

# THREATS AND CONSEQUENCES OF INFLATION

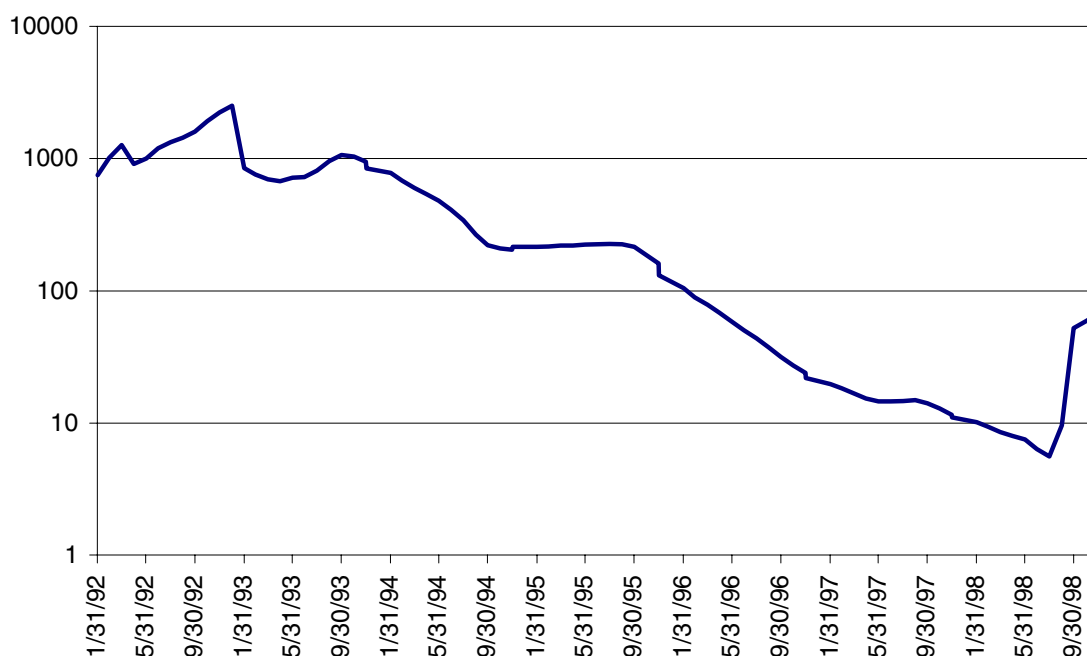
Following the culmination of the crisis on August 17 most experts predicted hyperinflation (monthly inflation above 50%) before the end of 1998. So far, however, this prophesy has not been fulfilled. Money creation has been kept well below expectations and the government and CBR are working over-time to come up with a workable solution that will keep Russia out of the inflation abyss. While it has become clear for many people now that large-scale money printing would lead to high inflation, the threat of such outcome is still real in our view.

This special report briefly discusses Russia's previous experience of high inflation with reference to two Latin American countries (Chile and Argentina). Focus, however, is on the period following the August 17 crisis, and to what extent we can expect large emissions, and therefore inflation in the near future.

## Russia's experience 1992-95

In 1992-95 Russia suffered extreme rates of inflation of over 1,000% in 1992 (annual average) and not falling below 100% until 1996. Monthly inflation over these four years averaged 19.3%. What were the reasons behind this development? Russia in 1991, inherited an economy characterised by a monetary overhang and repressed inflation, signified by a rapid increase in aggregate demand and shortages. Furthermore, during Perestroika, the budget deficit reached unsustainable levels (19% of GDP in 1991).

**Figure 1: Annualized monthly inflation in Russia 1992-98 (logarithmic scale).**



Source: Goskomstat

The decision to liberalise 90% of prices in January 1992 led to a price jump of 245%, and by the summer the monetary overhang had been eliminated. Efforts to tighten monetary policy in 1992-94 failed mainly due to attempts to preserve the rouble zone which after the break-up consisted of 15 independent countries, each with their own central bank. And although the CBR, under the leadership of Victor Geraschenko, was the only one allowed to print roubles the central banks of other CIS countries (and initially also the Baltic states) could issue credits. This meant that monetary control span out of control. Suddenly it was clear that a tighter policy from the CBR jeopardised Russia's vision as more countries started to introduce their own currency or issue monetary surrogates. Furthermore, much of the credits issued by CIS central banks were used to finance imports of Russian commodities, mainly oil and gas, which meant that pressure was also put on the CBR and the Russian government by Russian exporters to continue a looser monetary policy. As a result, by mid 1992 the granting of concessional credits to agriculture and industry intensified.

At the same time Russia was unable to increase tax revenues or reduce expenditures, and as a result continued to run a large budget deficit. And without access to domestic capital markets and lack of willingness from West to lend money to Russia, the only source of finance was the money printing presses.

**Figure 2: Relationship between the growth in M2 and inflation with a four month lag\***



*\*The dates on the horizontal axis refers to growth in M2, while inflation is presented with a four month lag. Thus at Jan-92 M2 is for January while inflation refers to May-92.*

*Source: Goskomstat, CBR*

This policy resulted in rapid growth in the money supply. M2 grew on average 14% per month between January 1992 and December 1994. In the same period inflation averaged 23% per month. Figure 1 shows the relationship between the growth in money supply and inflation. This relationship

has been extraordinary close, especially during the first 24 months<sup>1</sup>. In the case of Russia in 1992-94 the lag between printing money and inflation was about four months. However, it should be mentioned that the relationship is not at all strict and therefore should be treated with some caution. Other factors affect this relationship, but what is clear is that extensive money printing causes inflation. Still, money growth, can serve as a good leading indicator of inflation in the environment of sensitive inflation expectations.

Experience from other countries can also serve as evidence of monetary emissions leading to inflation<sup>2</sup>. In Chile, that suffered very high rates of inflation in 1973-76 (more than 100% per annum), driven by large budget deficits, M2 grew on average 346% per year. Equally, in Argentina, 1975-83, M2 grew 186%. At the same time M2/GDP contracted. The low level of monetisation in the economy in the times of increasing money supply is the evidence of lack of trust in the local currency and unwillingness of the population to hold it<sup>3</sup>. In Russia M2/GDP fell from 37.4% in 1992 to 13.5% in 1995. The population, in order to avoid the inflationary effect, flee the domestic currency as a store of value, and instead shifting their wealth into hard currency and durable goods. Tighter monetary and fiscal policy tend to reduce inflation expectations and reinstall the confidence in the local currency, increasing the level of monetization of the economy (see Table 1).

**Table 1: The experience of Chile and Argentina 1971-83.**

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
<b>Chile</b>													
M2 growth %	85.1	101	255	322	328	478	n.a.	n.a.	n.a.	62.1	47.9	25.7	27.8
M2/GDP %	17.3	18.9	13.7	7.2	8.0	12.8	n.a.	n.a.	17.3	20.1	25.1	32.4	32.9
Inflation %	20.0	74.9	362	505	375	212	91.9	40.1	33.4	35.1	19.7	9.9	27.3
Budget deficit /GDP	-11	-13	-24	-11	-2.6	-2.3	-1.8	-0.8	1.7	3.1	1.7	-2.3	-3.8
<b>Argentina</b>													
M2 growth %	-0.6	25.1	109	74.2	73.8	297	252	211	182	128	93.4	141	297
M2/GDP %	22.4	16.7	20.3	25.9	15.2	11.4	14.5	18.1	18.7	21.5	21.5	19.2	16.5
Inflation %	34.5	56.4	62.3	23.2	182	444	176	176	160	101	105	165	344
Budget deficit /GDP	-3.1	-3.3	-4.7	-5.3	-10	-7.2	-2.8	-3.2	-2.7	-3.6	-8.1	-7.2	-11

Source: IMF, World Bank

## The current crisis

Expectations of extensive money printing and high inflation following the devaluation of the rouble and the default on the domestic debt are still present. So far, however, these fears have not yet materialised. Base money grew about 20% August to November, and although inflation in September reached 38.4%, mainly as a response to the devaluation, October and November saw significantly lower rates. In October CPI increased 4.5%, picking up somewhat in November as inflation reached 5.7%. It is likely that December will see a further increase in inflation as the effect of money creation

<sup>1</sup> January 1992 to December 1993 with regards to M2, and May 1992 to April 1993 for inflation.

<sup>2</sup> The next quarterly Russian Economic Trends will contain a longer report also drawing on the experience from Central and East European countries.

<sup>3</sup> In developed market economies M2/GDP range from 50-150%.

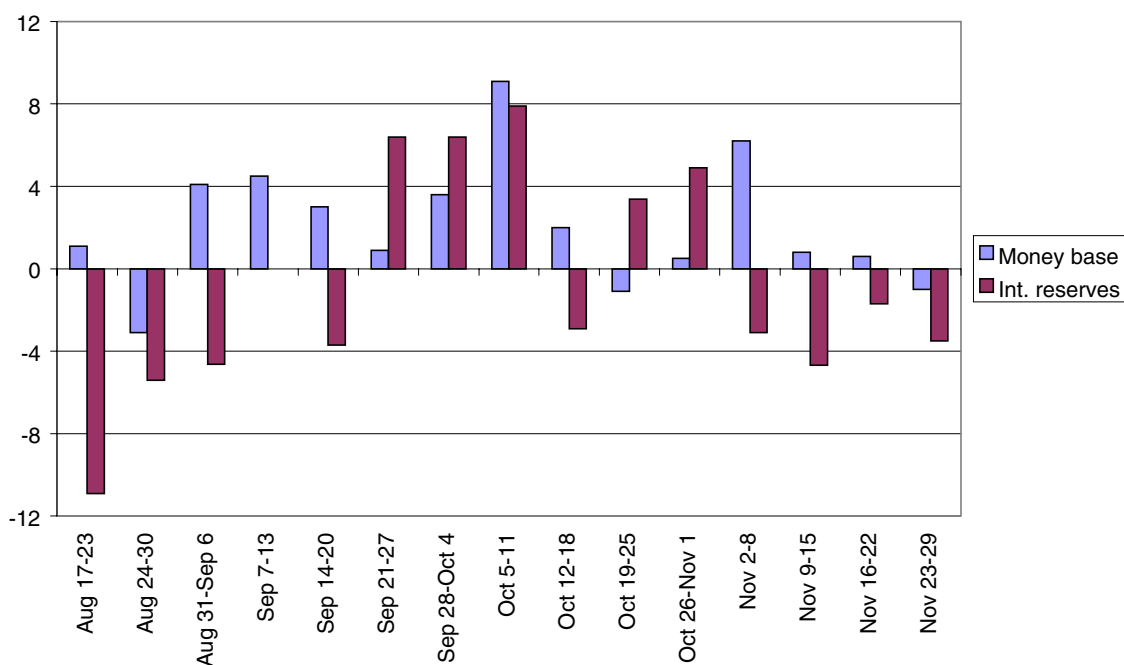
in August and September kicks in. Russia's financial sector has been severely hit by the crisis, and foreign investment have been substantially discouraged from speculating on the Russian market. This means that there the potential for future large speculative attacks on the rouble has diminished. As a result we can expect inflation to be driven not by a weakening rouble, as was the case in the first few weeks after the crisis, but rather by the viscous circle of increases in the money supply and persistent inflation expectations.

The government and CBR continue to claim that emissions will be controlled and backed by increase in international reserves. With regards to the first statement, once the money press starts to run, it is very hard to stop. Monetary emissions can be used to inflate away the huge stock of wage arrears and rouble denominated debt, and furthermore it can be an alternative source of tax revenue, so called inflation tax. Therefore, for a weak government in charge of an economy in crisis, expansive monetary policy, accompanied by inflation, can be a very attractive policy. However, inflation has detrimental consequences for the population as a whole with fall in living standards and income. Since August 17 people have seen their savings being eroded for the second time since reforms started. Real average wage in Russia fell by over 35% between the end of July and end of October. So far the government has avoided indexation of wages and pensions, although a law exists allowing for indexation when monthly inflation exceeds 6%. And although this has helped to stem inflation it now means that 29% of Russia's population now live in poverty, and increase from 22% before the crisis.

As for the increase in reserves related to that of base money, reserves fell in the first five weeks after the 17th of August (with the exception of one week when it remained unchanged). Soon after the crisis the CBR started to printing money when the decision was made to pay of some wage arrears and some banks received financial support. In the month between the end of September to the end of October the increase in international reserves more or less kept pace with the increase in base money. Two reason behind the increase in reserves was first that some enterprises paid their taxes in dollars, which then was sold on to the CBR by the ministry of finance, and secondly, banks started to experience liquidity problems, and as a result ATM machines ran out of cash forcing people to exchange dollars for roubles at exchange booths. In November reserves have been falling steadily, mainly due to debt service obligations, but partly also due to limited CBR intervention on the foreign exchange market, while a moderate amount of money has been printed. Nevertheless, even if the increase in money supply were to be covered by an increase in international reserves it may still prove to be inflationary as hard currency raised has already been committed to meet external debt payments, and therefore the CBR may not be willing or able to intervene on the foreign exchange market.

There are, however, other ways for the CBR to increase the money supply than simply printing new notes. Whenever the CBR grants direct credits to commercial banks this has an expansionary effect on the money supply. But this would also show up as increase in base money. The magnitude of credits extended to the banking sector since August is not exactly clear. In fact, in September, CBR's claims on financial institutions fell by R3.7 (official data not available beyond September). Equally, the CBR can reduce the reserve-deposit ratio, enabling commercial banks to use additional funds for their purposes. As for the reserve ratio, it was reduced from 11% to 10% at the out set of the crisis, and further to 5% in mid November. This measure has roughly meant an increase in currency in circulation by R10.5 bn since August. As a result, currency in circulation, in September, increased faster than money base (15.6% compared to 8.3%). Unfortunately official data for M0 (currency in circulation) is not available beyond September.

**Figure 3: Weekly increase in reserves and base money (in bn of roubles).**



Source: CBR

### Can the government avoid emissions?

The Russian government is effectively cut off from sources of non-inflationary financing of its programs. It has virtually no access to either foreign or domestic capital markets after the default on rouble debt and devaluation, and they are likely to remain closed until a credible program of revitalising the economy is adopted. It is also not obvious whether the IMF will provide loans to Russia next year. Nevertheless, the state needs funds to finance its budget deficit, its arrears and its banking sector restructuring.

Despite the obvious lack of funding to finance government expenditure in excess of its revenues, the latest draft of 1999 budget suggests a deficit of R105 bn (2.75% of GDP), more than 50% of which is planned to be financed by external sources - a commitment which looks less than credible. The budget also assumes annual inflation of 30% (equal to an average monthly inflation of 2.2%) and a rouble/dollar rate of 21.5.

There are several reasons why these targets can be considered over-optimistic. This year's federal deficit will amount to approximately 4.5-5% of GDP, with tax revenues still below targeted revenues. As the crisis takes its toll GDP decline is accelerating and may amount to as much as 5% for 1998. Fiscal revenues are positively correlated with change in GDP, while the pressure for increasing expenditures will increase with a deterioration of the economic situation. In addition under high inflation the real value of tax revenues tends to fall, the so called Tanzi effect, while at the same time nominal expenditure obligations increase.

Overall, under the current budget proposal it looks likely as if sizeable fiscal problems will continue. Moreover, the recent decision to lower VAT, increase sales tax and cut profit tax will mean further

losses of revenues. The oil sector, which accounts for ¼ of all government tax revenues, is going to continue to suffer from low oil prices following OPEC's decision not to take supply cutting measures, and may further undermine the revenue side of the budget.

The stock of arrears has continued to increase. Running up arrears has been one measure used by the government to finance de-facto budgetary gaps. Without making more realistic estimates of tax collection and/or reducing spending promises, the pressure on the government to continue using arrears for its budgetary need will remain, and with inflation, it becomes even more attractive to delay payments. By end of October state sector wage arrears amounted to R22 bn, (excluding arrears to the military), and other overdue obligations of the federal budget alone amount to several times this number. Eventually, these debts will have to be paid off.

The overhang of the banking system problems calls for timely implementation of the state's program of restructuring of the banking sector<sup>4</sup>. Such program needs substantial funding, at least initially, until the financial markets in Russia have recovered and the money from recovery of bad assets and banking asset sales starts to trickle. The costs of the program have not been estimated fully yet, while the Central Bank announced that it estimates the amount of money required for recapitalization of the banking system around R141 bn (approximately 5% of Russia's current GDP). In most Latin American and Central and East European countries the bill ranged from 5 to 20% of GDP.

The conclusion is that there are still large state spending needs which require financing over that provided by budget revenues. With non-inflationary funding not available at present, some money printing seems inevitable. In this situation, to keep inflation within reason the state should limit itself to financing only the most critical projects, such as repayment of wage and pension arrears. To help reduce inflation expectations, the state should commit to the maximum level of such financing a priori and Central Bank funding for such payments must be done in the most transparent way possible. All lower priority spending must be slashed. Whenever possible, financing for the budget and bank restructuring should be obtained from the sale of assets of bankrupted banks and enterprises.

Judging from the first three months following the crisis it seems as some lessons have been learnt from the 1992-94 experience. The rhetoric with regards to make use of emissions has been restrained, especially from the CBR's chairman Victor Geraschenko. However, the proof of the pudding is in the eating. As long as government spending is not strictly prioritised and controlled, there is a real danger that, as the crisis deepens, money will be printed indiscriminately leading to strong reigning inflation.

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<sup>4</sup> For a detailed analysis of the programme, see *Russian Economic Trends*, November, 1998.

# ECONOMIC UPDATE

## Aggregate demand

From October 1998 Goskomstat abandoned calculations of monthly GDP estimates. Nevertheless it is clear that all the major components of aggregate demand, and thus GDP as a whole, continued to fall. In October seasonally adjusted real consumer expenditures on goods and services fell by 6.3%, after falling 5.4% in September. This meant that they were 9.8% lower than in October 1997 and 14.5% lower than in December 1997. Seasonally adjusted real expenditures on new construction and equipment (a proxy for the gross fixed investment) in October declined by 7.3%, after a decline of 6.1% in September. This meant that they were 11.5% lower than in October 1997 and 15.3% less than in December 1997. Other components of demand – government consumption and net exports – also dropped substantially compared to 1997.

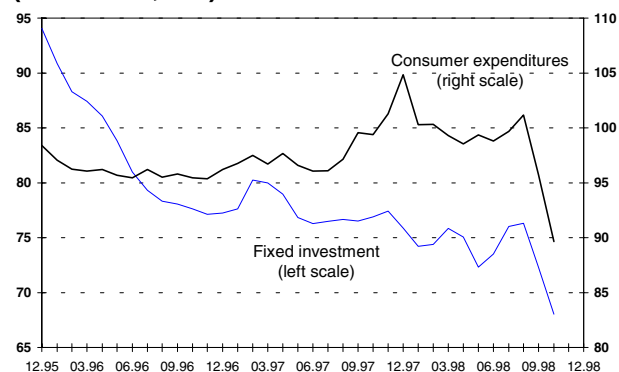
## Output

In October all major indicators of the real sector showed some small improvement on September's outcome. The seasonally adjusted index of industrial production increased by 4.8%, production of energy commodities grew by 2.9%, agricultural output increased by 1% and freight traffic turnover grew by 3.2%. It is difficult to make forecasts in a such an unstable situation, but the period of rapid decline of output observed in May–September probably came to an end. Still the level of output remains much lower than a year ago – industrial production is 11.1% below its October 1997 level, the volume of construction is 11.8% less, and agricultural output in the first 10 months of this year is almost 9% lower than in the same period of 1997.

## Prices

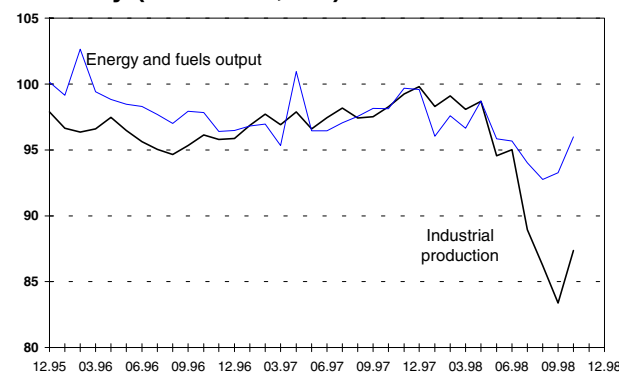
After September's upsurge of consumer prices when prices grew 38.4%, monthly inflation rates slowed to levels last seen in mid-1995. In October the consumer price index grew by 4.5%, in November by 5.7%. In October–November the CPI for goods (food and non-food) was increasing on average at 6% a month, while prices for services grew by 1.5% per month. In October composite PPI increased by 4.0% while PPI in industry grew by 5.9% and PPI for agricultural animal products by 6.3%. Among

**Components of aggregate demand (1995=100, SA)**



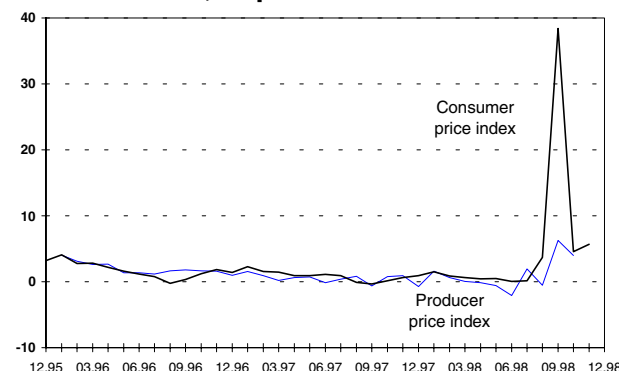
Source: Goskomstat.

**Industry (1995=100, SA)**



Source: Goskomstat.

**Inflation rates, % per month**



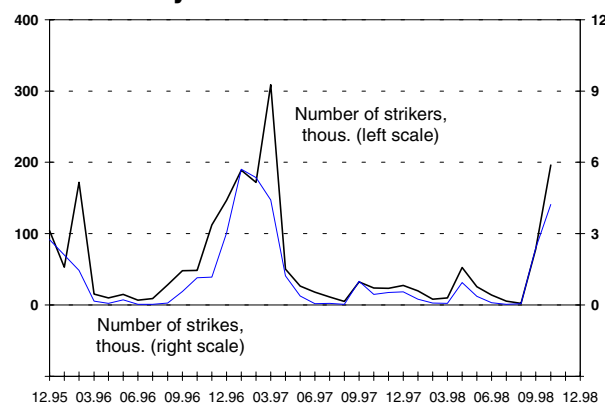
particular industries in October an extraordinary price growth was observed in non-ferrous metallurgy: for example, prices for nickel grew by 77%, and for copper by 76%. In general up until now prices were reacting and/or adapting to the decrease of the rouble exchange rate, but their future changes will likely be more dependent upon increases in the money supply.

Source: Goskomstat.

## Labour

The situation in the labour market remains strained. Real wages in October fell by about 5% and was 33% lower than a year ago. In October budget wage arrears increased by 4.3% reaching R21.8 bn (in the 10 sectors currently reported). The unemployment rate, according to Goskomstat estimates, is equal to 11.6% of the economically active population, but according to a VCIOM poll (that was conducted more recently - the Goskomstat data dates back to its last survey in October 1997) the unemployment rate in September exceeded 16%. These factors contributed to a substantial growth of strike activity. In October officially registered strikes amounted to 4,229, and the total number of strikers was equal to 196,000. Higher monthly figures of strike activity were observed only in September 1995 and January–March 1997. In October 1998 the majority of strikes (4,052) occurred in primary and secondary schools where teachers protested against the non-payment of their wages by local governments.

## Strike activity

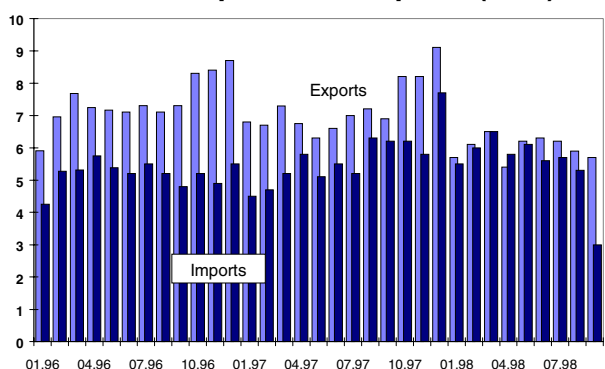


Source: Goskomstat.

## Foreign trade

The effect of the crisis and the paralysis of the payment system was felt in September as imports fell dramatically to \$3.0 bn, down from \$5.3 bn on the previous month, and \$6.3 bn in September last year. This represents a fall of 43.4% and 52.4% respectively. Exports on the other hand fell by 3.4% to \$5.7 bn month on month, but by 19.7% compared to September 1997. As a result September's trade balance showed a surplus of \$2.7 bn, the largest since December 1996. The fall in imports was slightly larger in trade with the CIS compared to non-CIS countries. Russian exports to the CIS fell a further 20% in September compared to August (when it fell 23%), and now accounts for a mere 14% of total exports. This is the lowest reported monthly level of CIS trade in history.

## Merchandise exports and imports (\$ bn)



Source: Goskomstat

## Enterprise finances

Despite the breakdown of the payment system, and thanks to Central Bank off-set operations, the amount of inter company arrears and arrears to the enlarged budget rose only slightly in nominal terms in September, and remained constant as a share of GDP. A jump in credits and loans taken out by enterprises to R418 bn from R288 bn (an increase of over 4 % of GDP) during the month of September can probably be explained by the fact that many loans are denominated in dollars and so the rouble's fall increased their rouble value.

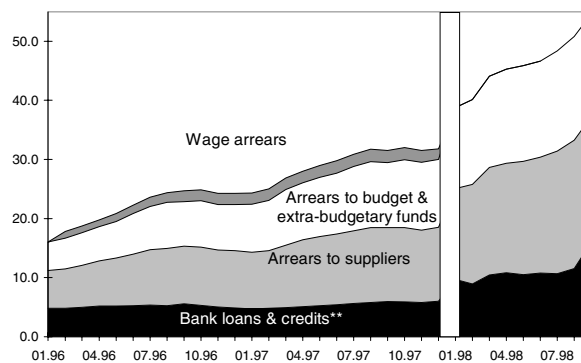
Creditors of the so-called 'financial industrial groups' are starting to take action in seizing their industrial assets. Bank Menatep has reportedly lost 30% of YUKOS to foreign creditors of the bank. State creditors of Kondpetroleum, a Sidanko controlled oil company, are pushing for the formal bankruptcy of the firm instead of accepting ONEKSIM's offer to give up a portion of its shares as payment towards the company's tax debts and energy bills.

No major changes in the patterns of interenterprise payments were observed in August. According to Goskomstat, the share of cash payments in total payments remained at around 34% in the nine main sectors of the economy. Industry remains the sector which relies the most on barter with 11% of payments (the number is likely grossly underestimated though), and transport is the leading recipient of off-sets, which account for over 50% of all payments to the sector.

In November, the government made a first step in implementation of its bank restructuring program by setting up ARCO, the agency for restructuring of credit organizations, with the state holding 51% of its shares, and the CBR the remaining 49%. The agency was capitalized with R10 bn, which, according to the Central Bank's own estimates, is less than 10% of the capital required for recapitalization of the banking system.

On December 2, Sberbank started paying out money on some of the deposits transferred to it from six large commercial banks. The funds came from the obligatory reserves of the respective commercial banks and via credits from the CBR. The Federation Council, however, failed to pass a law on bank deposit guarantees, which promised large compensations to depositors without identifying any sources of financing.

**Arrears and bank credits & loans, % of GDP\***



\* Data is for 4 sectors of the economy (industry, agriculture, transport & construction) prior to January 1998 and for 9 sectors from January 1998. Data for wage arrears is not available for the same 9 sectors. See Table 7 statistical appendix for the list of 9 sectors.

Source: Goskomstat



## The budget

In October the federal government ran a budget deficit of R10.6 bn, using the IMF definition. Federal revenues were R24.3 bn, including R19.3 bn of tax revenue, and expenditures were R34.9 bn. Since interest payments were a small R2.6 bn in the month, the government ran a large primary deficit of R8 bn. In the first ten months of the year the federal deficit summed to R94 bn or 4.4% of GDP.

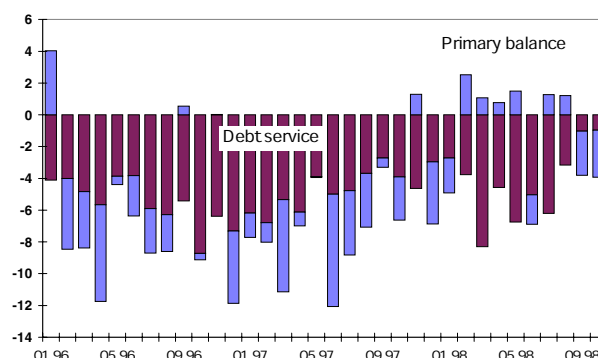
Regional and local governments in October ran a surplus of R2.2 bn. During the first ten months of 1998 their deficit was R12.2 bn. Revenues were R278.7 bn and expenditure R290.9 bn.

The 1999 Federal Budget is scheduled to be submitted to the Duma on December 11. The version of the budget discussed by the Government on November 30 stated revenues of R482.9 bn, expenditure of R587.4 bn, hence a deficit of R104.5 bn, or 2.75% of forecast GDP. R31.9 bn of the deficit was to be financed directly by the Central Bank. The government must amend the budget parameters to take account of the changes in the tax legislation recently agreed.

## Financial markets

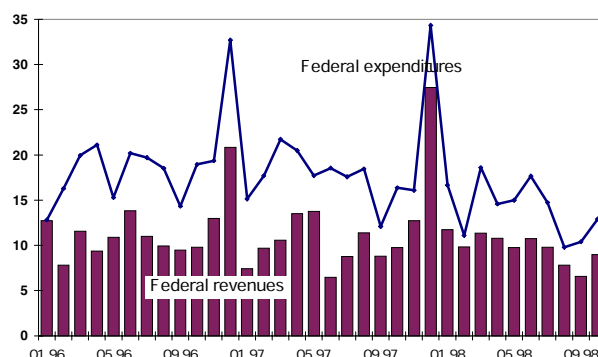
In the two months since the beginning of October, the Moscow Times index has nearly doubled, though from an extremely low base. The market remains very cautious awaiting decisions on the restructuring of some external debt payments for the remainder of 1998 and that which comes due in 1999. Russia has formerly applied to both the Paris and London Clubs of creditors for a restructuring of the debts contracted with their members in the Soviet era.

### Federal budget deficit, % GDP



Source: Ministry of Finance

### Federal revenues and expenditures, % GDP



Source: Ministry of Finance

### Moscow Times \$ Index (The Russian bubble)



Source: Moscow Times

## Money and the banking system

At the end of November the money base, consisting of currency in circulation (M0) and commercial bank required reserves held at the CBR, stood at R191.9 bn, an increase from the end of October of R6.6 bn. This brings the increase since the end of August to R33.2 bn, or 21%. In order to further ease the liquidity constraint on banks, the CBR again reduced reserve requirements down to 5%. Since the collapse of August 17 about R10 bn have been released by the reduction in the reserve requirements, which before the collapse stood at 11%.

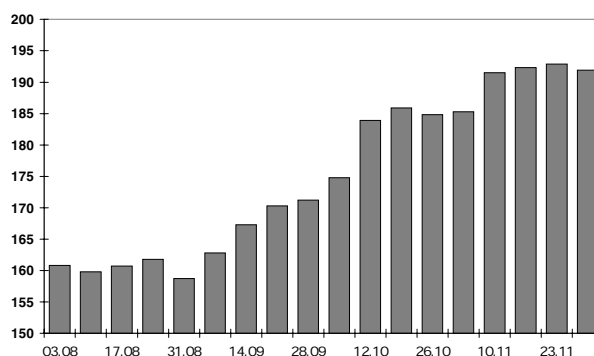
International reserves fell steadily throughout November to \$12.8 bn. In October they had increased. The reduction was caused by several factors - firstly external debt service payments, and secondly a limited degree of intervention by the CBR on the foreign exchange market.

## The exchange rate

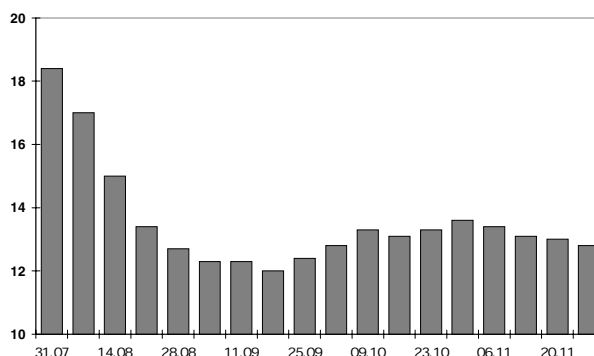
In November the official rouble-dollar exchange rate increased from R15.8 to R17.8 per \$, representing a weakening of the rouble of 13%. The government has drawn up the 1999 budget assuming an average exchange rate for the year of R21.5 per \$. However the rate is already approaching this target, with the official exchange rate on December 4 standing at R19.6 per \$, and the afternoon session that day closing at R20.9 per \$. Hence it looks likely that the R21.5 per \$ target may be exceeded even before the end of 1998.

Victor Geraschenko, the chairman of the CBR, has again reiterated his desire to abolish the special trading arrangements currently in existence whereby exporters and importers operate in the morning session and commercial banks operate in the afternoon session. In its place he has proposed a single morning session for all operators. During the morning session the supply of dollars from exporters has continued to exceed the demand of importers to buy dollars.

## Monetary base (weekly data, R bn)

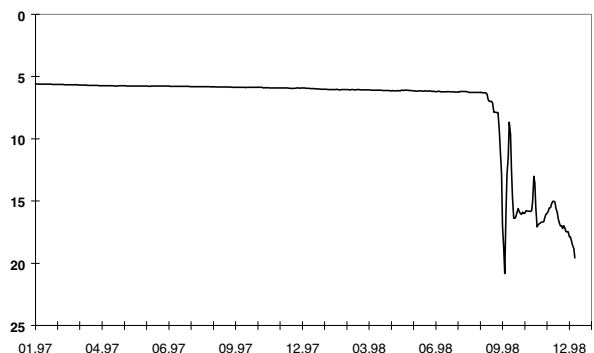


## Gross reserves (weekly data, \$ bn)



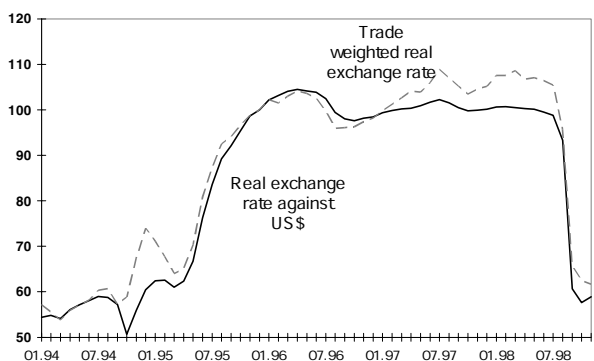
Source: CBR

## The rouble exchange rate (R/\$)\*



\* MICEX exchange rate till 17th August. CBR rate from then on. Source: CBR

## The real exchange rate



Source: Moscow Times, Goskomstat, Financial Times