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“Shock Therapy” in Russia:
A Theoretical and Statistical Analysis*

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1. Introduction

The purpose of this paper is to evaluate the “shock therapy” which has been implemented in Russia since the beginning of 1992. We focus our attention on price liberalization, which is the core of this shock therapy. There was a heated discussion regarding whether price liberalization was advantageous or not in Russia. Even though it has already been proven deficient, we would like to discuss theoretically and statistically the fundamental defects of the shock therapy, which have brought about various problems. This is also necessary and meaningful in the search for an alternative policy.

In the next section, we examine arguments for and against price liberalization. In the third section, these arguments are analyzed based upon some statistical data on the result of the shock therapy. In the final section, we consider an alternative policy.

2. Arguments for and against price liberalization

The argument in favor of price liberalization is supported by the following four points:¹

Point 1: price liberalization is a necessary condition for the transition to a market economy.

This can be explained by syllogism: normalization of price relations and of the distribution of goods is necessary for the transition to a market economy, and in turn price liberalization is a necessary condition for this normalization.

The normalization of price relations means that prices should approach equilibrium. In the Russian context, it means that the distortion in price relations caused by administrative price setting should be eliminated and price relations should approach world standards. This is necessary for a number of reasons. First, distorted prices lead to an inefficient distribution of resources and impede competition among enterprises. Because efficiency and profitability have been inaccurately assessed in Russia, efficient enterprises under normal price conditions run the risk of bankruptcy, while unprofitable ones stand to prosper. Second, without properly evaluating assets, privatization is impossible. Third, without narrowing the gap in price

relations between domestic and world markets, convertibility of the ruble will be difficult to attain. Fourth, the normalization of price relations is also required for creating a new system of interrepublican transactions within the CIS (Commonwealth of Independent States).²

The normalization of the distribution of goods implies the creation of an atmosphere where people can buy goods by spending rubles without having to resort to barter or the use of foreign currency. It is realized through virtual legalization of the underground economy: as a result of price liberalization, prices in the first and second economy should coincide.

Point 2: if the government cannot regulate prices to a considerable degree, then all prices should be liberalized concurrently.

Undeniably, the Russian government had lost control on most prices by the middle of 1991. Therefore, price liberalization in the beginning of 1992 might be regarded as merely reinforcing the situation in progress.

Point 3: if all prices are liberalized concurrently and strict fiscal and monetary policies are pursued, then excess liquidity could be absorbed and inflation could be stopped within a very short time.

Point 4: if all prices are liberalized concurrently, then all subsidies could be liquidated and budget expenditures could be reduced substantially.

In the former Soviet Union, price subsidies accounted for about 15-20% of the state budget expenditure. Nearly 90% of these subsidies were appropriated for agricultural products, and the rest for agricultural machinery, chemical fertilizers, and coal. In the Russian federal budget expenditure for the first quarter of 1992, these subsidies were planned to account for only 4.3% of total expenditures.³

We hold that all four of these points are true. We can, however, present the following three points which argue against price liberalization and which substantially refute these points.

Point 5: price liberalization is not conducive to normalization of price relations under the dominance of state ownership.

“Liberalized” prices under the dominance of state ownership are not equilibrium prices. First, in Russia, as in most former socialist countries, state ownership has engendered monopoly or oligopoly in the majority of domestic commodity markets. Needless to say, without free competition, prices do not reach equilibrium. In addition, we have to take into account the existence in Russia of the monstrous military-industrial complex in which total monopolization has nearly been attained. This means that in Russia the problem of monopoly is far more serious than in any other former socialist country.

Second, price liberalization does not necessarily mean a free hand in price setting for state enterprises in Russia. On the one hand, there have been a great number of reports by the Russian mass media showing various incidences of administrative intervention in price setting by state and, in particular, local organizations. On the other hand, most state enterprises have no idea how to establish prices and thus frequently refer to state

organizations for price setting. Therefore, numerous Russian economists, including Nikolai Petrakov and Valery Makarov, argue that Yeltsin’s price liberalization was just a repetition of Pavrov’s price revision in the beginning of 1991.⁴

Some might argue that precisely for the purpose of overcoming these deficiencies due to the dominance of state ownership, liberalization of foreign trade is needed. If, however, we take into consideration the low competitiveness of the Russian industry, we have to confront the vast devastation which will inevitably follow a complete liberalization of foreign trade. Therefore, although the liberalization of foreign trade has already been declared, its implementation, if any, has been rather slow in Russia.

Point 5 refutes Point 1. This seems to suggest a necessity of a coordinated policy between price reform and other organizational measures, and of a firm price policy for state enterprises.

Point 6: if, together with price liberalization, strict fiscal and monetary policies are pursued, the financial condition of enterprises will undergo extreme deterioration.

In Russia, as in other former socialist countries, enterprises are accustomed to “soft budget constraints”, and are unable, on their own, to adjust the supply and prices of their goods in response to changes in the prices of other goods. As a result, prices are inflexible and the elasticity of supply is very low. Hence, if financial and credit assistance from the state is cut amid the scenario of a general increase in prices, most enterprises, having no effective alternative, will encounter financial difficulties.

Russian society, however, cannot withstand mass bankruptcies. This is true for all former socialist countries. Therefore, a peculiar situation develops here: a series of insolvencies is occurring throughout the economy. As will be shown in the next section, overdue credit repayments from enterprises to banks and suppliers have grown tremendously in Russia. It seems that excess liquidity is not maintained by the central financial authority as in the past, but through this mutual credit situation which has been devised by enterprises.

As is readily understood, Point 3 and Point 6 together represent a real dilemma. On the one hand, if fiscal and monetary policies are relaxed, then excess liquidity and high inflation will continue. On the other hand, if a strict financial policy is adhered to, then insolvencies will prevail among enterprises. The real situation in Russia in terms of this dilemma will be revealed in the next section.

Point 7: fuel prices in Russia, particularly oil prices, have been extremely low by international standards, and as a result, abrupt liberalization of these prices is impossible: gradual liberalization is the only option available.

If this is indeed the case, in other words, if we accept a very important exception to price liberalization, then the significance of Points 1 through 4 is considerably reduced. First, because up to now the price of oil has represented the most serious distortion in price relations in Russia, if its liberalization is

delayed, the normalization of price relations will also be delayed. This means that the difference in price relations between domestic and world markets will not be reduced right away, and that the establishment of a single rate for the ruble and hence convertibility of the ruble into foreign currencies will remain difficult.

Second, if a gradual liberalization of the price of oil is inevitable, the government has to maintain regulation of the price of oil. This contradicts Point 2. While Point 2 argues the ability of the government in terms of price regulation, here such control becomes a matter of obligation (*Sollen*). Which point is correct? It seems that the government simply cannot dispense with price regulation, no matter how inefficient the government is.

Third, if the price of oil is raised gradually, then the price of almost all other goods will gradually increase as a result. Thus, Point 7 denies a precondition of Point 3 and hence the possibility of a rapid halt to inflation is reduced.

Fourth, as long as price regulation is maintained on some goods, the necessity of subsidies continues.

Thus, if we accept Point 7, almost all arguments in favor of price liberalization seem to be significantly refuted. We have to bear in mind the special role that oil has played in the recent Russian economic development. The increase in oil prices in the world market since the mid-1970s has provided not only abundant export and budget revenues directly, but also subsidies to all industries indirectly. The low price of oil has functioned as a kind of universal subsidy sustaining inefficient manufacturing industries until now. Therefore, the increase in domestic oil prices to the international level implies a complete conversion of the existing industrial system and structure. It is, however, precisely the need for this conversion that has necessitated price liberalization. Accordingly, price liberalization, exclusive of the price of oil, is almost theoretically meaningless.⁵

3. The result of the shock therapy

In this section, we analyze the statistical data on the result of the shock therapy, for the purpose of examining our arguments formulated in Points 5 through 7 in the previous section. Our conclusions are summarized as follows. First, data on prices seem to suggest that the price liberalization has not led to the normalization of price relations, but has instead facilitated simple price increases by monopolists. Second, the government seems to have abandoned strict fiscal and monetary policies in the second quarter of 1992 in the face of increasing numbers of insolvencies of enterprises. Hence, the budget deficit has begun to increase, bringing about excess liquidity and sharp inflation in the late summer. Third, the price of fuel has been raised gradually, causing the phenomena discussed in the previous section. Let us look at these points in more detail.

First, if we note the price increases in Table 1, we see that there is little evidence that price relations have approached world standards. The data show the largest price increases in ferrous metallurgy and chemistry, where prices should have been reduced in relation to fuel and electricity prices, provided that the gap between domestic and international prices were to be narrowed.⁶ The outstanding price increases in metallurgy and chemistry are regarded to be a result of the strong monopolistic industrial structure in these areas.

Second, we see from Tables 2 and 3 that in the first quarter, strict fiscal and monetary policies were pursued, and the budget deficit and the money supply remained at a low level. However, in the second quarter, these policies were relaxed and excess liquidity began to emerge again. The seemingly effective policy of the government in the first quarter relied exclusively on the following two extreme means. One is the so-called principle of sequestration, whereby budget expenditures are limited by actual receipts of budget revenues.⁷ In other words, an almost balanced budget in the first quarter was achieved by cutting substantially the planned budget expenditures.⁸ This strict fiscal policy put enterprises through financial difficulties, caused by increased costs due to the price liberalization. These enterprises, however, have behaved completely differently from those operating in market economies. They simply delayed the payments to banks and suppliers. As a consequence, overdue repayments have grown tremendously since the beginning of the year (see Table 3).⁹ The other measure is the direct, unsophisticated way of reducing the money supply. The Central Bank of Russia reduced the money supply by simply delaying printing of money.¹⁰ As a result, as is shown in Table 3, the delay in payments of salaries, pensions and so on increased with the course of time.

In the second quarter, the government was no longer able to maintain these extreme measures. The budget deficit began to increase, as various subsidies and credits were resumed in order to improve the financial positions of enterprises in specific areas, such as agriculture and energy-fuel industry, while budget revenues remained deficient due to stagnant productive activities.¹¹ As budget expenditures increased and wages and other social benefits were raised, the Central Bank of Russia was forced to abandon its restrictive policy: the money supply began to grow again, particularly since June (see Table 3).¹² As is shown in Table 4, excess disposable income in households became outstanding and excess liquidity came to be apparent again.

Finally, on July 1st, a presidential decree was issued which froze the overdue liabilities of state enterprises.¹³ A letter of the Central Bank of Russia, dated July 28th, stipulated how to cancel out unpaid debts, which would be inevitably followed by an expansion of credit extension to enterprises both by the commercial banks and the Central Bank (see Table 3).¹⁴ It seems that these measures indicated the complete failure of the strict financial policy and of the shock therapy.

Since the end of August, excess liquidity has brought about a higher inflation in the prices of consumer goods, particularly foods (see Table 5), and a considerable drop in the value of the ruble in foreign exchange markets. We would like to emphasize that the mechanism of engendering excess liquidity was the same as before.¹⁵ First, the budget deficit grew, especially due to the increase in subsidies and the debt write-off of enterprises. Second, the monetary overhang of enterprises developed: the profits of enterprises increased and the shortage of intermediate goods became critical. Third, abundant money flowed into households as a result of wage increases: excess disposable income grew and the shortage of consumer goods became worse. In this instance, because of the liberalization of prices, excess liquidity has brought about not so much a shortage of goods as an excessively higher inflation.

Third, the Russian government was not able to free the price of oil quickly and intends to increase its price gradually to the level of the world market by the end of 1993.¹⁶ This policy is inevitable, because if the price of oil is freed simultaneously with other prices, the problems referred to in Point 6 will become far more serious than in the present situation, whereas, as described in Point 5, one of the aims of price liberalization will not be accomplished under the dominance of state enterprises.

As a consequence, as we predicted in the previous section, the normalization of price relations has been delayed. Domestic prices of fuel remain low, compared with international prices. Moreover, it also turned out to be true that the gradual rises of oil prices were followed by general increases in prices: it happened in June and in October (see Table 1).¹⁷ Finally, the most serious problem concerning the price of fuel was a sudden loss of budget revenues in the form of fuel export revenues. The revenues from foreign economic activities reached its peak in 1985, i.e., earned 19% of the total budget revenues of the former USSR.¹⁸ In 1992, it was intended that these revenues were to be levied in the form of export taxes.¹⁹ Though we do not have adequate statistics since the government changed the treatment of these revenues in the budget statistics at the end of the first quarter,²⁰ it would seem that the government failed to collect export taxes as planned due to a series of export tax exemptions introduced one after another and to the increase of illegal exports.²¹ Thus, the government apparently lost one of the largest sources of budget revenues in the course of the shock therapy.²²

4. Concluding remarks

Our evaluation of the shock therapy being implemented in Russia can be summarized as follows. First, its contradictory nature should be pointed out. Price liberalization without a free oil price is theoretically meaningless. Second, without other organizational measures, one of the main goals of price liberalization, i.e., the normalization of price relations, is scarcely attainable. Third, there exists a real dilemma between hyperinflation and financial

difficulties for enterprises. This dilemma will become extremely acute, if the price of oil is liberated.

Thus, we have argued against the shock therapy undertaken in Russia since the beginning of 1992. In the place of shock therapy, what should be done? At this point, we would like to sketch out some basic principles for an alternative policy.

First, it has to be recognized that the government cannot dispense with the control over state enterprises. It goes without saying that privatization is necessary and should be pursued aggressively. It is, however, also evident that it will take many years to privatize a large portion of state enterprises. It follows from this that the large state sector and growing non-state sector will coexist for a considerable period of time. Thus, the transition period from a command to market economy is characterized as a two-sector economy. Accordingly, the control over state enterprises should not be abandoned. Among other things, price regulation is indispensable because, as was indicated above, what was enacted in January was not a liberalization of prices in the true sense of the word, at least as far as state enterprises are concerned. The government has to set explicit guidelines for price setting, as long as it is desirable and necessary. Thus, together with the two-sector economy, a double system of prices will be maintained: state-regulated prices and free prices. Of course, the gap between the two systems of prices will be reduced gradually, if an adequate policy in this area is pursued by the government.

Some might argue, as was stated in Point 2 of the second section, that the present Russian government has lost the ability to pursue such a well-ordered and consistent policy. Although this appears to be the case, we would like to point out that under the contemporary form of a market economy, the ability of a government to regulate its national economy has become crucial for the development of that country. One might even contend that without acquiring this ability, the transition to a market economy is utterly impossible.

Second, a special policy is needed for fuel, especially for oil, because it is evident that Russia has a relative abundance of oil and that inevitably oil will remain the most important source of economic prosperity for Russia. It is not only inevitable, but indeed advantageous for Russia that for several decades to come, Russia will exist as a great power based upon its huge supply of fuel and natural resources. As was argued by Dmitrii L’vov and Vsevolod Pugachev, there is even a possibility of establishing a unique tax system that almost wholly depends upon fuel and exempts almost all other incomes of enterprises and individuals. Although this possibility cannot be discussed in detail here, evidently a special scheme of coordinated measures regarding the price and tax on oil is needed. We would like to argue that in oil industry privatization is not necessary. The state should create a system which ensures essential financial resources for the entire economy based on oil industry. In turn, the state should give top priority to the development of oil industry in terms of state and foreign investment.²³ It should be stressed that

there is no universal method for the transition from a command to market economy: each country should take account of its advantages and disadvantages.

Third, it should also be recognized that the transition to a market economy will require decades. Appropriate measures should be taken step by step to promote creation of a market atmosphere, and concurrently the government should eventually learn how to manage the economy. Gradualism is inevitable, because the transition requires a fundamental change in the behavior of enterprises, managers, workers and bureaucrats. The only obstacle to this gradualism is the problem of foreign debt. Foreign creditors are not willing to wait for very long. We anticipate that this problem will be solved within a short period, if top priority is placed on the development of oil industry, as was mentioned above. We believe that foreign assistance is only warranted in the development of oil and other industries which will ensure earnings of hard currency in the near future. Other forms of financial assistance would, at best, be meaningless, and, in some cases, detrimental.

Notes

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- 1 See Aslund(1992), Sachs(1991) and Sachs and Lipton(1990).
- 2 The Russians fear that their energy and fuel resources continue to be sold to other republics of the former Soviet Union at unrealistically cheap prices.
- 3 See *Rossiiskaia gazeta*, February 25, March 25, May 14, 1992.
- 4 Based on a personal interview with Makarov in December, 1991 and see Petrakov(1992a).
- 5 Dmitrii L'vov and Vsevolod Pugachev have argued consistently for a swift liberalization of oil prices. See references.
- 6 Kuboniwa carried out two types of simulations based upon the Russian input-output table in 1989. The first is aimed at rationalization of domestic price relations, i.e., elimination of subsidies. The result implies that fuel and food prices should be raised, while the prices of ferrous metal and machinery should be reduced slightly. The second simulation is the one where the international price structure is preferred. In this case, the prices of products of food and light industries should be reduced substantially and coal prices also should be decreased to a certain degree. The difference of the result indicates the low competitiveness of food and

- light industries and coal mining. An important implication for our argument lies in the fact that in both cases the prices of ferrous metals and chemicals are reduced compared with fuel and electricity prices. See Kuboniwa(1992), pp. 357-359.
- 7 See Memorandum(1992).
 - 8 The government cut 56.1 billion rubles of expenditures planned for the first quarter, i.e., 16% of the actual total expenditure of the consolidated budget. See *Programma uglubleniia*(1992), p. 34.
 - 9 This was caused in part by a technical problem, due to the collapse of the Gosbank interbranch network. The causes of the growth in overdue repayments are analyzed in Whitlock(1992), pp. 33-36, Solovov(1992).
 - 10 See Ellman(1992), p. 55, Petrakov(1992b).
 - 11 For example, on April 3rd, the government and the Central Bank of Russia signed an agreement concerning the normalization of settlement in the national economy. It specifies the allocation of 200 billion rubles for state enterprises in 1992 for the purpose of purchasing raw materials and of completing unfinished construction, especially in agriculture (70 billion rubles), construction (70 billion rubles) and industry (50 billion rubles). It is expected that by this credit the chain of mutual non-payments will be broken. See *Ekonomika i Zhizn'*, 1992, No. 15, p. 3. Another reason for increasing expenditures was the reintroduction of various subsidies. For example, by the government decree on May 8th, the subsidy for livestock products was restored from May 1st (*Rossiiskie vesti*, May 19, 1992). It was raised substantially both in July and in August by the government decrees on July 24th and on September 28th (*Rossiiskie vesti*, July 30, 1992, *Rossiiskaia gazeta*, October 15, 1992). In the plan of the federal budget for 1992, the price subsidies for coal equals 148.4 billion rubles and for foodstuffs - 127.4 billion rubles, constituting 4.5% and 3.8% of the total expenditures, respectively (*Rossiiskaia gazeta*, August 21, 1992, September 15, 1992).
 - 12 We have to bear in mind that literally there have been no restrictions on wage increases in Russia. By the presidential decree on November 15th, 1991, liberalization of wages was declared and all restrictions on wages were eliminated (*Vedomosti*, 1991, No. 47). The only measure designed to restrict wage increases was a new taxation scheme aimed at the profits of enterprises. This plan, the purpose of which was to tax excess wages, was introduced by the law on December 27th, 1991 (*Vedomosti*, 1992, No. 11). According to the Supreme Soviet decree, issued on the same day, the wage standard for 1992 was set at a level 4 times as large as the legal minimum wage (*op. cit.*). It is widely recognized, however, that Russian managers are accustomed to this type of scheme and have mastered ways to evade it.
 - 13 See *Vedomosti*, 1992, No. 27.
 - 14 See *Kommersant'*, No. 31 (1992), pp. 1, 18, Whitlock(1992), pp. 33-38.
 - 15 See Tabata(1992), pp. 59-66.

- 16 See Memorandum(1992).
- 17 The price of oil was raised by five times and reached 350 rubles per ton on January 2nd, 1992. The government decree on May 18th raised its price to the level of 1800-2200 rubles per ton (*Rossiiskaia gazeta*, May 20, 1992). It was stated that the new regulated price of oil was equal to one third the price on the world market, if converted at a rate of \$1 = 50 rubles. See Memorandum(1992). By the presidential decree on September 17th, the price of oil was increased to the level of 4000-5000 rubles per ton (*Rossiiskaia gazeta*, September 19, 1992). The price of gas was also raised by five times and reached 260 rubles per thousand cubic meter in January, increased to the level of 1100-1600 rubles in May, but was not raised in September.
- 18 Goskomstat SSSR, 1990, p. 15.
- 19 The export tax of oil was set at 26 ecu (European Currency Unit) per ton, i.e., 3718 rubles, converted by a rate of \$1 = 110 rubles. Because a ton of oil was sold for 110 dollars and 40% of export revenues were obliged to be changed into rubles by a special rate (\$1 = 55 rubles), the implicit tax rate was 38%. See *Izvestiia*, February 7, 1992, p. 6.
- 20 Since the second quarter of 1992, the revenue from foreign economic activities has not been published by itself. Instead, only the balance (expenditure minus revenue) of these activities has been published. See Grechikhin and Petrov(1992). This was related to the practice of compiling two budgets beginning, probably, since the end of the first quarter: the one in rubles which would be discussed and approved by the parliament and the other in foreign currencies which would be hidden from the public. See *Programma uglubleniia*(1992), p. 35.
- 21 The final draft of the federal budget for the first quarter was approved at last by the law on April 4th (*Rossiiskaia gazeta*, May 14, 1992). Peculiarly, 219.7 billion rubles of the expenditure and revenue related to foreign economic relations were deducted from both sides of the balance sheet: as a result, the total expenditure and revenue was roughly half of that listed in the original plan. Apparently, this phenomenon resulted from the failure to collect export taxes. It was estimated that in 1992 the loss of export taxes due to a series of measures for tax exemptions reached 440 billion rubles. See Grechikhin and Petrov(1992).
- 22 From Table 2, we see that net revenue from foreign economic activities in January-July was almost zero.
- 23 A number of presidential and government decrees were issued on June 1st, 1992, for the purpose of promoting the development of oil and gas industries (*Rossiiskaia gazeta*, June 5, 1992). Although it is apparent that the Russian government has recognized the necessity of special treatment for fuel industries, especially after the Sixth Congress of People's Deputies held in April, 1992, the measures taken toward this end have been weak and totally insufficient.

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Table 1. Wholesale price indexes by industrial branch in 1992

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.
	(the previous month = 100)									
Total	482	175	128	117	123	136	117	113	114	127
Electricity	369	155	149	135	132	...	149	...	...	105
Fuel industry	494	126	128	106	208	...	109	...	...	213
Ferrous metallurgy	461	260	125	133	127	...	111	...	...	112
Non-ferrous metallurgy	...	...	...	112	...	...	142	...	...	126
Chemicals	602	178	133	134	125	...	117	...	...	131
Petrochemicals	796	137	120	134	116	...	123	...	...	123
Machine-building	512	163	133	116	115	109	115	...	...	117
Wood-processing, pulp & paper	471	223	126	110	110	...	111	...	...	117
Construction materials	482	169	113	114	115	130	122	...	...	129
Light industry	330	161	116	106	108	...	107	...	113	111
Food industry	465	130	116	118	110	...	116	124	137	135
	(Dec.1991 = 100)									
Total	482	844	1080	1263	1554	2113	2472	2794	3196	4059
Electricity	369	572	852	1150	1519	...	...	...	...	...
Fuel industry	494	622	797	845	1757	...	...	...	...	...
Ferrous metallurgy	461	1199	1498	1993	2531	...	...	...	...	...
Non-ferrous metallurgy	...	...	...	...	...	...	...	...	...	...
Chemicals	602	1072	1425	1910	2387	...	...	...	...	...
Petrochemicals	796	1091	1309	1754	2034	...	...	...	...	...
Machine-building	512	835	1110	1288	1481	1614	1856	...	...	...
Wood-processing, pulp & paper	471	1050	1323	1456	1601	...	...	...	...	...
Construction materials	482	815	920	1049	1207	1569	1914	...	...	...
Light industry	330	531	616	653	706	...	...	...	...	...
Food industry	465	605	701	827	910	...	...	...	...	...

Sources: Goskomstat(1992b), p. 66, (1992e), p. 23, (1992f), p. 36, (1992g), (1992i), p. 69, *Ekonomika i zhizn'*, 1992, No. 26, p. 7, Institut ekonomicheskoi politiki(1992), p. 44.

Table 2. Budget revenue and expenditure of the Russian Federation in 1992

(billion rubles)

	Jan.-March			April-June			July		
	Total	Federal	Local	Total	Federal	Local	Total	Federal	Local
Value-added tax	105.9	84.7	21.2	182.3	136.9	45.4	122.7	94.5	28.2
Excise tax	23.0	14.2	8.8	21.1	5.2	15.9	14.8	6.4	8.4
Profit tax	102.3	49.0	53.3	285.0	127.9	157.1	164.8	66.9	97.9
Personal income tax	32.4	0.0	32.4	61.1	0.0	61.1	28.8	0.0	28.8
Foreign economic activities	26.0	26.0	0.0	35.8	35.7	0.1	18.0	16.8	1.2
Other	75.3	44.6	30.7	90.1	42.1	47.9	25.3	7.9	17.5
Sub-total	364.9	218.5	146.4	675.4	347.8	327.6	374.4	192.5	181.9
Intergovernmental transfers	17.3	0.0	17.3	-16.5	0.6	55.5	0.5	1.1	13.0
Total revenue	382.2	218.5	163.7	658.9	348.4	383.3	374.9	193.6	194.7
National economy	105.7	57.8	47.9	281.1	157.9	123.2	198.5	137.6	60.9
Social & cultural activities	99.2	31.9	67.2	214.3	65.0	149.4	100.5	29.1	71.4
Defence	56.5	56.5	0.0	158.7	158.7	0.0	73.0	73.0	0.0
Foreign economic activities	15.9	15.8	0.1	35.2	35.2	0.0	22.8	22.8	0.0
Justice, security & administration	26.6	23.2	3.4	54.6	45.4	9.2	36.6	30.7	5.9
Other	41.1	22.8	18.6	149.6	109.4	39.9	77.5	63.9	13.6
Sub-total	345.0	208.0	137.0	893.5	571.6	321.9	508.9	357.1	151.8
Intergovernmental transfers	15.7	15.2	0.5	2.9	73.4	2.3	15.7	28.2	1.0
Total expenditure	360.7	223.2	137.5	896.4	645.0	324.1	524.6	385.2	153.0
Balance	21.5	-4.7	26.2	-237.4	-296.6	59.2	-149.9	-191.6	41.7

Source: Institut ekonomicheskoi politiki(1992), p. 64.

Table 3. Data concerning the money supply in 1992

(billion rubles)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.
Cash currency issued	16.9	23.4	37.6	64.3	45.5	87.2	184.7	182.0	164.9	194.0	...
Cash holdings of households*	156.1	178.0	200.6	236.3	297.7	350.0	436.9	621.6	774.0	898.6	1086.9
Savings deposits of households*	296.9	305.5	320.5	328.0	419.6	430.0	449.4	464.0	...	...	533.6
Cash currency in circulation*	173.5	191.3	216.1	255.4	321.4	368.5	457.6	645.2	830.0	998.4	...
- Monthly increments	17.8	24.8	39.3	66.0	47.1	89.1	187.6	184.8	168.4	...	...
Total money*	951.4	1069.5	1194.2	1359.0	1495.2	1630.6	2082.3	2609.5	3435.8	4381.6	...
- Monthly increments	118.1	124.7	164.8	136.2	135.4	451.7	527.2	826.3	945.8	...	...
Credit to economy*	439.4	516.6	697.3	918.1	1025.3	1041.8	1393.0	1860.0	2153.2	2731.0	...
- Monthly increments	77.2	180.7	220.8	107.2	16.5	351.2	467.0	293.2	577.8	...	...
Arrears of payments of wages, pensions etc.*	11.2	...	...	31.8	78.5	149.9	221.6	114.0	...	...	...
Overdue credit repayments from enterprises to banks and suppliers*	39	140	390	780	1420	2150	3192	2246	...	...	...

Notes: *At the beginning of each month.

The definition of "Total money" is rather vague.

Sources: Goskomstat(1992b), p. 13, (1992c), (1992d), p. 17, (1992g), (1992i), p. 10, *Kommersant'*, 1992, No. 34, p. 8, No.41, p.27, *Finansovye izvestiia*, October 29, 1992, p. 6, November 26, 1992, p. 2, *Ekonomika i zhizn'*, 1992, No. 46, p. 1, Solovov(1992).

Table 4. Money income and expenditure of households in 1992

(billion rubles)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.
Total income	119.3	174.4	225.6	275.5	274.7	369.3	510.9	537.6	624.1	758.1
Total expenditure	93.5	138.6	179.0	201.9	223.4	258.3	307.0	363.4	461.5	552.4
Purchase of goods & service	82.2	122.6	153.5	178.9	190.7	217.0	258.8	304.8	385.6	468.7
Taxes and other	11.3	16.0	25.5	23.0	32.7	41.3	48.2	58.6	75.9	83.7
Savings	25.8	35.8	46.6	73.6	51.3	111.0	203.9	174.2	162.6	205.7
Accumulation of savings deposits and bonds	9.0	13.3	7.7	5.7	10.4	19.6	21.8	18.5	24.3	27.3
Cash accumulation	16.8	22.5	38.9	67.9	40.9	91.4	182.1	155.7	138.4	175.1

Sources: Goskomstat(1992a), pp. 8-10, (1992b), pp. 12-13, (1992c), (1992d), pp. 16-17, (1992e), p. 17, (1992h), p. 15, (1992i), pp. 35-37, 123, *Programma uglubleniia*(1992), p. 12, *Kommersant'*, 1992, No. 41, p. 27, *Ekonomika i zhizn'*, 1992, No. 43, p. 1.

Table 5. Average monthly wages and consumer price indexes in 1992

	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.
Average wage, rubles	1118	1470	1994	2705	3052	3675	5067	5450	5870	7379	8500
- the previous month = 100	...	131	139	136	112	120	138	108	108	124	115
- Dec.1991 = 100	100	131	178	242	273	329	453	487	525	660	770
Consumer price											
- the previous month = 100	112	345	138	130	122	112	119	111	109	112	123
- Dec.1991 = 100	100	345	477	619	753	843	1004	1110	1210	1340	1650
Food price											
- the previous month = 100	...	327	105	118	112	113	122	106	109	117	125
- Dec.1991 = 100	100	327	344	405	452	511	623	660	721	844	1056

Sources: Goskomstat(1992b), p. 12, (1992c), (1992d), p. 15, (1992f), p. 39, (1992g), (1992i), p. 68, *Argumenty i fakty*, 1992, No. 14, p. 3, Institut ekonomicheskoi politiki(1992), p. 47, *Ekonomika i zhizn'*, 1992, No. 43, p. 1, *Izvestia*, November 3, 1992, p. 2.