

Modernization and the Russian Economy: Three Hundred Years of Catching Up

by

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1. The special features of Russian economic development

The backwardness of Russia when compared to the countries of Western Europe was apparent at turn of the 17th and 18th centuries, when, it is generally considered, Russian economic growth began. From that time on, overcoming this backwardness, reducing the gap between Russia and the more developed countries of Europe and the rest of the world, became the principal goal of Russian economic development and the principal task of Russian governments. This task, which may be described as that of “modernization in order to catch up”, was first articulated by Peter the Great (1683-1725) whose celebrated economic and technological changes were achieved thanks to a policy of borrowing from the West.

Over time, it became clear that there were both advantages and disadvantages associated with the need simultaneously to modernize and catch up. The advantage of backwardness was that the technological and institutional innovations of the more developed countries could be borrowed and modernization achieved at a relatively rapid pace.¹

A characteristic feature of Russia’s quest to “modernize and catch up” is that for approximately the last 200 years there has been a stable time lag between the level of development of Russia and that of more economically developed countries such as France and Germany (See Tables 1 and 2). The magnitude of this time lag is about 50 years and although the lag sometimes increases and sometimes decreases, in generally varies around this mean. The Russian Minister of Finance, Nikolai Bunge, remarked upon this phenomenon at the end of the 19th century and at the end of the 20th century it was studied in detail by Egor Gaidar.²

¹ Gerschenkron A., *Economic Backwardness in Historical Perspective: A Book of Essays*. Cambridge, Mass. (The Belknap Press of Harvard University Press, 1962)

² Ananich, B.I.(ed), *Vlast' i reformy* (Moscow, Olma-Press Ex Libris, 2006), p.340; Gaidar, E., *Dolgoe vremya* (Moscow, “Delo”, 2005), p.325.

Table 1: Structure of employment in the main branches of the Russian economy in comparison with France and Germany, %

Year	USA	France	Germany	Holland	Great Britain	Japan	Russia
Agriculture, timber and fisheries							
1820	70.0	-	-	-	37.6	-	-
1870	50.0	49.2	49.5	37.0	22.7	70.1	-
1913	27.5	41.1	34.6	26.5	11.7	60.1	70.0
1950	12.9	28.3	22.2	13.9	5.1	48.3	46.0
1992	2.8	5.1	3.1	3.9	2.2	6.4	17.0
Processing and mining industries, construction and housing utilities							
1820	15.0	-	-	-	32.9	-	-
1870	24.4	27.8	28.7	29.0	42.3	-	-
1913	29.7	32.3	41.1	33.8	44.1	17.5	-
1950	33.6	34.9	43.0	40.2	44.9	22.6	29.0
1992	23.3	28.1	37.3	24.3	26.2	34.6	36
Services							
1820	15.0	-	-	-	29.5	-	-
1870	25.6	23.0	21.8	34.0	35.0	-	-
1913	42.8	26.6	24.3	39.7	44.2	22.4	-
1950	53.5	36.8	34.8	45.9	50.0	29.1	25.0
1992	74.0	66.8	59.1	71.8	71.6	59	47.0

Source: Maddison A., *Monitoring the World Economy 1820-1992* (OECD, 1995), p. 39.

Table 2: Russian backwardness relative to the per capita Gross Domestic Product of Germany and France

Country	Years			
	1870	1913	1950	2001
France	≈ 60	63	46	50
Germany	≈ 60	63	55	48

Per capita Gross Domestic Product: until 1913 in those territories of the Russian Empire corresponding to the later frontiers of the USSR was, in 1870-\$1023, in 1913-\$1488l; in the USSR in 1950-\$2834, in the Russian Federation in 2001-\$3650.

Sources: For data on per capita Gross Domestic Product: for 1870-1950 see *Maddison A. Monitoring the World Economy 1820–1992. Development Center Studies. - OECD, 1995.* For data on per capita Gross Domestic Product for 2001, see *World Development Report 2003. The World Bank.* Conversion of data into US dollars by Geary-Khamis, 1990.

As early as the mid-19th century John Stuart Mill identified three basic preconditions for accelerated modernization, naming Russia as one of the countries that should adopt this policy:

«First, a better government: more complete security of property; moderate taxes, and freedom from the arbitrary exaction under the name of taxes... Secondly, improvement of the public intelligence: the decay of usages or superstitions which interfere with the effective employment of industry; and the growth of mental activity, making people alive to new objects of desire. Thirdly, the introduction of foreign arts, which raise the returns derivable from additional capital, to a rate corresponding to the low strength of the desire of accumulation: and the importation of foreign capital, ... and by installing new ideas and breaking the chains of habit, if not by improving the actual conditions of the population, tends to create in them new wants, increased ambition, and greater thought for the future. These considerations apply more or less to all Asiatic populations, and to the less civilized and industrious parts of Europe, as Russia, Turkey, Spain, and Ireland»³.

³ Mill J.S., *Principles of Political Economy*, Vol. I., Ch. 13.

We, for our part, would point to certain characteristics of Russian “modernization by catching up” that have been present since the 19th century and have persisted to the present day:

Firstly, the uneven development of individual sectors of the economy: for example, by certain measures and in certain periods of Russian history there have been significant advances in military capability at times when labour productivity has lagged behind.

Secondly, the irregularity of progress along the path of modernization. Russia never consolidated its achievements – if ever there was a leap forward in one sphere, this would be followed by a falling behind. And this falling behind would be due not to any particular crisis inside Russia or to a deteriorating state of affairs within the sector in question but more often than not to accelerated technological development in the more developed countries and the absence in Russia of the resources needed to take the next step forward.

Thirdly, the fact that the gap in development tended to persist, irrespective of the political system and the nature of the government.

This reason for all of this was the lack of a coherent policy for modernization which, in turn, meant that Russia’s economic policy lacked coherence. Governments tended to concentrate on particular aspects of modernization and ignore or even impede progress elsewhere. Priority was usually given to modernization in the military sector and to those branches of the economy that were associated with it (for example to metallurgy in the 18th century, railway transport at the turn of the 19th and 20th centuries or to space exploration in the second half of the 20th century). There was never any conception of economic modernization as a whole, notwithstanding the fact that such development would have laid the necessary foundations for military power. Even less attention was paid to cultural modernization, which was only ever taken seriously when the risks associated with of general backwardness became blindingly obvious. Finally, the modernization of political institutions was neglected, the ruling élites preferring to extend the life span of existing institutions as long as possible. Political reform came only in the aftermath of the most serious systemic crises, those of the middle of the 19th century and of the beginning and end of the 20th century. Attempts to coordinate economic development with the development of political institutions only ever occurred during times of crisis, and sometimes during crises that assumed the destructive form of revolution, for example during the revolution of 1917-1921 and the revolution of 1991-1993.

2. The stages of Russian economic development

The Russian economy during the 18th and most of the 19th century was a traditional economy in which agriculture was predominant in the national product and in employment. Industry occupied an insignificant share of output and employment and within industry state (or Treasury funded) enterprises were occupied a prominent position. Until as late as 1861 labour relations were constrained by the system of serfdom and this system affected not only the peasantry but also certain categories of factory workers, especially in mining and metallurgy.

Thanks to the “Great Reforms” of 1861 modern capitalism was able to develop and a policy of rapid industrialization was embarked upon. Economic growth picked up, industry expanded and the Russian economy began to catch up with the leading industrial nations, even though, by all per capita indicators, a significant gap remained.

The years 1914-1921 were dominated by World War and Civil War. Declining output, financial destabilization and a disintegration of the political régime were the hallmarks of a system in crisis. Scarce resources came to be centrally redistributed; the mechanisms of the market were replaced by those of state regulation. This process, which originated during the World War, gave rise to the economy of “War Communism”. The result was a catastrophic decline in output, which at its nadir fell to 40% of the level of 1913.

The years 1921-1928 were years of rapid economic recovery. The market socialism introduced during these years became known the “New Economic Policy” or NEP. This was a period of economic liberalization during which private enterprise flourished (in agriculture, industry and in the financial sector) whilst the “commanding heights” of the economy continued to be state-controlled. Large-scale industry also prospered. However, it was also during this period that theories of macro-economic planning were developed (both the methodology and the practice) and that institutions emerged that would make possible the eventual transition to a system of total planned management of the economy.

During the period 1929-1953 NEP was dismantled and forced industrialization was embarked upon. The methods used were those of strict centralization of all aspects of economic life and the redirection of investment out of agriculture into heavy industry. Private enterprise was abolished in all branches of the economy. In agriculture peasant farmsteads were forcibly collectivized at

an enormous cost in human lives. The economy was increasingly militarized. Victory in the Second World War made possible the implantation of Soviet-style economies in Central and Eastern Europe. This was the period of consolidation of the orthodox Communist (“Stalinist”) economic model.

1953-1972 was a period of stable economic growth but also of diminishing effectiveness of the system. The defects and limitations of the system became increasingly apparent. Attempts were made to modify the orthodox Stalinist model with the aid of market mechanisms (economic accounting or “*khozraschet*”). These measures did stimulate economic growth and there were some improvements in the quality of output. There were even some attempts at economic reform (mainly in 1957 and 1965) but the reform measures were neither profound nor consistently applied and they soon petered out.

1973-1984 were years of stagnation. A sharp and unexpected increase in oil and gas prices provided the Soviet economy with a stable source of revenues. Reform was abandoned in favour of attempts to improve the existing economic system. There were steady (albeit low) rates of growth which stood in marked contrast to the prolonged economic crisis (in particular, “stagflation”) that many Western countries were going through. This growth, against a background of military-strategic parity with the USA, created an illusion of long-term stability.

The years 1985-1991 witnessed the crisis and collapse of the Soviet system. A decline in oil prices and the beginnings of a financial crisis precipitated economic and political reform. The impact of the crisis was rendered more acute by the success during this period of the Western economies and those of the newly industrialized countries (South-East Asia in particular) and of China. In these circumstances the need for fundamental reform became even more apparent. By the end of the 1980s it was already too late for reform and the Soviet political and economic model was swept away by revolution.

3. Market-led industrialization: from the second half of the 19th century to the beginning of the 20th century)

If, thanks to its economic and political development during the 18th century Russia had succeeded in joining the leading countries of Europe, during the first half of the 19th century Russia fell increasingly behind. Metallurgy and rail transport provide the clearest indicators of this: during the early 1800s Russian output in metallurgy was almost equal to that of Great Britain, but by the 1850s Russia had fallen far behind. Russia possessed only one railway – the Moscow St. Petersburg line.

Defeat in the Crimean War (1854-1855) highlighted the urgent need for economic development, above all the need to develop industry. But only certain radical economic and political reforms that were implemented during the next half century, made progress possible.

The abolition of serfdom was followed by a range of modernizing measures. These were reform of the judiciary, the reform of local government (the '*Zemstvo*' reform), reform of the armed forces and of the universities and the system of censorship. All of this made for a liberalization of social and political life, for the participation of civil society in government, albeit only at local level and for the strengthening of social control over institutions of state.

Simultaneously, the government sought to bring about the kind of changes in the financial system that would facilitate the development of capitalist (market) relations. Above all, this meant reform in the spheres of budgetary and monetary spheres and in the system of taxation. In the early 1860s the Finance Minister, Mikhail Khristoforovich Reiter, declared that the preconditions of modernization were: 1) a balancing of the budget through reductions in expenditure; 2) a systemization of the process of budget formation (for example, Ministers would not be allowed to bypass the Finance Minister and request budget funds directly from the Tsar); 3) the abolition, as an instrument of capital accumulation and investment, of paper money unsupported by precious metal; 4) an improvement in the balance of trade through the reduction of imports and growth of exports; 5) development of the transport infrastructure (primarily railway construction); and 6) the attraction of foreign capital. This programme arose out of a real need for modernization and it served as the agenda for all Russian Finance Ministers up until the First World War.

1860 saw the foundation of the State Bank, which combined the functions of a central bank and those of a senior commercial bank. In 1862 it was decided that a state budget – the accounts of state revenues and expenditures, would be published annually. One important innovation was the introduction of government audit, with powers of unannounced inspection of budgetary allocations and actual expenditures and of the effectiveness of these expenditures. As we have said, Government departments lost the right to acquire their own sources of revenue and the right to obtain supplementary allocations by appealing directly to the Tsar.

In the 1880s, in common with the world's leading economic powers, Russia adopted a policy of "protectionism", imposing a tariff on imported goods, realizing that this was an important means of stimulating industrial production.

In 1906 legislation was introduced that abolished the peasant commune, which was considered to be not only the main obstacle to the development of market relations in the countryside, but, also, given the relative weight of agriculture in the economy, an impediment to economic development in general. The continuing existence of the peasant commune after the abolition of serfdom had not, in fact, been due primarily to the deep rooted nature of the institution or to the anxiety of the government to prevent social differentiation; rather, it had reflected fiscal considerations – the dependence of the budget upon revenues from the countryside. The flow of tax revenues from the commune was guaranteed by the tradition of collective responsibility ("*krugovaya poruka*"), the responsibility of the commune as a whole for the tax liabilities of each of its members.

Finally, in 1906 Russia acquired the semblance of a two-chamber parliament – a State Duma whose deputies were chosen by electoral colleges and a State Council whose members were nominated by the Tsar.

The political and economic reforms of the second half of the 19th century laid the foundations that were needed for more rapid economic growth and for industrialization. Heavy and light industry began to grow rapidly. Railway construction became the driver of industrialization since it provided demand for many of the country's other industries. Between 1860 and 1910 world industrial production increased by 6%, in the UK by 2.5%, in Germany by 6%, but in Russia it increased by 10.5. (Poliansky, 1960, p. 367).

For the period 1888-1913 industrial growth was about 5% per annum, higher than in the United States or in Germany. Some industries grew very rapidly, particularly metallurgy, railways and oil production (by 1900 Russian oil output was the highest in the world with the United States slightly behind). But the much slower growth rate in Russian agriculture, a dominant component of output and employment, reduced overall performance to more modest level, especially in per capita terms.

Small and medium sized enterprises were dominant in industrial employment (they provided 67% of the industrial labour force) but provided a much lower share of output (a mere 33%). Throughout the Empire, large scale enterprises predominated. Indeed Russia was a world leader in the concentration of capital.⁴

4. The Russian economy during the First World War and Civil War (1914-1921)

The new state economic structures that emerged at the turn of the 19th and 20th centuries assumed a particular form because of certain peculiarities in the development of productive forces in Russia: the rate of concentration of production was very rapid; powerful monopolies were formed and these trends in economic organization in turn had a significant, if not decisive impact upon the direction and tempo of development, upon the material-productive base and upon social relations (in production, politics and ideology). If we are to understand the character and logic of future experiments in the “planned organization of the Soviet economy” we have to give due weight to changes of this kind that preceded “socialist reconstruction”.

The early years of the 20th century were remarkable, in Russia as in other developed countries, for a rapid growth in the concentration of capital and production, for the formation of huge industrial enterprises and for the concomitant formation of monopolies. These new economic actors learned to coordinate their efforts at national level with a view to overcoming the unpredictability and incoherence of the market and to strengthening the role of conscious regulation in economic management. Syndicates such as “*Prodamet*”, “*Prodvagon*”, “*Produgol*” were formed at national level in the metallurgical, railway and coal industries. An alliance of distillery companies was responsible for 80% of marketed output. Other examples are the Society of Cotton Cloth Manufacturers and the Special Office for Allocating Orders in the match industry (responsible for 95% of output). These industrial monopolies were closely allied with such powerful banks as the “Russo-Asiatic”, “International Commercial” and “Azov-Don”.

⁴ Nove A., *Economic History of the USSR. 1917-1991* (London, Penguin Books, 1992), pp. 3, 6.

Representative organisations of Russian entrepreneurs – unions, societies, committees and congresses – also sprang up on an industrial-branch or territorial basis.

The Russian economy, whilst it conformed preponderantly to the European model of development, also possessed a number of specific characteristics. Foremost amongst these were the comparatively greater influence of the state and, accordingly, a higher proportion of the national product distributed via the state budget than was the case in European countries of a similar level of economic development.

The main impediments to the industrialization of Russia were the weakness of private enterprise, the absence of significant sources of capital and of an effective system for stimulating the transfer of capital between branches of the economy (via banks and stock exchanges). Against this background, the need for capital was enormous: the growth of the national economy required an immediate expansion of the railway network and, therefore, of heavy industry. It was precisely this circumstance that brought the state, to an exceptional degree, into the industrialization process.

The First World War compelled all economic institutions to coordinate their activities. Centralized regulation was introduced into the economies of the principal belligerent powers. From the very first days of the war, the state began actively to introduce measures for the coordination and planned regulation of production. The construction of a system of centralized management of the economy continued throughout the war. In March 1917 the baton passed to the Provisional Government and after October 1917 it passed to the Bolsheviks.

During the war, the government had viewed the principal objectives of economic management as being the supply of material resources to industry and the supply of food to the population, with the army being given priority. Bread, weapons, fuel and transportation were the priorities. The principal instruments of economic management were state procurement, fixed and maximum prices, and restrictions on free trade that went as far as the introduction of state monopolies in the requisitioning of goods, a licensing of/ controls over the exchange of goods between regions and of the movement of freight on the railways. The approach was administrative-coercive, which is understandable given the general theoretical assumptions of the time, the complexity of the military situation (there were similar developments in Germany) and Russian political traditions.

Acute shortages of raw materials, fuel, transport and skilled labour, accompanied by widespread speculation and law-breaking made for government intervention in the supply of raw materials to industry and brought about goods rationing and the imposition of special restrictions on the movement of freight. These forms of state regulation would become familiar, whenever there was centralized economic management was resorted to in Russia. It became a reflex, on the part of central government, as economic conditions deteriorated, to strengthen administrative controls and increasingly interfere in the management of the economy. In the twentieth century the state would tend in the first instance to assume control over supply and distribution, this being the simplest and crudest but at the same time the most effective means of influencing economic behaviour.

In an attempt to counteract inflation, the authorities began to impose administrative restrictions on price increases. In so doing, they merely created hidden inflation and disincentivized production. This made for ever more acute shortages of goods, which, in turn led to additional measures of compulsion (and arbitrariness) on the part of the state. The economy became increasingly unmanageable and, as a result, social upheaval became virtually unavoidable.

The effect of the February Revolution of 1917 was to intensify these socio-economic and political processes.

State intervention in the economy gathered momentum. Economists and many entrepreneurs concurred in the view that the government should be given wide-ranging powers. They acquiesced in the allocation of a sizeable share of their profits to support the drafting of a comprehensive state plan, the objective of which was to forestall the collapse of the economy and create credible conditions for future growth. A broad spectrum of opinion was in favour of this. The Marxists called for such a plan, in so far as it matched their understanding of how the forces of production should be developed and because they believed that a plan would help them to bring to the fore the satisfaction of popular needs as the main goal of production and displace the capitalistic profit motive. Entrepreneurs, for their part, supported the idea of a plan, in the hope that it would stabilize conditions in the economy

The seizure of power by the Bolsheviks in the autumn of 1917 marked a new phase in the social and economic history of Russia. The creation of a planned system of economic management became a priority of the Communist government. For one thing, economic planning was a key concept in the programmes of social democratic parties in general and of the Bolsheviks in particular. For another, the exercise of political power in conditions of world war and of

accelerating economic collapse meant that rapid, decisive and extraordinary measures has to be taken to improve the state of the economy.

During the years 1918 to 1920 a wide ranging experiment took place – the implementation of a centrally managed, moneyless economy that came to be known as “War Communism”.⁵ A variety of managerial bodies came into existence and these took over the planned procurement of industrial goods, grain and imports and the allocation of material resources, transport facilities, food and labour.

The hallmarks of this system were a total “statification” of the economy (that is, the banning of private entrepreneurship), a strictly centralized system of management, the almost complete absence of horizontal links between enterprises and their branch associations and a proliferation of planning bodies that created the framework for bureaucratic management. In practice, this system turned out to be extremely inefficient.

⁵ War Communism was a system of extraordinary measures introduced by the Soviet government in conditions of economic crisis, Civil War and foreign military intervention. The policy of War Communism was intended to overcome the economic crisis and took for granted the feasibility of an immediate introduction of Communism. The principal characteristics of the policy were: the nationalisation of large-scale and medium scale industry and of most small enterprises; total control of food supplies; grain requisitioning; control of the exchange of goods between the city and countryside; replacement of private trade by state distribution of goods (rationing) according to social class; the exchange of goods by barter; compulsory labour service; a levelling of wages; and the regulation of social life by military-style directive.

5. The Russian economy during NEP (1921-1928)

The New Economic Policy (NEP) was so called because it departed from the centralized administrative policy of War Communism. It was a mixed economy in which agriculture was overwhelmingly private. Trade and small to medium sized private manufacturing and banking became legal. Large-scale private enterprises, by contrast, were not allowed to exist.

The key features of the economy and of economic policy were as follows:

- The replacement of grain requisitioning by a fixed tax on grain. The peasant now had an incentive to produce more, in so far as the “surplus” was not confiscated by the state but remained with the peasant farm;
- A significant proportion of industrial and commercial enterprises were privatized. Private banks were allowed to exist;
- Large enterprises (trusts) remained under state ownership. However in 1923 they were transferred to a system of independent accounting (*“khozraschet”*), afforded them a degree of independence from the state in return for which the state did not underwrite their debts;
- Finances were brought under control. The budget was balanced and the state abandoned the practice of printing of money to fund the budget.
- The monetary system was renewed by the creation of a new, gold-based currency, the *“chervonets”*. Between 1922 and 1924 the *chervonets* displaced the depreciating Soviet rouble or *“Sovznak”*;
- A system of indicative planning was adopted, based upon annual “control figures for the development of the national economy”. A “State Planning Commission” (*Gosplan*), set up in 1921, was charged with producing these control figures.

The New Economic Policy was the first attempt ever made on a national scale to construct a system of market socialism and the first successful socialist experiment designed to achieve economic growth. This experiment acquired exceptional relevance for many developing countries during the twentieth century, faced as they were with the need for accelerated modernization. In later years, Soviet economists and politicians, in search of methods for the further modernization of the Soviet economy, always referred back to the experience of NEP and to the theoretical discussions of the 1920s.

6. The Russian economy during industrialization (1929-1953)

Soviet industrialization, essentially, was based on import-substitution, which is to say that the criterion of its success was taken to be the production in the USSR of the entire gamut of industrial goods needed for a prolonged period of existence in a hostile environment.

Taking into account certain modifications that were made to this model, we can say that the key features of the new socialist model of economic growth were:

- The dominance of state property and the elimination of all legal, independent, private property
- The dominant role of the state in the mobilization, allocation and use of national savings;
- The formation of an hierarchy of managers, with responsibility for the entire economy, who coordinated economic activity by the issuing of directives. Markets ceased to be the principal means of economic regulation and became marginal in economic life.
- Egalitarianism, which is to say an attenuation of the extremely high income differentials that are characteristic of emerging capitalist economies;
- Industrialization assisted by import-substitution and based on the transfer of resources from the agrarian sector to the industrial sector, the goal of which was “catching up”;
- Strict control of the population - the banning of any kind of unofficial mass activity
- A Messianic ideology that promised future rewards on this earth in return for present day self-sacrifice in work.

These institutional innovations made possible for a period time a pursuit of economic growth that was unconstrained by the mechanisms of the market.⁶

Above all, the scale of economic accumulation was unfettered by the unpredictability of private savings and investment. Economic activity was not constrained by high levels of taxation or by the autonomous decisions of private enterprises. Any possibility of the flight of capital was effectively cut off by comprehensive financial controls. Totalitarian political control removed all limits to the quantity of financial resources that could be mobilized for the goal of accumulation.

⁶ For a detailed and comprehensive analysis of the institutions of the socialist economy, see: Kornai J., *The Socialist System. The Political Economy of Communism* (Oxford, 1992); and Gaidar, E.T., *Ekonomicheskie reformy i ieraricheskie struktury* (Moscow, Nauka), 1990.

This exceptionally high rate of national savings, stable in the long term, made possible a leap forward in industrialization and a sharp increase in rates of economic growth.

The collectivization of agriculture, which is to say the *de facto* nationalization of agriculture and the forcible extraction of a significant proportion of agricultural revenues, made possible a lowering of the return to labour in the traditional agricultural sector and, thereby, the accumulation of additional financial resources for transfer into the industrial sector. Furthermore, a lowering of the standard of living of the peasantry made for a substantial migration of labour into the towns.

By these methods not only were high growth rates obtained in industry (primarily heavy industry) but at the same time the share of accumulation in GDP was increased to levels that would not have been possible under market-led industrialization.

The switching off of market mechanisms, which entailed the switching off of market mechanisms of fine tuning, of incentives to embrace technical innovation and utilize resources more effectively, made for a chronically high consumption of resources in GDP. The policy of autarchy, as had been the case in capitalist countries that had adopted import-substitution for the purposes of industrialization, reduced the share of exports and in particular of exports by the processing industries, in GDP.⁷

⁷ *Ekonomika perekhodnogo perioda. Ocherki ekonomicheskoi politiki postkommunisticheskoi rossii 1991-1997* (Moscow, IEPP, 1998) pp.42-45.

Table 3: Percentage share of producers' and consumers' goods in total industrial output

Year	Total Industry	Producers' goods		Consumers' goods	
		<i>as given</i>	<i>as computed</i>	<i>as given</i>	<i>as computed</i>
1928 (computed vs. from figures for 1932)	100,0	39,5	32,0	60,5	68
1932 (computed (computed vs. from figures for 1940)	100,0	53,4	52,0	46,6	48,0
1940 (computed (computed vs. from figures for. 1950)	100,0	61,2	61,7	38,8	38,2
1950 (computed (computed vs. from figures for 1955)	100,0	68,8	64,3	31,2	35,7
1952 (computed (computed vs. from figures for 1955)	100,0	69,2	63,7	30,8	36,3
1956 (computed (computed vs. from figures for. 1959)	100,0	70,8	65,7	29,2	34,2

Gershenkron A., *Economic Backwardness in Historical Perspective* (Cambridge, Massachusetts, The Belknap Press of Harvard University Press), p.258.

7. The period of stable economic development and diminishing efficiency. Attempts at reform (1953-1972)

A fundamental problem of the Soviet economy was an all-pervasive “fetishism of the plan”. The plan was regarded as a kind of higher power, capable of regulating everything under the sun. There was not a problem of socio-economic development that could not be resolved by devising appropriate indicators and including these in the plan. This was very astutely noted by the first Chairman of Gosplan, G.M.Krzhizhanovsky: “On examining the programmes”, he wrote, “one is struck by the implicit assumption that the government possesses some magical power that enables it to cater for all needs in whatever proportions are considered desirable... Because of this, industrial programmes turn into projects that cannot be questioned. No doubt, these plans were drawn up with the best of intentions but from the point of view of economic management they lack practicality.”⁸ Of course, in these circumstances, the effectiveness of economic performance (of branches of the economy, enterprises or workers) could only be measured by the extent to which it met or exceeded the targets laid down in the plan.

Accountability to the plan had the effect of disincentivizing all economic behaviour. Clearly, if plan fulfilment is the principal criterion for payment and reward, then all actors acquire an interest in undervaluing their potential, in minimizing their planned targets and in maximizing their allocation of resources under the plan. Efficiency of production and the interests of consumers acquire a far lower priority than the fulfilment of tasks laid down in the plan. The entire system begins to operate according to planning indicators.

⁸ Krzhizhanovskii, G.M., *Sochineniya*, T.2. *Problemy planirovaniya* (Moscow-Leningrad, 1934), p.103.

Table 4: Economic growth in the USSR 1913-1989

Years	Average Annual Rates %	
	National Income (official data)	National Income (alternative data, Popov and Shmelev, 1990)
1913-1921	-10.7	-10.7
1922-1940	15.3	8.5
1941-1950	4.7	-0.6
1951-1960	10.3	9.3
1961-1970	7.0	4.2
1971-1980	4.9	2.1
1981-1985	3.6	0.6
1986-1989	2.7	...

Source: *Report of the Commission for Study of the Soviet Economy set up by the G7 in Dublin* (1990), quoted in E.G.Yasin, *The Russian Economy: Sources and Overview of the Economic Reforms* (Moscow, 2002), p.61.

Given this state of affairs, Soviet economists during the 1950s engaged in stormy debates over the feasibility of “correct” indicators that would more accurately reflect the input to the economy of enterprises, branches of the economy and individual workers and that would bring about a qualitative improvement in the efficiency of the planned economy. There were proposals for different kinds of indicators; a variety of experiments were embarked upon.⁹ It was only later that some economists began to propose a radically different solution, arguing in favour not of a different selection of indicators but for the need to abandon planning altogether.¹⁰ This implied a completely different economic policy, but the Soviet system proved to be incapable of abandoning the planning system in favour of the profit motive (or of profitability). Market-based pricing and the Soviet economic system were incompatible.

8. The years of stagnation (1973-1984)

⁹ See Mau, V.A., *V poiskakh planomernosti: Iz istorii razvitiya Sovetskoi ekonomicheskoi mysli kontsa 30-ykh-nachala 80-ykh godov* (Moscow, Nauka, 1990).

¹⁰ Liberman, E., ‘O planirovanii promyshlennogo proizvodstva i material’nykh stimulakh ego razvitiya’, *Kommunist* (1956, No.11) and ‘Plan, pribyl’, premiya’, *Pravda*, 9 September 1962; Nemchinov, V.S., ‘Planovoe zadanie i material’noe stimulirovanie’, *Pravda*, 21 September 1962 and *O dal’neishem sovershenstvovanii planirovaniya i upravleniya narodnym khozyaistvom* (Moscow, Ekonomika, 1963).

The Soviet system was a product of the industrial era. Its dominant organizational form was that of the large industrial enterprise and this form penetrated into every sphere of social and personal life. The technology of mass production was pervasive, achieving its effectiveness by means of standardization and economies of scale. Monopolistic tendencies were entrenched in the economy and in politics. Economic policy under this system was based upon direct state intervention in economic affairs, an expansion of the role (and share in the economy) of state property, a diminution, to the point of extinction, of competition and a striving to limit or suppress competition from outside. During the industrial era governments acquired the means for making significant advances in production, increasing the productivity of labour and managing a number of social issues such as urbanization and catering for the basic needs of the population. In the USSR, these aspects of industrialization were, by and large, by the mid-1960s being successfully managed.

However, the rigidity of both the political and economic systems was an impediment to adaptation and change. The Soviet economy was highly resistant to innovation. This was no secret, and the Communist Party of the Soviet Union frequently drew attention to the need to implement the latest methods of science and technology. But these exhortations were futile, given that workers and enterprises at all levels motivated primarily by the need to fulfil or over-fulfil their production plans and innovation was perceived as placing these objectives at risk.

As a result, at a time when the developed market economies were emerging from crisis, adapting to new challenges, implementing new technology and creating new political and economic institutions, the Soviet economy, though achieving stable, (albeit low) rates of growth was inexorably heading towards a system break-down. Traditional branches of the economy continued to dominate at the expense of the kind of scientific and technological progress that was associated with, for example, computerization and communications technology. The defence industry occupied a central position in the economy, not only because super-power status required this but because in defence industry the mechanisms of centralized management were entirely adequate. Growth rates steadily declined and during the 1980s the Soviet Union was lagging behind countries with developed market economies. This backwardness was technological, structural and institutional.

Table 5: Actual and planned growth rates: basic economic indicators (%)

	1966-1970	1971-1975	1976-1980	1981-1985
Gross industrial output	103	91	67	77
Gross agricultural output	84	68	56	42
Productivity of labour in industry	93	87	55	74
Productivity of labour in agriculture	87	20	53	34
Real incomes	110	80	85	67
Retail turnover	120	86	84	70

Source: Potseluev, V.A., *Istoriya Rossii XX stoletiya: osnovnye problemy* (Moscow, 1997), p.413.

Table 6: Dynamic of the efficiency of social production in the USSR (index of growth relative to the preceding period)

Indicator	Years						
	1928-1985	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1961-1985
National Income	6,6	1,24	1,22	1,17	1,05	1,03	1,91
Basic production funds	9,6	1,33	1,28	1,21	1,1	1,03	2,33
Yield on investments	0,68	0,93	0,95	0,97	0,95	1,00	0,8
Productivity of social labour	3,64	1,19	1,17	1,08	1,00	1,00	1,50
Material content of social product	1,57 – 1,63	1,02	1,02	1,02	1,05	1,05	1,20
Investments in production	...	1,29	1,19	1,05	1,04	0,95	1,59

Source: Khanin, G.I., *Analiz tendentsii ekonomicheskogo razvitiya SSSR (1928-1985). Ekonomicheskaya sotsiologiya i perestroika* (Moscow, Progress, 1985), pp.56-57.

Table 7: Growth of VNP/Gross National Product (GNP) and of energy consumption in the USSR 1940-1985

	1940-1960	1961-1970	1971-1980	1981-1985
Growth of Gross National Product	2,160	1,660	1,200	1,104
Growth of energy consumption	2,970	1,690	1,540	1,123

Source: Gaidar, E.T., *Anomalii ekonomicheskogo rosta* (Moscow, Evraziya, 1997), p.120.

Table 8: Productivity of agriculture in the USSR, Soviet Russia, Eastern Europe, the USA and Canada

	Western Europe	USA	Canada	USSR	RSFSR
Grain crop yield, Tentners/ha.					
1970	27,9	31,6	21,1	15,7	13,7*
`1989	45,8	44,8	21,2	18,9	16,1
1989 relative to 1970	1,64	1,42	1,00	1,20	1,18
Milk yield per cow kilogrammes per annum					
1970	3269	4423	3256	2110	2328**
1989	4059	6533	5806	2555	2773**
1989 к 1970, в разы 1989 relative to 1970	1,24	1,48	1,78	1,21	1,19

* - average for 1971-1975

** - excluding timber industry?

Source: *Narodnoe khozyaistvo SSSR v 1985 g.* (Moscow, Finansy i statistika, 1986); *Narodnoe khozyaistvo SSSR v 1990 g.* ((Moscow, Finansy i statistika, 1991); *World Agriculture. Trends and Indicators, 1970-1989* (Washington: USDA, 1990), reproduced in Gaidar, E.T., *Gibel' imperii. Uroki dlya sovremennoi Rossii* (Moscow, 2006), p.211.

9. The crisis of the system (1985-1990)

The transformation processes at work in the USSR and in post-Communist Russia during the years 1985-1990 displayed two fundamental characteristics. Firstly, these processes formed part of a crisis of industrial society and were symptoms of the need for systemic change. Secondly these processes culminated in a full scale revolution comparable in its scope and intensity with the great revolutions of the past. Both of these circumstances must be borne in mind if we are to understand what was happening.

The Soviet model of industrialization had been the outcome of a lengthy political struggle and of prolonged economic discussions in which the forces for centralism and statism had prevailed. Having, for a number of historical reasons, become the sole owners of the ideology and practice of industrial break-through, the Bolsheviks were able to remain in power for several decades. This régime was based on coercion and terror; it abhorred all forms of liberalism and democracy. However, society had been prepared, if not to accept, then at least to tolerate this way of life as long as the activities of the Bolsheviks could be seen as being part of a mission of modernization and industrialization.

It is difficult to judge how far the ideological commitment to industrialization sustained the Soviet model over time. What is clear is that the collapse of the Soviet system occurred precisely at a time when the mission of industrialization had been exhausted and when the imperatives of post-industrial society had begun to assert themselves. The Soviet system turned out to be incapable of responding to these imperatives and it was this that brought about its downfall.

The inability of the USSR to embark upon evolutionary change and the consequent crisis and collapse of the régime derived from three basic features of the system.

The first of these was its institutional rigidity, its preoccupation with the attainment of centrally determined and, for the most part, quantitative indicators. During industrialization this rigidity helped to promote rapid restructuring and mobilization and to transform the USSR into an industrial superpower. However, this very same rigidity acted as a brake upon any rapid response to the challenges of the new era. If the new challenges were to be met, if there was to be renewal, there had to be decentralization of decision-making and, above all, the fetishization of quantitative indicators in evaluating the performance of enterprises had to be abandoned.

Lacking any alternative measures for the evaluation of economic activity, the Soviet system was incapable of responding to this challenge.

The second feature was the absence of any feed-back mechanisms within the system that might have provided timely signals of the need for change and provided an impulse for reform. The totalitarian political system with its restrictions on freedom of expression, whilst it secured comfortable living conditions for the ruling elite, at the same time inhibited timely access to information concerning the processes at work within the country and in the outside world.

The third feature was the dependence of the Soviet system upon cheap natural resources and upon oil and gas in particular. Why take any serious interest in reform at a time when the transformation crisis in the West coincided with a rise in oil prices and the coming on stream of the vast resources of the West Siberian oil fields? A powerful influx of foreign currency (“petrodollars”) provided the regime with several decades of stability, but at the same time made for a growing dependence of the economy upon external economic circumstances. The economic reform that was attempted in 1965 and which became known as the “Kosygin reform” (or the “Liberman reform”) was brought to a halt.

The stability of a system that was based on the exploitation of natural resources and lacked contemporary feed-back mechanisms turned out to be illusory. Such a system could only survive in a favourable political and economic environment. The first serious crisis that it encountered – the steep increase in oil prices of the mid-1980s – led to its demise.

Table 9: USSR: Key Budget Indicators for 1980-1990 (billion roubles)

	1980	1985	1986	1987	1988	1989	1990
<i>GNP(actual prices)</i>	619	777	799	825	875	943	1010
State budget revenues		372,6	371,6	378,4	378,9	401,9	471,8
As a % of Gross National Product		48,0	46,5	45,9	43,3	42,6	47,2
Revenues to the Budget of the Union		191,7	186,0	184,9	169,6	158,2	210,5
As a % of revenues to the consolidated budget		51,4	50,0	48,7	44,8	39,4	44,6
Expenditures		386,5	417,1	430,9	459,5	482,6	513,2
Of which, expenditures of the Union budget		202,9	222,9	237,5	245,3	244,6	240,5
Union budget expenditures as a % of the consolidated budget		52,5	53,4	55,1	53,4	50,7	46,9
Expenditures on the national economy and defence		228,2	245,4	247,1	263,0	276,7	266,6
As a % of all expenditures		59,0	58,8	57,3	57,2	57,3	51,9
State budget deficit		13,9	45,5	52,5	80,6	80,7	41,4
As a % of Gross National Product		1,8	5,7	6,4	9,2	8,6	4,1
As a % of revenues to the budget of the Union		7,3	24,5	28,4	47,5	51,0	19,7

Source: Yasin, E.G., *Rossiiskaya ekonomika: istoki i panorama rynochnykh reform* (Moscow, 2002), pp.104-105.

Table 10: Monetary savings of the population relative to accumulation of stocks in trade and industry (end of year figures)

	1970	1980	1985	1990
Monetary savings of the population (deposits, private savings, securities) Billion roubles,	73	228	320	568
Monetary savings of the population as a % of GDP	19,3	36,8	41,2	55,4
Stock reserves per 1 rouble of monetary savings of the population (roubles)	0,62	0,29	0,30	0,13

Source: Gaidar, E.T., Gibel' imperii. Uroki dlya sovremennoi Rossii (Moscow, 2006), p.396.

The crisis of the 1980s turned into a crisis of the Soviet model for modernization. It became clear that the effectiveness of that model was limited by the structures created during the “industrialization of catching up”. Now the task was to devise mechanisms that would facilitate a leap forward into post-industrialization. These mechanisms differ substantially from those that were developed during “industrialization of catching up”.

It was the post-industrial nature of the crisis that gave direction to measures for economic and political reform. As early as 1987 there had been some steps towards a liberalization of aspects of social life. Whereas industrialization in general and “catching up” in particular had required the activation and mobilization of social forces and the concentration of resources in particular sectors identified as “growth points”, the post-industrial era required the activation of the creative potential and the capacity to adapt of both individuals and enterprises; it required the all round development of human capital. This explains why every Soviet government and every Russian government during this period, irrespective of their party allegiance, pursued, more or less consistently, a policy of liberalization.

Attempts to deal with the tasks of modernization were impeded by the onset of a systems crisis - in the economy, in politics and in ideology. Three further crises, and three further transformation processes then impacted upon this structural crisis.

The first crisis was that of transition from a Communist system in crisis to its replacement. This was an unprecedented experiment. Never in history, let alone in economic history, had there ever been a transition from a monolithic state economy to a market economy.

Secondly, there was the macroeconomic crisis. This had been created by the populist economic policy of the last Soviet government (from the mid-1980s), which policy had resulted in a collapse of the budgetary and monetary systems, in high rates of inflation and in a decline in output.

Thirdly, there was the collapse of the state, a crisis that is typical of all full-scale social revolutions.¹¹ The system changes that had radically altered the social composition of the country had occurred within a weakened state structure, a state of affairs that can be observed in all revolutions. By the time the post-Communist transformations began, almost every institution of state power had collapsed, to the point where, when the post-Communist reforms began, the reconstruction of the state was a higher priority, even, than economic reform. In fact, the economic reforms were able to proceed only in institutions of state power were effectively functioning and this meant that the pace of economic reform in the former Soviet Union was much slower than it would be in other countries that abandoned Communism.

It was the interweaving and the interaction of these crises that made post-Communist transformation in Russia so unique. None of these crises, taken separately, represented anything new in the historical experience of Russia or of other countries. What was unique was that they occurred simultaneously in one country.

The period of “perestroika” may be divided into two phases:

Phase I: 1985-1988. A period of growing budgetary crisis during which Russia increasingly fell behind the developed countries. There was a search for a reform strategy that would revive the Communist system without altering its *modus operandi*. This was a period of moral renewal but also one of evasion as far as structural change was concerned. Driven by the logic of the revolutionary process, a popular government exploited its popularity and sought to administer old remedies. There was increasing disequilibrium in the economic sphere. The proponents of the mobilization model and of the liberal-democratic model became increasingly polarized.

¹¹ Mau V., Starodubrovskaja I. The Challenge of Revolution. Russian Transformation in Historical Perspective. Oxford: Oxford University Press, 2001.

Phase II: 1989-1991. Implementation of economic reform. Traditional Communist practices were abandoned under the guise of a “commitment to socialism”.

Confronted by a choice between “efficiency” and preservation of existing state structures, “perestroika” ultimately opted in favour of efficiency and took the first step towards a real dismantling of the administrative-command system and towards the introduction of market mechanisms for development and of a competitive market.

The qualitative difference between “perestroika” and previous attempts at modernization resided in the fact that the steps that were taken for economic reform were reinforced by a profound political reform that involved the introduction of “*glasnost*” (freedom of expression), a democratization of the political system, free parliamentary elections at all levels and a repudiation of the single party system. It was this transformation of the political system that served as a guarantee of the irreversible nature of the economic reforms.

The consequence of this policy was that the economy became unmanageable. One expression of this was the “war of the budgets”, waged between Federal and Republican-level authorities. Another was growing disequilibrium and an economic crisis that spiralled out of the control of a government that no longer possessed any vertical chain of command or, indeed, any real instruments of power.

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