161-8).

<sup>d</sup> In 1932 and 1933 most personal income tax did not enter the state budget but was received directly by local budgets (419 million rubles in 1932, 435 millions in 1933 - *Otchet* . . . 1932 (1932? [1933]), 155; *Otchet* . . . 1933 (1935), 172).

<sup>e</sup> Includes tax on sovkhozy, introduced in 1932 - 0.8 million rubles in 1932, 4 million in 1933.

<sup>f</sup> Vesenkha-planned industry. In 1931 fulfilment was approximately as follows (million rubles):

heavy industry	5532
light industry	101
timber industry	519
housing	222
republican industry	239

(estimated from data in *Otchet* . . . 1931 (1932), 176-9).

<sup>g</sup> Refers to defence industry.

<sup>h</sup> Narkomsnab expenditure includes a large item for 'working capital', a substantial part of which presumably covered the costs of its collection agencies, and should properly appear under 'Administration'.

<sup>i</sup> Gross railway revenue appeared in the 1931 and earlier budgets, and in the 1932 and 1933 budgets rail receipts in excess of operational costs were transferred to the budget. In the table above, only net budget expenditure of transport and communications is shown. This does not reveal that the main net budgetary expenditure was allocated to waterways, roads and civil aviation. The budget received net revenue from communications in all three years, and from the railways in 1933. The figures for the net receipts (+) or payments (-) of each sub-sector were as follows (million rubles):

	1931	1931	1932	1932	1933	1933
	Plan	Fulfilment	Plan	Fulfilment	Plan	Fulfilment
Railways	-911	-266	-451	+212	-354	-107
Water transport	+251	+309	+418	+457	+665	+538
Roads and motor transport	+229	+286	+264	+365	+334	+347
Civil aviation	+150	+135	+143	+165	+157	+144
Communications	+76	-7	-27	-91	-69	-99
Other	+218	+114	-16	-21	—	—
NET TOTAL	+13	+573	+331	+1087	+733	+823



<sup>j</sup> Includes reserve fund of Sovnarkom (in Plan), various above-estimate expenditures (in Fulfilment), payments to state and social insurance, and payments to Gosbank.

<sup>k</sup> Includes central administration of national economy and social and cultural services (maintenance of Vesenkha, Narkomzem, Narkomsnab, Narkomvneshtorg, etc.), shown separately in 1931 budget report but as part of Administration in 1932 and 1933.

<sup>l</sup> Shown as additional revenue item in budget report, but for consistency in our table has been listed as a deduction from expenditure as in 1931 report.

<sup>m</sup> This is the secret budget estimate for Narkomvoendel; it does not include various expenditures under other budget headings. In the 1933 budget these additional items included (million rubles): military industry 630; military expenditures in civilian sector 489; mobilisation stocks of Committee of Reserves 127. The true allocations to the special armies were 353, to the convoy armies and OGPU 206. (GARF, 8418/8/137, 11-12, dated January 5, 1933.) Thus the real budget expenditure on defence amounted to 6,524 million rubles as compared with the 1,731 millions on Narkomvoendel, special armies, convoy armies and OGPU which appeared in the published budget.

Table 23. Union budget allocations to principal branches of the economy, by quarters, 1932 (million rubles)

	Monthly average									
	January- March	April- June	July- August	September- December	Total for year	January- March	April- June	July- August	September- December	Whole year
Heavy industry	(2162.8)	3154.5	1932.7	(2336.5)	9586.5	720.9	1051.5	966.4	584.1	798.9
Light industry	(38.3)	75.5	18.6	(195.2)	327.6	12.8	25.2	9.3	48.8	27.3
Timber industry	(264.7)	253.0	181.5	(333.4)	1032.6	88.2	84.3	90.8	83.4	86.1
Other industry	n.a.	n.a.	n.a.	n.a.	714.4	n.a.	n.a.	n.a.	n.a.	59.5
Electrification	(145.9)	211.2	97.0	(200.2)	654.3	48.6	70.4	48.5	50.1	54.5
NKSnab corporations	(632.3)	655.7	372.4	(931.1)	2591.5 <sup>a</sup>	210.8	218.6	186.2	232.8	216.0
Railway transport	(525.9)	963.8	557.4	(644.1)	2691.2	175.3	321.3	278.7	161.0	224.3
Water transport	(151.9)	120.9	79.8	(116.7)	469.3	50.6	40.3	39.9	29.2	39.1
Agriculture	(834.9)	936.7	559.6	(832.9)	3164.1	278.3	312.2	279.8	208.2	263.7
Total for these items	(4756.7)	6371.3	3799.0	(5590.1)	(20517.1) <sup>b</sup>	1585.6	2123.8	1899.5	1397.5	1709.8 <sup>b</sup>

Notes: *Osnovnye pokazateli*, January-June, 1932, 175, 178-9; *ibid.*, August 1932, 124; *Otchet* . . . 1932 (1932?) [1933], 10-13.

Notes: Figures in brackets, and all the monthly averages, were calculated by the present author. The figure for railway transport has been taken from *Osnovnye pokazateli*, January-June, where it is slightly lower than in *ibid.*, August.

<sup>a</sup> This item is listed as 'Trade, supply and food industry', but the planned allocation is the same as that for 'Narkomsnab corporations'.

<sup>b</sup> Excludes 'other industry' (i.e. defence industry) for which no breakdown by months is available.

Table 24. Currency in circulation, January 1, 1930 to January 1, 1934  
(million rubles)

January 1, 1930	2773 <sup>1</sup>
January 1, 1931	4352 <sup>2</sup>
April 1, 1931	4439 <sup>2</sup>
July 1, 1931	4499 <sup>2</sup>
January 1, 1932	5465 <sup>2a</sup>
April 1, 1932	5240 <sup>2</sup>
June 1, 1932	5594 <sup>2a</sup>
July 1, 1932	6032 <sup>2</sup>
August 1, 1932	6768 <sup>3</sup>
September 1, 1932	7178 <sup>3</sup>
October 1, 1932	7429 <sup>4</sup>
November 1, 1932	7775 <sup>4</sup>
January 1, 1933	8413 <sup>5</sup>
July 1, 1933	6825 <sup>6</sup>
January 1, 1934	6862 <sup>5,6</sup>

Sources: <sup>1</sup> See vol. 3, p. 536.

<sup>2</sup> *Osnovnye pokazateli*, January-June 1932, 177.

<sup>3</sup> GARF, 5446/8/1026, 1-14.

<sup>4</sup> GARF, 5446/22/5, 37.

<sup>5</sup> See Kuz'min (1976), 231.

<sup>6</sup> See Arnold (1937), 412-13.

Note: <sup>a</sup> January 1, 1932 is given as 5,673 and June 1, 1932 as 5,786 in Arnold (1937), 412-3.

Table 25. Price Indexes

(a) Average annual retail prices, 1928 and 1930–1933  
(1928 = 100)

	1930	1931	Jan.–June 1932	1932	1933
1. <i>Socialised trade</i>					
Urban: normal	102 <sup>1</sup>	108 <sup>1</sup>	147 <sup>1</sup>	n.a.	n.a.
: 'commercial'	n.a.	254 <sup>b</sup>	n.a.	n.a.	n.a.
: all	102 <sup>1</sup>	121 <sup>1</sup>	155 <sup>1</sup>	176 <sup>a</sup>	n.a.
Rural	102 <sup>1</sup>	129 <sup>1</sup>	182 <sup>1</sup>	180 <sup>a</sup>	n.a.
All socialised	100 <sup>2</sup>	121 <sup>2</sup>	162 <sup>2</sup>	174 <sup>a</sup>	196 <sup>c</sup>
All socialised:					
Gosplan index	108 <sup>3</sup>	136 <sup>3</sup>	175 <sup>3</sup>	[195 <sup>a</sup> / 255 <sup>4d</sup> ]	[220 <sup>c</sup> / 302 <sup>e</sup> ]
2. <i>Private and bazaar trade</i>					
TsUNKhU index <sup>5f</sup>	384	672	n.a.	n.a.	n.a.
Gosplan index <sup>3g</sup>	217	384	722	n.a.	n.a.
Urban bazaar prices:					
agricultural goods <sup>6</sup>	360	630	893	1094	1597
Prices received by					
peasants:					
agricultural goods <sup>7h</sup>	398	617	n.a.	2277(!)	n.a.
Zaleski index <sup>8</sup>	—	—	—	811 <sup>1</sup>	—
3. <i>All trade</i>					
TsUNKhU index:					
urban <sup>9</sup>	138	198	283	n.a.	n.a.
Gosplan index	130 <sup>3</sup>	177 <sup>3</sup>	248 <sup>3</sup>	n.a.	n.a.
Zaleski index <sup>8</sup>	—	—	—	387	—
'Consumption fund'					
index <sup>1</sup>	136 <sup>10</sup>	185 <sup>11</sup>	—	290 <sup>11</sup>	355 <sup>12k</sup>

- Sources: <sup>1</sup> Estimated from *Tovarooborot* (1932), 23.  
<sup>2</sup> Estimated from data in *Tovarooborot* (1932), 22.  
<sup>3</sup> Estimated from data in Malafeev (1964), 401, taken from archives.  
<sup>4</sup> Malafeev (1964), 407.  
<sup>5</sup> *Tovarooborot* (1932), 119.  
<sup>6</sup> See Table 25(b).  
<sup>7</sup> Estimated in Barsov (1969), 107–8, from archival data.  
<sup>8</sup> See Zaleski (1971), 392–5.  
<sup>9</sup> *Tovarooborot* (1932), 123–4.  
<sup>10</sup> Derived from data in *Materials* (1985), 199 (14,408.8 ÷ 10,623.5).  
<sup>11</sup> Derived from RGAE, 1562/3/135, 43; 21,220.6 ÷ 11,490.0 (for 1931), 34,147.0 ÷ 11,764.0 (for 1932).  
<sup>12</sup> RGAE, 1562/3/249, 1.

*Notes:* When the source cited takes 1927/28 as the base-year, the index numbers have been adjusted by including 25 per cent of the difference between the 1927/28 and 1928/29 index numbers.

- <sup>a</sup> Obtained by multiplying the 1931 index number by the price index for 1932 (1931 = 100), estimated from monthly data in *Itogi . . . po trgovle*, November 1932, 109–12.  
Urban prices: 146.0; rural prices: 139.4 (on assumption that prices did not increase on December 1); all prices (143.7) obtained by weighting urban trade as 0.65 and rural as 0.35. The 1932 index refers to cooperative trade only, and has been taken as a rough proxy for all trade.
- <sup>b</sup> According to *Tovarooborot* (1932), 118, commercial prices in 1931 were 235 per cent of the normal cooperative prices in that year; 254 is obtained by multiplying the index for cooperative prices in 1931 (1928 = 100) by 2.35 (1.08 x 2.35).
- <sup>c</sup> Obtained by multiplying the 1932 index number by the price index for all retail trade in 1933 (excluding public catering): 112.6 (1932 = 100), from *Itogi . . . po trgovlye*, June–July 1934, 86.
- <sup>d</sup> Malafeev obtained this index number by comparing the official estimates of the value of state and cooperative trade in 1932, given in both 1932 prices and 1940 prices.
- <sup>e</sup> The present author estimates that retail prices in the socialised sector increased by 18.6 per cent in 1933 (including commercial prices), using data for individual groups of goods in *Sovetskaya trgovlya* (1935? [1936]), 74, *Sovetskaya trgovlya v 1935* (1936), 66–71, *Itogi . . . po trgovle*, January 1934, 106–9, and *Kolkhoznaya trgovlaya 1932–4*, i (1935), 165. This rate of increase, which is higher than the official index (see note <sup>c</sup> above) has been applied to the higher index number for 1932, thus giving a possible upper limit for 1933.
- <sup>f</sup> The source claims that these figures may exaggerate the prices of industrial goods on the private market, as they are based on Moscow prices for goods in particularly short supply.
- <sup>g</sup> According to this index, prices of agricultural goods rose more rapidly than prices of industrial goods (1930: 298, 1931: 546, Jan–June 1932: 1146).
- <sup>h</sup> Barsov does not explain his method of estimation in detail: he apparently obtained the index for 1932 from the archives data on the sale of agricultural goods on the unorganised market in 1928/29 prices and 1932 prices. His index is in terms of general trade prices in 1928: as private agricultural prices were 32 per cent higher than these prices in that year (estimated from data in Carr and Davies (1969), 964–5), I have reduced his index number by 100/132.
- <sup>i</sup> Based on arithmetic averages of individual prices on market for nine items of food in 1928 and 1932.
- <sup>j</sup> This index provides only a very rough indication of the change in consumer price levels and is certainly too low in 1932 and 1933; it is extremely sensitive to the weighting given to bazaar prices. It is derived by comparing the value at current prices and 1928 prices of the ‘consumption fund of material goods’ for the non-agricultural

population, as measured by the Soviet compilers of the Balances of the national economy. I have used the data for the non-agricultural population only, as a large part of the 'consumption fund' of the agricultural population consisted of their on-farm consumption, which did not form part of trade, and was valued at notional prices in the Balances.

- <sup>k</sup> For 1933, only the total consumption fund for the whole population in 1933 prices and 1932 prices has been available. These data imply a price index for 1933 of 122.3 (1932 = 100) ( $73,971.9 \div 60,482.9$ ). This has been chained to the index for 1932 in 1928 prices ( $290.2 \times 122.3 = 354.9$ ).

(b) Monthly urban bazaar prices for agricultural goods (peasant supplies)  
(1st of each month; 1928 average = 100)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual average
1929 <sup>1a</sup>	108.1	113.2	121.5	128.5	146.8	147.7	151.8	155.7	149.4	154.4	167.5	175.3	146.3
1930 <sup>1a</sup>	179.7	186.5	207.7	227.4	252.7	272.5	333.2	434.3	482.5	511.1	529.4	523.7	359.7
1931 <sup>1a</sup>	530.7	558.2	600.0	618.9	682.8	651.3	622.2	671.7	670.7	628.1	613.9	637.1	630.0
1932 <sup>2b</sup>	690.4	757.8	837.2	891.9	1069.8	1107.1	1127.4	1222.8	1207.0	1212.3	1395.9	1608.0	1094.0 <sup>c-h</sup>
1933 <sup>3c</sup>	1822.6 <sup>d</sup>	1953.1 <sup>d</sup>	1787.0 <sup>d</sup>	1809.0 <sup>d</sup>	1835.1 <sup>d</sup>	1701.5 <sup>d</sup>	1688.6 <sup>f</sup>	1593.9 <sup>f</sup>	1352.4 <sup>f</sup>	1231.0 <sup>f</sup>	1233.1 <sup>f</sup>	1161.0 <sup>d-g</sup>	1597.4 <sup>c</sup>

<sup>1</sup> *Tovaroborot* (1932), 143.<sup>2</sup> *Izugi . . . po torgovle*, November 1932, 81.<sup>3</sup> *Kolkhoznaya torgovlya v 1932-34 gg.*, i (1935), 128-9.*Notes:*<sup>a</sup> Five products: rye flour, potatoes, beef, butter and eggs. Data are for first day of the month.<sup>b</sup> Nine products: rye flour, potatoes, beef, butter and eggs plus wheat flour, bread, millet and milk. The index, which in the original source takes January 1, 1930, as the base-date, has been chained to the index for 1929-1931. The rate of growth of the two indexes in 1930-1 does not differ much: in terms of the nine-product index December 1, 1931, is 644.4 not 637.1. Data are for the first day of the month.<sup>c</sup> Average of twelve months, calculated by present author.<sup>d</sup> Eleven products, including rye flour, wheat flour, millet, potatoes, beef, butter, milk, cabbage, mutton, pork (only ten products are listed in the original source).<sup>e</sup> The original index is a monthly average in terms of the same month of the previous year, and has been chained to the average of the index for two consecutive months of 1932 (thus, the January 1933 index has been multiplied by the average of the indexes for January 1 and February 1 in the previous line).<sup>f</sup> Eight products: excludes the grain products.<sup>g</sup> Chained to December 1, 1932.<sup>h</sup> For Barsov's much higher index for the prices of agricultural goods on the private market in 1932 see Table 25(a). The index given by Malafiev (1964), 401, for agricultural products in January-June 1932 is 1285 (1927/28 = 100) and 865 (1928/29 = 100), which is roughly comparable with the index in our table.

## GLOSSARY OF RUSSIAN TERMS AND ABBREVIATIONS USED IN TEXT

<i>aktiv</i>	activists (politically-active members of a community)
AMO	Moskovskii avtomobil'nyi zavod (Moscow automobile factory) [ <i>later</i> ZiS – Zavod imeni Stalina (factory named after Stalin), and <i>later</i> ZiL – Zavod imeni Likhacheva – factory named after Likhachev]
art.	article (stat'ya)
AUCCTU	All-Union Central Council of Trade Unions (VTsSPS – Vsesoyuznyi tsentral'nyi sovet professional'nykh soyuzov)
Azneft'	Soyuzni trest azerbaidzhanskoi neftyanoi i gazovoi promyshlennosti (All-Union Trust of Azerbaijan Oil and Gas Industry)
Belomor	Belomorsko-Baltiiskii kanal [from August 1933 imeni Stalina] (White Sea-Baltic Canal [named after Stalin])
CC	Central Committee [of Communist Party] (Tsentral'nyi komitet)
CCC	Central Control Commission [of Communist Party] (Tsentral'naya kontrol'naya komissiya – TsKK) [joint staff with Rabkrin]
Cheka	Chrezvychainaya Komissiya (Extraordinary Commission) [political police], <i>later</i> GPU or OGPU
Chelyabinskstroï (Chelyabtraktorstroï)	Stroitel'stvo Chelyabinskogo traktornogo zavoda (Chelyabinsk Tractor Factory Construction)
Comintern	Communist International



CPSU(b)	Communist Party of the Soviet Union (Bolsheviks)
Dal'stroi	[Trest] Dal'nevostochnoe stroitel'stvo OGPU (Far Eastern Construction Trust of the OGPU)
Dneproges	Dneprovskaya gidroelektricheskaya stantsiya (Dnepr Hydro-electric Power Station)
Dneprokombinat	Dneprovskii promyshlennyi kombinat (Dnepr Industrial Combine)
Dneprostal'	Soyuznoe ob'edinenie 'Dneprostal'' (All-Union Corporation 'Dnepr Steel')
Dneprostroi	Upravlenie gosudarstvennogo Dneprovskogo stroitel'stva (Administration for State Dnepr Construction)
Donbass	Donetskii ugol'nyi bassein (Donets coal basin)
Elektrosila	Leningradskii elektromashinostroitel'nyi zavod 'Elektrosila' (Leningrad Electrical Engineering Factory 'Elektrosila')
Elektrostal'	Elektrometallurgicheskii zavod legirovannykh i spetsial'nykh stalei (Electrometallurgy Factory for Alloy and Special Steels)
Elektrozavod	Moskovskii elektromashinostroitel'nyi zavod (Moscow electrical engineering factory)
ENIMS	Ekspperimental'nyi nauchno-issledovatel'skii institut metallorezhushchikh stankov (Experimental Scientific Research Institute for Metalcutting Machine Tools)
FZU	fabrichno-zavodskoe uchenichestvo (factory apprenticeship [schools])
GAZ	<i>see</i> ZIM
genplan	general'nyi plan (general [10–15 year] plan)
Giproshakht	Institut po proektirovaniyu shakhtnogo stroitel'stva kamennougol'noi prom-

	yslennosti (Institute for Projects of Mine Construction in the Coal Industry)
<i>glavk</i>	glavnoe upravlenie (Chief Administration)
Glavmashprom	Glavnoe upravlenie mashinostroitel'noi promyshlennosti (Chief Administration of the Engineering Industry)
Glavneft'	Glavnoe upravlenie neftyanoi promyshlennosti (Chief Administration of the Oil Industry)
Glavtransmash	Glavnoe upravlenie transportnogo mashinostroeniya (Chief Administration of Transport Engineering)
Goelro	Gosudarstvennaya komissiya po elektrifikatsii Rossii (State Commission for the Electrification of Russia)
Gosbank	Gosudarstvennyi bank (State Bank)
Gosplan	Gosudarstvennaya planovaya komissiya (State Planning Commission)
Gosshveimashina	Vsesoyuznyi trest 'Gosshveimashina' (All-Union State Trust for Sewing Machines)
GPU	<i>see</i> OGPU
Group A	producer goods or capital goods industries
Group B	consumer goods industries
Gulag	Glavnoe upravlenie lagerei OGPU SSSR (Chief Administration of Camps of OGPU USSR)
GUMP	Glavnoe upravlenie metallurgicheskoi promyshlennosti (Chief Administration of the Iron and Steel Industry)
Insnab	Snabzhenie inostrantsev ([Agency for] Supply of Foreigners)
khozraschet	khozyaistvennyi raschet (economic [profit-and-loss] accounting)
kolkhoz	kollektivnoe khozyaistvo (collective farm)
kolkhozsoyuz	soyuz sel'skokhozyaistvennykh kollektivov (union of agricultural collectives)

Komsomol	Kommunisticheskii soyuz molodezhi (Communist League of Youth)
Komzag	Komitet po zagotovkam sel'sko-khoz- yaistvennykh produktov (Committee for Collection of Agricultural Pro- ducts)
kopek	1/100 ruble
KTF	Komitet tovarnykh fondov i regulirova- niya torgovli (Committee for Com- modity Funds and Control of Trade)
Kuznetskstroï	Kuznetskoe stroitel'stvo (Kuznetsk Con- struction)
large-scale (krupnyi)	in industry, usually equivalent to 'cen- sus' (tsenzovaya) industry; remaining industry is 'small-scale' (for definition see vol. 3, p. 16, note 60)
Luganskstroï	Soyuznyi stroitel'no-montazhnyi trest [Luganskogo parovozostroitel'nogo zavoda] (All-Union Building and Erection Trust [of the Lugansk Loco- motive Works])
MAE	Ministère des affaires étrangères (Min- istry of Foreign Affairs)
Magnitostroï	Magnitogorskoe stroitel'stvo (Magnito- gorsk construction)
mobplan	mobilizatsionnyi plan (mobilisation plan)
MOP	mladshii obsluzhivayushchii personal (junior ancillary staff)
MTS	Mashino-traktornaya stantsiya (Mach- ine-Tractor Station)
nachsostav	nachal'stvuyushchii sostav (command- ing staff)
Narkomfin	Narodnyi komissariat finansov (People's Commissariat for Finance)
Narkomindel	Narodnyi komissariat po inostrannym delam (People's Commissariat for Foreign Affairs)
Narkomlegprom (NKLegP)	Narodnyi komissariat legkoi promysh- lennosti (People's Commissariat of Light Industry) [from January 1932]

Narkomles	Narodnyi komissariat lesnoi promyshlennosti (People's Commissariat of Timber Industry) [from January 1932]
Narkomput'	Narodnyi komissariat putei soobshcheniya (People's Commissariat of Ways of Communication [i.e. of Transport])
Narkomsnab	Narodnyi komissariat snabzheniya (People's Commissariat for Supply [formed November 1930])
Narkomtorg	Narodnyi komissariat vneshnei i vnutrennoi torgovli (People's Commissariat of External and Internal Trade [until November 1930])
Narkomtrud	Narodnyi komissariat truda (People's Commissariat of Labour [until 1933])
Narkomtyazhprom (NKTP)	Narodnyi komissariat tyazheloi promyshlennosti (People's Commissariat of Heavy industry [from January 1932])
Narkomvoenmor (NKVMD)	Narodnyi komissariat po voennym i morskim delam (People's Commissariat for Military and Naval Affairs; People's Commissariat for War)
Narkomzem	Narodnyi komissariat zemledeliya (People's Commissariat of Agriculture [of RSFSR up to December 1929, then of USSR])
NATI	Nauchno-issledavatel'skii institut avto-traktornoi promyshlennosti (Research Institute of the Vehicle and Tractor Industry)
NAZ	<i>see</i> ZIM
NEP	Novaya ekonomicheskaya politika (New Economic Policy)
NKVD	Narodnyi komissariat vnutrennikh del (People's Commissariat of Internal Affairs)
<i>nepreryvka</i>	<i>nepreryvnaya rabochaya nedelya</i> (continuous working week)

ob''edinenie (pl. ob''edineniya)	corporation(s) [in industry replaced <i>glavk</i> and syndicate at beginning of 1930; replaced by <i>glavki</i> during 1931–3]
OGPU(GPU)	Ob''edinennoe Gosudarstvennoe Politicheskoe Upravlenie (Unified State Political Administration [Political Police])
OKB	Osoboe konstruktorskoe byuro (Special Design Bureau)
Orgburo	Organizatsionnoe byuro (Organisation committee [of party central committee])
orgnabor	organizovannyi nabor (organised recruitment [of peasants for work in industry, etc.])
ORS(y)	Otdel(y) rabochego snabzheniya (Department(s) of Workers' Supply)
otkhod, otkhodnichestvo	'going away' to seasonal work outside one's own village or district
partmaksimum	'party maximum' [maximum wage for party members]
People's Commissariat for War	<i>see</i> Narkomvoenmor
politotdely	politicheskie otdely (political sections)
postanovlenie	decree [of government, or of collegium of People's Commissariat], resolution [of party, trade union, etc.]
prikaz	order
Profintern	Krasnyi internatsional professional'nykh soyuzov (Red International of Trade Unions)
promkolkhozy	promyslovye kollektivnye khozyaistva (artisan collective farms)
<i>rabfak</i>	rabochii fakul'tet (Workers' Faculty)
Rabkrin	Narodnyi komissariat rabochekrest'yanskoi inspeksii (People's Commissariat of Workers' and Peasants' Inspection)
rabochie	[manual] workers

RAPP	Rossiskaya assotsiatsiya proletarskikh pisatelei (Russian Association of Proletarian Writers)
RKK	Rastsenochno-konfliktная komissiya ([wage] Rates and Conflicts Commission)
ROMO	Respublikanskoe ob'edinenie obshchego mashinostroeniya pri upolnomochennom Narkomtyazhproma SSSR (Republican Corporation of General Engineering attached to plenipotentiary of Narkomtyazhprom USSR)
Rostsel'mash	Rostovskii zavod sel'skokhozyaistvennogo mashinostroeniya (Rostov agricultural engineering factory)
RVS	Revolutsionnyi voennyi sovets SSSR (Revolutionary Military Council of USSR)
RSFSR	Rossiiskaya Sovetskaya Federativnaya Sotsialisticheskaya Respublika (Russian Soviet Federative Socialist Republic)
ruble (rubl')	unit of currency, at par = £0.106 or \$0.515
samozagotovki	self-collections [collection of food products by factories etc. for own use]
samozakupki	self-purchases (purchases of food products by factories etc. for own use)
Siblag	Sibirskie ispravitel'no-trudovye lageri OGPU (Siberian Corrective Labour Camps of OGPU)
sluzhashchie	white-collar workers (often includes engineering and technical workers, sometimes only lower-grade white-collar)
small-scale (melkii)	<i>see</i> large-scale
sovkhoz	sovetskoe khozyaistvo (Soviet [i.e. state] farm)
Sovnarkom (SNK)	Sovet Narodnykh Komissarov (Council of People's Commissars)

Soyuzneft'	Gosudarstvennoe vsesoyuznoe ob''edinenie neftyanoi i gazovoi promyshlennosti (State All-Union Corporation for Oil and Gas Industry)
Soyuzsredmash	Vsesoyuznoe ob''edinenie srednego mashinostroeniya (All-Union Corporation of Medium Engineering)
Soyuzstroï (Stroio-b''edinenie)	Gosudarstvennoe Vsesoyuznoe ob''edinenie stroitel'noi promyshlennosti i promyshlennosti stroitel'nykh materialov mineral'nogo proiskhozhdeniya (State All-Union Corporation of Building Industry and Industry of Building Materials of Mineral Origin)
spetspereselentsy	'special resettlers' (exiles under OGPU control)
Spetsstal'	Gosudarstvennyi soyuznyi trest kachestvennykh, vysokokachestvennykh stali i ferrosplavov (State All-Union Trust of Good-Quality and High-Quality Steels and Ferro-Alloys)
Stalinugol'	Soyuznyi trest kamЕННО-ugol'noi promyshlennosti, Stalino (All-Union Trust of Coal industry, Stalino [formerly Yuzovka])
Stal'	Vsesoyuznoe ob''edinenie metallurgicheskoi, zheleznorudnoi i margantsevoi promyshlennosti (All-Union Corporation for the Iron and Steel, Iron-Ore and Manganese Industry)
Stal'most	Gosudarstvennyi trest stal'nykh konstrukt sii i mostov (State Trust of Steel Components and Bridges)
STO	Sovet Truda i Oborony (Council of Labour and Defence [Economic subcommittee of Sovnarkom])
Svir'stroi	Upravlenie stroitel'stvom Svirskikh raionnykh gidroelektricheskikh stantsii (Administration of Construction of Svir' District Hydro-Electric Stations)

Tagil'stoi	Upravlenie stroitel'stvom Novo-Tagil'skogo metallurgicheskogo zavoda (Administration of Construction of New Tagil' Iron and Steel Works [Nizhnii Tagil'])
TKP	Trudovoe-krest'yanskaya partiya (Toiling Peasants' Party [alleged secret party])
troika	committee of three [in factory: party secretary, director, trade union chair; elsewhere often: party secretary, chair of local soviet, head of local OGPU]
TsAGI	Tsentral'nyi aerogidrodinamicheskii institut (Central Aero-Hydrodynamic Institute)
tsekh	shop [department of a factory]
Tsentrosoyuz	Vsesoyuznyi tsentral'nyi soyuz potrebitel'skikh obshchestv (All-Union Central Union of Consumer [Cooperative] Societies)
Tsentrostal'	Soyuznoe ob'edinenie 'Tsentrostal' (All-Union Corporation 'Central Steel' [Moscow])
TsIAM	Tsentral'nyi institut aviatsionnogo motoroostroeniya (Central Aero-engine Institute)
TsIK	Tsentral'nyi Ispolnitel'nyi Komitet (Central Executive Committee [of Soviets of USSR])
TsKB	Tsentral'noe konstruktorskoe byuro (Central Design Bureau)
TsSU	Tsentral'noe statisticheskoe upravlenie (Central Statistical Administration)
TsUNKhU	Tsentral'noe upravlenie narodnokhozyaistvennogo ucheta (Central Administration of National Economic Records [statistical agency, formed in December 1931 attached to Gosplan])



Tsvetmetzoloto	Vsesoyuznoe ob''edinenie dobychi, obrabotki i realizatsii tsvetnykh metallov, zolota i platiny (All-Union Corporation for the Extraction, Reworking and Sale of Non-Ferrous Metals, Gold and Platinum)
Turksib	Turkestano-Sibirskaya Zheleznaya Doroga (Turkistan-Siberian Railway)
uchet	records, record-keeping
Ukrnarkomsnab	Narodnyi komissariat snabzheniya Ukrainskoi SSR (People's Commissariat for Supply of Ukraine Soviet Socialist Republic)
Uralmash or Uralmashzavod	Ural'skii zavod tyazhelogo mashinostroeniya (Urals Heavy Engineering Works)
VATO	Vsesoyuznoe ob''edinenie avto-traktornoi promyshlennosti (All-Union Corporation of Automobile and Tractor Industry)
Vesenkha	Vysshiy Sovet Narodnogo Khozyaistva (Supreme Council of National Economy [in charge of industry]) [until January 1932]
Vostokostal'	Soyuznyi trest metallurgicheskoi, zhelezorudnoi i margantsevoi promyshlennosti vostochnoi chasti SSSR (All-Union Trust of Iron and Steel, Iron Ore and Manganese Industry of Eastern Part of USSR)
Vostokzoloto	Soyuznyi vostochnyi trest [ <i>later</i> Vsesoyuznoe vostochnoe ob''edinenie] zolotoi promyshlennosti (All-Union Eastern Trust [ <i>later</i> Corporation] of Gold Industry [Irkutsk])
Vsekpromsovet	Vsesoyuznyi sovet respublikanskikh tsentrov promyslovoi kooperatsii (All-Union Council of Republican Centres of Industrial Cooperatives)
VSNKh	<i>see</i> Vesenkha

ZIM (GAZ)	Gor'kovskii avtomobil'nyi zavod imeni Molotova (Gor'kii Automobile Works named after Molotov) [formerly NAZ – Nizhegorodskii avtomobil'nyi zavod (Nizhnii-Novgorod Automobile Works)]
ZIS	<i>see</i> AMO
ZR	Zakryti raspreditel' (closed distributor – i.e. closed retail shop with limited access)
ZRK	Zakryti rabochii kooperativ (Closed Workers' Cooperative)

## ABBREVIATIONS OF TITLES OF BOOKS AND PERIODICAL PUBLICATIONS, ETC., USED IN FOOTNOTES

(For full titles, see appropriate section of Bibliography; items listed below are periodical publications unless otherwise stated.)

AER	American Engineers in Russia ( <i>see</i> Section I of Bibliography, p. 571)
B	<i>Bol'shevik</i>
BDFA	<i>British Documents on Foreign Affairs</i> (series of books)
BFKhZ	<i>Byulleten' finansovogo i khozyaistvennogo zakonodatel'stva</i>
BO	<i>Byulleten' Oppozitsii</i>
BP	<i>Byulleten' ekonomicheskogo kabineta prof. S.N. Prokopovicha</i>
EHR	<i>Economic History Review</i>
EO	<i>Ekonomicheskoe obozrenie</i>
EZh	<i>Ekonomicheskaya zhizn'</i>
FSKh	<i>Finansy i sotsialisticheskoe khozyaistvo</i>
I	<i>Izvestiya</i>
IZ	<i>Istoricheskie zapiski</i>
KPSS v rez.	<i>Kommunisticheskaya partiya Sovetskogo Soyuza v rezolyutsiakh</i> (books)
NPF	<i>Na planovom fronte</i>
P	<i>Pravda</i>
PE	<i>Problemy ekonomiki</i>
PKh	<i>Planovoe khozyaistvo</i>
SPR	<i>Spravochnik partiinogo rabotnika</i> (series of books)
SP NKTP	<i>Sbornik postanovlenii . . . Narodnyi komissariat tyazheloi promyshlennosti</i>
SP VSNKh	<i>Sbornik postanovlenii . . . (VSNKh)</i>
SR	<i>Slavic Review</i>
SS	<i>Soviet Studies (Europe-Asia Studies from 1993)</i>
ST	<i>Sovetskaya torgovlya</i> (journal)
SU	<i>Sobranie uzakonenii</i>
SV	<i>Sotsialicheskii vestnik</i>
SZ	<i>Sobranie zakonov</i>

<i>TsIK 2/VI</i>	<i>2 [Vtoraya] sessiya TsIKa . . . 6 sozyva (book)</i>
<i>TsIK 3/VI</i>	<i>3 [Tret'ya] sessiya TsIKa . . . 6 sozyva (book)</i>
<i>TsIK 4/VI</i>	<i>4[Chetvertaya] sessiya TsIKa . . . 6 sozyva (book)</i>
<i>VIK</i>	<i>Voprosy istorii KPSS</i>
<i>VIZh</i>	<i>Voенno-istoricheskii zhurnal</i>
<i>VKA</i>	<i>Vestnik Kommunisticheskoi Akademii</i>
<i>VT</i>	<i>Voprosy trgovli</i>
<i>VTr</i>	<i>Voprosy truda</i>
<i>ZI</i>	<i>Za industrializatsiyu</i>

## BIBLIOGRAPHY

Letters used as abbreviations for items in the bibliography are listed on pp. 568–9. All other books are referred to in the text footnotes either by their author or editor, or by an abbreviated title (always including the first word or syllable) when there is no author or editor, and by date of publication.

Place of publication of books is Moscow or Moscow–Leningrad, unless otherwise stated.

Only items referred to in the text are included in the bibliography.

### SECTION 1 ARCHIVES, THESES AND OTHER UNPUBLISHED MATERIALS

#### *Russian archives*

(Referred to by name of archive, followed by fond/opis'/delo, list.)

Gosudarstvennyi arkhiv Rossiiskoi Federatsii (GARF, formerly TsGAOR):

- fond 374 (Narodnyi komissariat raboche-krest'yanskoi inspektsii SSSR)
- fond 5446 (Sovet Narodnykh Komissarov SSSR)
- fond 5451 (Vsesoyuznyi tsentral'nyi sovet professional'nykh soyuzov)
- fond 6759 (Komitet Tovarnykh Fondov i Regulirovaniya Torgovli pri STO SSSR)
- fond 8418 (Komissiya oborony)

Rossiiskii gosudarstvennyi arkhiv ekonomiki (RGAE, formerly TsGANKh):

- fond 1884 (Narodnyi komissariat putei soobshcheniya SSSR)

- fond 3429 (Vysshii sovet narodnogo khozyaistva SSSR)
- fond 4086 (Glavnoe upravlenie metallurgicheskoi promyshlennosti Narkomtyazhproma SSSR)
- fond 4372 (Gosudarstvennaya planovaya komissiya SSSR)
- fond 7446 (Kolkhozsentr SSSR)
- fond 7566 (Glavnoe upravlenie ugol'noi promyshlennosti Narkomtyazhproma SSSR)
- fond 7620 (Vsesoyuznoe ob''edinenie avtotraktornoï promyshlennosti VSNKh SSSR)
- fond 7622 (Glavnoe upravlenie avtotraktornoï promyshlennosti Narkomtyazhproma SSSR)
- fond 8040 (Komitet po zagotovkam sel'skokhozyaistvennykh produktov Sovnarkoma SSSR)
- fond 8043 (Narodnyi komissariat snabzheniya SSSR)

Rossiiskii tsentr khraneniya i izucheniya dokumentov noveishei istorii (RTsKhIDNI, formerly TsPA):

- fond 17 (Tsentral'nyi Komitet KPSS)
- fond 79 (Kuibyshev Valerian Vladimirovich (1888–1935))
- fond 85 (Ordzhonikidze Grigorii Konstantinovich (1886–1937))

### *Non-Russian archives*

French government archives: Ministère des Affaires Etrangères (referred to as MAE, Europe, 1930–1940, URSS, followed by volume number and number of folio).

German archives: Politischen Archiv des Auswartigen Amtes.

Hoover Institution: American Engineers in Russia (referred to as Hoover, AER, followed by Box number and name of interviewee).

Hoover Institution: Trotsky and Sedov – I (referred to by Box number, followed by document number).

Smolensk archives (referred to by WKP number of file, and list).

Trotsky archives (Houghton Library, University of Harvard) (referred to as T, followed by document number).

US government archives: State Department files (referred to by Decimal classification, followed by document number).

*Unpublished theses and papers*

- Barber, J., 'The Composition of the Soviet Working Class, 1928–1941', unpublished Discussion Papers, SIPS no. 16 (CREES, University of Birmingham, 1978)
- Cooper, J. M., 'The Development of the Soviet Machine-Tool Industry, 1917–41', unpublished Ph.D. thesis (University of Birmingham, 1975)
- Cooper, J. M., 'Defence Production and the Soviet Economy, 1929–1941', unpublished Discussion Papers SIPS no. 3 (CREES, University of Birmingham, 1976)
- Davies, R. W., 'Soviet Industrial Production, 1928–1937: the Rival Estimates', unpublished Discussion Papers SIPS no. 18 (CREES, University of Birmingham, 1978)
- Davies, R. W., 'Capital Investment and Capital Stock in the USSR, 1928–1940: Soviet and Western Estimates', unpublished Discussion Papers, SIPS no. 22 (CREES, University of Birmingham, 1982)
- Dodge, N. T., 'Trends in Labor Productivity in the Soviet Tractor Industry: A Case Study in Industrial Development', unpublished Ph.D. dissertation (Harvard University, 1960)
- Dohan, M. R., 'Soviet Foreign Trade in the NEP Economy and Soviet Industrialization Strategy', unpublished Ph.D. dissertation (MIT, 1969)
- Eason, W. W., 'Soviet Manpower: The Population and Labor Force of the USSR', unpublished Ph.D. thesis (Columbia University, 1959)
- Fridberg, L. Ya., 'Gosudarstvennye zagotovki i obrazovanie khlebnogo fonda v SSSR (1921–1940gg.)', unpublished Doctoral dissertation (Moscow Financial Institute, 1973)
- Gooderham, P. O., 'The Regional Party Apparatus in the First Five-Year Plan: the Case of Leningrad', unpublished Discussion Paper SIPS no. 24 (CREES, University of Birmingham, 1983)
- Hoffmann, D. L., 'Urbanization and Social Change during Soviet Industrialization: In-Migration to Moscow, 1929–1937', unpublished Ph.D. dissertation (Columbia University, New York, 1990)
- Khlevnyuk, O. and Davies, R. W., 'The Role of Gosplan in Economic Decision-Making in the 1930s', unpublished Discus-

- sion Papers, SIPS no. 36 (CREES, University of Birmingham, 1993)
- Kotkin, S., 'Magnetic Mountain: City Building and City Life in the Soviet Union in the 1930s': A Study of Magnitogorsk', unpublished Ph.D. dissertation (University of California at Berkeley, 1988)
- Morrell, G. W., 'Britain Confronts the Stalin Revolution: Anglo-Soviet Relations and the Metro-Vickers' Crisis', unpublished manuscript (1993)
- Powell, R. P., 'A Materials-Input Index of Soviet Construction, 1927/1928 to 1955', unpublished RAND Research Memorandum, parts i-ii, RM-1872 and RM-1873 (Santa Monica, 1957)
- Powell, R. P., 'A Materials-Input Index of Soviet Construction, Revised and Extended', unpublished RAND Research Memorandum RM-2454 (Santa Monica, 1959)
- Redding, A. D., 'Nonagricultural Employment in the USSR, 1928-55', unpublished Ph.D. dissertation (Columbia University, 1958)
- Russell, J., 'The Role of Socialist Competition in Establishing Labour Discipline in the Soviet Working Class, 1928-1934', unpublished Ph.D. thesis (CREES, University of Birmingham, 1987)
- Sadler, A., 'The Party Organisation in the Soviet Enterprise, 1928-34', unpublished M.Soc.Sc. thesis (CREES, University of Birmingham, 1979)
- Straus, K. M., 'The Transformation of the Soviet Working Class, 1929-1935: The Regime in Search of a New Social Stability', unpublished Ph.D. dissertation (University of Pennsylvania, 1990)
- Tupper, S. M., 'The Red Army and Soviet Defence Industry, 1934-1941', unpublished Ph.D. thesis (CREES, University of Birmingham, 1982)
- Wheatcroft, S. G., 'The Population Dynamic and Factors Affecting It in the Soviet Union in the 1920's and 1930's', unpublished Discussion Papers SIPS nos. 1 & 2 (CREES, University of Birmingham, 1976)
- Wheatcroft, S. G., 'Statistics and Economic Decision Making in the USSR under Stalin', unpublished working paper (CREES, University of Birmingham, 1979)



Wheatcroft, S. G., 'Towards an Analysis of the Class Divisions in the USSR in the 1920's and 1930's, with Special Reference to the Non-Agricultural Non-Labouring Classes', unpublished working paper (University of Birmingham, 1984)

## SECTION 2 NEWSPAPERS, JOURNALS AND OTHER PERIODICAL PUBLICATIONS

*Acta Slavica Iaponica* (Tokyo)

*Bol'shevik*

*Byulleten' ekonomicheskogo kabineta prof. S. N. Prokopovicha* (Prague)

*Byulleten' Narodnogo Komissariata Snabzheniya* (from 1931; formerly *Zakonodatel'stvo i rasporyazheniya po torgovle*)

*Byulleten' Oppozitsii (bol'shevikov-lenintsev)* (Berlin to 1932, Paris from 1933)

*Byulleten' sprosya i predlozheniya*

*Cahiers du monde russe et soviétique* (Paris)

*Cahiers Léon Trotsky* (Paris)

*Economic History Review*

*Ekonomicheskaya zhizn'*

*EKO* (Novosibirsk)

*Ekonomicheskoe obozrenie*

*Europe-Asia Studies* (formerly *Soviet Studies*)

*Ezhegodnik khlebooborota*

*Finansovye problemy planovogo khozyaistva*

*Finansy i sotsialisticheskoe khozyaistvo*

*Frankfurter Zeitung*

*Gudok*

*Istoricheskie zapiski*

*Itogi vypolneniya narodno-khozyaistvennogo plana po torgovle i snabzheniyu (TsUNKhU)* (renamed *Itogi vypolneniya narodno-khozyaistvennogo plana po tovarooborotu* from 1934)

*Iunost'*

*Izvestiya*

*Izvestiya TsK*

*Journal of Economic Literature*

*Kommunist*

*Le Temps* (Paris)

*Literaturnaya gazeta*

*Machinery*

*Memorandum* (Birmingham Bureau of Research on Russian Economic Conditions, University of Birmingham)

*Metall*

*Na planovom fronte*

*Narodnoe khozyaistvo*

*Nashe stroitel'stvo*

*New York Times*

*Nizhnee Povolzh'e* (Saratov)

*Novaya i noveishaya istoriya*

*Oktyabr'*

*Osnovnye pokazateli raboty promyshlennosti NKTP* (Otchetno-ekonomicheskoi sektor NKTP)

*Osnovnye pokazateli vypolneniya narodno-khozyaistvennogo plana* (TsUNKhU)

*Otechestvennaya istoriya* (formerly *Istoriya SSSR*)

*Pamyat'* (Paris)

*Partiinaya zhizn'*

*Partiinoe stroitel'stvo*

*Past and Present*

*Plan: organ Gosplana i TsUNKhU SSSR*

*Planovoe khozyaistvo*

*Pravda*

*Predpriyatie: proizvodstvenno-ekonomicheskii i tekhnicheskii zhurnal*

*Problemy ekonomiki*

*Proletarskaya revolyutsiya*

*Puti industrializatsii*

*Sbornik postanovlenii i prikazov po promyshlennosti* (VSNKh SSSR)

*Sbornik postanovlenii i prikazov po promyshlennosti, Narodnyi komissariat tyazheloi promyshlennosti*

*Severnyi rabochii* (Yaroslavl')

*Slavic Review* (Urbana-Champaign)

*Sobranie uzakonenii i rasporyazhenii RSFSR*

*Sobranie zakonov i rasporyazhenii SSSR*

*Sotsialisticheskii vestnik* (Paris)

*Sotsialisticheskoe zemledelie*

*Sovetskaya metallurgiya: tekhniko-ekonomicheskii zhurnal*

*Sovetskaya trgovlya*

*Sovetskie arkhivy*

*Soviet Studies*

*Soyuz*

*Statistika truda*

*Stroitel'naya promyshlennost'*  
*Svobodnaya mysl'* (formerly *Kommunist*, formerly *Bol'shevik*)  
*Torgovo-promyshlennaya gazeta* (*Za industrializatsiyu* from beginning of 1930)  
*Trud*  
*Vestnik Kommunisticheskoi Akademii*  
*Vneshnyaya torgovlya*  
*Vneshnyaya torgovlya Soyuzu SSR: statisticheskii obzor*  
*Voenno-istoricheskii zhurnal*  
*Voprosy istorii*  
*Voprosy istorii estestvoznaniya i tekhniki*  
*Voprosy truda*  
*Vypolnenie narodno-khozyaistvennogo plana* (Gosplan)  
*Za industrializatsiyu*  
*Za rekonstruktsiyu tekstil'noi promyshlennosti*

### SECTION 3 BOOKS, ETC., IN RUSSIAN

Amfiteatrov, G., [ed.] *Sistema planovykh dogovorov v promyshlennosti* (1933)  
 Andrukhov, N. R., *Partiinoe stroitel'stvo v period bor'by za pobedu sotsializma v SSSR, 1917–1937* (1977)  
 Arakelyan, A., *Osnovnye fondy promyshlennosti SSSR* (1938)  
 Astashenkov, P. T., *Akademik S. P. Korolev* (1969)  
 Barsov, A. A., *Balans стоимостnykh obmenov mezhdru gorodom i derevnei* (1969)  
*Belomorsko-Baltiiskii kanal imeni Stalina* (1932)  
 Blinov, A. S., *Ivan Akulov* (1967)  
 Bukharin, N., *Etyudy* (1932)  
*Byli industrial'nye: ocherki i vospominaniya* (1970)  
*Chernaya metallurgiya, zhelezorudnaya, marganetsevaya i koksovaya promyshlennost' SSSR: statisticheskii sbornik* (1935)  
 4 [Chetvertaya] sessiya Tsentral'nogo Iсполnitel'nogo Komiteta Soyuzu SSR 6 sozyva [December 28, 1933–January 4, 1934] (1934)  
*Chistka sovetskogo apparata k XVI s'ezdu VKP (b)* (1930)  
*Denezhnye dokhody, raskhody i platezhi derevni v 1930/31g. (po dannym vyborochnogo obsledovaniya)* (1931)  
*Desyat' let Sovetskogo sudostroeniya* (1932)

- Dev'yatyi vsesoyuznyi s'ezd professional'nykh soyuzov SSSR: stenograficheskii otchet* [April 20–29, 1932] (1933)
- Direktivy KPSS i sovetского pravitel'stva po khozyaistvennym voprosam: sbornik dokumentov*, vol. II, 1929–1945 gody (1957)
- Direktor I. A. Likhachev: v vospominaniyakh sovremennikov; o zavode i o sebe* (1971)
- Dmitriev, V. I., *Sovetskoe podvodnoe korablestroenie* (1990)
- Dokumenty vneshnei politiki SSSR*, vol. XIV, 1 yanvarya – 31 dekabrya 1931 (1968), vol. XV, 1 yanvarya – 31 dekabrya 1932 (1969), vol. XVI, 1 yanvarya – 31 dekabrya 1933 (1970)
- Dubinskii-Mukhadze, I., *Ordzhonikidze* (1963)
- Ekonomicheskaya zhizn' SSSR: khronika sobytii i faktov, 1917–1959* (1961)
- Elektrifikatsiya SSSR: sbornik dokumentov i materialov, 1926–1932gg.* (1966)
- Finansy sotsialisticheskogo gosudarstva. Svodka balansov za 1933g.* (1935)
- Flakserman, Yu. N., *Gleb Maksimilianovich Krzhizhanovskii* (1964)
- Formirovanie i razvitie sovetского rabocheго klassa (1917–1961gg.): sbornik statei* (1964)
- Frankfurt, S. M., *Rozhdenie stali i cheloveka* (1935)
- Galiguzov, I. F. and Churilin, M. E., *Flagman otechestvennoi industrii: istoriya Magnitogorskogo metallurgicheskogo kombinata imeni V. I. Lenina* (1978)
- Gan, L., *Udarnye stroiki SSSR* (1932)
- Gershberg, S., *Rabota u nas takaya: zapiski zhurnalista-pravdista tridsatykh godov* (1971)
- God vosemnadsyati. Almanakh shestoi* (1935)
- (Granat) *Entsiklopedicheskii slovar'*, vol. 41, ii
- Gurevich, A., *Zadachi chernoi metallurgii v 1932g.* (1932)
- Il'in, Ya., *Bol'shoi konveier* (1934)
- Industrializatsiya SSSR: 1929–1932gg.: dokumenty i materialy* (1970)
- Industrializatsiya SSSR: 1933–1937gg.: dokumenty i materialy* (1971)
- Industrializatsiya SSSR: 1938–1941gg.: dokumenty i materialy* (1973)
- Istoriya industrializatsii Kazakhskoi SSR (1926–1941gg.)*, vol. I, 1926–1932gg. (Alma-Ata, 1967)
- Istoriya industrializatsii Nizhegorodskogo-Gor'kovskogo kraya (1926–1941gg.)* (Gor'kii, 1968)
- Istoriya industrializatsii Srednego Povolzh'ya, 1926–1941gg.* (Kuibyshev, 1974)
- Istoriya Khar'kovskogo traktornogo zavoda*, vol. I (Khar'kov, 1960)

- Istoriya Kommunisticheskoi Partii Sovetskogo Soyuza*, vol. IV, ii (1971)
- Istoriya Kuznetskogo metallurgicheskogo kombinata imeni V. I. Lenina* (1973)
- Istoriya sovetskogo rabocheho klassa*, vol. II (1984) (see *Rabochi klass*. . .)
- Istoriya vtoroi mirovoi voiny, 1939–1945*, vol. I (1973)
- Itogi raboty promyshlennosti VSNKh za 1931g. i perspektivy tyazheloi promyshlennosti na 1932g.: materialy k dokladu tov. Ordzhonikidze XVII vsesoyuznoi konferentsii VKP (b)* (1932)
- Itogi vypolneniya pervogo pyatiletnego plana razvitiya narodnogo khozyaistva Soyuzs SSR* (1933)
- Ivnitskii, N. A., *Klassovaya bor'ba v derevne i likvidatsiya kulachestva kak klassa, 1929–32gg.* (1972)
- Iz istorii Magnitogorskogo metallurgicheskogo kombinata i goroda Magnitogorska (1929–1941gg.)* (Chelyabinsk, 1965)
- Kachestvennye pokazateli raboty promyshlennosti* (1932)
- K dokladu Gosplana SSSR o narodnokhozyaistvennom plane na 1931g. – perechen' balansov* (n.d.)
- Kerber, L. L., *TU – chelovek i samolet* (1973)
- Khavin, A., *U rulya industrii (dokumental'nye ocherki)* (1968)
- Khmel'nitskaya, E. L., ed., *Ekonomika sotsialisticheskoi promyshlennosti: uchebnik dlya vuzov*, vol. I (1931)
- Khozyaistvennye dogovory v tyazheloi promyshlennosti* (5th edn, 1937)
- Kolkhoznaya trgovlya* (1934) (prilozhenie to *Itogi* . . . po tovaroobrotu, January 1934)
- Kolkhoznaya trgovlya v 1932–1934 gg.*, i (1935)
- Kolomenskii, A., *Kak my ispol'zuem zagranichnuyu tekhniku* (1930)
- Kommunisticheskaya partiya Sovetskogo Soyua v rezolyutsiakh i resheniyakh s'ezdov, konferentsii i plenumov TsK*, vol. III, 1930–1954 (1954)
- Kondrat'ev, N. D., *Osoboe mnenie*, vols I–II (1993)
- Kostyuchenko, S., Khrenov, I., Fedorov, Yu., *Istoriya Kirovskogo zavoda, 1917–1945* (1966)
- KPSS o kul'ture, prosveshchenii i nauke* (1963)
- Krasnov-Levitin, A., *Likhie gody, 1925–1941: vospominaniya* (Paris, 1977)
- Kuibyshev, V. V., *Uborka, khlebozagotovki i ukreplenie kolkhozov: rech' na sobranii dokladchikov Moskovskoi partiinoi organizatsii* (1932)
- Kuibyshev, V. V., *Stat'i i rechi*, vol. V, 1930–1935 (1937)
- Kul'chitskii, S. V., *Vnutrennie resursy sotsialisticheskoi industrializatsii (1926–1927)* (Kiev, 1979)

- Kul'turnoe stroitel'stvo SSSR: statisticheskii sbornik* (1956)
- Kuz'min, V. I., *V bor'be za sotsialisticheskuyu rekonstruktsiyu, 1926–1937: ekonomicheskaya politika Sovetskogo gosudarstva* (1976)
- Leninskii plan sotsialisticheskoi industrializatsii i ego osushchestvlenie* (1969)
- Levin, B., *Narodno-khozyaistvennyi plan na 1932 god (osnovnye ustanovki)* (1932)
- Lokshin, A., *Organizatsiya upravleniya promyshlennost'yu v SSSR* (1933)
- Lyando, A., *Voprosy finansovogo balansa* (1963)
- Magnitostroi: stroitel'stvo i eksploatatsiya Magnitogorskogo Metallurgicheskogo Kombinata imeni tov. Stalina, 1929–1933g.* (Magnitogorsk-Sverdlovsk, 1934)
- Malafeev, A. N., *Istoriya tsenoobrazovaniya v SSSR (1917–1963gg.)* (1964)
- Mandalyan, T., *Voprosy ekonomiki i tekhniki nashego stroitel'stva* (1932)
- Marshal Tukhachevskii: vospominaniya družei i soratnikov* (1965)
- Materialy po balansu narodnogo khozyaistvo za 1928, 1929 i 1930gg.* (1932) – see *Materials*
- Materialy po kachestvennym pokazatelyam* (1932)
- Matushkin, P. G., *Bor'ba kommunisticheskoi partii za sozdanie vtoroi ugol'no-metallurgicheskoi bazy SSSR* (Chelyabinsk, 1966)
- Moshkov, Yu. A., *Zernovaya problema v gody sploshnoi kollektivizatsii sel'skogo khozyaistva SSSR (1929–1932gg.)* (1966)
- Narodnoe khozyaistvo SSSR: statisticheskii spravochnik 1932* (1932)
- Narodnoe khozyaistvo SSSR v 1958 gody: statisticheskii ezhegodnik* (1959)
- Narodno-khozyaistvennyi plan SSSR na 1931 (kontrol'nye tsifry): doklad Gosplana SSSR Sovetu Narodnykh Komissarov SSSR* (1931)
- Neiman, G. Ya., *Vnutrennyaya torgovlya SSSR* (1935)
- Ob'ekty novogo stroitel'stva gosudarstvennoi promyshlennosti na pyatiletie (1928/29–1932/33gg.)* (1930)
- Oborudovanie metallobrabatyvayushchei promyshlennosti*, vols I–V (1935)
- Ocherki Gor'kovskoi organizatsii KPSS*, vol. II (Gor'kii, 1966)
- Ocherki istorii Donetskoi oblastnoi partiinoi organizatsii* (Donetsk, 1978)
- Ocherki istorii narodnogo khozyaistva Kazakhskoi SSR, 1928 god-iyun' 1941 goda*, vol. II (1962)
- O kolkhoznom stroitel'stve* (Rostov-on-Don, 1932)

- Oni ne molchali* (1991)
- Ordzhonikidze, G. K., *Stat'i i rechi*, vol. II, 1926–1937gg. (1957)
- Osmyslit' kul't Stalina* (1989)
- Osnovnye ob"ekty kapital'nogo stroitel'stva vo vtorom pyatiletii (1933–1937gg.)* (1934)
- Osokina, E. A., *Ierarkhiya potrebleniya. O zhizni lyudei v usloviyakh stalinskogo snabzheniya, 1928–1935gg.* (1993)
- Osushchestvenenie leninskogo kooperativnogo plana v Kirgizii* (Frunze, 1976)
- Otchet Narodnogo Komissariata Finansov Soyuza SSR ob ispolnenii edinogo gosudarstvennogo byudzheta Soyuza Sovetskikh Sotsialisticheskikh Respublik za 1929/30g.* (Leningrad, 1931)
- Otchet Narodnogo Komissariata Finansov Soyuza SSR ob ispolnenii edinogo gosudarstvennogo byudzheta Soyuza Sovetskikh Sotsialisticheskikh Respublik za 1931g.* (Leningrad, 1932)
- Otchet Narodnogo Komissariata Finansov Soyuza SSR ob ispolnenii edinogo gosudarstvennogo byudzheta Soyuza Sovetskikh Sotsialisticheskikh Respublik za 1932g.* (Leningrad, 1932? [1933])
- Otchet Narodnogo Komissariata Finansov Soyuza SSR ob ispolnenii edinogo gosudarstvennogo byudzheta Soyuza Sovetskikh Sotsialisticheskikh Respublik za 1933g.* (Leningrad, 1935)
- Panfilova, A. M., *Formirovanie rabocheho klassa SSSR v gody pervoi pyatiletki (1928–1932)* (1964)
- Paramonov, I. V., *Puti proidennye* (2nd edn, 1970)
- Pass, I., *O verbovke rabochei sily v derevne* (1933)
- Pervaya vsesoyuznaya konferentsiya rabotnikov sotsialisticheskoi promyshlennosti* [January 31–February 4, 1931] (1931)
- Postroenie fundamenta sotsialisticheskoi ekonomiki v SSSR, 1926–1932gg.* (1960)
- Pozyvnye istorii*, vol. II (1970)
- Profsoyuznaya perepis', 1932–1933g.*, vypusk 1 (1934)
- Promyshlennost' i rabochii klass Ukrainskoi SSR, 1933–1941: sbornik dokumentov*, vol. I (Kiev, 1977)
- Promyshlennost' SSSR* (1936)
- Promyshlennost' SSSR: statisticheskii sbornik* (1957)
- Promyshlennost' SSSR: statisticheskii sbornik* (1964)
- Promyslovaya kooperatsiya SSSR* (1934)
- Protsess kontrrevolyutsionnoi organizatsii men'shevikov* (1931)
- 50 [Pyat'desyat] let vooruzhennykh sil SSSR* (1968)
- Pyatiletnii plan narodno-khozyaistvennogo stroitel'stva SSSR*, 3rd edn (1930), vols I–III

- Rabochie Leningrada* (1963)
- Rabochii klass — vedushchaya sila v stroitel'stve sotsialisticheskogo obshchestva, 1921–1937 gg.* (1984) (*Istoriya sovetskogo rabocheho klassa*, vol. II)
- Romanov, A. P., *Raketom pokoryaetsya prostranstvo* (1976)
- Ryabushkin, T. V., *Problemy ekonomicheskoi statistiki* (1959)
- Sbornik deistvuyushchikh vazhneishikh postanovlenii prezidiuma Moskovskogo soveta RK i KD za isklyucheniem obyazatel'nykh postanovlenii 1923–34gg.* (1934)
- Sbornik vazhneishikh postanovlenii po trudu* (10th edn, 1938)
- Sebestoimost' i proizvoditel'nost' truda po otraslyam narodnogo khozyaistva v 1931g. (po materialam godovykh otchetov)* (1932)
- XVII [Semnadsataya] konferentsiya Vsesoyuznoi Kommunisticheskoi partii (b): stenograficheskii otchet* [January 30–February 4, 1932] (1932)
- Shavrov, V., *Istoriya konstruksii samoletov v SSSR do 1938g. (materialy k istorii samoletostroeniya)* (2nd edn, 1978)
- Sheboldaev, B. P., *Stat'i i rechi, 1932–1933* (Rostov, 1934)
- XVI [Shestnadsatyi] s'ezd Vsesoyuznoi Kommunisticheskoi partii (b): stenograficheskii otchet* [June 26–July 13, 1930] (2nd edn, 1931)
- 6 [Shestoi] s'ezd sovetov* (1931)
- Shkundin, Z. I., *Khozraschet v metallurgicheskoi promyshlennosti*, vol. I (1931)
- Shul'kin, L. P., *Potreblenie chernykh metallov v SSSR* (1940)
- Skvoz' ognennye gody* (Khar'kov, 1966)
- Soldatenko, E. I., *Ukreplenie oboronosposobnosti SSSR v pervoi pyatiletke* (Kharkov, 1957)
- Sonin, M. Ya., *Vosproizvodstvo rabochoi sily v SSSR i balans truda* (1959)
- Sostav rukovodyashchikh rabotnikov i spetsialistov Soyuza SSR* (1935)
- Sotsialisticheskoe stroitel'stvo SSSR: statisticheskii ezhegodnik* (1934)
- Sotsialisticheskoe stroitel'stvo SSSR: statisticheskii ezhegodnik* (1935)
- Sotsialisticheskoe stroitel'stvo SSSR: statisticheskii ezhegodnik* (1936)
- Sovetskaya trgovlya* (1935? [1936])
- Sovetskaya trgovlya v 1935 godu: statisticheskii ezhegodnik* (1936)
- Sovetskii tyl v Velikoi Otechestvennoi voine*, vol. II (1974)
- Spravochnik partiinogo rabotnika*, vol. VIII (1934)
- SSSR v tsifrakh* (1934)
- Stalin, I. V., *Sochineniya*, vols XI (1949), XII (1949), XIII (1951)
- Stalin, I. V., *Sochineniya*, ed. R. H. McNeal, vol. I (XIV) (Stanford, 1967)



- Stoimost' kapital'nogo stroitel'stva za 1931–34 i I kvartal 1935 goda* (1935) (prilozhenie to *Osnovnye pokazateli*, July 1935)
- Stranitsy istorii* (1989)
- Stroiteli trekh gorodnov* (Khabarovsk, 1967)
- Tovarooborot za gody rekonstruktivnogo perioda* (1932)
- Transport i svyaz' SSSR: statisticheskii sbornik* (1972)
- 3 [Tret'ya] sessiya Tsentral'nogo Iсполnitel'nogo Komiteta Soyuza SSR 6 sozyva [January 23–30, 1933] (1933)
- Trifonov, I. Ya., *Likvidatsiya ekspluatorskikh klassov v SSSR* (1975)
- Trud v pervoi pyatiletke* (1934)
- Trud v SSSR: materialy k otchetu Narkomtruda SSSR na IX vsesoyuznom s'ezde professional'nykh soyuzov* (1932)
- Trud v SSSR: statisticheskii spravochnik* (1936)
- Trudy Pervoi Vsesoyuznoi Konferentsii po razmeshcheniyu proizvoditel'nykh sil SSSR*, iv (1933)
- Tyazhelaya promyshlennost' SSSR ot XVI k XVII s'ezdu VKP(b)* (1934)
- 1933 [Tysyacha devyatsot tridsat' tretii] god: sbornik ocherkov i statei (1934)
- Unpelev, G. A., *Rozhdenie Uralmasha (1928–1932gg.)* (1960)
- Unpelev, G. A., *Sotsialisticheskaya industrializatsiya Dal'nego Vostoka* (Vladivostok, 1972)
- Unpelev, G. A., *Zavershenie sotsialisticheskoi rekonstruktsii promyshlennosti Dal'nego Vostoka (1933–1937gg.)* (Vladivostok, 1975)
- Ural'skii zavod tyazhelogo mashinostroeniya, 1928–1933* (Sverdlovsk, 1933)
- Vareikis, I. M., *O kharaktere i praktike kolkhoznai torgovli* (Voronezh, 1932) (referred to in present volume as Vareikis (1932) (1))
- Vareikis, I. M., *O resheniyakh sentyabr'skogo plenuma TsK VKP(b) i nashikh zadachakh* (Voronezh, 1932) (referred to in present volume as Vareikis (1932) (2))
- Vdovin, A. I. and Drobizhev, V. Z., *Rost rabocheho klassa SSSR, 1917–1940gg.* (1976)
- Venediktov, A. V., *Organizatsiya gosudarstvennoi promyshlennosti v SSSR*, vol. II, 1921–1934 (Leningrad, 1961)
- Viktorov, V. A., *Bez grifa 'sekretno': zapiski voennogo prokurora* (1990)
- Vneshnyaya torgovlya SSSR za 1918–1940gg.: statisticheskii obzor* (1960)
- 2 [Vtoraya] sessiya Tsentral'nogo Iсполnitel'nogo Komiteta Soyuza SSR 6 sozyva [December 22–28, 1931] (1932)

- Vtoroi pyatiletnii plan razvitiya narodnogo khozyaistva SSSR (1933–1937gg.)* vols I–II (1934); *Prilozhenie k tablitsam pervogo toma* (1934)
- Yakovlev, A. S., *Tsel' zhizni* (1967)
- Yakovlev, A. S., *Sovetskie samolety: kratkii ocherk*, 4th edn (1982)
- Yakovlev, Ya. A., *Voprosy organizatsii sotsialisticheskogo sel'skogo khozyaistva* (1933)
- Yantarov, S., *Velikoe istoricheskoe stroitel'stvo*, 2nd edn ([Kharkov], 1935)
- Zarabotnaya plata rabochikh krupnoi promyshlennosti v oktyabre 1934g.* (1935)
- Zarplata inzhinerno-tekhicheskikh rabotnikov, sluzhashchikh i uchenikov v sentyabre–oktyabre 1934g.* (1936)
- Zheleznodorozhnyi transport v gody industrializatsii SSSR (1926–1941)* (1970)
- Zhukov, Yu., *Lyudi 30-kh godov* (1966)

#### SECTION 4 BOOKS, ETC., IN OTHER LANGUAGES

- Abbé, J. E., *I Photograph Russia* (USA, 1934)
- Abramsky, C., ed., *Essays in Honour of E. H. Carr* (London, 1974)
- Allan, S. R., *Comrades and Citizens (Soviet People)* (London, 1938)
- Alliluyeva, S., *Twenty Letters to a Friend* (New York, 1967)
- Alliluyeva, S., *Only One Year* (London, 1969)
- Arnold, A. Z., *Banks, Credit and Money in Soviet Russia* (New York, 1937)
- Bailes, K. E., *Technology and Society under Lenin and Stalin: Origins of the Soviet Technical Intelligentsia, 1917–1941* (Princeton, 1978)
- Barmine, A., *Memoirs of a Soviet Diplomat: Twenty Years in the Service of the USSR* (London, 1938)
- Bergson, A., *The Structure of Soviet Wages: A Study in Socialist Economics* (Cambridge, Mass., 1944)
- British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*, part II, *From the First to the Second World War*, Series A, *The Soviet Union, 1917–1939*, vols X (1986), XI (1986), XVI (1992), XVII (1992)
- Carr, E. H., *Socialism in One Country, 1924–1926*, vol. I (London, 1958)

- Carr, E. H., *Foundations of a Planned Economy, 1926–1929*, vol. II (London, 1971)
- Carr, E. H., *The Twilight of Comintern, 1930–1935* (London and Basingstoke, 1982)
- Carr, E. H. and Davies, R. W., *Foundations of a Planned Economy, 1926–1929*, vol. I (London, 1969)
- Carynnyk, M., Luciuk, L. Y. and Kordan, B. S., eds, *The Foreign Office and the Famine: British Documents on Ukraine and the Great Famine of 1932–1933* (Kingston, Ontario; Vestal, New York, 1988)
- The Case of Leon Trotsky: Report of Hearings on the Charges Made against Him in the Moscow Trials by the Preliminary Commission of Inquiry* (New York, 1937, reprinted 1968)
- Chamberlin, W. H., *Russia's Iron Age* (Boston, 1934)
- Ciliga, A., *The Russian Enigma* (London, 1979 [first published in part, 1940])
- Clark, M. G., *The Economics of Soviet Steel* (Cambridge, Mass., 1956)
- Coates, W. P. and Z. K., *A History of Anglo-Soviet Relations* (London, 1945)
- Conquest, R., *The Great Terror: Stalin's Purge of the Thirties* (London, 1968)
- Dallin, D. J. and Nicolaevski, P. I., *Forced Labour in Soviet Russia* (London, 1948)
- Davies, R. W., *The Development of the Soviet Budgetary System* (Cambridge, 1958)
- Davies, R. W., *The Soviet Economy in Turmoil, 1929–1930* (London and Basingstoke, 1989)
- Davies, R. W., ed., *Soviet Investment for Planned Industrialisation, 1929–1937: Policy and Practice: Selected Papers from the Second World Congress for Soviet and East European Studies* (Berkeley, 1984)
- Davies, R. W., ed., *From Tsarism to the New Economic Policy: Continuity and Change in the Economy of the USSR* (London, 1990)
- Davies, R. W., Cooper, J. M. and Ilić, M. J., *Soviet Official Statistics on Industrial Production, Capital Stock and Capital Investment, 1928–41*, SIPS Occasional Paper No. 1 (CREES, University of Birmingham, 1991)
- Davies, R. W., Harrison, M., and Wheatcroft, S. G., eds, *The Economic Transformation of the Soviet Union, 1913–1945* (Cambridge, 1994)
- Deutscher, I., *The Prophet Outcast, Trotsky: 1929–1940* (London, 1963)

- Dohan, M., and Hewett, E., *Two Studies in Terms of Trade, 1918–1970* (Bloomington, Ind., 1973)
- Dominique, P., *Secrets of Siberia* (London, 1934 [French edn 1933])
- Duranty, W., *Russia Reported* (London, 1934)
- Edmondson, L. and Waldron, P., eds, *Economy and Society in Russia and the Soviet Union, 1860–1930: Essays for Olga Crisp* (London, 1992)
- Erlich, A., *The Soviet Industrialization Debate, 1924–1928* (Cambridge, Mass., 1960)
- Fainsod, M., *Smolensk Under Soviet Rule* (Harvard, 1958)
- Filtzer, D., *Soviet Workers and Stalinist Industrialization: the Formation of Modern Soviet Production Relations, 1928–1941* (London, 1986)
- Fitzpatrick, S., *Education and Social Mobility in the Soviet Union, 1921–1934* (Cambridge, 1979)
- Fitzpatrick, S., ed., *Cultural Revolution in Russia, 1928–1931* (Bloomington, Indiana, 1978)
- Foreign Relations of the United States: Diplomatic Papers: The Soviet Union, 1933–1939* (Washington, 1952)
- Friedman, E. M., *Russia in Transition: a Business Man's Appraisal* (London, 1933)
- Friedmann, G., *La Sainte Russe et l'U.R.S.S.* (2nd edn, Paris, 1938)
- Gorky, M., Auerbach, L. and Firin, S. G., eds, *The White Sea Canal* (London, 1935)
- Graham, L. R., *The Soviet Academy of Sciences and the Communist Party, 1927–1932* (Princeton, NJ, 1967)
- Granick, D., *Soviet Metal-Fabricating and Economic Development: Practice versus Policy* (Madison, Milwaukee and London, 1967)
- Haslam, J., *Soviet Foreign Policy, 1930–33: the Impact of the Depression* (London and Basingstoke, 1983)
- Haslam, J., *The Soviet Union and the Struggle for Collective Security in Europe, 1933–39* (London and Basingstoke, 1984)
- Haslam, J., *The Soviet Union and the Threat from the East, 1933–1941: Moscow, Tokyo and the Prelude to the Pacific War* (London and Basingstoke, 1992)
- Hilger, G., *The Incompatible Allies: A Memoir-History of German–Soviet Relations, 1918–1941* (New York, 1953)
- Hodgman, D. R., *Soviet Industrial Production, 1928–1951* (Cambridge, Mass., 1954)
- Hunter, H., *Soviet Transportation Policy* (Cambridge, Mass., 1957)

- Iakovlev, A., *Ce que nous voulons faire de l'Union Soviétique: entretien avec Lilly Marcou* (Paris, 1991)
- Kasyanenko, V., *How Soviet Economy Won Technical Independence* (1966)
- Kemp-Welch, A., *Stalin and the Literary Intelligentsia, 1928–39* (London and Basingstoke, 1991)
- Khrushchev Remembers (London, 1971)
- Kornai, J., *The Economics of Shortage* (Amsterdam, 1980)
- Lampert, N., *The Technical Intelligentsia and the Soviet State: a Study of Soviet Managers and Technicians, 1928–1935* (London, 1979)
- Lewis, R. A., *Science and Industrialisation in the USSR: Industrial Research and Development, 1917–1940* (London, 1979)
- Littlepage, J. D. and Bess, D., *In Search of Soviet Gold* (London, 1939)
- Lyons, E., *Assignment in Utopia* (London, 1938)
- Materials for a Balance of the Soviet National Economy, 1928–1930*, eds, S. G. Wheatcroft and R. W. Davies (Cambridge, 1985)
- Medvedev, R. A., *Let History Judge: The Origins and Consequences of Stalinism* (London, 1971)
- Merridale, C., *Moscow Politics and the Rise of Stalin: the Communist Party in the Capital, 1925–32* (London and Basingstoke, 1990)
- Milson, J., *Russian Tanks, 1900–1970* (Harrisburg, Pa., 1971)
- Monkhouse, A., *Moscow, 1911–1933* (London, 1933)
- Moorsteen, R., *Prices and Production of Machinery in the Soviet Union, 1928–1958* (Cambridge, Mass., 1962)
- Moorsteen, R. and Powell, R., *The Soviet Capital Stock, 1928–1962* (Homewood, Illinois, 1966)
- Nemecek, V., *The History of Soviet Aircraft from 1918* (London, 1986)
- Nicolaevsky, B. I., *Power and the Soviet Elite* (London, 1966)
- Nutter, G. W., *Growth of Industrial Production in the Soviet Union* (Princeton, NJ, 1962)
- Preobrazhensky, E., *The New Economics* (Oxford, 1965)
- Rees, E. A., *State Control in Soviet Russia: the Rise and Fall of the Workers' and Peasants' Inspectorate, 1920–34* (London, 1987)
- Rees, E. A., *Stalinism and Soviet Railway Transport* (London and Basingstoke, 1994)
- Rees, E. A., ed., *Economic Decision-Making under Stalin* (forthcoming)
- Report to Congress: Commission on the Ukraine Famine* (Washington, 1988)

- Ribardière, M., *U.R.S.S. 1933: impressions politiques et économiques* (Paris, n.d. [1933])
- Rigby, T. H., *Communist Party Membership in the USSR, 1917–1967* (Princeton, 1968)
- Saunders, G., ed., *Samizdat: Voices of the Soviet Opposition* (New York, 1974)
- Schwarz, S. M., *Labor in the Soviet Union* (New York, 1952)
- Scott, J., *Behind the Urals: An American Worker in Russia's City of Steel* (Cambridge, Mass., 1942, reprinted New York, 1971)
- Serge, V. *Memoirs of a Revolutionary, 1901–1941* (London, 1967)
- Siegelbaum, L. H., *Stakhanovism and the Politics of Productivity in the USSR, 1935–1941* (Cambridge, 1988)
- Shimotomai, N., *Moscow Under Stalinist Rule, 1931–34* (London and Basingstoke, 1991)
- Smith, A., *I Was a Soviet Worker* (London, 1937)
- Sutton, A. C., *Western Technology and Soviet Economic Development, 1930 to 1945* (Stanford, 1971)
- Taniuchi, Y., ed., *Soviet Seiji Chitsujo no Keisei Katei* (Tokyo, 1984)
- Tucker, R. C., *Stalin as Revolutionary, 1879–1929: A Study in History and Personality* (New York, 1973)
- Vyas, A., *Consumption in a Socialist Economy: The Soviet Industrialisation Experience, 1929–37* (New Delhi, 1978)
- Wells, L., *Blood on the Moon* (Boston and New York, 1937)
- Westwood, J., *Soviet Locomotive Technology During Industrialisation, 1928–1952* (London and Basingstoke, 1982)
- Wheatcroft, S. G., and Davies, R. W., eds, See *Materials*
- Woodward, E. L. and Butler, R., eds, *Documents on British Foreign Policy 1919–1939*, 2nd series, vol. VII, 1929–34 (London, 1958)
- Wrecking Activities at Power Stations in the Soviet Union* (1933)
- Writings of Leon Trotsky (1932)* (New York, 1973)
- Writings of Leon Trotsky (1933–34)* (New York, 1972)
- Writings of Leon Trotsky: Supplement (1929–1933)* (New York, 1979)
- Yergin, D., *Shattered Peace: The Origins of the Cold War and the National Security State* (London, 1978)
- Zaleski, E., *Planning for Economic Growth in the Soviet Union, 1918–1932* (Chapel Hill, 1971)
- Zaleski, E., *Stalinist Planning for Economic Growth, 1933–1952* (North Carolina/London, 1980)

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