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**A Golden Rule for Russia?  
How a Rule-Based Fiscal  
Policy Can Allow a Smooth  
Adjustment to the New  
Terms of Trade**

**Christian Gianella**

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**By  
Christian Gianella**

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**Abstract**

The Russian economy continues to grow strongly, buoyed by rising terms of trade, which, in turn, are supporting a boom in domestic consumption. This paper addresses the challenge that the adjustment to sustained high oil prices poses for macroeconomic management. It first examines the impact of rising terms of trade on the domestic economy, particularly with respect to exchange-rate appreciation, competitiveness and inflation. It then considers the role of monetary and fiscal policies in ensuring a smooth adjustment to the higher terms of trade. The paper argues that fiscal policy should be the primary instrument for tackling this challenge. It therefore focuses on the potential role of a fiscal rule in insulating the economy and the budget from commodity-price fluctuations, and on the management of windfall oil and gas revenues accumulated in the fiscal Stabilisation Fund.

This paper relates to the *OECD Economic Survey of the Russian Federation 2006* ([www.oecd.org/eco/surveys/russia](http://www.oecd.org/eco/surveys/russia)).

*JEL Classification:* E52, E63, O23

*Keywords:* Russia, Macroeconomic management, Monetary Policy, Fiscal Policy, Dutch Disease.

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**Une règle d'or pour la Russie?  
Comment une politique budgétaire fondée sur des règles peut permettre un ajustement en douceur  
aux nouveaux termes de l'échange.**

**Résumé**

L'économie russe continue de croître à un rythme élevé, bénéficiant d'une amélioration prolongée des termes de l'échange qui alimente la forte hausse de la consommation intérieure. Cette étude analyse le défi que l'adaptation à des prix du pétrole durablement élevés suscite en termes de gestion macroéconomique. Il examine d'abord les conséquences de l'augmentation des termes de l'échange sur l'économie nationale, en particulier son impact sur l'appréciation du taux de change, la compétitivité et l'inflation. Il analyse ensuite le rôle que les politiques monétaire et budgétaire peuvent jouer pour garantir un ajustement en douceur à cette augmentation des termes de l'échange. Le chapitre conclut que la politique budgétaire devrait être l'instrument à privilégier pour réaliser cet ajustement. Enfin, l'étude considère le rôle que peuvent potentiellement jouer des règles budgétaires pour mettre l'économie et le budget à l'abri des fluctuations des prix des matières premières, et se concentre sur la gestion des recettes pétrolières et gazières exceptionnelles transférées dans le Fonds de stabilisation.

Ce Document de travail se rapporte à l'*Étude économique de l'OCDE de la Fédération de Russie 2006* ([www.oecd.org/eco/etudes/russie](http://www.oecd.org/eco/etudes/russie)).

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**A GOLDEN RULE FOR RUSSIA?  
HOW A RULE-BASED FISCAL POLICY CAN ALLOW A SMOOTH ADJUSTMENT TO THE  
NEW TERMS OF TRADE**

By  
Christian Gianella<sup>1</sup>

**Introduction and summary**

1. Russia has now been growing strongly for almost eight years, a period during which it has benefited from a very favourable macroeconomic environment. Since the first recovery of oil prices in 1999, the cornerstone of macroeconomic stability has been a conservative fiscal policy. The Russian authorities' adherence to such a strategy owed much to the assumption that high oil prices were a temporary phenomenon. Expectations have now shifted, however, as it is generally believed that oil prices are set to remain at levels that are by, historical standards, rather high. This is making it harder to sustain fiscal discipline, which depends increasingly – and worryingly – on political will. Yet a world of sustained high oil prices presents new challenges for Russia as well as new opportunities, and higher oil prices in no way obviate the need for a sound macroeconomic framework. While fiscal sustainability is not currently in question, fiscal discipline has a vital role to play in smoothing the economy's adjustment to its new terms of trade.

2. This paper argues that a rule-based fiscal policy would better address these challenges than would continued reliance on the determination of policy-makers to resist pressure for fiscal easing. Of course, a fiscal rule is not a substitute for political commitment: no rule is likely to be observed for long in the absence of sufficient political will. However, fiscal rules can strengthen discipline and reduce the extent to which sound policy depends on their subjective political assessments, precisely because they constrain policy-makers and increase transparency. Whereas the fiscal “golden rules” adopted by some developed countries aim to stabilise government net assets, Russia, as the world's second-largest producer and exporter of “black gold”, needs a rule oriented chiefly to limiting the budgetary and growth impact of the oil-price cycle. Such a “black-golden rule” could definitely facilitate a smooth adjustment to terms-of-trade shifts.

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<sup>1</sup> The author works in the Country Studies Branch of the OECD Economics Department. This paper draws on material originally prepared for the *OECD Economic Survey of the Russian Federation*, which was discussed in the OECD's Economic and Development Review Committee on 25 September 2006 and published in November 2006. The author is grateful to the many Russian and western officials, experts and businessmen, too numerous to list here by name, who discussed macroeconomic issues with the *Survey* team. He is also indebted to colleagues in the Economics Department, in particular Val Koromzay, Andrew Dean, Andreas Woergoetter and William Tompson for useful discussions, comments, and drafting suggestions. Evsey Gurvich, head of the Economic Expert Group, also provided valuable feedback on an earlier draft. Special thanks go to Corinne Chanteloup for technical assistance, and to Susan Gascard, Sylvie Ricordeau and Sheila McNally for secretarial assistance.

3. A smooth adjustment is indeed necessary as recent dramatic improvements in Russia's terms of trade, though good for growth, have presented challenges of their own. The first and most immediate problem is the increasing cost pressure on tradable sectors arising as a result of the very rapid pace of real exchange-rate appreciation. While labour market adjustments have so far allowed a smooth reallocation of the labour force from the industrial sectors to the services sectors and minimised the risk of "Dutch disease", continued rapid real appreciation will impede efforts to diversify Russia's production and export structure. The second problem is the inflationary pressure generated by sustained high prices for Russia's major export commodities. Persistent high inflation may not only be detrimental to long-term growth (Barro, 1995, Andres and Hernando, 1999) and dampen incentives to invest (OECD, 2003), it may also increase already large inequalities in income distribution, as low-income households are less likely to be able to protect their savings from purchasing-power erosion and low-income workers are more likely than others to see wage-rises significantly lagging inflation.<sup>2</sup>

4. This paper explores the nature of these challenges and proposes a number of measures aimed at enabling the Russian authorities to address both sets of problems. It first examines Russia's trade performance and competitiveness, with particular reference to the impact of windfall-induced exchange-rate appreciation and money-supply growth. The non-resource tradables sector is under increasing pressure as a result of the commodity boom, and some of the factors that facilitated its relatively smooth adjustment in earlier years now seem largely to have run their course. The discussion then turns to the problem of inflation, which the authorities aim to reduce to 4.5–5.0% by 2009. While policy-makers have recently focused much attention on the role of utilities tariffs and other regulated prices in controlling price increases, the primary factors driving inflation are in fact monetary. Large-scale unsterilised interventions on the foreign exchange market, aimed at keeping the nominal effective exchange rate stable, continue to fuel rapid growth of the money supply.

5. Until the economy adjusts to the new terms of trade, therefore, there will be a need for large-scale fiscal or monetary sterilisation. The options for addressing these challenges *via* monetary policy are limited, given the weakness of the exchange-rate and interest-rate channels. A relatively tight fiscal stance, however, can reduce both inflation and exchange-rate pressures. Fiscal policy should thus be the primary instrument for ensuring macroeconomic balance. More precisely, a clearly defined fiscal rule, relying on the mechanism of the Stabilisation Fund, can play a critical role in ensuring macroeconomic stability, either in the case of a further rise in commodity prices or in the event of a downturn. In insulating the economy from commodity-price volatility, fiscal policy would also enable the authorities to anchor expectations on the real "equilibrium" exchange rate and would thus greatly facilitate the conduct of monetary policy. Whether or not fiscal policy will deliver these benefits depends above all on how commodity windfalls are managed and how the framework for forming, investing and utilising the Stabilisation Fund is amended.

## **Russia has benefited from dramatic terms-of-trade gains**

### ***Economic performance has been impressive***

6. Economic performance over the past seven years has been impressive. GDP growth during 1999–2005 averaged 6.7%. Real GDP growth was 7.2% in 2004 and 6.4% in 2005, making for an average rate of 6.7% over the seven years to end-2005. At the same time, inflation, though stubbornly persistent, has continued to edge downwards from year to year despite relatively lax monetary conditions, while the general government balance has moved ever further into surplus (Table 1). The economy experienced a

---

2. Empirical research finds that reducing the level and volatility of inflation is associated with reductions in poverty and inequality, especially in countries with high inflation. See, *e.g.*, Galli and van der Hoeven (2001); Easterly and Fischer (2001) and Powers (1995).

gradual deceleration during 2004 and early 2005, owing in large measure to a deterioration in the business environment, but growth picked up again in the second quarter of 2005.

7. Recent growth has largely been sustained by dramatic improvements in the terms of trade (+33% over 2004–05). Recent macroeconomic performance thus continues to be driven largely by developments in the oil industry, as was the case in 2000–03. However, there has been a major change in the character of that sector's contribution to growth. Russian growth in 2001–03 was driven to a remarkable degree by the growth of oil production and exports in volume terms (OECD, 2004a:30).<sup>3</sup> The stimulus now comes almost entirely from higher prices: the growth of oil production and exports has slowed markedly in volume terms since 2003, but prices have risen to levels not seen in a generation.

**Table 1. Basic economic indicators**

	2001	2002	2003	2004	2005
Real GDP growth	5.1	4.7	7.3	7.2	6.4
GDP per capita growth	5.5	5.2	7.8	7.7	6.9
Gross fixed capital formation growth	10.2	2.8	13.9	11.3	10.5
Unemployment (ILO-type measure, end year, percentage of labour force)	8.8	8.5	7.8	7.9	7.5
CPI inflation (Dec./Dec.)	18.6	15.1	12.0	11.7	10.9
Real wage growth	19.9	16.2	10.9	10.6	10.0
Exchange rate (Rouble/USD, average)	29.2	31.3	30.7	28.8	28.3
Real effective exchange rate (Index Jan 1998 = 100)	77.5	79.6	82.0	88.5	96.2
Exports of goods (USD billion)	101.9	107.3	135.9	183.2	243.6
Imports of goods (USD billion)	53.8	61.0	76.1	97.4	125.3
Current account (USD billion)	33.9	29.1	35.4	58.6	84.2
as a per cent of GDP	11.1	8.4	8.2	9.9	11.0
Budget balance (general government, per cent of GDP)	3.0	1.4	1.7	4.5	7.7
CBR gross foreign exchange reserves (USD billion, end of period)	36.6	47.8	76.9	124.5	182.2

Source: Federal Service for State Statistics, Central Bank of Russia, Ministry of Finance, IMF, Economic Expert Group, OECD calculations.

8. The positive terms-of trade shock has naturally fuelled domestic demand. Domestic consumption has been the main driver of growth since 2000, but this trend has become much more pronounced since 2003 (Figure 1), as burgeoning commodity windfalls have fed into the economy. Final consumption accounted for almost 85% of growth in 2004 and nearly 90% in 2005. Households have benefited from consistently strong growth of real wages and pensions, which rose by approximately 12% in 2005 – and by 15% in the case of public-sector wages.<sup>4</sup> Private consumption growth has been further stimulated by the improving labour market outlook and the explosive growth of retail credit, which has helped to keep

3. While higher prices after 1999 clearly played a role, price increases through 2003 were, in absolute terms, fairly modest by comparison with those seen in the recent past. Moreover, production growth was strong throughout the period, whether oil prices were rising, falling or stable.

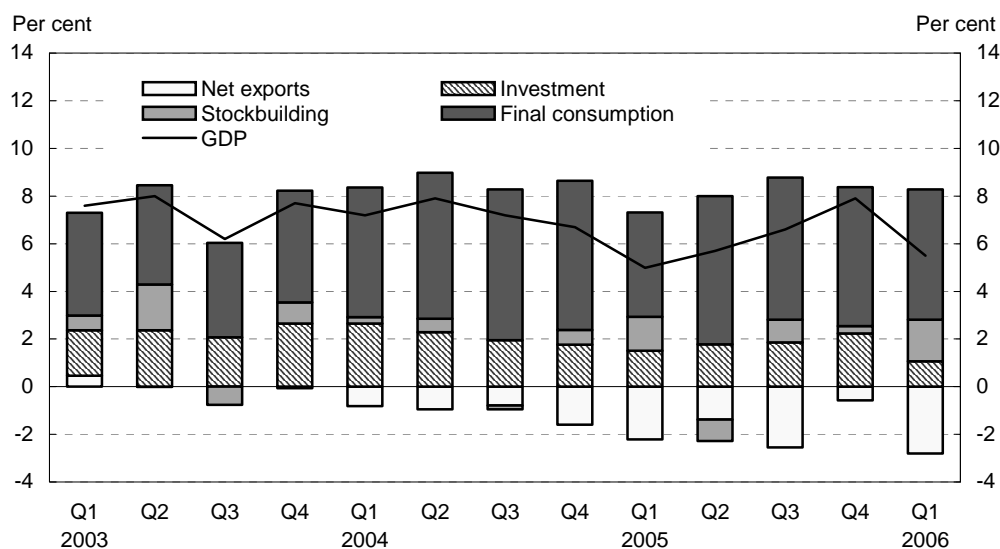
4. The only significant pause in the dynamic came in the first quarter 2005, when increases in regulated prices led to a sharp slowdown in the growth of real disposable income. Real wages continued to rise at around 12% y-o-y in the first half of 2006 and real disposable incomes by around 11%.



consumption growing faster than incomes. The increase in credit outstanding to retail borrowers in 2005 was equivalent to almost 28% of the total increase in household consumption.<sup>5</sup>

9. Booming consumption has fuelled very rapid import growth: import volumes have risen at an average rate of 18% per year over the last five years. Since 2001, import volumes have tended to grow roughly twice as fast as private consumption, reflecting at least two factors: the extremely fast growth of investment goods imports in 2004–05<sup>6</sup> and a high elasticity of imports to domestic demand.<sup>7</sup> In value terms, however, the share of imports in domestic demand has actually *declined*, as domestic prices have evolved much more dynamically than import prices.<sup>8</sup> Rapid growth of import volumes notwithstanding, the contribution of net exports to growth really began to turn negative only in 2004–05. This resulted more from the sharp slowdown in export growth than the acceleration of imports. Weakening export performance, in turn, reflected developments in both the manufacturing sector, where competitiveness has been squeezed by rapid real exchange-rate appreciation, and the oil sector, where production growth slowed markedly on the back of an investment slowdown (see below).<sup>9</sup>

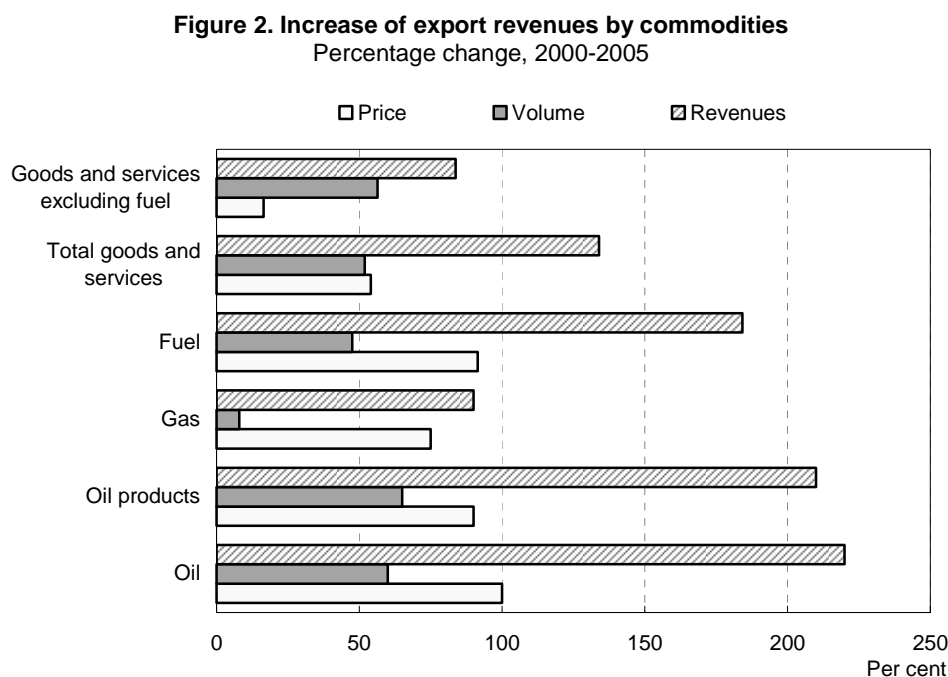
**Figure 1. Contributions to GDP growth**  
As a percentage of GDP in same period of previous year



Source: Federal Service for State Statistics, OECD calculations.

5. Bank credit to retail borrowers has grown rapidly in recent years, with the volume of outstanding bank claims on private persons rising 14-fold in real terms from end-1999 to end-2005.
6. Investment goods imports grew by 40.4% in 2004 and 38.1% in 2005, in volume terms.
7. The Ministry of Economic Development and trade estimates the elasticities of import volumes to domestic demand at 2.4 in 2004 and 1.8 in 2005. This appears not to include any adjustment for exchange-rate appreciation: taking the exchange-rate effect into account, Gianella and Chanteloup (2006) find an elasticity of around 1.5.
8. This reflects the fact that the elasticity of import volumes with respect to relative prices is less than 1.
9. While much attention has been concentrated on the slowdown in crude oil exports, many other sectors also recorded slower export growth, or declining export volumes, in 2005.

10. In addition to stimulating consumption and increasing the pressure on manufacturing competitiveness, recent oil-price developments have magnified imbalances in Russia's export structure. Hydrocarbons and metals accounted for almost 80% of total export revenues in 2005 – more than 82% for exports to non-CIS countries. It is, however, important to note that the shift in export structure stems almost exclusively from price developments. In *volume* terms, the growth of fuel exports was limited by the poor performance of the gas sector (gas exports stagnated). Over the period 2000–05, exports of fuel and non-fuel products grew at roughly similar rates in volume terms (Figure 2).<sup>10</sup>



Source: Central Bank of Russia, Federal Service for State Statistics and OECD calculations.

### *...and extraordinary terms-of-trade gains have boosted non-tradable sectors*

11. On the supply side, growth has increasingly been driven by non-tradables since 2003, a tendency that was particularly pronounced in 2005 (Table 2). Construction, trade and catering, and real estate benefited most from the fast growth of incomes – value-added in these sectors rose by around 10% in 2005. It is widely accepted that the share of services (mainly wholesale trade) is overstated in official statistics,<sup>11</sup> but adjusting sectoral weights to take account of transfer pricing would not change the picture much with respect to the sources of growth.<sup>12</sup> The extraction sector has clearly lost momentum in volume terms, while manufacturing has struggled to cope with rising cost pressures. In 2005, production growth

10. For the fuel sector, the decomposition shown in Figure 1.3 would look rather different if broken down by time period: the growth of crude oil export volumes was limited in 2004 and negative in 2005, so the growth in oil export revenues for those years was almost entirely price-driven.

11. See OECD (2004a:27) for a discussion on the relative distortions generated by transfer prices.

12. A precise adjustment cannot be made, owing to the change in classification used in the official GDP accounts: Russia has shifted from the “General Classification of Branches of the National Economy” (OKONKh) inherited from the Soviet period to the “General Classification of Types of Economic Activity” (OKVED), which is the system that is more commonly used worldwide.

decelerated significantly in most branches of industry, with the notable exception of the metals sector, where investment has remained buoyant, and oil refining, which benefited from a combination of infrastructure constraints and tax changes that raised the cost of crude exports and made refining relatively more profitable.<sup>13</sup> In the first half of 2006, the contribution of the metals sector to the growth of industrial output was by far the greatest of any major branch of industry. This sector-based decomposition of growth does *not* mean that the positive oil shock did not play a significant role in sustaining activity. Rather, it implies that services were the primary beneficiary of the rapid increase in income and windfall revenues.<sup>14</sup>

**Table 2. Contributions to value-added growth**  
Percentage change

	2003	2004	2005	H1 06 / H1 05
<b>Gross value added at basic prices</b>	<b>7.4</b>	<b>6.9</b>	<b>6.2</b>	<b>6.4</b>
Tradables	2.6	2.0	1.0	1.4
Construction	0.7	0.6	0.5	0.4
Market services	4.2	3.8	4.3	3.8
Non-market services and others	-0.1	0.5	0.4	0.8

Source: Federal Service for State Statistics, OECD calculations

### ***Investment is growing strongly but its level remains low relative to GDP***

12. The persistently rapid growth of domestic demand and a high level of liquidity have constituted a favourable environment for investment, which has continued to grow substantially faster than GDP in real terms – around 11% in 2004 and 10.5% in 2005.<sup>15</sup> The investment rate, however, is still only about 18% of GDP.<sup>16</sup> This is far below the investment rates observed in other catching-up economies, in particular the faster-growing ones (Figure 3). Gross capital formation thus appears to be below what would probably be needed to sustain high growth rates in the absence of improving terms of trade. Indeed, there are increasing indications that capacity constraints are starting to affect growth in some sectors, including high capacity utilisation rates, very rapid wage growth and surging imports. The authorities are now trying to relax some constraints on growth *via* increased public investment, particularly in basic infrastructure, but the key challenge will be to maintain high rates of private investment. However, merely increasing investment rates may not be enough: the efficiency of investment is as important as the rate of investment. That is why further banking and financial market reforms are so important. The efficient mobilisation and allocation of capital are impaired by the low level of financial intermediation (OECD, 2004a:217–40). There is still much to do here, for despite the rapid growth of the banking system and corporate bond markets in recent years, bank credits, bonds and share issues, together with loans from other non-financial enterprises, finance only about 15% of fixed investment; retained earnings are by far the largest source of financing for such investment.

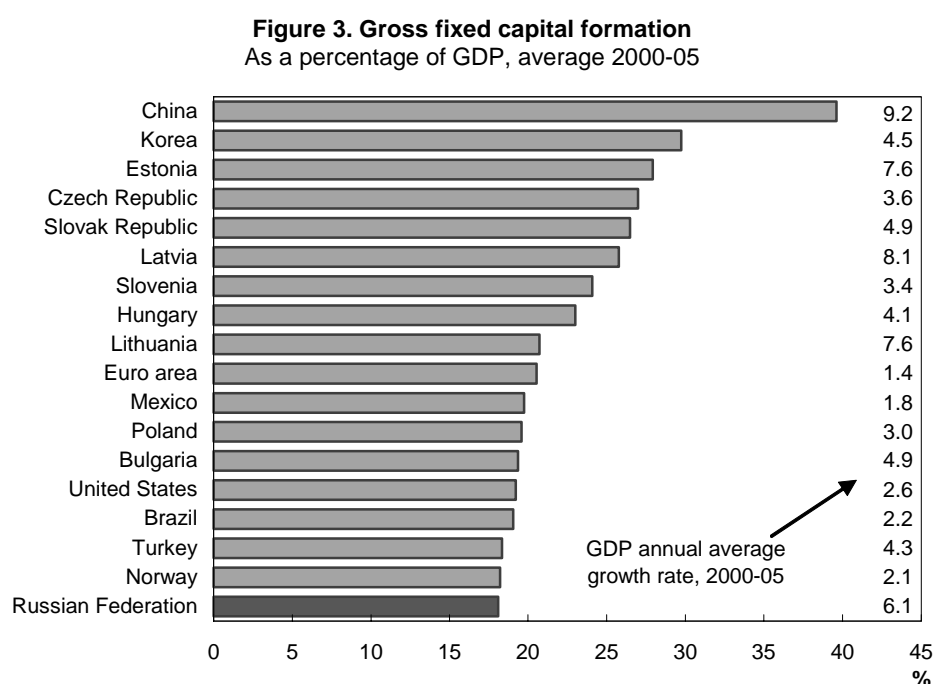
13. The growth in the production of transport equipment (6% in 2005) essentially stemmed from a surge in demand for hydraulic turbines and railway materials for the domestic market. As World Bank (2005b:5) observes, these sub-sectors are *de facto* non-tradable in Russia.

14. The Ministry of Economy Development and Trade (MERT, 2006) estimates that shifts in the terms of trade accounted, directly or indirectly, for up to half of growth in 2005. This figure is consistent with an elasticity of growth with respect to oil prices close to 0.2 – slightly lower than the one used in World Bank (2005a).

15. Based on the national accounts.

16. In 2005, 38% of this total was invested in machinery and equipment.

13. A detailed analysis of fixed capital formation reveals a high degree of variation across sectors. In 2005, the aggregate figure was strongly affected by the stagnation of investment in resource extraction and the major utilities sectors. Given the high share of these sectors in total investment – approximately one-quarter – very high rates of investment growth in other sectors (around 14% on average) were required to achieve double-digit growth overall. The fastest growth was recorded in construction, metals and chemicals (the last of which essentially reflects the development of downstream activity in oil and gas and the shift of production from crude to refined products). Investment growth was also relatively strong in most non-tradable sectors, the main drivers of growth, and in the food industry. However, it fell in real terms in manufacturing sectors that face strong foreign competition (especially machine-building and vehicle manufacture), a development that further highlights the growing competitive pressures affecting non commodity tradable sectors.



Source: IMF, Eurostat, OECD Economic Outlook 79 database and Federal Service for State Statistics.

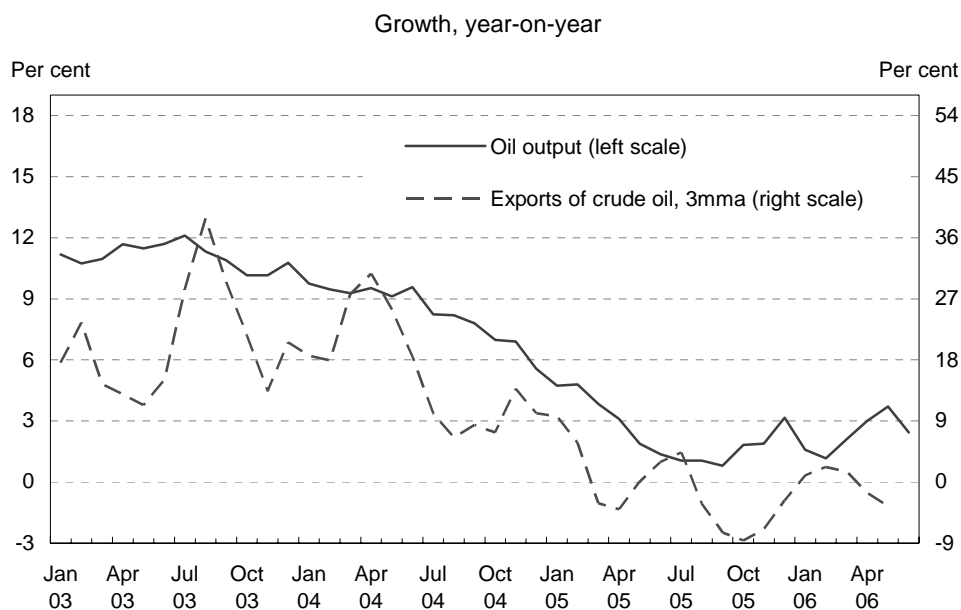
14. Given its importance in driving growth during 2000–04, the oil sector merits separate consideration. The slowdown in the investment in the sector and growth of oil output and exports was fairly dramatic: oil production rose just 2.2% in 2005,<sup>17</sup> as compared with an average of 8.5% over 2000–04 (Figure 4)<sup>18</sup> and crude oil exports actually fell by 2% (this was however partly offset by a 17.4% rise in exports of refined products). Although a slowdown in the production was probably unavoidable, as the phase of strong growth was partly a recovery phase (see Ahrend and Tompson, 2006), several policy-induced factors combined to bring about the sharp deceleration that has been observed: tax changes, tightening infrastructure constraints and the Yukos case, which triggered a sharp slowdown in upstream capital expenditure by oil companies. Since most oil-sector investment in Russia is aimed at increasing

17. 2.3% on a yearly basis during the first six months of 2006.

18. Crude output was up 2.1% year-on-year in January–May 2006, but production was actually picking up after a sharp slowdown during an exceptionally cold winter.

current production rather than developing new fields, any slowdown in the growth of capital spending is soon reflected in slower growth of production and exports. Moreover, crude oil output ex-Yukos, -Yuganskneftegaz and -Sibneft was up a respectable 6.3%. This suggests that the oil-sector slowdown of 2004–05 could, in principle, be overcome in the near term, although the sector's long-term future depends on creating a legal, fiscal and regulatory framework that will enable investment in new fields to take place in a timely and efficient manner. Russia will be unable to sustain, let alone increase, oil production over the long term without substantial investment in new fields (see Ahrend and Tompson, 2006).

**Figure 4. Crude oil output and exports, 2003-06**



Source: Federal Service for State Statistics and OECD calculations.

### ***The commodity price shock has taken the follow-up after other transitory factors have faded***

15. In order to appreciate the impact of recent terms-of-trade shifts on real incomes in Russia, it is necessary to look beyond the conventional measure of real GDP. Volume GDP underestimates the increase in real incomes and purchasing power that may be induced by, for example, a fall in import prices (Kohli, 2003). One way to correct this potential bias is provided by the command GDP indicator, defined as follows:  $\text{command GDP} = \text{TDDV} + \text{XGSV} * (\text{PXGS} / \text{PMGS}) - \text{MGSV}$ , where TDDV is real domestic demand, XGSV and MGSV are, respectively, export and import volumes, and PXGS and PMGS are the export and import deflators.<sup>19</sup> Since the terms of trade are defined as the price of a country's exports divided by the price of its imports, deflating both exports and imports by the *import* price deflator<sup>20</sup> yields a summary measure of the impact of terms-of-trade shifts on a country's purchasing power – *i.e.* on its ability to *command* goods and services.<sup>21</sup> The calculation of command GDP provides a stark illustration of

19. For further discussion of the command GDP indicator, see OECD (2003b:37–8).

20. Rather than using different deflators for imports and exports, as is done when computing conventional measures of GDP.

21. In other words, this indicator reflects an awareness of the fact that exports are important precisely because they enable a country to pay for imports.

just how staggering the positive terms-of-trade shock of the last few years has been (Table 3). The domestic economy has, of course, been partially insulated from this shock, because a substantial portion of the export windfalls arising from very high commodity prices has been sterilised *via* early debt repayment and the accumulation of fiscal reserves (see below). However, only about three-fifths of windfall revenues were thus neutralised in 2004–05, implying that the economy nevertheless experienced an impulse from the terms of trade exceeding two percentage points of GDP each year.

**Table 3. Command GDP and the terms of trade**

	2001	2002	2003	2004	2005
Export price growth (goods and services), %	-1.6	4.8	8.5	12.5	21.8
<i>of which:</i>					
Ural Crude price (\$/bbl)	22.9	23.7	27.2	34.6	50.5
Gas exports (\$/th m3)	104.6	90.7	105.8	109.1	152.0
Other commodities index (1)	100.0	93.1	104.7	128.2	141.9
Import price growth (goods and services) %	3.9	6.6	1.3	-1.9	5.2
<b>Terms of trade change, %</b>	<b>-5.3</b>	<b>-1.7</b>	<b>7.2</b>	<b>14.8</b>	<b>15.9</b>
Real GDP growth, %	5.1	4.7	7.3	7.2	6.4
<b>Command GDP growth, %</b>	<b>3.1</b>	<b>4.1</b>	<b>9.9</b>	<b>12.3</b>	<b>12.0</b>

1. Moscow Narodny Bank (MNB).

Source: Federal Service for State Statistics, MNB.

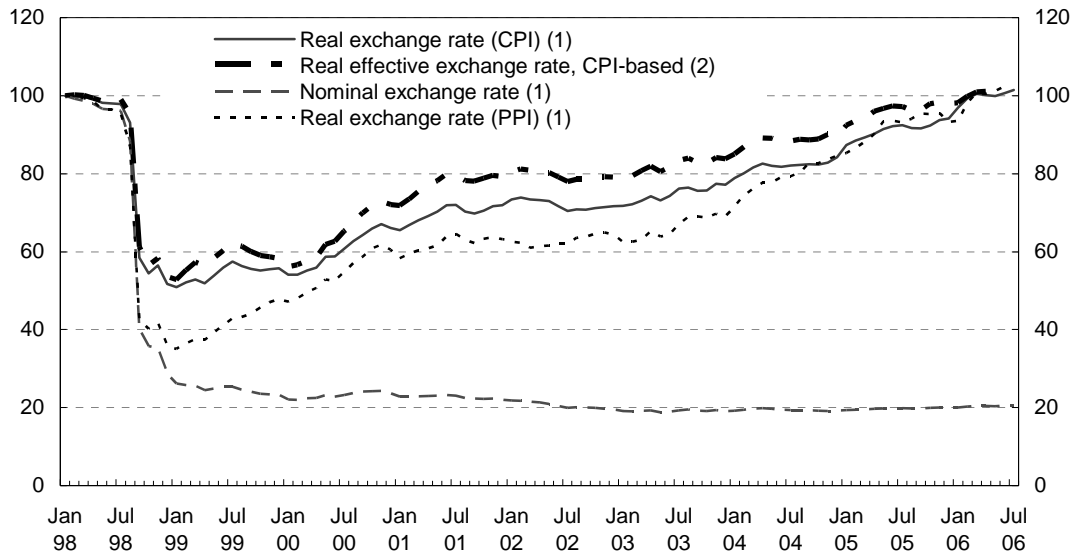
16. Russia has been extremely fortunate, as this positive terms-of-trade shock occurred at a time when other factors that had helped to sustain growth after 1998 had begun to exhaust themselves:

- For several years after the 1998 crisis, enterprises were able to raise output and productivity very rapidly, on the basis of little investment, by drawing on the existing under-employed stock of capital and labour. However, capacity utilisation rates rose from a historically low 42% in 1999 to almost 70% in 2005,<sup>22</sup> and the most efficient enterprises had largely shed their excess labour by this time, so the scope for further “cheap” growth of total factor productivity (TFP) was limited.
- The cost advantage provided by artificially low domestic energy prices has been progressively reduced. Relative to the CPI and PPI, electricity and gas tariffs for industrial consumers were still considerably lower in 2005 than in 1997. They were also far lower than the levels typically found in developed OECD economies. On most estimates, they remain, in addition, somewhat below long-run marginal cost. However, the government remains committed to phasing out implicit energy subsidies and has been raising tariffs fairly rapidly in recent years.<sup>23</sup>
- Last but not least, the real effective exchange rate has gradually returned to its pre-crisis level, whatever indicator is employed (Figure 5). Of course, high oil and commodity prices have largely contributed on the most recent period to rouble appreciation.

22. Figure 1.8 shows the large contribution to growth of increased capacity utilisation. It is also important to note that the 70% overall rate is almost certainly higher than it looks, as Russian enterprises in many sectors maintain on their books fixed assets inherited from the Soviet era that will probably never be profitable to employ again.

23. However, the government’s tendency to restrict regulated tariff increases in order to hold down inflation has continued to bring industrial producers some relief from other cost pressures.

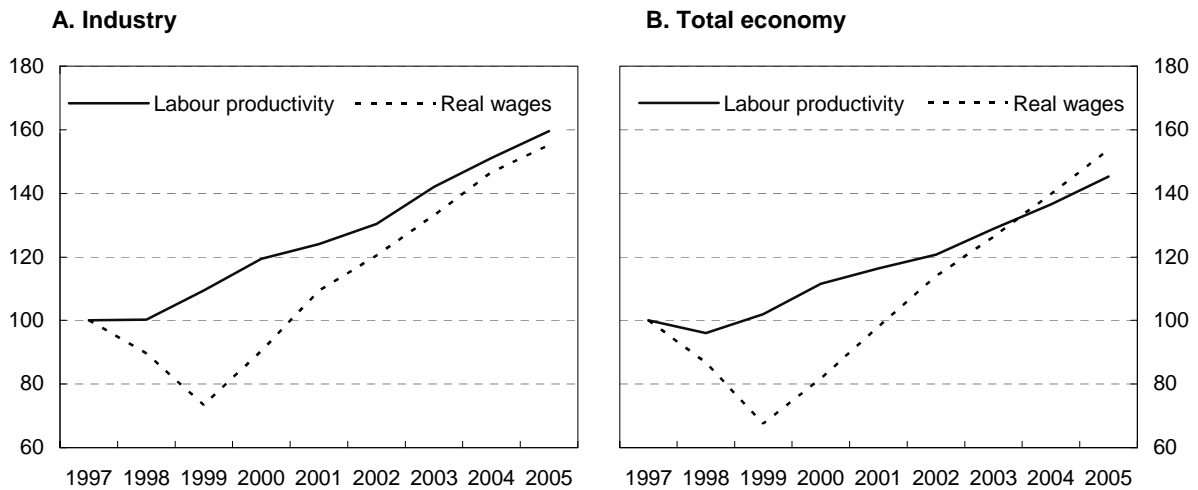
**Figure 5. Real effective exchange rate**  
January 1998 = 100



1. Using a currency basket (50% US\$, 50% Euro), index Jan-98=100.
2. IMF calculation.

Source: IMF, International Financial Statistics, Central Bank of Russia, Federal Service for State Statistics, OECD.

**Figure 6. Productivity and labour costs**  
1997=100



1. Data for 2005 are not adjusted for the cut in the Unified Social Tax and thus overstate the increase in labour costs.

Source: Federal Service for State Statistics, OECD calculations.

### **The adjustment to the new terms of trade poses challenges of its own**

17. Russia needs a macroeconomic strategy for adapting to a world of sustained high oil prices. Macroeconomic – particularly fiscal – policy has remained prudent. Despite some slippage in 2005–06, the authorities have largely resisted the temptation to use commodity windfalls to finance a spending spree. However, the events of the last two years have necessitated a reconsideration of the basic assumptions underlying policy. From the first recovery of oil prices in 1999 until the end of 2004, Russia’s broadly successful macroeconomic strategy rested on the assumption that high oil prices were a temporary phenomenon. Even after prices took off in 2002, the authorities – prudently – continued to base policy on the expectation of an oil-price correction. However, it now appears very likely that oil prices will remain for some years to come at levels that are, by the standards of the recent past, rather high. Russia needs to adjust its macroeconomic strategy accordingly. To say this is not to suggest that the authorities should discount the risk that oil prices may fall sharply in the coming years. It is simply to recognise that the baseline expectation is no longer that prices will soon revert to the more “normal” levels of \$ 20–25/bbl. While this is in many respects good news for Russia, the adjustment to sustained high oil prices creates problems of its own, with respect to both monetary and fiscal policy. The first is the loss of competitiveness that arises from rapid real exchange-rate appreciation. The second is the inflationary pressure that Russia’s ballooning external surpluses generate, given the authorities’ determination to limit the pace of nominal exchange-rate appreciation.

### ***Inflation has proved stubbornly persistent***

18. Faced with a strong balance of payments and massive foreign exchange inflows, the Central Bank of Russia (CBR) has struggled to reduce inflation, which remains high,<sup>24</sup> while trying to smooth the path of exchange-rate adjustment and prevent overly rapid real exchange-rate appreciation, in an effort to preserve the competitiveness of the manufacturing sector<sup>25</sup>. *De facto*, monetary policy revolves around managing the nominal exchange rate<sup>26</sup> *via* large-scale unsterilised interventions on the foreign exchange market, which translates into fast money supply growth in the domestic economy. In these circumstances, real exchange-rate appreciation essentially takes the form of higher inflation.<sup>27</sup> In 2005, the nominal effective exchange rate was remarkably stable, and the bulk of real appreciation took the form of a persistently high inflation differential (Figure 7).

19. Disinflation has hence proven difficult and has been very much dependent on the dynamics of money demand. Russia has found it extremely difficult to reduce CPI inflation to single digits, missing its inflation targets in 2004 and 2005. The deceleration in prices growth in late 2005 and early 2006 owed much to the imposition of a temporary freeze on petrol prices and to the authorities’ control of regulated prices. Such a strategy has obvious limitations, given that the government is committed to a long-term policy of raising gas and power tariffs above cost-recovery levels. While inflation has been reduced to single digits in 2006, inflationary pressures were mounting in the latter months of the year, and it was not clear that this progress could be sustained through 2007.

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24. 9.5% y-o-y in July 2006.

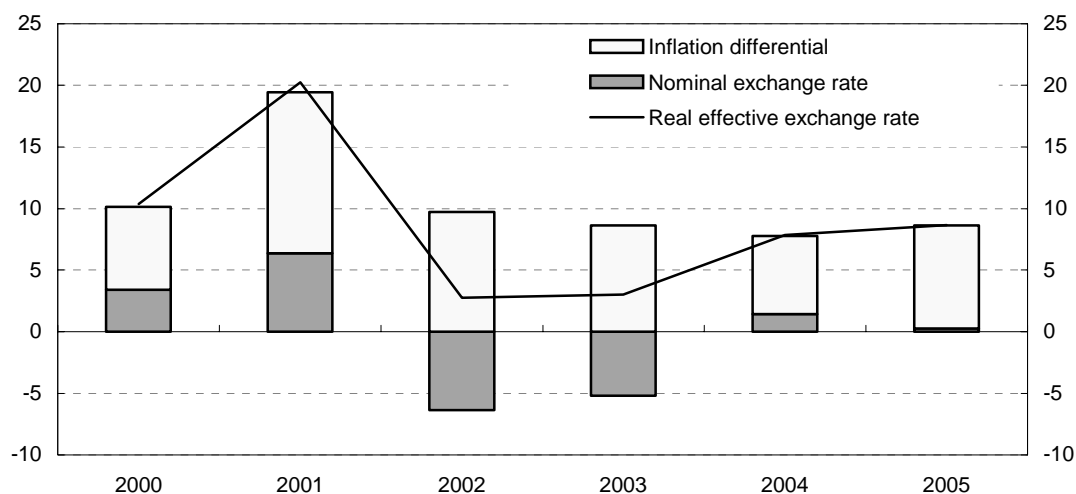
25. This is not a new phenomenon. See OECD (2004).

26. The CBR refers to a two-currency basket composed of dollars (60%) and euros (40%). The share of the euro has been progressively increased since 2004 (to 20% in March 2005, 30% in May, 35% in August and 40% in December).

27. Several econometric studies conclude that monetary policy has tended to focus on an implicit exchange rate target since the late 1990s. See Esanov, Merkl and Vinhas de Souza (2005) or Vdovichenko and Voronina (2004).



**Figure 7. Decomposition of real exchange rate appreciation**  
Percentage change

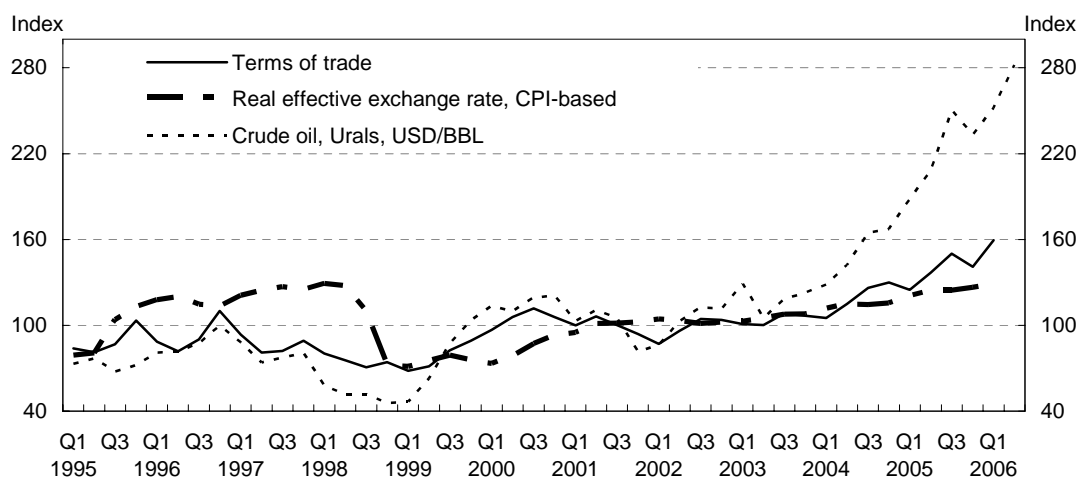


Source: IMF, International Financial Statistics.

***Faster real appreciation has aggravated ‘Dutch disease pressures’***

20. A number of factors contributed to the real appreciation of the rouble after the 1998 crisis, including strong productivity growth, robust increases in oil export volumes and a probable overshooting in the initial downward exchange rate adjustment in 1998–99. However, the real appreciation of the rouble has recently been driven chiefly by extremely favourable shifts in Russia’s terms of trade (Figure 8). Russia’s terms of trade improved by 15% in 2004 and again in 2005, and the positive shock in 2006 is likely to have been of the same order of magnitude, albeit slightly weaker. Real appreciation, in turn, reached an average rate of 8.1% in 2005<sup>28</sup> and accelerated in the first half of 2006 to 10%.

**Figure 8. Terms of trade and REER**  
Index 2001 = 100



Source: Federal Service for State Statistics, Datastream, IMF, International Financial Statistics, OECD calculations

28. The year-on-year figure was 10.5%.

### Box 1. “Dutch disease”

The term “Dutch disease” was first coined to describe the decline of the manufacturing sector in the Netherlands (and the rise in unemployment that accompanied it) following the discovery of natural gas in the 1960s. It is broadly understood to denote the harmful economic consequences that may arise in certain conditions from a sudden increase in a country’s wealth, following, for example, a natural resource discovery, a surge in export commodity prices or any other positive exogenous shock generating large foreign exchange inflows.<sup>1</sup> The strong appreciation of the real exchange rate generates competitive pressures on manufacturing tradable sectors, which, if too severe, can lead to deindustrialisation. These risks are particularly great if structural rigidities impede adjustment to the shift in the terms of trade.

Corden and Neary (1982) identify two channels by which traditional tradable sectors may be crowded out by a booming resource sector and the non-tradable sector. First, increased productivity in the resource sector pushes wages up, bidding labour out of the manufacturing sector (the so-called “resource movement effect”). Secondly, increased incomes shift demand from the lagging tradable sector to non-tradables, where wages will also be pushed upward. This “spending effect” will further drain production factors out of the non-resource tradable sector.

Whether such a shift should be called a “disease” is a matter of debate among economists (Van Wijnbergen, 1984). As long as the net effect on output and employment is positive, the process may simply be seen as the economy’s adaptation to its new environment and its increased wealth. This adaptation nevertheless requires that the economy be able to adjust rapidly to the shock, with limited rigidities in domestic labour or product markets. Otherwise, a sluggish adjustment may lead to unemployment and a further squeezing of profit margins in the exposed sector (Neary, 1984).<sup>2</sup> This shift of production may also generate negative consequences for other reasons:

- The positive shock may be temporary, in which case it may be difficult to reverse the reallocation process and renew the industrial base afterwards.
- Even if the increase in wealth is permanent, the economy may be exposed to long-term losses, given the presence of spillovers and opportunities to “learn by doing” in manufacturing (Krugman, 1987). The manufacturing sector is arguably more likely to generate productivity spillovers, so shifting too many resources away from it may be detrimental to long-run growth.
- Public spending might be increased in an unjustified manner. Corden (1984) argues that this was the main source of the weak performance of the Netherlands.
- Greater reliance on primary resource sectors is associated with greater volatility of growth, and volatility of growth tends to be associated with lower rates of long-run growth (Ramey and Ramey, 1995, or Martin and Rogers, 2000).

In any case, diagnosing a case of “Dutch disease” is not easy. The shift of employment from manufacturing to services is a common structural trend and is particularly pronounced in transition economies owing to the communist system’s tendency to neglect services and over-develop industry. Moreover, some real appreciation is part of the catching-up process, as productivity gains in manufacturing are generally higher in transition economies than in developed ones – the Balassa–Samuelson effect (Box 2). An economy like Russia’s could therefore be regarded as succumbing to Dutch disease if it diverged from the Balassa–Samuelson trajectory to an unusually large extent, with negative consequences for growth and/or employment.

- 
1. In Russia, the discovery of natural resources as such is not the source of the problem. Rather, it is the fact that their full weight in the economy became apparent only at the start of the transition, when the relative prices of primary raw materials, which had been held at artificially low levels under central planning, soared, as did resource exports.
  2. In this scenario, a resource discovery or terms of trade shock can induce a recession.

21. As a result, most non-fuel, non-metal tradable sectors now have to cope with growing pressure from foreign competition, and activity in most import-competing sectors has slowed significantly (Table 4). Enterprise surveys confirm the growing pressure on manufacturers: although foreign competition may stimulate domestic productivity growth, a third of industrial firms now consider it a major

obstacle to expansion, as against less than 5% in early 1999 (Tsukhlo, 2006).<sup>29</sup> Moreover, the contribution of net exports to GDP growth has turned increasingly negative since early 2004, and real wages grow now much faster than productivity (after having already caught up their relative pre-crisis level; see Figure 6). Hence Russia is facing growing risk of so called “Dutch disease” (Box 1).

**Table 4. Production in the manufacturing sector**  
Growth rates, year-on-year, %

	2003	2004	2005	H1 06/ H1 05
<b>Manufacturing</b>	10.3	10.5	5.7	4.5
Food products, beverages and tobacco	6.9	4.4	4.4	5.2
Textiles and textile products	1.2	-4.0	-1.5	10.8
Leather and leather products	11.5	-0.6	-2.7	12.3
Wood and wood products	9.7	8.7	4.5	1.9
Pulp, paper and paper products; publishing and printing	7.8	5.1	1.1	6.5
Coke, refined petroleum products and nuclear fuel	2.2	2.4	5.4	6.0
Chemicals, chemical products and man-made fibres	5.4	6.6	2.6	2.5
Rubber and plastic products	5.5	13.5	5.5	11.1
Other non-metallic mineral products	7.3	8.4	3.5	7.5
Basic metals and fabricated metal products	7.2	3.9	5.7	11.3
Machinery and equipment n.e.c.	19.0	21.1	-0.1	-8.7
Electrical and optical equipment	43.2	34.5	20.7	5.5
Transport equipment	14.0	11.5	6.0	5.6
Manufacturing n.e.c.	10.8	10.5	0.7	8.5

Source: Federal Service for State Statistics.

## In the adjustment to high oil prices, there is little scope for tightening monetary policy

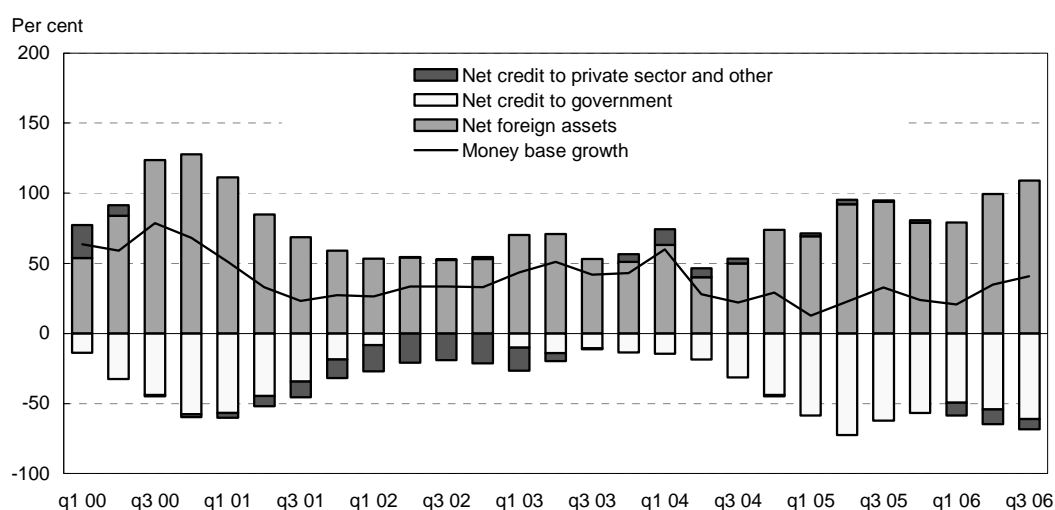
### *At present, monetary instruments play only a limited role in bringing down inflation*

22. Large-scale interventions on the foreign exchange market have led to extraordinarily rapid growth in the net foreign assets of the CBR, which rose 55% in 2005 to reach a record 23% of GDP at year-end, providing abundant liquidity to the economy. Although the CBR has developed its own instruments to conduct sterilisation operations<sup>30</sup> and need no longer rely on reverse repo operations with government securities, the absorption of liquidity *via* monetary tools remains relatively marginal. Money supply is hence determined almost exclusively by external factors (Figure 9).

29. For Russian companies, price is the main source of competition on foreign markets, ahead of quality. This is also true of their choice of suppliers. Interestingly, on the *domestic* market, the major source of competitive advantage quoted by firms is a long relationship with clients, although quality also matters relatively more on domestic than foreign markets.

30. Chiefly the OBR bonds. In March 2005, the Bank of Russia started to quote the buying and selling prices of its bonds on a daily basis. The procedure for issuing such bonds has been simplified by the adoption of a new law and several new measures are envisaged for 2006 (CBR, 2006:21).

Figure 9. Money supply growth and fiscal sterilisation



Source: Central Bank of Russia.

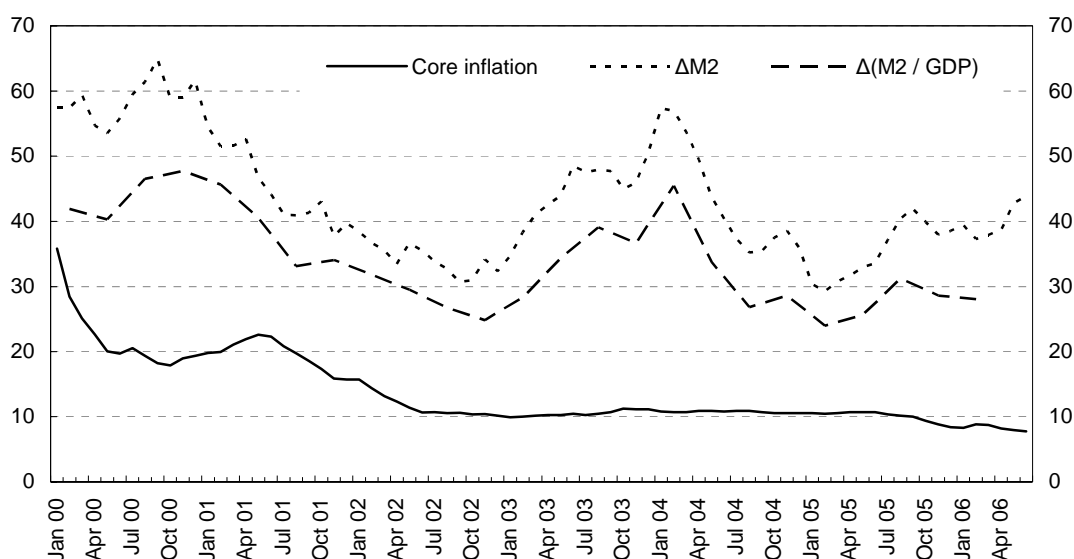
23. The market in the Bank's OBR bonds is still underdeveloped and the CBR has been cautious about using them. The yields on OBR operations have therefore been maintained at relatively low levels (annual rates fluctuating between 3.5 and 4.5% in 2005), with the cost of borrowing on foreign markets being taken as a reference. In these circumstances, money supply is entirely determined by external conditions and the size of fiscal sterilisation. While monetary sterilisation has been modest, the build-up of government deposits with the CBR, mostly in the Stabilisation Fund, has limited reserve money growth, counterbalancing approximately half of the net increase in foreign assets during January 2005–June 2006 (Figure B1).<sup>31</sup>

24. Over the recent period, money supply growth re-accelerated, rising from around 30% year-on-year at the beginning of 2005 to around 40% at year-end and in the first half of 2006.<sup>32</sup> Core inflation, however, picked up only slightly in early 2006 and remained below 9% year-on-year (Figure 10). This seemingly muted reaction to monetary expansion partly reflects the lag in the transmission of M2 growth into prices (estimated at approximately seven months by the CBR), but it is also the product of changes in money demand. GDP growth accelerated steadily from the low point reached in the first quarter of 2005, reducing the inflationary effects of rapid money-supply growth. The gap between M2 growth and GDP growth nevertheless widened and the extent to which inflationary pressures materialise will still depend greatly on the dynamics of money velocity, which has proved unstable in the recent past.

31. This estimate does not take into account early debt repayments. If they were included, the share of fiscal sterilisation would be somewhat greater.

32. The M0 aggregate grows structurally at a slower pace. It was rising by around 30–35% year-on-year in early 2006.

**Figure 10. Money supply growth, core inflation and level of monetisation of GDP**  
Year-on-year growth



Source: Central Bank of Russia, Federal Service for State Statistics.

### *The stabilisation of core inflation owed much to money demand factors*

25. Russia's ability to keep inflation on a downward trajectory despite rapid growth of monetary aggregates has in fact owed much to a shift in foreign currency holdings: private companies and households increased their demand for roubles when the dollar started to weaken (Figure 11).<sup>33</sup> Although assessing the degree of dollarisation of the Russian economy and its impact on inflation with any confidence is very difficult,<sup>34</sup> this interpretation is in line with some empirical findings: Brodsky (1997) shows that the dollar–rouble exchange rate was one of the most important factors underlying the dynamics of dollarisation in the 1990s. The shift out of the dollar stalled in early 2004 and was temporarily reversed as a result of the banking “mini-crisis” in the late spring of that year, which contributed to a slowdown in rouble credit growth.<sup>35</sup> The dynamics of dollarisation thus help to explain changes in rouble velocity,<sup>36</sup> which stabilised in 2004 after having fallen sharply in 2003, but they add to the difficulty of establishing, in the short run, a clear empirical link between inflation and monetary factors (Dabrowski *et al.*, 2002). In 2004, fiscal tightening also helped restrain inflation (see below).

33. There was a significant drop in the share of foreign currency deposits from February 2003 to February 2004. CBR estimates of households' net demand for foreign exchange yields the same picture: demand for foreign exchange dropped in 2003 before picking up again in mid-2004 (CBR 2005). The move out of foreign currency in late 2003 and early 2004 provides a part of the explanation as to why core inflation (year-on-year) rose by only about 1 percentage point at a time when rouble M2 growth was surging to 55% year-on-year. Something similar, albeit less dramatic, seems to have occurred in 2005–06.

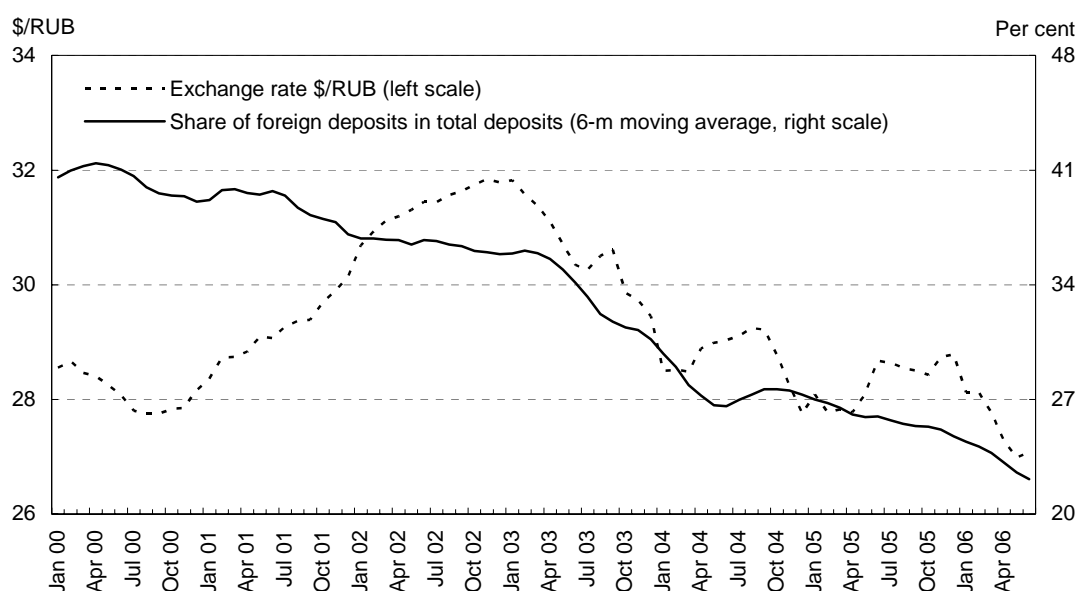
34. Lower inflation may indeed lead to de-dollarisation.

35. On the mini-crisis and its implications, see Tompson (2004).

36. The CBR computes a broad indicator of money supply including foreign currency deposits and an estimate of foreign currency in the non-banking sector (see CBR, 2006). This broad indicator did not experience an acceleration in 2003 and 2004. However, it has picked up since the beginning of 2005.

26. Over the most recent period, changes in money demand have also made the CBR's task somewhat easier. While the dollar weakened further against the rouble in the first half of 2006, (by around 7% in nominal terms), de-dollarisation seems to have re-accelerated (Figure 11).<sup>37</sup> Thus, although the money supply continued to grow rapidly, the dynamics of money demand helped the authorities to bring down the inflation below 10% year-on-year in the second quarter of 2006, raising expectations that they might meet their 9% target for the year as a whole.<sup>38</sup> However, it is not clear how long money-demand growth will make such a contribution to disinflation. The monetary factors behind persistent inflation are still at work and, in a context of rising commodity prices, the economy may well continue to experience excess liquidity – as indicated by interbank rates well below both the inflation rate and the CBR's refinancing rate (see Figure 12). Moreover, non-monetary factors could add to inflationary pressures in the medium-term. Of particular concern are the supply constraints that have now emerged as a result of high rates of capacity utilisation combined with relatively low levels of overall investment.<sup>39</sup>

**Figure 11. De-dollarisation and rouble-dollar exchange rate**



Source: Central Bank of Russia.

### ***Reliance on the interest-rate channel could prove counterproductive***

27. As long as oil and commodity prices remain high, the need for large-scale fiscal or monetary sterilisation will persist. The use of interest-rate policy to fight inflation will be problematic and might even make matters worse in the short run. Given the magnitude of foreign exchange inflows, interest rates would have to rise substantially to absorb the excess liquidity. However, a large differential between domestic and foreign interest rates, combined with a stable or even appreciating nominal exchange rate, could trigger massive short-term capital inflows, reinforcing the upward pressure on the exchange rate.

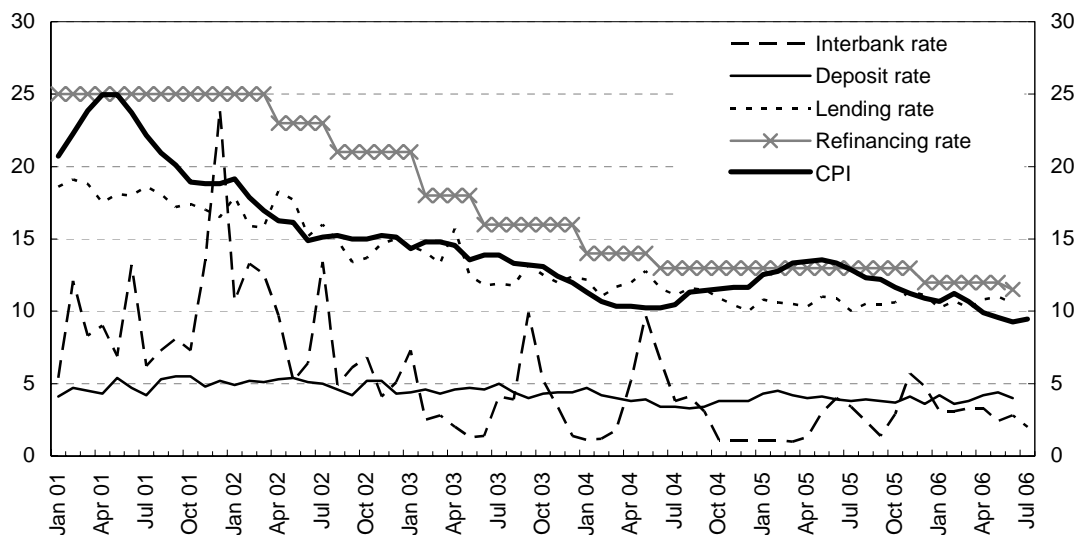
37. According to Brunswick UBS, exports of dollar cash increased sharply in March and April, and *bureaux de change* were buying cash dollars at rates well below those on the forex market (*Brunswick UBS Daily Comment*, 5 May 2006).

38. CPI inflation reached 9.2% year-on-year in June 2006.

39. See Oomes and Dynnikova (2006).

While this cap on yields for OBR operations may be lower than necessary,<sup>40</sup> the CBR is right to proceed cautiously with respect to the interest rates on OBRs. Over time, however, financial deepening should allow the Bank to pursue a more effective anti-inflation strategy. Its task will also become much easier as and when the terms of trade become more stable.

**Figure 12. Nominal interest rates and inflation rate**  
Per cent



Source: Central Bank of Russia, Federal Service for State Statistics.

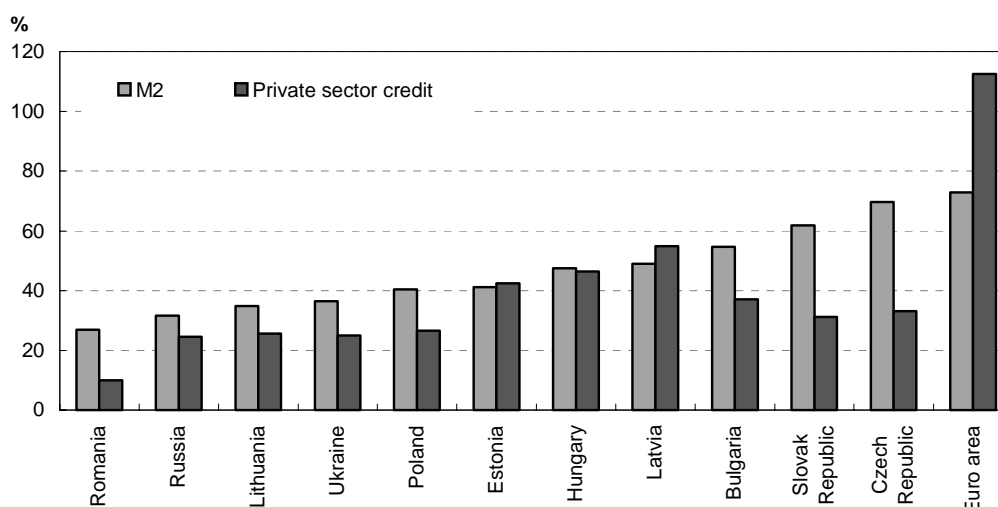
28. The second major obstacle to using interest rate tools is the low effectiveness of the credit channel as a monetary policy transmission mechanism. Although credit to the private sector is growing fast, the level of monetisation of the economy is still low, even for an emerging market economy (Figure 13) and financial intermediation, *via* both banks and financial markets, is still under-developed. Bank-based intermediation is constrained by the fragile structure of banks' liabilities and by the relatively small capital bases of Russian banks.<sup>41</sup> The interbank market remains highly segmented and is dominated on the supply side by a single state-owned institution – Sberbank. This hampers the efficient circulation of liquidity in the system and tends to increase interest-rate volatility.<sup>42</sup> In this context, the CBR conducts operations aimed at refinancing some banks, while withdrawing liquidity from others.

40. In 2005, the interest rates on OBR operations barely exceeded short-term deposit rates. As a general rule, the CBR caps yields on OBR operations at or below the bid rate on foreign markets (CBR, 2006:11–12). The existence of a risk premium would, however, give the Bank more room for manoeuvre.

41. See Tompson (2004) and OECD (2006), Annex 1.A2.

42. As shown in Figure 2.15.

**Figure 13. Level of monetisation in Russia and other emerging economies**  
2004, as a percentage of GDP



Source: IMF, International Financial Statistics.

### The use of the exchange rate channel may be harmful

#### *Exchange rate pass-through seems to have weakened...*

29. The CBR's policy guidelines (CBR, 2005) state that it "constrains rouble appreciation in order to help maintain the competitiveness of Russian goods on international and domestic markets". *Ex ante*, the CBR sets two implicit targets: an upper bound for real exchange rate appreciation and an inflation target.<sup>43</sup> In practice, both targets are close to each other: in 2006, the upper bound for real exchange rate appreciation was fixed at 9%,<sup>44</sup> while the inflation target was initially set at 8.5%. This implies a determination to keep the nominal exchange rate roughly stable.

30. Over the long term, real appreciation is probably an inevitable part of the catching-up process, as in emerging economies the persistence of a higher inflation differential might be partly explained by the Balassa-Samuelson effect,<sup>45</sup> but concerns about the speed of exchange-rate appreciation are legitimate, given the deteriorating performance of the manufacturing sector described above. Empirical evidence, indeed, would suggest that the Balassa-Samuelson effect did not play an important role in explaining the dynamics of real appreciation in Russia (Box 2). The CBR's attempt to slow the transition to a new equilibrium level, corresponding to the new terms of trade, hence appears to be justified. However, the CBR's reliance on one major instrument – interventions on the foreign exchange market – to pursue two partially conflicting objectives means that the Bank does not control the composition of the real appreciation that nevertheless occurs, which takes the form of high inflation.

43. As observed in note 3 above, inflation is the CBR's only declared *target*. The evolution of the exchange rate is used as an *indicator*. There has been a constant trade-off between these two implicit goals and, *de facto*, monetary policy has revolved to a great extent around managing the nominal exchange rate. In the first quarter of 2006, the rouble appreciated in nominal terms, partly as a result of the weakening of the dollar.

44. See CBR (2005).

45. Certainly, it would be a mistake to try to build an economic strategy on the basis of an under-valued exchange rate, as some in Russia have advocated in recent years.



31. More active use of the exchange rate channel to curb inflation, beyond the establishment of a nominal anchor, might nevertheless prove counterproductive. Empirical studies show that the exchange rate pass-through into prices is relatively weak, and may even have attenuated somewhat in the recent past.<sup>46</sup> On the basis of estimates covering the post-crisis period, Dabrowski *et al.* (2002) find that a nominal effective exchange rate appreciation of the order of 10% would reduce inflation by 3.0–3.5 percentage points.<sup>47</sup> CBR estimates point to a much lower elasticity over the most recent period (from 0.1 to 0.2). If this is correct, then the nominal appreciation needed to obtain significant disinflation could be so great that real appreciation would accelerate dramatically in the short run. In the first half of 2006, the CBR let the nominal effective exchange rate appreciate by 3.4%. This might have helped to curb inflation slightly, but the rate of *real* appreciation accelerated to 10% on a yearly basis. Moreover, relying too heavily on exchange-rate adjustment could be risky, given the volatility of commodity prices. In the event of an abrupt drop in oil prices, the induced exchange-rate depreciation could have a reverse effect and spur inflation (the exchange rate pass-through might be weak, but the shock could still be large).

### Box 2. Balassa–Samuelson effect

The Balassa–Samuelson framework (Balassa, 1964 and Samuelson, 1964) gives a theoretical foundation for deviation from the Purchasing Power Parity (PPP) condition, particularly adapted for explaining medium-to-long run exchange rate movements in emerging economies. The model is based on the presence of two sectors in the economy, a tradable sector open to international competition and a non-tradable sector. The central assumption is that the PPP condition holds for the tradable sector, where productivity rises much faster than in the non-tradable sector. The level of productivity in the tradable sector in turn determines the wage level for the *whole* economy, as labour mobility implies wage equalisation across sectors. The non-tradable sector, facing smaller productivity gains, can accommodate wage increases only by raising prices. This price inflation – the so-called Balassa–Samuelson effect – is thus generated by productivity gains in the tradable sector and, in this simplifying model,<sup>1</sup> is not detrimental to competitiveness.

This framework also provides a mechanism for understanding the real appreciation of the currency in the catching-up economy. Under the Balassa–Samuelson assumptions, the real exchange rate depends only on the difference between (1) the relative productivity of the domestic tradable sector with respect to the domestic non-tradable sector and (2) the relative productivities of the tradable and non-tradable sectors abroad. Given that relative productivity gains in the tradable sector are likely to be higher in emerging economies than in developed ones, catching-up countries are expected to have higher inflation in the non-tradable sector and, consequently, higher inflation in the economy. As the Balassa–Samuelson effect is an equilibrium phenomenon, the underlying real appreciation is sustainable and may thus be considered as a benchmark for the real appreciation path.

Several empirical methods have been used to test or assess the size of this effect, particularly for Central and Eastern European countries. One approach consists in looking at the transmission of the domestic productivity differential between the tradable and non tradable sectors into relative domestic prices (*i.e.* the “internal transmission mechanism”). An alternative and complementary approach explores the link between the dual productivity differential between countries (or the dual relative price differential) and the real exchange rate. Both types of studies usually find an effect on inflation ranging between 1 and 3% (Égert 2003 for a survey, Rosati, 2002, Kovacs, 2002), depending, *inter alia*, on the definition of the non-tradable sector.

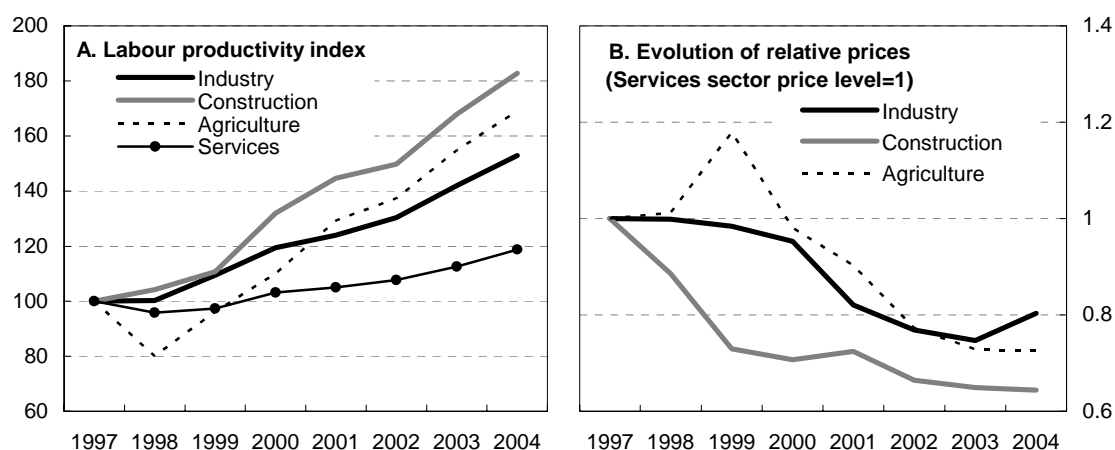
For Russia, Égert (2005) estimates the contribution of the Balassa–Samuelson effect to average CPI inflation at 1.1% for 1996–2001. Productivity gains by sector and relative price developments in Russia are reported in Figure 14 (on an annual basis). As expected, productivity gains are much higher in industry, agriculture and construction than in

46. The weakening of the pass-through most likely results from the reduction of the import share in domestic demand and GDP over the post-crisis period. The share of imports in GDP fell from 26% in 1999 to 21.5% in 2005. Dabrowski *et al.* (2002) argues that the weakening of the pass-through was especially strong for food prices, as the share of imported foodstuffs in the consumer basket fell significantly. It is also possible that foreign exporters might be increasingly inclined to price-to-market. However, the evidence suggests that import prices are highly sensitive to exchange-rate movements (see Gianella and Chanteloup, 2006).

47. Ohnsorge and Oomes (2005) obtain a higher elasticity (almost 0.5), perhaps because their estimate covers the crisis period (1996–2004).

services, and prices increased more rapidly in the non-tradable sector than in the tradable ones.<sup>2</sup> The inflation differential, however, appears to be limited, which would suggest a modest Balassa–Samuelson effect on overall inflation and would tend to confirm the order of magnitude found by Égert.<sup>3</sup>

**Figure 14. Labour productivity index by sector and relative prices**  
Index



Source: Federal Service for State Statistics and OECD calculations

1. In reality, if tradable sectors purchase inputs (typically business services) from the non tradable sector, the competitiveness of the tradable sectors may be affected by the rise in services prices. However, this might not automatically be the case if wage increases in the exposed sector adjusted to the increasing cost of other inputs (in other words, if the productivity gains in the tradable sector covered the rise in total costs, *i.e.* wage costs plus the purchase of services). Hence the conclusion of the theoretical model may still hold.
2. With the exception of the post-crisis period for the agriculture sector where the exchange rate shock has a strong initial impact on imported products.
3. Given that the share of services in the CPI is only around 15%, a rule-of-thumb calculation based on the annual relative evolution of productivity (approximately 7% per year) over the period 1997–2004 would indicate that the Balassa–Samuelson effect is unlikely to exceed 1.5% per year.

### *...and competitiveness in the manufacturing sector has been squeezed*

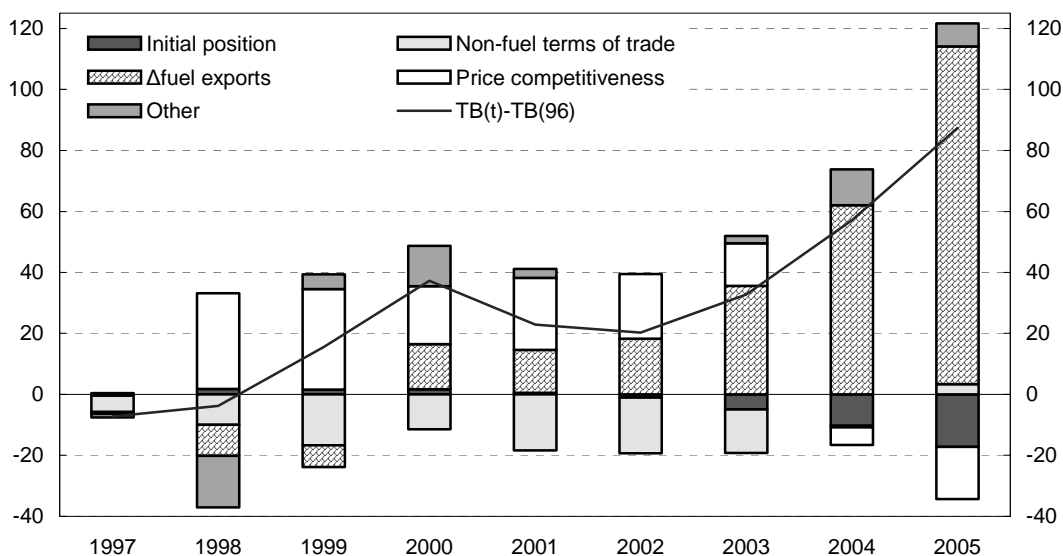
32. Letting the rouble appreciate even more rapidly in real terms would thus be potentially harmful, given the increasing evidence that the performance of non-fuel tradable producers has already been affected by past appreciation. Although the labour market has so far adjusted swiftly to exchange rate pressures, it is also clear that the difficulties confronting the non-fuel tradables sector are growing, as is evident in production, employment and competitiveness indicators (see above). It is sometimes argued that the relatively low level of diversification of the Russian economy and the high share of natural resources in exports “softens” the impact of exchange rate movements on trade performance.<sup>48</sup> Empirical evidence, however, suggests that the price elasticities of imports and non-commodity exports are not particularly low by international standards, and that the non-fuel trade balance rapidly adjusts to exchange rate movements (see Gianella and Chanteloup, 2006).<sup>49</sup> Not surprisingly, then, it deteriorated markedly in 2005.<sup>50</sup> Using

48. See, for example, Westin (2005).

49. The authors obtain a price elasticity of imports of around 0.6 and a price elasticity of non-fuel exports of 0.7. As the structure of non-fuel exports is still relatively commodity-intensive, this average estimate suggests a somewhat higher elasticity for non-commodity exports and a lower one for metals and precious metals. They also find that most of the adjustment of the non-fuel trade balance to exchange-rate movements takes place within one quarter.

both the relative non-fuel export prices of Russia and its competitors on third markets and import-price as competitiveness indicators, the authors also find that, already by the end of 2004, Russia had exhausted the price-competitiveness advantage gained after the 1998 devaluation (Figure 15).<sup>51</sup> Given the already very narrow range of Russia's revealed comparative advantages (OECD, 2004), the apparent loss of competitiveness raises serious concerns about prospects for diversifying Russia's production and export structure if real appreciation continues at such a rapid pace.

**Figure 15. Cumulative variation of the total balance (TB) of goods and services**  
\$ billion



Note: The change in the balance of goods and services relative to the 1996 level is expressed as a function of five contributing factors: fuel exports, a non-fuel terms-of-trade effect, a price competitiveness effect on non-fuel trade volumes, the effect of the initial position of the non-fuel trade balance (if the balance is initially in deficit, equally rapid growth in export and import volumes would still lead to a deterioration of the trade balance) and a residual effect, which includes non-price competitiveness effects and the difference in business cycles between Russia and its partners.

Source: Gianella and Chanteloup (2006).

33. As explained in Box 1, Dutch Disease is more likely to materialise, when rapid real appreciation is combined with rigid markets (labour and product markets) and/or overly rapid growth in public spending. So far, loss of competitiveness in the manufacturing sector has not translated into negative developments for the labour market: unemployment continued to fall in 2004–05, intersectoral reallocation of the labour force has been relatively smooth (see Table C1) and wage flexibility has proven to be high (Figure C1). The tightening of regional labour markets may make nevertheless make further adjustment more difficult. Structural factors like barriers to mobility may hamper this process, and emerging skill shortages<sup>52</sup> could make employment and wage adjustment in the short-to-medium term more difficult.

50. Imports of machinery, equipment and vehicles, in particular, increased by 40% in dollar terms. Exports of the same fell by 4.5% in dollar terms, but they have proven to be highly volatile: they rebounded sharply in the first quarter 2006 (+32% year-on-year in dollar terms), having fallen dramatically in the same quarter of last year (-15% year-on-year).

51. See Gianella and Chanteloup (2006) for a detailed description of the decomposition of the trade balance.

52. Skill shortages may be inferred from the steady increase in the estimated returns to education, which are now 10% (Pop-Eleches *et al.*, 2005), as against 5% in the mid 1990s (Benitez-Silva and Sheidwasser, 2000) and 9% at the beginning of the decade (Gorodnichenko and Sabrianova, 2004).

Recent data would tend to confirm the tightening of labour market conditions. Wage growth remained very robust (averaging 12.6% in real terms in 2005)<sup>53</sup>, despite the fact that the gap between productivity and labour costs had closed (Figure 6) and labour shedding continued at a rapid pace in manufacturing).<sup>54</sup> Finally fiscal slippage was evident in 2005–06, and further large increases in spending are planned.

### **Fiscal policy should be the principal tool for macroeconomic management**

34. The analysis presented above clearly shows that the Bank of Russia's policy options for bringing down inflation are limited, given the weakness of both the interest-rate channel and exchange-rate pass-through. Although on a downward path, inflation remains high, with negative consequences for growth, investment and external competitiveness. The authorities are well aware of the need for further disinflation and aim to reduce it to around 4.5–5.0% per annum by the end of the decade. However, there is no clear consensus on the best way to achieve this. An anti-inflationary package drafted by the MERT in early 2006 laid great stress on stimulating household saving<sup>55</sup> and on regulating the tariffs of the so-called “natural monopolies”,<sup>56</sup> emphasising in particular the need for cost-control. While most of the measures proposed in the MERT package are welcome, a broader anti-inflation strategy would need to do more to address the monetary factors underlying persistent inflation. A relatively tight fiscal stance, on the other hand, can reduce both inflation *and* exchange-rate pressures, thereby mitigating the competitiveness–inflation trade-off facing the Bank. Moreover, fiscal policy could play a critical role in sustaining not only budgetary expenditure but also growth and exchange-rate stability in the event of a negative terms-of-trade shock. Over time, financial deepening should allow the Bank to pursue a more effective anti-inflation strategy, relying on a wider range of policy instruments than at present, but fiscal policy remains the best instrument for managing the adjustment to the new terms of trade while reducing domestic imbalances.

### ***The deterioration of the non-oil fiscal balance has so far been limited***

35. Fiscal discipline has been the cornerstone of the post-crisis economic expansion. While windfall revenues from oil and gas have hugely facilitated fiscal consolidation, the government must be given credit for resisting the temptation to go on a spending spree and for using the opportunity provided by the improving terms of trade to execute a range of important fiscal reforms (OECD, 2004:37–8). As a result, the general government surplus has kept growing and has now reached extraordinary levels – 7.7% of GDP for the consolidated budget in 2005. Moreover, simulations performed by the Economic Expert Group (EEG) attached to the Ministry of Finance suggest that the budget would have shown only a modest deficit even if the price of Urals crude had fallen back to \$ 20/bbl (Gurvich, 2006a). EEG estimates of the

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53. 13% in the first half of 2006.

54. -4% in 2005. It is difficult to compare data on large companies only, which covers two thirds of total employment, with data for the whole economy as employment in small firms is likely to have been more dynamic. Moreover, the classification was changed in 2004. Nevertheless, for large firms only, the pace of job destruction seems to have accelerated since 2002 (from around 2% to 4%).

55. MERT proposes dedicating part of the IPOs for state companies to the domestic market, raising the ceiling on deposit insurance from RUB 100 000 to RUB 200 000 and allowing banks to introduce genuine term deposits (see OECD, 2004:235).

56. In Russian parlance, the term “natural monopolies” does not bear the meaning it would in any western economics text (minimum efficient scale of production equal to or greater than the size of the market). Rather, it refers specifically to the major infrastructure monopolies – above all, natural gas, rail transport and electricity.

constant-oil-price budget balance<sup>57</sup> show that a large share of the extra fiscal revenue arising from higher oil prices since 2002 has been saved (Table 5).<sup>58</sup> In 2004–05, around three-quarters of the additional fiscal revenue was saved,<sup>59</sup> amounting to around three-fifths of the total additional income to the economy. The Stabilisation Fund, in which the bulk of the windfall fiscal revenue is accumulated, plays a crucial role in maintaining this fiscal discipline (Box 3).

**Table 5. Fiscal stance (general government balance)**  
% of GDP

		2001	2002	2003	2004	2005 (1)
Budget balance		3.2	1.4	1.8	4.9	7.7
Conjunctural fiscal revenues from oil		1.1	1.4	2.8	5.0	9.2
Constant oil price budget balance (20 \$ Ural)	(2)	2.1	0.0	-1.0	-0.1	-1.5
$\Delta$ Budget balance		0.1	-1.8	0.4	3.1	2.8
$\Delta$ Fiscal revenues from oil		-0.6	0.3	1.4	2.2	4.3
$\Delta$ Constant oil budget balance		0.7	-2.1	-1	0.9	-1.5
<b>Urals price (\$/bbl)</b>		<b>22.9</b>	<b>23.7</b>	<b>27.2</b>	<b>34.6</b>	<b>50.5</b>
$\Delta$ Oil-related windfalls to the economy	(2)	-2.2	-0.2	3.0	3.9	5.1
<b>NB: Exceptional revenue (Yukos)</b>		-	-	-	0.4	1.0

1. Figure for 2005 is a preliminary OECD estimate.

2. The constant-oil-price budget balance and oil windfalls to the economy are estimated on the basis of the average dollar price of Urals crude in 1994-2003, without taking account of dollar inflation (\$ 20/bbl). 'Normal' export prices for natural gas are set at \$ 78t/cm (roughly the average export netback over the period).

Source: Gurvich (2006a).

36. While the authorities have done remarkably well in resisting pressure for large tax cuts or aggressive increases in spending, the gradual deterioration of the constant-oil-price balance nevertheless accelerated in 2005, adding a fiscal stimulus to an already buoyant economy. According to the estimates in Table 5, the size of this stimulus reached 1.5% of GDP.<sup>60</sup> If the exceptional revenues stemming from Yukos' tax payments are excluded from the estimate of "structural revenues",<sup>61</sup> the impulse reaches around 2%. The deterioration of the non-oil balance resulted from a decrease in non-oil revenues, owing chiefly to a cut in the basic rate of unified social tax (ESN) from 35.6% to 26%. Despite regular increases in public-sector wages and pensions, the ratio of non-interest expenditures to GDP remained stable (Table B1). The stability of the expenditure share, however, owes a good deal to the rise in the GDP deflator induced by the

57. The constant-oil balance calculated here obviously depends on the long term-oil price taken as a reference. However, the fiscal stimulus or tightening, which is given by the *change* in the non-oil balance, does not depend on this choice.

58. The fiscal stimulus in 2002 was relatively large, but may have been justified by the slowdown in growth that year. During 2003–2005, around 80% of extra fiscal revenues from oil and gas were saved.

59. If exceptional Yukos-related revenues are counted as conjunctural income.

60. If the fiscal stance were computed as a share of non-oil GDP, the size of the stimulus would be even greater (as the share of the oil sector in nominal GDP is naturally increasing with dramatic oil price increases).

61. In other words, if they are treated as a one-off, like the proceeds from a large privatisation deal.

positive terms-of-trade shock.<sup>62</sup> As a share of non-oil GDP, expenditures are on a rising trend and, in nominal terms, public expenditures rose by 27% in 2005 (Figure 16). The fastest increases in federal expenditure concerned defence and law enforcement (38%), the social sphere (35%) and the transfers to extra-budgetary funds (50% in rouble terms and 0.5% as a share of GDP).

### Box 3. The Stabilisation Fund of the Russian Federation

The Stabilisation Fund of the Russian Federation was established in 2004 following the adoption of amendments of the Budget Code of the Russian Federation in December 2003.<sup>1</sup> The statutory purpose of the Fund is to insure the federal budget against oil-price volatility. “Surplus” revenues resulting from relatively high oil prices are accumulated in the Fund automatically: 95% of the income from the natural resource extraction tax<sup>2</sup> and 100% of the crude oil export duty above that which would accrue at an oil price of \$ 27/bbl (Urals) (the “cut-off price”) is automatically transferred to the Fund.<sup>3</sup> The government may also be required to transfer to the Fund budget surpluses accumulated in the previous fiscal year, although this is less automatic: some surplus funds may be carried over to finance budgetary expenditures in the early months of the new year, when tax revenues are traditionally low.

The legislation stipulates that, until the Fund accumulates a total of RUB 500bn, the revenues accumulated in the Stabilisation Fund may be spent only to finance the federal deficit arising as a result of oil prices below the cut-off price of \$ 27 for Urals crude. Sums in excess of RUB 500bn may be spent for unspecified “other purposes”, with the consent of the Federal Assembly (such spending must be specified in the law on the federal budget for the year in question). Hitherto, the government has mainly used such surplus revenues for early repayment of foreign debt, although the Fund also covered the Pension Fund deficit arising as a result of the 2005 cut in the Unified Social Tax.

The Fund is managed by the Ministry of Finance, although the government can, and does, delegate some functions to the CBR. The only instruments in which Stabilisation Fund revenues may be invested are foreign government securities; at present, the permitted securities include those of euro-area governments, the United States and the United Kingdom. One welcome side effect of this arrangement is that Stabilisation Fund investments can help to stabilise the exchange rate. The investment and spending pattern of the Fund should contribute to capital outflows when oil prices are high and capital inflows when they are low. These flows are an important mechanism for counteracting current account pressure on the exchange rate, thus helping to smooth somewhat the potentially damaging impact of sharp fluctuations in commodity prices on the real exchange rate.

It is important to recognise that the Fund’s purpose is fiscal stabilisation across the oil price cycle. In this, the Fund differs from some other oil funds, most notably that of Norway.<sup>4</sup> Norway’s much larger Government Pension Fund (formerly the Government Petroleum Fund) aims not only to smooth short-term fluctuations in oil revenues but also to act as a mechanism for transferring the wealth derived from the current exploitation of a non-renewable resource to future generations. The Norwegian Fund actually accumulates all of the state’s net cash flow from petroleum activities, a portion of which, reflecting a notional rate of return of 4% per annum, is then transferred back to the budget to finance the non-oil budget deficit.

That said, the Russian Fund rapidly exceeded the initial RUB 500 billion (\$ 18.5 billion) minimum and by 1 October 2006, it stood at \$ 70.7 billion (around 7.1% of 2006 estimated GDP) even though a substantial part of the money accumulated in the Fund had already been used for early debt repayments. Given that the Fund will soon appear to be large enough to protect the budget against oil-price fluctuations – it is likely to surpass 10% of GDP in early 2007 – the question has now arisen of possibly broadening the Fund’s mandate beyond its basic “fiscal insurance” function, to include the generation of investment income (see below).

1. “O vnesenii dopolnenii” (2003).

2. That is 100% of the federal share of the natural resource extraction tax.

3. Until 1 January 2006, this cut-off price was \$ 20/bbl.

4. On the Norwegian Fund, see Finansdepartementet (2003); and OECD (2005:55).

62. Dramatic terms-of-trade gains mean that the GDP deflator has in recent years been far greater than CPI inflation. As a result, a large real-terms increase in spending (*i.e.* adjusted for CPI inflation) does not necessarily push the expenditure-to-GDP ratio up.

*The fiscal reserves accumulated in the Stabilisation Fund are under growing pressure*

37. Despite the fiscal stimulus, the Stabilisation Fund continued to capture, and thus neutralise, most windfall oil income. In absolute terms, the scale of fiscal sterilisation increased dramatically in 2005, reaching an estimated 6.4% of GDP, as against 3.1% in 2004.<sup>63</sup> In 2005, roughly \$ 49 billion in surplus revenues was channelled into the Fund. Some \$ 25 billion of this was retained in the Fund to insure the budget against any future oil-price drop, just over \$ 1 billion was used to cover the deficit of the Russian Federation Pension Fund and \$ 23 billion was used for early debt repayment, mainly to the Paris Club. As a result, public external debt fell from 17.9% of GDP at end-2004 to 10.8% at end-2005 (Table 6). Federal expenditure on external debt service is expected to amount to 0.8% of GDP in 2006, down from 2.6% in 2001 (Table B1).<sup>64</sup> Reducing the burden of external debt is growth enhancing, particularly for low-to-middle income countries (Patillo *et al.*, 2002). The government's decision to repay Soviet-era debts to the Paris Club in full in the summer 2006 is thus to be welcomed (another tranche of \$ 22 billion was paid off to the creditor nations in August).

**Table 6. Evolution of public debt (% GDP)**

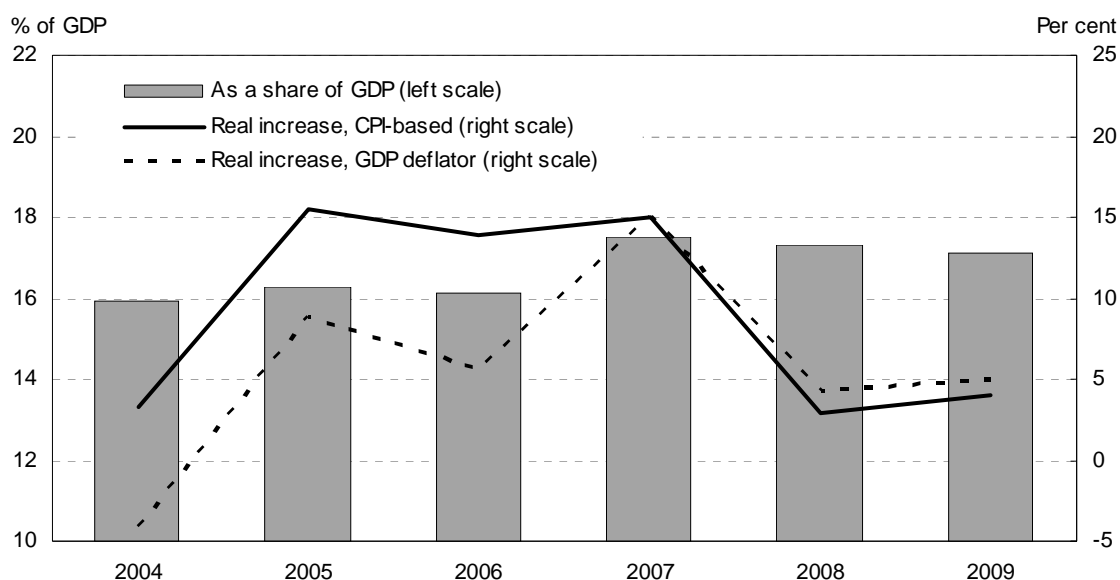
	2001	2002	2003	2004	2005
<b>Public Debt</b>	<b>45.5</b>	<b>36.1</b>	<b>29.5</b>	<b>22.4</b>	<b>14.8</b>
Of which external debt	39.8	30.1	24.5	17.9	10.8
<i>Long term</i>	33.6	25.9	21.0	16.0	8.5
<i>Short term</i>	6.2	4.2	3.5	2.0	2.3
Of which domestic debt	5.7	6.0	5.0	4.5	3.9

Source: Central Bank of Russia, Ministry of Finance.

38. The original 2006 budget envisaged a 1.3 percentage-point increase in federal expenditures as a share of GDP in order to cover substantial increases public-sector wages and public investment. The initial budget law, however, was drafted on the basis of a very conservative oil-price assumption (\$ 40/bbl). Actual oil prices have been much higher, so once again, rising terms of trade have pushed the GDP deflator well above CPI inflation, enabling the authorities to increase spending fairly rapidly without raising the expenditure-to-GDP ratio. The medium-term fiscal plan for 2007–2009, however, is based on more realistic assumptions (\$ 65/bbl [Urals] in 2006, \$ 61 in 2007 down to \$ 48/bbl in 2009). This points to an increase in the expenditure ratio in 2007 (Figure 16), prolonging the fiscal stimulus. The budget surplus is projected to shrink rapidly, as the ratio of federal revenues to GDP decreases with oil prices. In 2006, the anticipated reduction in the federal budget surplus, despite a rise in oil prices, means that the non-oil fiscal balance is set to deteriorate further.

63. See Kudrin (2006).

64. Domestic public debt is also very low, reaching around 3.9% of GDP at end-2005.

**Figure 16. Federal expenditures in the medium-term budget plan (% GDP)**

Note: Data for 2006-09 are government estimates and projections.  
 Source: Ministry of Economic Development and Trade and OECD calculations.

39. The deterioration in the non-oil fiscal balance in 2006 partly reflects the decision to raise the cut-off price for the Stabilisation Fund – the oil-price threshold above which surplus revenues flow into the Fund – from \$ 20 to \$ 27 a barrel (Box 3). This implies that a smaller share of oil revenues will be sterilised at any given oil price. Such a move may be justified if it reflects a well founded revision in the government’s assessment of the long-run average price of oil. However, the resulting fiscal easing should not be executed in a short period but should rather be smoothed over the cycle in order to take account of current imbalances between demand and supply.<sup>65</sup> It is therefore important that the authorities stick to their commitment to maintain the cut-off price at its current level for 2007 and 2008. In that respect, the introduction of three-year budget planning is to be welcomed. However, the move to three-year planning, which is undoubtedly a step forward, will only bring real benefits, in terms of predictability, transparency and expenditure control, if Russia refrains from its recent practise of increasing fiscal spending *via* the regular adoption of amendments to be budget law during the course of the year.

### **Russia would benefit from a credible rule-based fiscal policy**

#### ***Fiscal discipline is ever more important – and ever more challenging***

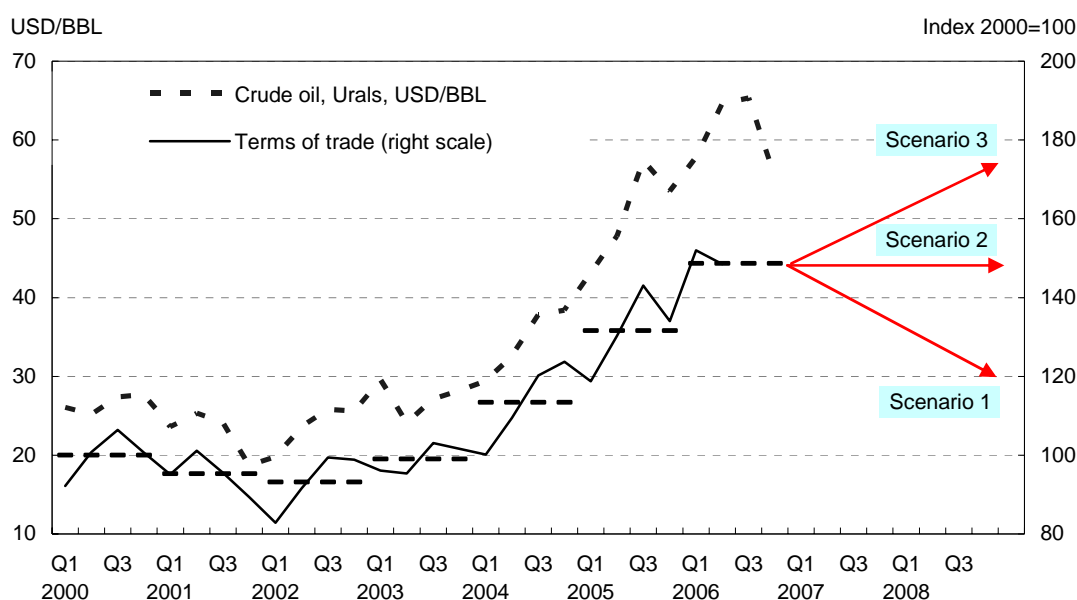
40. There is considerable uncertainty with regard to the future movements of oil and commodity prices, but in any case the analysis presented above clearly shows that fiscal discipline must be seen as the key to managing imbalances between demand and supply. It is the main instrument for reducing inflation while limiting the pace of rouble appreciation. This is true whatever the scenario for future oil price is in the short run (Figure 17). If the shock is thought to be temporary, the windfalls have obviously to be saved. If prices are expected to rise further, it would not necessarily be appropriate to conduct a pro-cyclical policy, as the risks of Dutch Disease would become much more severe. If prices are set to stabilise, would

65. This is particularly the case given the magnitude of the increase: a \$ 7 per barrel rise in the cut-off price increases budget revenues by around 1.7% of 2005 GDP.



be wise to engineer a smooth adjustment to the new terms of trade. More precisely, if the authorities choose to spend more of the commodity windfalls, they will have to accept a significantly faster rate of real appreciation and, if they wish to spend more while bringing down inflation, they will have to accept faster nominal appreciation as well.<sup>66</sup> To the extent that the Stabilisation Fund can capture, and thus “neutralise”, windfall income, the authorities can mitigate exchange-rate pressures without stimulating faster money-supply growth. Though created to insure the budget against fluctuations in oil prices, the Stabilisation Fund is also the most efficient instrument for curbing inflation. If over-reliance on monetary policy – and on the exchange rate channel, in particular – could prove risky in the event of a sudden drop in oil prices (a rapid nominal depreciation could trigger a surge in inflation), there is no such downside risk associated with the Stabilisation Fund. On the contrary, it could, in the event of a negative terms-of-trade shock, play a critical role in sustaining not only budgetary expenditure but also growth and exchange-rate stability.

Figure 17. Oil price development and terms of trade



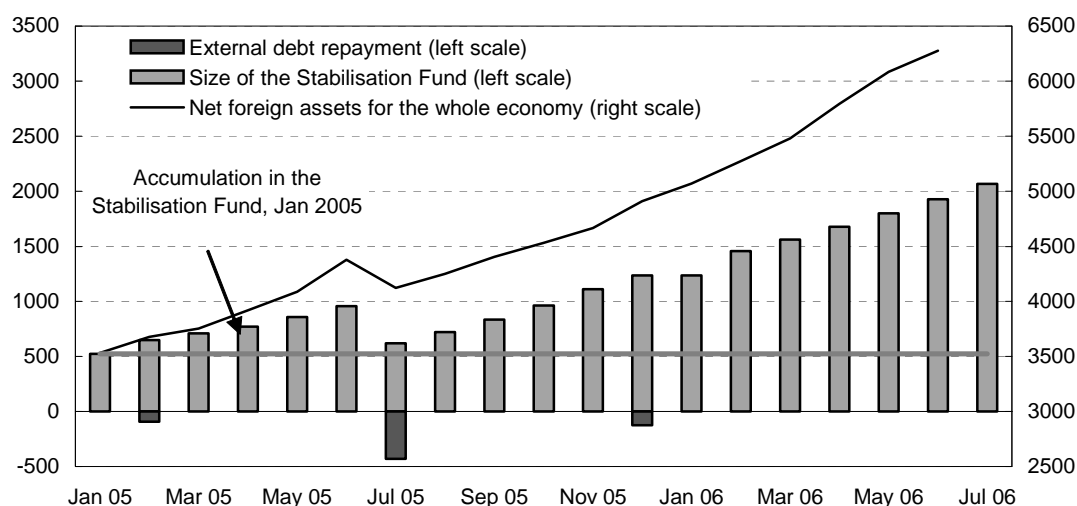
41. The management of the Stabilisation Fund and the determination of the cut-off price should, of course, be seen as part of a broader fiscal framework, which determines the scope for fiscal sterilisation. The structure of the tax system is also critical, since the tax take can be adjusted upward or downward at any given oil price. Although estimates vary, it appears that the state captures about 84% of the marginal revenue from crude oil and oil products for each one-dollar increase in the price of Urals crude above \$ 25/bbl. It also captures about 42% of the additional income from natural gas exports for each additional dollar on the oil price.<sup>67</sup> This means that the windfall revenues pouring into the economy as a result of high oil prices are far larger than those being captured by the state. In other words, fiscal sterilisation would have to be significantly greater in order to neutralise completely the inflationary impact of higher oil prices. In 2005, around two-thirds of the *increase* in revenues from oil, gas and oil product exports was

66. For a detailed discussion of the trade-offs involved, see Gurvich (2006c).

67. See Gurvich (2006a); and Ahrend and Tompson (2006).

actually sterilised *via* the Stabilisation Fund.<sup>68</sup> Consequently, the volume of fiscal sterilisation was significantly smaller than the increase in net foreign assets (Figure 18).

**Figure 18. Growth of net foreign assets and of the Stabilisation Fund**  
RUB billion



Source: Central Bank of Russia, Ministry of Finance.

42. Oil and gas revenues are not the whole story. Export revenues have also been pushed up by rising prices for other major export commodities, particularly metals. While such commodities account for a far smaller share of export revenues than do hydrocarbons, rising prices for non-fuel exports create an additional sterilisation problem. According to EEG simulations, the windfall revenues from non-fuel products are far from negligible and account for roughly 15% of the Russian economy's so-called "conjunctural income" (Gurvich 2006a).<sup>69</sup> The overall effective tax burden on non-fuel resource sectors is lower than that on the oil and gas sector (and lower, indeed, than the effective tax burden on manufacturing),<sup>70</sup> and marginal tax rates on non-fuel exports are also lower, being roughly equal to the corporate profit tax rate (24%). As a result, the fiscal system largely fails to neutralise the windfall revenues arising from high non-fuel commodity prices. The EEG estimates that only 70% of total commodity windfalls are captured by the budget – far lower than the share of oil windfalls – and that just 47% of the total commodity windfalls are sterilised *via* the Stabilisation Fund (Gurvich, 2006b). A comprehensive policy of insulating the economy and the budget against commodity-price fluctuations should also address non-fuel commodity windfalls.

43. With fuel and metals prices expected to remain high, the pressure on fiscal policy is likely to be even greater in the short-to-medium run. From 2000 through 2006, successive federal budgets were based on very conservative oil-price assumptions, a practice that helped restrain the growth of spending in the absence of an expenditure rule. This has changed with the adoption of the revised medium-term fiscal plan: its oil-price assumptions might best be characterised as realistic – they are certainly not overly optimistic

68. Oil revenues increased by \$ 50 billion in 2005, while the Stabilisation Fund either accumulated or neutralised (*via* early debt repayment) \$ 33 billion more than in 2004.

69. Estimated here on the basis of a constant real-dollar price for major non-fuel commodities and a medium-term reference price of oil of \$ 23/bbl.

70. See the estimates in Vasil'eva and Gurvich (2005).

but neither are they conservative. This adjustment to oil-price assumptions creates scope for much faster increases in discretionary spending at a time when there is growing pressure for further large tax cuts or spending increases. Moreover, since there is no mechanism to prevent the rapid re-spending of Stabilisation Fund revenues above the RUB 500 billion “floor” (Box 3), there is a real danger of substantial and rapid fiscal slippage, particularly if growth should flag in the run-up to the 2007–08 electoral cycle.

44. The risk here is not that fiscal sustainability would be put in question – unless there is a catastrophic drop in commodity prices or a truly spectacular increase in spending, the budget is unlikely to move into deficit. The risk is rather to macroeconomic balance: fiscal relaxation would stimulate consumption, which is already booming. At the same time, there is growing evidence that capacity constraints are already starting to affect industrial growth, raising doubts about the ability of domestic producers to respond to further domestic demand growth. Stimulating consumption in present circumstances would probably just add to inflationary pressures, accelerate real appreciation and fuel the growth of imports, aggravating “Dutch disease” pressures.

***The arrangements for managing the Stabilisation Fund need to be revised and elaborated***

45. This absence of legislative protection and clearly-defined rules governing the accumulation of assets in the Fund leads to endless debate and speculation concerning their use. Such speculation may even make exchange-rate management more difficult, since expectations that the government’s discipline will weaken tend, paradoxically, to reinforce pressure on the rouble to appreciate. There is thus an urgent need to revise the legislative framework governing the Stabilisation Fund in order to take account of the pressures arising from a period of sustained very high commodity prices. In addition to insuring the budget against oil-price fluctuations, the Fund can provide an effective mechanism for smoothing the effects of terms-of-trade shocks on the economy as a whole. It can also become an important source of investment income: to the extent that the accumulated windfalls exceed what is required to protect the budget, there is scope for investing some of the Fund in riskier but higher-yield assets.

46. The key priority should be to establish a clear fiscal rule that would further insulate the economy and the budget from commodity-price fluctuations. A first step might be to broaden the Fund’s revenue base. The current Stabilisation Fund framework is based on a relatively simple approach: the cut-off price reflects an (implicit) assumption about the long-run average price of Urals crude, and the structural balance corresponds to a constant-oil-price balance at the cut-off price. This arrangement means that a large share of commodity windfalls is not transferred into the Fund. Excess income from the export duties on oil products and natural gas is not captured by the Fund, nor are windfalls arising from exceptionally high prices for metals and other commodities. Moreover, one way to mitigate “Dutch disease” pressures and to foster diversification is to increase taxation of resource sectors (not only oil) while reducing general taxation.<sup>71</sup> It should, however, be noted that expanding the range of commodities for which windfalls are captured in the Fund does not necessarily mean that the volume of sterilisation at a given price would be higher. The taxation profile could be adjusted so as to make the change revenue-neutral.

47. In the case of oil products and natural gas, earmarking surplus revenues is relatively easy, since there are sector-specific taxes and duties on which to rely, and it would certainly be desirable to channel excess income from these sources into the Fund. In other resource sectors, this would be more difficult, and trying to include them in the Fund’s income base would probably be overly complicated. However, the authorities may nevertheless want to consider excess profit taxes or other measures aimed at capturing non-fuel resource windfalls without deterring investment in these sectors. Non-fuel resource sectors currently tend to have lower effective tax burdens even than manufacturing. It is not clear why this should be so or

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71. See OECD (2004:63–4). In particular, reducing direct taxation of producers could help to offset the effect of “Dutch disease” pressures; see Gianella and Tompson (2005).

why they should capture windfalls arising from very high prices when – as in the fuel sector – the resources in the ground ultimately belong to the state.

48. As a second step, there should be a transparent procedure for assessing expected long-run oil prices and estimating the “conjunctural” or “windfall” income (or losses) arising from high (or low) prices, for purposes of defining the cut-off price for the Fund. While long-term historical averages are unlikely to yield very accurate estimates of future prices, any significant deviation from past long-term averages should be well founded. In any case, the methodology employed should take account of the fact that oil-price cycles can be very long. Making 15- or 20-year moving averages at least a part of the pricing formulae would ensure that the government’s ability to raise spending as prices rose would increase only gradually and would also mean that the impact of falling prices fed through only gradually, making fiscal adjustments less painful and abrupt. In order to avoid excessive rigidity, it would be desirable to include a mechanism for revising the actual pricing formula or formulae, to allow the authorities to respond to major shifts in market conditions. However, like the pricing formula itself, any such mechanism should be limited, in order to avoid sudden increases in spending. While there is considerable scope for debate over the exact design of such mechanisms, the critical factors will be transparency and accountability: at every stage, the government should be clear about what it is doing and why, clearly signalling changes in its definitions, assessments and policy stances. This should make fiscal policy more predictable and thus enable other agents to operate with greater confidence over longer time horizons.

49. As a third step, the government might adopt clearer rules governing the use of Stabilisation Fund resources to cover shortfalls arising as a result of oil-price fluctuations. There are three specific problems here:

- At present, the law stipulates that a minimum of RUB 500 billion must be maintained in the Fund unless the oil-price drops below the cut-off price.<sup>72</sup> This minimum amount is not indexed to inflation or GDP growth. It was equivalent to roughly 3% of annual GDP when the Fund was created, but it represents only about 2% of expected 2006 GDP. It is far too small to absorb any sustained drop in oil prices to levels much below the new cut-off price of \$ 27/bbl, and, given current inflation and growth rates, it is likely to continue falling rapidly relative to GDP.<sup>73</sup> The minimum “floor” in the Fund should be raised substantially and indexed to nominal GDP.
- The legislation says nothing about how – or how fast – such funds are to be spent during periods of very low oil prices.<sup>74</sup> Rules governing the use of the fiscal reserve to stabilise the economy should be sufficiently tough to reinforce fiscal discipline, but they should also be sufficiently soft to be credible. Arrangements that impose an inflexible fiscal straitjacket on the government are more likely to be broken under strain than those that permit some flexibility.
- Sums accumulated in excess of the required minimum can currently be spent at the authorities’ discretion. While the risk of volatility points to the need for some flexibility in the management of the Fund, this arrangement depends far too much on political will.

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72. This minimum was meant to insure the budget against two years of revenue losses in the event of a drop in oil prices from \$ 20 to \$ 15 (that is only \$ 5 below the initial cut-off price).

73. By at least 15% per year (and even more if terms of trade continue to improve).

74. For example, it is not clear if only the revenue shortfalls from the designated oil-sector taxes that finance the Stabilisation Fund would be made up or if the authorities could tap the Fund to *increase* spending in an effort to administer a fiscal stimulus.

50. A fourth problem concerns the need for some adjustment of the Fund's goals. It is increasingly likely that the Fund already is – or soon will be – larger than is needed to insure the budget against an oil-price correction. This does not mean that it is time to start spending the Fund aggressively, but it does point to the need to change somewhat the way the Fund is managed. In particular, it would be appropriate to distinguish between two objectives for the Fund: ensuring macroeconomic stability by protecting the budget from commodity-price fluctuations and using windfalls *in a macroeconomically responsible way* to generate future income streams that could help cover structural deficits. The government is now working on measures to divide the fund into two parts along these lines. This approach could prove a promising way forward.

- A substantial portion of the Fund would continue to be earmarked purely for fiscal stabilisation. It should be invested abroad in highly liquid, low-risk instruments – preferably the kind of foreign government securities already authorised under the government decree on investing the Fund.<sup>75</sup> The fact that such investments generate relatively low yields should not be seen as a problem; security and liquidity are the crucial concerns.
- The rest of the Fund would be used to generate investment income and would be thus available for investment in a wider range of instruments than the “fiscal insurance” part of the Fund. However, any movement in this direction would need to be gradual, in order to limit the risk of large-scale mismanagement. It would probably, therefore, make sense to begin by transferring a relatively small portion of the Fund (perhaps 5%) onto a somewhat more liberal investment-management regime, with a view to gaining experience and capacity-building. Over time, this part of the Fund would grow and the range of instruments in which it could be invested would be liberalised. It will probably be some time before the authorities should consider investing any portion of it in Russian assets. In the first instance, it should be invested abroad.<sup>76</sup>

51. The income-generation portion of the fund would thus come to resemble the Norwegian Government Pension Fund more closely, since only the income from the Fund's investments would be transferred to the budget in order to finance current spending. However, wholesale adoption of the Norwegian model is probably not entirely appropriate for Russia. In Norway, all oil revenues are channelled into the Fund and only the investment income is available to cover the non-oil deficit. By contrast, the model described above would still leave a significant portion of current oil revenues available to the budget: only windfalls would be earmarked for the Fund.<sup>77</sup> The Russian budget is already heavily dependent on oil revenues, so any rapid transition to a “pure” Norwegian model would either involve a period of radical cuts in spending or large increases in non-oil taxation, neither of which would be desirable. What is critical is that the Russian budget's reliance on oil revenues should reflect a realistic assessment of long-run average prices and production trends. Moreover, the existing Stabilisation Fund

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75. Investment of the Stabilisation Fund into AAA governments bonds issued by euro-area countries, the United States and the United Kingdom began in the summer of 2006.

76. Some portion of the income-generation fund might eventually be invested in Russia itself, where returns would probably be higher than in more developed economies. However, the scope for investing the fund domestically would be limited by the economy's absorption capacity and the need to ensure that the fund continued to play a role in insulating the economy from terms-of-trade fluctuations. Moreover, particular care would need to be taken to prevent corruption and to ensure that such investments were taken on sound commercial grounds rather than in response to lobby pressures; the governance risks associated with such investment are such that it would be preferable to invest the fund abroad for some time to come. It would probably also be advisable also to refrain from investing in the securities issued by state-owned companies.

77. The Russian model would also tend to insulate the economy from commodity-price movements somewhat less than the Norwegian arrangement.

arrangements should be taken into consideration: building on what exists is likely to be far less disruptive than trying to redesign the whole framework just two or three years after it was created. The difference here also reflects the fact that one of the main priorities of the Norwegian Fund is inter-generational equity: it aims to ensure that future generations also profit from the current exploitation of a non-renewable resource. This issue is less compelling in an emerging economy such as Russia's: there is good reason to expect that, given reasonable macroeconomic management, future generations of Russians should be substantially wealthier than the current generation.

52. It is macroeconomic balance, then, rather than inter-generational equity, which determines the rate at which Russia might prudently use its resource wealth to enhance living standards. Using current windfalls to pump up consumption very rapidly would be very dangerous, as it would tend to drive up the exchange rate, suck in imports and, in the end, probably lead to slower growth. However, as long as the windfalls are managed in a macroeconomically responsible and transparent manner aimed at sustaining growth and investment, there is probably scope for greater expenditure sooner than an approach dominated by inter-generational equity concerns would allow.

***Management of the Stabilisation Fund should be based on an assessment of long-run sustainability***

53. The critical question which arises in light of the foregoing analysis concerns the optimal size of the "fiscal insurance" portion of the Fund and the basis on which the adequacy of fiscal insurance might be assessed. Reliance on the cut-off price has proven a simple and efficient mechanism for earmarking resources to be accumulated in the Fund allocation. However, this does not mean that an optimal fiscal policy should focus solely on such a constant-oil/commodity price balance when assessing fiscal sustainability. A broader set of indicators could and should be used as guidelines, such as the ratio of the non-oil fiscal balance to non-oil GDP or the ratio of expenditures to windfall-adjusted GDP (Gurvich 2006a). Such indicators try to assess the fiscal position with a complete neutralisation of the impact of shifts in oil and other commodity prices on the economy. Taking into account the non-renewable character of the resources in question, they offer a way to assess the optimality of fiscal policy in an intertemporal perspective (Barnett and Ossowski, 2003). In any case, the development and publication of such indicators could enhance the transparency of fiscal policy and strengthen the defence of fiscal prudence by making a clear distinction between structural changes in fiscal policy and revenue fluctuations resulting from commodity price movements.

54. These indicators, together with the debt position, could then contribute to the definition of a medium-term target for fiscal policy and a sustainable level for the structural (non-oil or non-commodity) deficit chosen as a benchmark. Such an assessment would also be of use in determining the minimum size of the "fiscal insurance" portion of the Fund. As noted above, the current minimum size represents only 2% of estimated GDP for 2006. Given that the standard deviation in oil price fluctuations over the past ten years reaches around \$ 11, the protected part of the Fund looks very small. A cautious approach would consist in raising this size to a level that would ensure the economy against a sharp drop below the cut-off price for a period of three to five years. This might imply a buffer of perhaps 10% of GDP.<sup>78</sup> Moreover, there should be some provision for revising the protected minimum upwards as and when the cut-off price rises – a higher cut-off price implies greater risk of actual prices falling below the cut-off price and thus a need for more insurance.

55. It should be stressed again that what matters is the basic fiscal rule, not the mechanisms used to operationalise it. The proposals put to the government by the Ministry of Finance at the end of August 2006 are therefore to be welcomed and merit serious attention. The ministry has proposed both division of

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78. Finance Minister Aleksei Kudrin has spoken of a buffer of 7–10% of GDP; *Moscow Times*, 14 September 2006.

the Stabilisation Fund similar to that outlined above and a methodology for calculating the non-oil fiscal balance – initially, perhaps, for analytical purposes, but with a view to making such calculations an important part of the budget process in due course. While the specific parameters of these proposals are still open to debate – the proposal to limit the spending of oil and gas revenues to 4% of GDP in any given year may prove to be too severe – but the overall approach is promising.

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## ANNEX A.

*External accounts***Table A1. Balance of payments**  
As a percentage of GDP

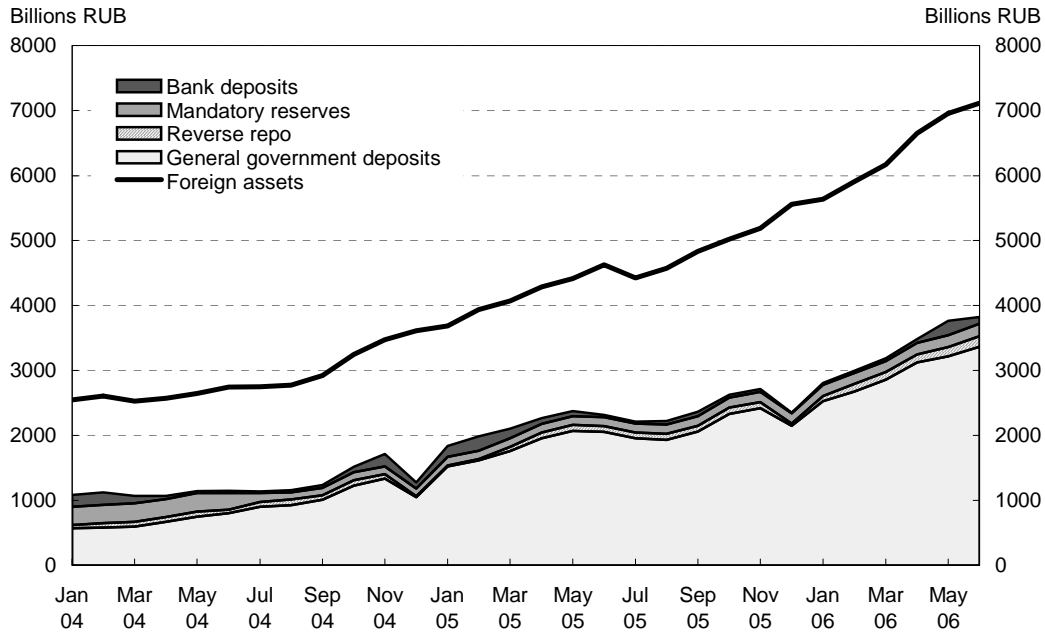
	2000	2001	2002	2003	2004	2005
<b>Current Account</b>	<b>18.0</b>	<b>11.1</b>	<b>8.4</b>	<b>8.2</b>	<b>9.9</b>	<b>10.9</b>
<b>Goods and Services</b>	<b>20.6</b>	<b>12.7</b>	<b>10.6</b>	<b>11.3</b>	<b>12.3</b>	<b>13.6</b>
Export	44.1	37.0	35.0	35.3	34.5	35.2
Import	-23.5	-24.2	-24.4	-23.9	-22.2	-21.6
<b>Goods</b>	<b>23.2</b>	<b>15.7</b>	<b>13.4</b>	<b>13.9</b>	<b>14.5</b>	<b>15.5</b>
Export	40.4	33.2	31.1	31.5	31.1	31.9
oil and oil products	13.9	11.2	11.7	12.5	13.3	15.4
natural gas	6.4	5.8	4.6	4.6	3.7	4.2
others	20.1	16.2	14.8	14.4	14.1	12.4
Import	-17.3	-17.5	-17.6	-17.6	-16.5	-16.4
<b>Services</b>	<b>-2.6</b>	<b>-3.0</b>	<b>-2.9</b>	<b>-2.5</b>	<b>-2.3</b>	<b>-1.9</b>
Export	3.7	3.7	3.9	3.8	3.4	3.2
Import	-6.3	-6.7	-6.8	-6.3	-5.7	-5.2
<b>Investment income &amp; compensation of employees</b>	<b>-2.6</b>	<b>-1.4</b>	<b>-1.9</b>	<b>-3.1</b>	<b>-2.2</b>	<b>-2.5</b>
<b>Current Transfers</b>	<b>0.0</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>
<b>Capital and Financial Account</b>	<b>-14.3</b>	<b>-7.8</b>	<b>-6.5</b>	<b>-6.0</b>	<b>-8.9</b>	<b>-9.4</b>
<b>Capital Transfers</b>	<b>4.2</b>	<b>-3.1</b>	<b>-3.6</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-1.7</b>
<b>Investment</b>	<b>-12.3</b>	<b>-2.1</b>	<b>0.3</b>	<b>0.4</b>	<b>-0.9</b>	<b>0.4</b>
<i>Direct Investment</i>	-0.2	0.1	0.0	-0.4	0.3	0.3
Abroad	-1.2	-0.8	-1.0	-2.3	-2.3	-1.7
In Russia	1.0	0.9	1.0	1.8	2.6	2.0
<i>Portfolio and other investment</i>	-12.2	-2.2	0.4	0.8	-1.2	0.1
Liabilities	-5.4	-2.4	-0.1	4.6	3.6	5.3
Assets	-6.7	0.2	0.4	-3.8	-4.8	-5.2
<b>Changes in Reserves</b>	<b>-6.2</b>	<b>-2.7</b>	<b>-3.3</b>	<b>-6.1</b>	<b>-7.7</b>	<b>-8.1</b>
<b>Errors and Omissions</b>	<b>-3.7</b>	<b>-3.3</b>	<b>-1.9</b>	<b>-2.2</b>	<b>-1.1</b>	<b>-1.5</b>
<b>Balance</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Source: OECD calculations based on data from the Central Bank of Russia.

## ANNEX B.

*Public finances*

Figure B1. Liquidity absorption via fiscal sterilisation



Source: Central Bank of Russia.

Table B1. The consolidated budget, excluding off-budgetary funds (% GDP)

	2001	2002	2003	2004	2005 (1)
<b>Consolidated budget</b>					
Revenues	30.0	32.1	31.3	32.0	35.2
Expenditures	27.1	31.6	29.9	27.5	27.5
Balance	2.9	0.9	1.4	4.5	7.7
<b>Federal budget</b>					
Revenues	17.8	20.4	19.5	20.2	23.7
<i>Of which federal part of the ESN</i>	-	3.1	2.7	2.6	1.2
Expenditures	14.8	19.0	17.8	15.9	16.3
<i>Of which debt service</i>	2.6	1.4	1.7	1.2	1.0
Balance	3.0	1.4	1.7	4.3	7.4
<b>Regional budgets</b>					
Revenues	14.3	14.9	14.5	14.3	13.9
Expenditures	14.3	15.3	14.9	14.1	13.6
Balance	0.0	-0.4	-0.4	0.2	0.3

1. Figures for 2005 are preliminary estimates.

Source: IET (2006) and CBR.

## ANNEX C.

*Labour market*

Table C1. Structure of employment by sector

	1990	1995	2000	2001	2002	2003	2004
Industry	30.3	25.8	22.6	22.7	22.4	21.9	21.5
<i>of which:</i>							
<i>Manufacturing</i>	-	21.8	18.6	18.6	18.4	18	17.7
<i>Fuel and metal extraction</i>	-	2.8	2.4	2.5	2.4	2.3	2.3
<i>Electricity and energy</i>		1.2	1.6	1.6	1.6	1.6	1.5
Agriculture and forestry	13.2	14.9	13.4	12.6	12.1	11.3	10.8
Construction	12.0	9.4	7.7	7.7	7.7	7.7	7.9
Transport & communications	7.8	7.9	7.8	7.8	7.8	7.9	8
Trade and catering	7.8	10.7	14.8	15.7	16.4	16.9	17.2
Housing and communal services	4.3	4.6	5.1	5.0	4.9	4.9	4.8
Finance, credit, insurance	0.5	1.2	1.1	1.2	1.3	1.3	1.4
Health, education, culture	15.2	17.7	17.9	17.8	17.8	18	18
Science	3.7	2.5	1.9	1.8	1.8	1.8	1.8
Administration	2.1	2.9	4.5	4.4	4.5	4.7	4.8
Other	3.1	2.4	3.2	3.3	3.3	3.6	3.8
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Employment (1 000)	75 325	66 330	64 517	64 980	65 574	65 979	66 407

Source: Federal Service for State Statistics.

Figure C1. Wages and employment adjustment  
Index 1995 = 100



Source: Federal Service for State Statistics, OECD calculations.

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