Communist Economies & Economic Transformation, Vol. 10, No. 2, 1998

Fiscal Crisis and Macroeconomic Policy in Russia

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From the beginning of market reforms a low level of production investment has been one of the major problems for the Russian economy. The investment crisis occurred in spite of the relatively high level of domestic saving, exceeding 20% of GDP. During all the years of market transformation, the excess of domestic saving over investment lead to the capital flight from Russia. Without changing this negative tendency, neither sustained economic growth nor efficient integration of Russia into the global economy are possible. This article is concerned with analysis of the macroeconomic conditions favouring a rise in real investment activity in the post-stabilisation period.

The economic liberalisation in 1992 allowed Russia to solve various urgent problems: to liquidate monetary overhang and shortage of goods, create money-based market mechanisms of exchange, improve public finances, start negotiations on the restructuring of the excessive sovereign debt accumulated by the Soviet Union and raise official foreign reserves, and open the economy for international trade. Among important institutional changes at that time were establishment of a two-level banking system, privatisation of a considerable part of state enterprises and creation of a capital market.

However, while all these steps were necessary for the first stage of reforms, they were not sufficient to improve the investment opportunities and environment significantly. In particular, the political situation in Russia in 1992–96 was the main obstacle to macroeconomic stabilisation and reform of public finances.

The Chronic Fiscal Crisis

The dramatic increase in the budget deficit in 1991 was predetermined by the earlier economic evolution. The budget crisis in the Soviet Union began to manifest itself from the mid-1980s although this was not officially recognised till the beginning of the 1990s. The most important reason for the chronic fiscal crisis of mature socialism was the gradual degeneration of central planning and hierarchical management. This in turn was pre-conditioned by the weakening of the repression mechanism and the elimination of the specific incentives of the orthodox model of socialist economy. The numerous attempts to offset these changes by partial reforms of the planned economy aimed at utilisation of various economic incentives (orientation of state enterprises to profit maximisation, improvement of the state-controlled price system

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1351-4393/98/020189-14

and so on) had in fact an opposite effect on productivity and merely speeded up the decay of the planned economy.

The growing share of profit at the disposal of enterprises caused a reduction of the state budget revenue. Attempts in the late 1980s to deregulate wholesale prices occurred while retail prices remained fixed. This automatically reduced the turnover tax[1] and increased price subsidies to enterprises.

Among other important factors of mounting budget distortions at the end of the 1980s were the fall in world prices for raw materials, growing military expenditure caused by the arms race and the war in Afghanistan, wrong economic policy decisions in the mid-1980s, for instance, the attempt to begin a new industrialisation and the anti-alcohol campaign that sharply reduced budget revenue. A series of large-scale disasters such as the explosion of the nuclear power station in Chernobyl and the earthquake in Armenia required unexpected budget expenditures.

In 1991 the loss of price control led to a dramatic fall in turnover tax revenue. This was aggravated by the collapse of the Soviet Union, which completely undermined the public finances (republics dramatically reduced transfers to the Union but still continued to receive finance from the central budget). As a result, the deficit of the reconstructed state budget of the Soviet Union was 31% in 1991.[2] Under suppressed inflation the budget deficit was actually financed through the decline in the purchasing power of money and non-voluntary saving by households and enterprises.

The price liberalisation in 1992 allowed the budget situation to be mitigated. This was due to a sharp reduction of price subsidies and introduction of the value added tax that could become an instrument of fiscal policy under free market pricing. Owing to the liberalisation of foreign exchange policy and introduction of a single exchange rate (internal convertibility) of the ruble in the summer of 1992, import subsidies to enterprises were also reduced. Defence expenditure was cut sharply too, from about 7–8% of GDP in 1991 to 4% in 1992.

As a result, the federal budget deficit was 5% of GDP in 1992 and 8% in 1993, according to the official statistical reports. According to our estimates, taking into account quasi-budget operations, the deficit in these years was 29% and 10% of GDP respectively.[3] Thus, by 1993 the budget deficit notably diminished, but not sufficiently for the beginning of financial stabilisation. Since the deficit was still large, it could not be financed without money creation, because the market for government debt did not exist at that time. International financial support was conditioned on the firm intentions (and abilities) of the government to improve public finance and reduce inflation.

Under these circumstances two strategies for reforming the public finances were available: the first was to increase budget revenue by carrying out a tax reform, and the second was to reduce and restructure budget expenditure. This required a number of deliberate institutional transformations, such as reforming state management and civil administration, the armed forces, housing and utilities. The reform of housing and utilities aims mainly at replacing subsidies to state-owned production units by subsidies to poor households and creation of a competitive environment in these sectors. The expenditure-side strategy of reforming the public finances could ensure the sustained long-term budget equilibrium necessary for investment-led economic growth, but its implementation requires competence, time and significant efforts. The implementation of any strategy for improving the public finances also needs social stability and a certain political will. None of these conditions was fulfilled until 1994, when the political circumstances favoured the beginning of financial stabilisation.

It was easier to begin macroeconomic stabilisation at the end of 1994 for several reasons. First, the adoption of the new Russian Constitution in 1993 and the dramatic change in the political system enabled unpopular economic measures to be executed. Thanks to the considerable concentration of power under the President, the government was no longer dependent on the populist parliament and stopped the myopic policy of balancing between threat of resignation and continuation of reforms.

Second, the new constitutional and legal conditions imposed barriers to the adoption of populist budget decisions. The budget process in the new conditions followed a strict formal procedure, and any decisions concerning the federal budget could be adopted by the State Duma only on a resolution by the government. All that made the situation radically different from the chaotic budget discussions in the Supreme Soviet of 1992–93, when budget amendments could be adopted 'by voice' and revised at any time.

Third, the balance of political forces in the 5th State Duma, elected in December 1993, did not favour the adoption of any budget amendments: the left and right parties automatically blocked each other's decisions. The government had to manoeuvre between the opposing sides in order to gain approval of its budget proposals. However, in the case of deadlock the budget process could be conducted through presidential decrees and this compelled political parties in the State Duma to find compromises.

These political changes were not sufficient to ensure a long-term stabilisation of public finance. In fact, there was no restructuring of the expenditure side of the federal budget, nor were structural reforms carried out. Instead of reducing social expenditure with a simultaneous redistribution of social subsidies to poor groups, only total reduction took place. This sharply increased income differentiation and reduced the efficiency of health care, education, science and the cultural sphere. Instead of reducing the size of the army with a series of cuts in defence expenditure, the latter was cut without any attempt to reform the army, which had extremely negative consequences for the armed forces. However, the reduction of budget spending in 1994–95 made possible the beginning of macroeconomic stabilisation in 1995.

Macroeconomic Stabilisation in 1995

For political reasons the adjustment of budget expenditure necessary for macroeconomic stabilisation could not be accomplished until 1994. The same obstacles prevented tightening of monetary policy. Up to the summer of 1992 each former Union republic could issue money and thereby obtain unilateral benefits from uncontrolled emission. The separation of monetary systems began with the introduction of correspondent accounts of the republics' Central Banks at the Central Bank of Russia in 1992 and the subsequent introduction of new currencies in the former Soviet republics. However, it took a year to stop the supply of the so-called technical credits, automatically issued by the Central Bank of Russia when a republic had a negative trade balance on bilateral trade with Russia. Actually this emission occurred beyond the control of the Russian government.

In 1993–94 this and other channels of money issue were closed. The Central Bank of Russia ceased the supply of cheap credits to some branches of the economy. According to the new rules adopted in 1993, centralised credits to firms could be channelled only through the state budget within the approved limits. The Central

Bank's loans to the government remained for a while the major source of money issue and were abolished only in the autumn of 1994.

In fact the loose monetary policy in 1992–93 is explained by the dependence of the Central Bank of Russia on the populist Russian parliament. According to the new Constitution of December 1993, the Central Bank became an authority completely independent from the legislative and executive authorities. However, in 1994–95 there still remained considerable informal dependence of the Central Bank on the executive power, as the Central Bank was headed by the deputy chairman and the nomination of a candidate remained a prerogative of the President. Fortunately, El'tsin's firm support of the stabilisation policy neutralised the vulnerable position of the central bankers.

The tight monetary policy in 1995 aimed at the reduction of the average monthly inflation rate from 10.5% in 1994 to 4% in 1995. The monetary programme adopted by the government and the Central Bank planned average monthly growth of the money supply at 4.2% in 1995. This programme was agreed with the International Monetary Fund before Russia received a stand-by credit of $6.4 billion. In order to control money growth, the programme imposed monthly limits for the growth of net domestic assets of the monetary authorities and monthly upper bounds for net claims on the (broadly defined) government. According to the monetary programme the Central Bank was committed to complete refusal to provide loans directly to the government. The financing of the ruble-denominated part of the budget deficit was supposed to rest on the sale of government securities. The programme did not involve explicit pegging of the ruble exchange rate and did not impose any binding commitment on exchange rate movements.

Thus, the choice was made in favour of an orthodox stabilisation on the basis of money supply control. Initially, the monetary programme was not based on the standard nominal anchor mechanism. This approach seemed quite flexible and was justified in the macroeconomic situation at the end of 1994. First, a loose monetary policy[4] conducted during that year caused a rise in inflation in the autumn and provoked a series of speculative attacks on the ruble in September-October 1994. Gross official currency reserves were exhausted during these attacks and the subsequent real ruble appreciation was motivated by purely political reasons.[5] At that time the government was ready to undertake an extreme measure—a sharp devaluation of the ruble. Obviously, this would have been inconsistent with the stabilisation programme and could have caused a new wave of inflationary expectations. Besides that, devaluation of the ruble would probably have lead to the immediate resignation of the reform government.

Second, pegging the exchange rate at the beginning of stabilisation was impossible because of the lack of credibility of the monetary programme and the fiscal policy of the government. This was a crucial issue at the beginning of 1995 because three previous attempts at financial stabilisation in 1992–94 had failed (merely for political reasons). Any attempt by the government to return to the inflationary financing of the budget deficit with a pegged exchange rate would have implied the failure of the stabilisation policy. Therefore the government and the Central Bank had to begin with a tight policy of money-based stabilisation.

However, the exchange rate policy conducted during the first months of monetary stabilisation rather confused financial markets. In order to accumulate foreign exchange reserves the Central Bank continued the policy of managed ruble depreciation. Although in January and February 1995 this policy had a serious foundation, in March and April it contradicted the objectives of tight money control.

As a result of artificial dollar appreciation, in March and April the Central Bank purchased over 5 billion dollars of foreign currency. The growth of the monetary base was 48% in the second quarter instead of the target rate of 15%. The accumulation of such a volume of international reserves violated the monetary programme but ensured the stability of the foreign exchange market in the second half of 1995 and in 1996.

The introduction of the exchange rate corridor, 4300–4900 rubles = $1, in July 1995 prevented the dollar overshooting to less than 4000 rubles and had a positive impact on the further decrease of inflationary expectations in the autumn. Thus, only in the second half of 1995 could the nominal anchor mechanism actually work. The exchange rate-based reduction of inflationary expectations in autumn 1995 would have been impossible without the tight anti-inflation policy conducted at the beginning of stabilisation. Table 1 demonstrates macroeconomic performance in 1995.

When assessing the real effect of the anti-inflationary exchange rate policy in 1995 one should take into account the fact that the real exchange rate of the ruble rose by 76.5% during that year (in 1994 it increased by only 14%, and in the first quarter of 1995 it rose by only 4.4%). Initially, the macroeconomic programme assumed a stable or slowly rising real rate of the ruble. But the increase in real returns on ruble assets and the switch of expectations in the second quarter of 1995 caused a vigorous process of de-dollarisation. A growing foreign currency supply could have led to further overaccumulation of foreign exchange reserves or higher real ruble appreciation. The actual policy was a result of trade-off between these alternatives.

Owing to inflation inertia the 1995 federal budget underestimated the inflation rate and the actual nominal budget revenue exceeded the planned level 1.3 times. This favoured the fulfilment of the monetary programme since there was no automatic indexation of nominal budget expenditures. In line with the monetary programme, the 1995 Budget Law included a special order for financing the government. This order excluded Central Bank credits as a source of budget deficit financing, and increased the responsibility of the fiscal authorities for budget expenditure. During 1995 total expenditure and loans net of redemption from the federal budget were 16.9% of GDP. In real terms, federal budget expenditure was reduced by 34% in 1995 against the previous year. The federal budget deficit was 4.7% of GDP in 1995 against 10.9% of GDP in 1994.

Financial stabilisation and the real appreciation of the ruble triggered the beginning of capital inflow to Russia. This in principle could lead to a decrease in the cost of external finance for industrial firms. Reduction of bank loan rates and rates of return on financial speculation increased the attractiveness of industrial investment for financial institutions. In the second half of 1995 the largest Russian banks notably amplified their activity in the industrial sphere despite the severe liquidity crisis. This change of strategy in banking was manifested in the spread of new sub-divisions aimed at strategic investment and in the aggravation of rivalry between banks to acquire shares in privatised enterprises.

The Sharp Tax Crisis in 1996

Reduction of the budget deficit in 1995 occurred without improvement of the structure of public expenditure or tax reform. In fact, the government only reduced state expenditure in real terms because of the absence of an automatic mechanism of indexation to actual inflation.

Table 1. Macroeconomic performance of Russia in 1995–1996

	Monetary base (bln rubles)	M2, (bln rubles)	Net domestic assets (bln rubles)	Net foreign reserves (bln rubles)	Official exchange rate end of month (rubles./$)	Average return on government securities (% per annum)	Interbank one day loan rate (% per annum)	Monthly inflation (consumer price index)
Jan 1995	44000	93800	40500	3500	4048	256.0%	222.4%	17.8%
Feb 1995	47600	101900	42000	5600	4473	220.6%	124.4%	11.0%
Mar 1995	49900	107300	40800	9100	4897	187.2%	125.2%	8.9%
Apr 1995	57300	123200	46000	11300	5130	145.6%	95.2%	8.5%
May 1995	64000	138200	44200	19800	4995	111.5%	63.7%	7.9%
June 1995	73700	156600	47500	26200	4538	84.2%	67.8%	6.7%
July 1995	81600	165000	55100	26500	4415	124.9%	110.8%	5.4%
Aug 1995	86100	173800	59500	26600	4447	156.7%	103.0%	4.6%
Sep 1995	89300	179700	63800	25500	4508	103.8%	64.5%	4.5%
Oct 1995	90700	184200	62500	28200	4504	93.4%	31.2%	4.7%
Nov 1995	95400	195200	70700	24700	4580	86.9%	30.0%	4.5%
Dec 1995	103800	220800	76500	27300	4640	93.9%	48.8%	3.2%
Jan 1996	100800	216700	75500	25300	4734	84.2%	30.0%	4.1%
Feb 1996	106700	229200	82700	24000	4818	56.9%	26.1%	2.8%
Mar 1996	113700	241800	73500	40200	4856	87.1%	66.3%	2.8%
Apr 1996	120900	251000	89900	31000	4940	130.0%	34.1%	2.2%
May 1996	118800	254200	98800	20000	5031	161.7%	31.3%	1.6%
June 1996	129400	266900	108400	21000	5105	230.2%	52.3%	1.2%
July 1996	131100	271900	111600	19500	5189	94.3%	38.6%	0.7%
Aug 1996	129000	275300	111800	17200	5352	86.6%	30.3%	−0.2%
Sep 1996	125600	276000	110900	14700	5396	72.4%	40.4%	0.3%
Oct 1996	124000	278800	116700	7300	5455	67.8%	32.0%	1.2%
Nov 1996	125000	282300	111200	13800	5510	45.6%	25.7%	1.9%
Dec 1996	130900	292500	121400	9500	5554	43.7%	27.8%	1.4%
Jan 1997	123900	297400	120700	3200	5629	40.3%	21.4%	2.3%

Sources: Goskomstat, Central Bank of Russia, IMF, Finmarket.

The dramatic decline of tax revenue was inevitable under the myopic fiscal policy of delaying radical tax reforms. The main reason for the tax crisis is the structure of the tax system, inherited from the socialist economy. The fall in real production, with a dominant proportion of corporate taxes in budget revenue, explains the decrease in absolute revenue. Although at the early stage of market transformation, in 1992–93, it was possible to offset the decline of tax revenue by partial improvements in taxation techniques, in 1994–95 these opportunities were no longer available.

Another reason for the decline of the marginal tax rate in 1995–96 is the deterioration in tax discipline of large industrial enterprises. This was aggravated by the structural shifts in the Russian economy, with the growing share in GDP of the private sector and services, which from the start typically showed poorer tax discipline. The expanding scale of tax evasion is confirmed by a close statistical link between the level of tax collection and the share of cash in the broad money aggregate M_2. Our estimates show a stable statistically significant negative dependence.[6] Besides that, economic agents learned to make use of various tax evasion methods, including legal tax reliefs.

Development of political mechanisms, on the one hand, and the growing influence of financial and industrial groups on the other hand, lead to the rapid spread of various lobbying institutions. In 1995–96 the increased lobbying activity resulted in a variety of new tax privileges granted by all levels of government.

As a result of the peculiarities of the Russian fiscal system the tax pressure has been high only for loyal tax payers obeying the rules. At the same time a considerable number of tax payers enjoy unreasonable privileges and/or evade taxation illegally. This results in an unfair and uneven distribution of the tax burden. The major burden is carried by big industrial enterprises, because they have fewer opportunities to evade taxes (their technological opportunities, production capacities and business connections are relatively transparent to the tax authorities). The longer production cycle and higher share of physical capital in such firms also affect their position. In an inflationary environment these factors raised the effective tax rate of large capital-intensive firms. Among the population the main burden falls on groups with an average level of income relying on legal salaries. Individuals with a high income had many ways, not only illegal, to evade taxation (for instance, personal expenditure can be represented as corporate expenditure and deducted from the profit tax base; high salaries could be received as non-taxed interest payments etc.).

The unevenly distributed tax burden caused the increase of tax arrears. Of course, the main reason for this phenomenon in the post-communist economy is the lack of an efficient bankruptcy mechanism. However, the volume of tax arrears remained relatively stable up to the beginning of 1996, when it dramatically increased. In particular, the share of tax arrears in GDP rose by over 37% in January 1996. The trend of tax arrears shows a close connection with the presidential election in June 1996: for clear reasons this election caused a temporary weakening of federal power and narrowed the bounds for discretionary fiscal policy.

Tax arrears began to grow considerably in January 1996, owing to the election campaign. First, a president fighting for re-election was unlikely to take tough actions against potential voters, and this was anticipated by economic agents. Moreover, the increase of tax arrears served as an alternative mechanism for a pre-election expansionist policy typical of the traditional political business cycle.[7]

Second, enterprises took into account the fact that the communist leaders unambiguously demonstrated support for those who avoided paying taxes 'to the authority with the primary goal of ensuring and maintaining price stability. At the same time, new financial institutions were created and developed: for example, the markets for government and municipal securities, corporate equities and derivatives. A number of new financial intermediaries and services appeared, such as mutual funds, investment banks, stock exchanges and over-the-counter markets for bonds and equities, a private depository system, audit, brokerage and other services. The tightening of monetary policy enhanced competition in banking and accelerated the selection of efficient and reliable banks. After the liquidity crisis in 1995 the Central Bank put special emphasis on supervision and prudential regulation in banking. Now it is widely recognised that the stability of the banking system is one of the main conditions for the beginning of sustained growth of production investment.

All these processes are necessary for the revival of investment activity but by themselves they are not sufficient. The role of government in the post-stabilisation phase of transitional development is still unclear. The fiscal crisis has already dramatically diminished the state's activities, which in fact were not very significant once the market transformation started. The sharp fall of government expenditure in 1995–96 without structural reforms in the public sector had a negative impact on social security, education, science and medical care. Since private schooling and health care as well as private financing of research are in an infant state, the main sectors responsible for the economy-wide supply of new human capital remain seriously damaged.

Although Russian central bankers continue to adhere to anti-inflationary monetary policy, the continuing fiscal crisis may have a negative impact on the further credibility of this policy and cause a new wave of inflationary expectations. Reduction of social expenditures has increased social tensions and yielded political benefits to the leftist parties. The results of regional elections in 1996–97 demonstrate support for communist and populist candidates. For this reason there is still a threat of communist or ultra-nationalist counter-reform revenge in the next presidential and parliamentary elections. More important is that the leftist and populist parties have a stable majority of seats in the State Duma and have been persistently creating barriers to the development of market reforms by blocking the adoption of crucial laws: the land law, the tax code, the law on production sharing, mortgage legislation etc.

The rate of return on government securities notably decreased during the year after the presidential election (from 150–180% per annum in June 1996 to 15–20% in May 1997). However, bank loan rates are still extremely high (80–100% per annum in January 1997 and 60–80% in June 1997) because of the high default risks. This evidence very clearly demonstrates that 'crowding out' of real investment by government bond issue actually was not as important as many economists and journalists in Russia believed. They repeatedly blamed the Ministry of Finance for retarding private investment in production assets by debt expansion in 1995–96. The continuing stagnation of the loan market in 1997 confirms that the lack of an efficient legal mechanism of contract enforcement was and remains the main obstacle to the beginning of widespread production investment. At the same time, commercial banks in Russia have become the main domestic financial intermediaries that are in fact able to provide the real sector with a relatively large flow of finance.

Similarly, the anti-inflation policy sharply diminished fluctuations in the rate of inflation and stabilised the relative prices of production factors, resources and goods. This is another necessary but not sufficient condition for the financing of new production projects.

An efficient contract enforcement mechanism requires a sequence of appropriate measures against corruption and criminality in order to increase the role of legal protection of property rights. Another important factor is the development of an efficient mechanism of bankruptcy. Despite the existence of a legislative basis, the bankruptcy mechanism works very poorly. There are at least two reasons for this. First, historically there is a high concentration of production in particular cities and localities, which is due to the badly designed policies of agglomeration and scale economies in the planned system. Now this imposes a binding constraint on the application of the bankruptcy law and procedure in practice, owing to the threat of temporary or permanent increase of unemployment. For this reason local and regional authorities would hardly support bankruptcies and takeovers, even if these could increase the number of jobs in the long run.[12] The second obstacle to bankrupting poorly performing firms is that mass privatisation in Russia in 1993–94 resulted in a high concentration of ownership in the hands of corporate insiders—managers and workers of firms. It will take quite a long time before redistribution of ownership and control increases the skills and competence of managers and improves corporate governance.

From the point of view of long-run investment, Russia still remains a zone of relatively high political uncertainty and risk. As was mentioned above, the left political forces still have a strong majority in the Russian parliament and adversely affect the legislative process. Another problem is the negative effect of the political business cycle on the stability of financial markets, which is taken into account by all potential investors in the Russian economy. The new pre-election campaign will start in fact in 1999, and at that time Russian markets will face the problem of increased political uncertainty similar to the one that had a negative impact on financial stability and investment in 1995–96. The current political debates about union of Russia with Belarus and the artificial acceleration of this for purely political motives may have an adverse effect on political stability even before 1999.

Notes

1. The base for turnover tax was the 'wedge' between wholesale and retail prices. This tax constituted one of the main sources of budget revenue in the socialist economy. When wholesale price exceeded retail price, the 'wedge' represented a price subsidy.
2. *Russian Economic Reform. Crossing the Threshold of Structural Change* (Washington, DC, World Bank, 1992).
3. S. Sinel'nikov, *Byudzhetnyi krizis v Rossii: 1985–1995 gody* (Moscow, 'Evraziya', 1995).
4. The Central bank's attempts to stimulate industrial growth in 1994 were called at that time a 'moderately tight' monetary policy, but this was rather a misleading political cliche used for mimicking financial stabilisation. As a result, the annual inflation rate in 1994 was still very high: 215%.
5. Speculative attacks in September-October 1994 led to the dramatic fall in the exchange rate against the dollar on 11 October 1994 (the so-called Black Tuesday). The Central bank was suspected of market manipulation which provoked the currency market crash and allowed it (and several large commercial banks) to gain very high speculative profits. The crash induced the resignation of the Central bank chief Sergei Gerashenko, who was very reluctant to abandon the inflationary policy (and for this reason was called 'the worst Central banker in the world' by *The Economist*).
6. *Rossiiskaya ekonomika v 1995 godu. Tendentsii i perspektivy*, vypusk 14 (Moscow, IEPPP, 1996).

7. W. Nordhaus 'The Political Business Cycle', *Review of Economic Studies*, 42, April 1975, pp. 1–25; A. Lindbeck, 'Stabilization Policies in Open Economies with Endogenous Politicians', *American Economic Review*, 1976, pp. 280–312; D. Hibbs, *The American Political Economy* (Cambridge, Harvard University Press, 1987). N. Roubini & J. Sachs, 'Government, Spending and Budget Deficits in the Industrialized Countries', *Economic Policy*, 1989, 8 (Spring), pp. 260–276; K. Rogoff, 'Political Budget Cycles', *American Economic Review*, 1990 (March), pp. 220–247; T. Persson & G. Tabellini. *Monetary and Fiscal Policy, Vol. 2. Politics* (Cambridge, MA, The MIC Press, 1994), pp. 164–185.
8. There may be different approaches for theoretical explanation of the tax crisis. One can think about a policy game under uncertainty or an endogenous policy model generating multiple equilibria with a Pareto-inferior equilibrium implying tax arrears and debt expansion. A model of inter-enterprise arrears with multiple equilibria was suggested by G. Calvo & F. Coricelli, 'Monetary Policy and Interenterprise Arrears in Post-Communist Economies: Theory and Evidence', *Policy Reform*, 1, 1996, pp. 3–24.
9. A. Cukerman, S. Edwards & G. Tabellini, 'Seigniorage and Political Instability', *American Economic Review*, 82, 1992, pp. 537–555, demonstrate theoretical arguments and empirical evidence that political instability and polarisation force the government to delay the tax reform, relying instead on seigniorage as the cheapest way of financing public expenditure.
10. M. Gambaryan & V. Mau, 'Ekonomika i vybory: opyt kolichestvennogo analiza', *Rossiiskaya ekonomika v 1996 godu. Tendentsii i perspektivy*, vypusk 16 (Moscow, IEPPP, 1997).
11. Official data on budget expenditure do not include all interest payments on government securities.
12. The version of the bankruptcy law currently being discussed in the State Duma aims at maximising the probability of survival for firms under a threat of bankruptcy. This law will create obstacles and increase transaction costs for creditors and outside strategic investors.