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BASIC STATISTICS OF THE RUSSIAN FEDERATION

(2005, unless otherwise noted)

THE LAND	
Area (thousand sq. km)	17 098
Agricultural area (thousand sq. km)	2 223
THE PEOPLE	
Population (millions, end-year)	142.8
Inhabitants per sq. km. (end-year)	8.3
Average annual population growth (per cent, 1995-2005)	–0.4
Employment (millions)	66.9
By sector (per cent of total)	
State and municipal enterprises and organisations	34.6
Private sector	53.4
Mixed form of ownership	12.0
By branch (per cent of total)	
Industry	21.8
Agriculture and forestry	10.8
Construction	7.3
Services	60.1
Unemployment rate (per cent of labour force, end-year)	7.5
Inhabitants in major cities (millions)	
Moscow	8.3
St. Petersburg	4.6
Novosibirsk	1.4
Nizhnii Novgorod	1.3
GOVERNMENT/ADMINISTRATION	
Bicameral Parliamentary system (The Federal Assembly)	
Council of the Federation (upper house)	176 seats
State Duma (lower house)	450 seats
Number of registered political groups in the State Duma	5
Regional government	
Subjects of the Federation, *of which:*	88
Republics	21
Krais (territories)	7
Oblasts (regions)	48
Autonomous *oblast*	1
Autonomous *okrugs* (areas)	9
City of Moscow	
City of St. Petersburg	
PRODUCTION	
GDP (RUB billion, current prices)	21 598
GDP per capita (USD, market exchange rate)	5 332
PUBLIC FINANCE	
Consolidated budget revenue (per cent of GDP)	35.2
Consolidated budget expenditure (per cent of GDP)	27.5
Domestic public debt (per cent of GDP, end-year)	3.9
FOREIGN TRADE AND FINANCE	
Exports of goods and services (USD billion)	268.1
Imports of goods and services (USD billion)	164.7
Central bank gross foreign exchange reserves (USD billion, end-year)	182.2
Gross external public debt (per cent of GDP, end-year)	10.8
THE CURRENCY	
Monetary unit: Rouble	
Currency units per USD (period average):	
Year 2005	28.3
December 2005	28.8

Executive summary

The Russian economy has been enjoying a period of robust growth, thanks largely to steadily rising terms of trade. The challenge confronting policy-makers is to facilitate Russia's transition into a period of self-sustaining, investment- and innovation-led growth. This will require a sound macroeconomic policy framework to manage the economy's adjustment to sustained high oil prices and a range of structural reforms aimed at creating better framework conditions for business.

Fiscal discipline is critical to managing the adjustment to high oil prices

The efficient and prudent management of commodity windfalls is the principal macroeconomic policy challenge facing Russia today. An uncontrolled surge of windfall revenues into the economy would drive up inflation and undermine competitiveness. While monetary policy can play a supporting role, fiscal policy will remain the primary instrument for reducing inflation while avoiding excessively rapid exchange-rate appreciation. *Policy should be based on a clear, credible fiscal rule, aimed at insulating the economy from commodity-price volatility. This basic fiscal rule could be operationalised by strengthening the legislative framework governing the Stabilisation Fund.*

Public administration reform would benefit citizens, entrepreneurs and policy-makers

The inefficiency and corruption of the state administration impose a heavy burden on business and limit the government's ability to implement any policies that make significant demands on the state's administrative or regulatory capacities. *Effective, consistent implementation of the government's plans for administrative reform should therefore be a first-order priority. Russia needs. to improve the institutional environment within which the bureaucracy operates by strengthening the rule of law, adopting freedom of information legislation and enhancing parliamentary oversight of the executive; to empower citizens by adopting clear, accessible public service standards and creating an effective system of administrative redress for complaints; to fight corruption by strengthening enforcement and adopting whistleblower protection legislation; and to reduce state control and bureaucratic interference in business.*

Russia can do much to make innovation policies more effective

Russia's innovation potential is considerable but its innovation performance remains disappointing. *Realising this potential will require further steps to create a healthy, open business environment, as well as steps to stimulate greater private R&D and strengthen the domestic IPR regime. Reform of the large but inefficient public science sector could make it more responsive to business needs. and more dynamic as an engine of knowledge creation. Specific innovation-promotion schemes, like special zones or technoparks, should be limited in scope, carefully targeted and rigorously assessed in order to avoid deadweight losses and market distortions.*

Healthcare reform is needed to achieve better care, increased efficiency and greater equity

Russia's healthcare system today is characterised by a number of fundamental imbalances that need to be addressed in order to ensure that rising healthcare expenditure is used to best effect. *The major priorities for reform include closing the gap between formal commitments to the population and available resources; shifting the structure of provision towards greater reliance on integrated primary care; adopting payment schemes in the healthcare sector that encourage more cost-effective therapeutic choices; and modernising the system of mandatory medical insurance.*

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Assessment and recommendations

Recent economic performance has been impressive…

Real GDP growth during 1999-2005 averaged 6.7%. Initially driven by a rebound from the 1998 financial crisis, recent growth has been underpinned by large terms-of-trade gains that have translated, on the demand side, into a surge in domestic consumption. However, booming consumption has coincided with weakening export performance and surging imports. Investment is growing strongly but investment rates remain relatively low and will need to rise substantially if Russia is to sustain strong growth over the longer term. Already, there are indications that growth in many sectors is supply-constrained, and growth since 2003 has been driven increasingly by non-tradables. The growth of oil production, which was the major driver of growth during 2000-03, has slowed markedly.

… But the main drivers of current growth are transitory

Although Russia continues to grow at relatively high rates, the main factors underpinning current growth are transitory. The gains in competitiveness that Russian producers enjoyed after the 1998 financial crisis have now more or less disappeared. Moreover, there appears to be little scope left for Russian industry to go on raising output by increasing capacity utilisation without substantially greater investment. Finally, the impact on growth of commodity price increases will inevitably attenuate even if oil prices remain high, as the economy will adjust to the new terms of trade.

Continued strong growth depends on a sound macroeconomic environment and market-friendly structural reforms

The overarching economic challenge facing the Russian Federation, therefore, is to create the conditions needed to sustain economic growth over the long run at rates that will permit relatively rapid convergence with the advanced OECD economies. The government is well aware of the need to make the transition to a pattern of self-sustaining investment-driven growth that can be maintained over the long term. To do this, Russia needs. to press ahead with a range of structural reforms aimed at increasing potential output, while maintaining sound macroeconomic management, in order to ensure that fluctuations in the terms of trade do not result in significant imbalances between domestic supply and demand.

The adjustment to permanently high oil prices presents new challenges for economic policy

Russia needs. to devise a macroeconomic strategy for 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. This may yet prove to be the case, but expectations have shifted. It is important to recognise that 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. Success in addressing these issues will depend above all on the efficient and prudent management of rapidly accumulating commodity windfalls. This must be seen as the principal macroeconomic policy challenge facing Russia today.

The speed of real exchange-rate appreciation has prompted concerns about competitiveness

Over the long term, real appreciation in a catching-up economy is both inevitable and desirable. However, the *pace* of appreciation may cause problems, particularly if it is driven by abrupt terms-of-trade shifts rather than relative productivity dynamics. While labour market adjustment has so far allowed a smooth reallocation of labour from industry to services in Russia and thus limited the risk of "Dutch disease", overly rapid real appreciation will significantly impede efforts to diversify its production and export structure. At the same time, efforts to limit the rate of nominal rouble appreciation make it harder to reduce inflation. The Bank of Russia has struggled to pursue these two goals simultaneously. So far, inflation has continued on a gradual downward trajectory, but it remains stubbornly persistent. Keeping the nominal effective exchange rate roughly stable has meant that real appreciation has come about mainly *via* high – and only slowly declining – inflation.

Fiscal policy is the best tool for managing this adjustment…

The authorities aim to reduce inflation to around 4.5-5.0% per annum by the end of the decade. In present circumstances, however, the Bank of Russia's policy options are limited, given the weakness of both the interest-rate channel and exchange-rate pass-through. 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 achieving substantially lower inflation.

… and it should aim to insulate the economy from terms-of-trade volatility

Policy should be based on a clear, credible fiscal rule, aimed at insulating the economy from commodity-price volatility. In particular, it is critical that the budget capture a larger share of commodity windfalls than at present, so as to avoid boom-and-bust cycles, but the resulting fluctuations in fiscal revenues should not lead to pro-cyclical fluctuations in expenditure. *Such a rule should thus define a medium-term fiscal balance target, based on an assessment of the non-oil fiscal stance and long-run sustainability*. This basic fiscal rule could be operationalised *via* certain changes in the legislative framework governing the Stabilisation Fund:

- *The revenue base of the Fund could be broadened to include all oil-price related revenue windfalls (including surplus revenues from natural gas exports). A clearer set of rules is needed to govern the division of oil-related revenues between the Fund and the current budget.*
- The first RUB 500 bn in the Stabilisation Fund can only be spent if oil prices fall below the threshold price of $27/bbl for Urals crude. This sum is actually rather small compared to the potential revenue losses that might arise in the event of such a sustained oil-price drop. *It would therefore be prudent to increase the minimum size of this reserve and to index it either to GDP or to budgetary spending.*
- Nevertheless, the size of the Fund is, or soon will be, larger than is needed to insure the budget against an oil-price drop. *The government should therefore design a framework for investing excess Stabilisation Fund reserves in a wider range of income-generating assets than is permitted for those funds that are set aside for "fiscal insurance".*
- This *de facto* division of the Fund into its "insurance" and "income-generating" components points to *the need for clearer criteria for determining when and how the Fund's reserves may be spent*. These criteria should reflect the requirements of the basic fiscal rule, since it is the underlying rule that matters most, not the specific mechanisms for operationalising it.

Macroeconomic discipline should be accompanied by structural reforms

Realising Russia's long-term growth potential will require more than just disciplined macroeconomic management. Russia still faces daunting challenges with respect to a wide range of structural reforms aimed at improving framework conditions for business and enhancing productivity growth. Unfortunately, the pace of structural reform has decelerated significantly since early 2004. The achievements of the last two years have been modest, despite a favourable economic and political context. In general, the implementation of measures legislated during 2002-03 has continued, albeit at uneven rates, but little has been done to advance the remaining major items on the government's structural policy agenda. The ambitious and wide-ranging medium-term programme adopted by the government in late 2005 signals its renewed commitment to reform and its

awareness of the need to press ahead with a broad structural reform agenda aimed at strengthening the financial system, reforming infrastructure monopolies, enhancing competition and strengthening property rights. However, progress in most areas is still very slow. The present Survey focuses on three particular reform challenges that now confront the authorities: reforming public administration, improving the national innovation system, and restructuring the healthcare system.

The state is taking an increasingly active role in the economy

While market-oriented reforms have been de-emphasised somewhat, the government has undertaken a number of initiatives aimed at defining a rather more active direct role for the state in economic development, investing and intervening on its own and in partnership with business. Many of these initiatives entail greater state activism in spheres like health, education and infrastructure, where the case for public intervention is clear. However, there has also been a marked trend towards expanding state ownership and direct intervention in "strategic" sectors such as oil, aviation, power-generation equipment, automobiles and finance. Of particular concern is the state-owned gas monopolist OAO Gazprom's seemingly insatiable appetite for asset acquisitions, often at the expense of a focus on its core business. At the same time, the absence of any significant steps to restructure the gas industry as a whole constrains the growth of other producers even as concern about the sustainability of Russian gas supply is growing.

The expansion of state ownership overall must be regarded as a step back. The Russian state's track record as an owner of industrial and financial companies is poor. The corporate governance of many state-controlled companies is problematic and state interference in the operations of such companies often distorts the development of the companies themselves and the markets in which they operate. The expansion of state ownership in important sectors will probably contribute to more rent-seeking, less efficiency and slower growth. *The trend towards greater state ownership should be reversed in order to improve performance and reduce opportunities for corruption and rent-seeking. At the same time, more needs. to be done to strengthen the corporate governance of those companies that remain in state ownership, especially as regards transparency, and to provide for a clearer separation between the state's roles as owner and regulator in those sectors in which it fulfils both roles.*

The government has renewed its commitment to reform of the public administration

Effective implementation of the government's new administrative reform *Concept*, adopted in October 2005, would also help curtail corruption. Russia badly needs. an honest, effective public administration with an appropriate incentive structure. The state bureaucracy is inefficient, largely unresponsive to either the public or its political masters, and often corrupt. It is cited by foreign and domestic investors alike as one of the principal obstacles to investment in Russia today. It poses a particularly heavy burden on small and medium-sized enterprises, which are often less able to defend themselves against the bureaucracy than are large companies. Moreover, the poor quality of the state administration impinges on structural reforms in almost every other field, since it limits

the government's ability to implement any policies that require administrative or regulatory capacities of a high order. It also imposes significant costs on citizens engaged in such routine tasks as registering property transactions.

More can be done to improve the institutional environment, empower citizens and enhance transparency

The *Concept* emphasises, among other things, the implementation of public service standards, further de-regulation, rationalisation of the functions of state bodies, and measures to increase transparency. *The government's main priority should be to ensure its consistent, systematic implementation.* In addition, the authorities may want to consider a number of measures that are either outside the scope of the *Concept* or receive relatively little attention in it:

- Reform will achieve little in the absence of improvements in the broader institutional environment within which the state bureaucracy operates. *Steps to strengthen the rule of law, civil society institutions – including an independent press – and political accountability will all be critical. There is a need for stronger mechanisms for ensuring legislative oversight of the executive, whether via parliamentary committees or institutions like the Accounts Chamber.*
- Greater openness is essential to monitoring, accountability and anti-corruption efforts. *Freedom of information legislation should be adopted, along with other measures to establish a norm of transparency in public bodies. The government should also ensure that arrangements for adopting public service standards and the related standing rules are open and consultative, and result in documents that are clear and accessible to ordinary citizens.*
- Service standards and similar innovations will mean little in the absence of effective non-judicial means of redress for citizens wishing to challenge bureaucratic decisions. The *Concept* refers repeatedly to non-judicial redress but contains no specifics. This is a major omission. *Providing effective non-judicial mechanisms for individuals and organisations to defend their interests in conflict with public bureaucracies should be a first-order priority. An ombudsman or similar institution should also be created.*

Anti-corruption efforts can be strengthened by legislative change and increased use of ICT

Greater transparency combined with more effective non-judicial redress for citizens should do much to reduce corruption, particularly in connection with public procurements and fire, sanitation and other inspections. However, more can be done to combat corruption. *Anti-corruption efforts would be facilitated by increasing the use of information and communication technologies (ICT) in interactions between officials and businesses or private citizens, especially in fields such as licensing or public procurement. There is also much to be done to bring Russia's anti-corruption legislation into line with international standards. Adoption and implementation of the OECD Convention on Combating Bribery of Foreign Public Officials would provide a further signal of the authorities' determination to crack down on corruption in all its forms.* "*Whistleblower protection*" *legislation and a law on lobbying are also needed.* Nevertheless, neither technology nor new legislation will achieve significant results in the absence of more effective and consistent law enforcement.

Improving framework conditions for business should help Russia realise its innovation potential

The quality of public administration will impinge directly on the success of recent initiatives aimed at fostering innovation. Russia's innovation potential is probably greater than that of most countries at comparable levels of per capita GDP, given its large science base and human capital endowments. There is also considerable scope for innovation, in view of the need to modernise Russian industry and to make it cleaner and more energy-efficient. Yet there is a striking imbalance between the substantial public resources devoted to knowledge creation and the rather disappointing outputs in terms of innovation. Closing this gap is the first major challenge for Russian innovation policy. The second is to stimulate greater private-sector involvement in R&D.

A healthy, open business environment may be considered an essential precondition for any successful innovation policy. *In addition to macroeconomic stability and a generally sound contracting environment, policy-makers wishing to stimulate innovation should pay particular attention to reducing barriers to market entry, facilitating the diffusion of new technologies and know-how, and stimulating competition. Reforms to strengthen the financial system should also help foster innovation*: enterprise surveys consistently highlight the shortage of own funds and the cost of borrowing as major barriers to investment and innovation. The dearth of venture capital in Russia – a reflection of the overall under-development of financial markets – is part of the problem here.

The public science sector and the domestic IPR regime should be more responsive to business needs.

The government's emerging innovation strategy lays considerable stress on two key priorities: reforming the state science sector and strengthening the intellectual property rights (IPR) regime. These are the right priorities. The public science sector is large, fragmented and largely cut off from the enterprise sector. Its potential as an engine of knowledge creation is enormous, but realising that potential will require major reform. *Of cardinal importance will be steps to rationalise the organisational structure of the sector, reduce the number of direct recipients of budgetary R&D funds and shift to greater reliance on project-based rather than institutional financing of state-funded research. At the same time, it will be necessary to enhance both the independence and responsibility of managers of public R&D organisations and to broaden the opportunities and incentives for universities and institutes to pursue the commercialisation of the results of their research via the creation of technology transfer offices and/or spin-off companies.*

With respect to IPR, *there is a need to improve not only IPR protection but also the specification and allocation of IPR*. The recent liberalisation of the regime for assigning IPR to the results of publicly funded research is thus an important step forward. *It would also be desirable to increase the penalties for IPR violations and reduce the scope for relying on "copycat" patents. Increased judicial understanding of IPR issues will be important, especially in the regions.*

A more favourable tax regime for private-sector R&D could also help

Private-sector R&D is too low, and stimulating it must be regarded as a major priority. However, the effectiveness of fiscal incentives to promote R&D appears to be highly sensitive both to the institutional environment and to the specific design of the instruments themselves. They should therefore be approached with caution. That said, *it would be desirable in the Russian case to begin by reducing the fiscal disincentives to R&D, in particular by allowing accelerated amortisation of R&D expenditures for all firms*, not only those in special economic zones. Beyond that, it will be important to *ensure that fiscal incentives for private-sector R&D are relatively simple, universal, and neutral between sectors. Except in the cases of start-ups and small firms, such incentives should generally rely on tax breaks rather than subsidies, as empirical work suggests that the former are likely to be more efficient.*

More direct interventions should be carefully targeted and rigorously assessed

There may also be scope for targeted initiatives like the creation of special economic zones, technoparks and schemes to support innovative start-ups. *However, the government should proceed with caution inexpanding such programmes, especially before the results of early ventures are known.* The empirical evidence on the effectiveness of such measures is mixed, and there may be considerable value in the (positive and negative) learning yielded by pilot projects. *Regular, rigorous, monitoring and evaluation of these programmes are therefore critical, as are mechanisms for winding up programmes whose benefits do not justify the costs involved. Interventions should be targeted at specific innovation bottlenecks arising from market failures; they should maintain* ex ante *neutrality between sectors; and they should preserve risk-sharing with private investors and profit incentives for entrepreneurs. They should also be limited in both scope and duration, aiming to spur new activities, not to sustain old ones.*

Healthcare reform must be part of a larger effort to address Russia's health crisis

The deterioration in basic indicators of health and human welfare that began in the 1970s and accelerated in the 1990s has yet to be overcome. While some indicators suggest that the economic recovery and rising healthcare expenditure are having a positive impact on healthcare provision, the overall picture remains extremely grim: life expectancy at birth in 2004, at 65.3 years, was almost 5 years below its late-Soviet peak. It should be emphasised that this is a *health* crisis and not only a *healthcare* crisis: problems with access to quality healthcare are by no means the sole causes of very high rates of morbidity and mortality, which are largely a reflection of environmental degradation, poor living conditions and lifestyles, high levels of road deaths, and, increasingly, the spread of HIV-AIDS. Indeed, the success of healthcare reform will depend to a great extent on the success of policies aimed at tackling these larger problems. Nevertheless, healthcare reform must play a role in addressing this health crisis. It is clear that Russia needs. to spend more on healthcare than at present and that it needs. to spend more efficiently. Healthcare reform will be critical if planned increases in healthcare spending are to achieve the intended results.

The government has identified the main health-care reform priorities but much remains to be done

The Russian healthcare system today is the product of an unfinished reform. A number of early reforms were launched in 1991-93, but little was done in the decade that followed to bring them to completion, and many of the problems that afflict Russia's healthcare system today are a product of its half-reformed state. The government has recently been working to press ahead with healthcare reform, but progress has been slow and many of the measures required will meet considerable resistance from stakeholders. The major reform priorities include:

- Bringing formal commitments to the population into line with available resources. This will require both increased public healthcare spending and some revision of the package of medical services guaranteed to the population free of charge. *If package reform is to establish a real guarantee of care, the government will need not only to limit coverage to what is feasible but also to enable citizens to take action if the commitments in the revised package are not met. Regular, transparent review and revision of the guaranteed package will also be needed in order to take account of medical, technological and economic change.*
- Shifting the structure of provision away from over-reliance on specialist/hospital care and towards more integrated primary care. The current push to increase spending on primary care is welcome, but it is unlikely to achieve much unless the quantity, quality and reputation of primary-care providers improve. *There needs to be a long-term, coordinated effort to strengthen the training of primary care physicians and to provide them with practice settings which favour the provision of integrated primary care.*
- Adopting payment schemes that encourage cost-effective therapeutic choices. *There is a need to shift away from cost-reimbursement or capacity-based methods of paying hospitals in favour of more efficient methods, such as cost-and-volume contracts. Fundholding and other methods of remuneration for primary care providers should also be explored* in an effort to enhance their incentives to keep patients healthy or to treat them on an outpatient basis. *Incentives for uneconomic hospitalisation could be further reduced by eliminating the inpatient-outpatient distinction in determining eligibility for free medicines.*

The authorities need to complete the reform of the system of mandatory medical insurance

Russia's system of mandatory medical insurance (OMS) is intended to allow patients to benefit from competition among participating private insurers. However, there is little real competition among insurers, and creating such competition will require substantial up-front investment in rules, institutions and information. It will make significant demands on the state's still limited administrative and regulatory capacities – a fact which underscores the broader importance of reforming public administration – and it will require sustained high-level commitment. If competition turns out to be weak, the benefits may be correspondingly limited, and the costs may then outweigh the benefits. *It is critical, therefore, that the regulatory framework governing the activities of medical insurers in the OMS system be strengthened, imposing greater demands on insurers to play an active purchasing role, while simultaneously expanding their freedom to compete with one another. The authorities also need to develop mechanisms that will make it easier for individuals to assess the performance of*

medical insurers and to choose their own insurers. Given variations in regional conditions and in the administrative capacities of regional administrations, there is a good case for experimentation in different regions and a degree of regional differentiation with respect to OMS reform. Some regions may prefer to opt for a less complex, single-payer model, at least as an interim solution. In any case, steps to foster greater competition among healthcare providers *could increase the efficiency of resource use and the quality of care regardless of the specific model of financing adopted.*

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Chapter 1

Sustaining growth in the Russian Federation: key challenges

The Russian economy continues to grow strongly, buoyed by rising terms of trade, which, in turn, are supporting a boom in domestic consumption. This chapter analyses the main challenges involved in sustaining strong growth over the long term. It argues that growth since 1999 has been largely dependent on transitory factors and that the transition to self-sustaining, investment- and innovation-led growth will require both continued sound macroeconomic management and a range of structural reforms aimed at improving framework conditions for business. The chapter assesses recent macroeconomic and structural policy, and introduces the chapters that address the main challenges Russia faces with respect to macroeconomic management (Chapter 2), public administration reform (Chapter 3), innovation policy (Chapter 4) and healthcare reform (Chapter 5).

The overarching economic challenge facing the Russian Federation is to sustain long-run economic growth at rates high enough to permit relatively rapid convergence of Russian living standards towards those of developed OECD countries. While Russia has now been growing strongly for almost eight years, it is by no means clear that it will be able to maintain robust growth over the medium-to-long term. Growth over the last few years has largely been underpinned by transitory factors. "Cheap" opportunities to increase production by better utilising existing resources are becoming rare as capacity utilisation returns to normal, and the impact of the 1998 rouble devaluation has faded. Moreover, the expansionary effect of recent dramatic terms-of-trade improvements, which have fuelled consumption growth and provided ample room for fiscal expansion, will not persist indefinitely. The challenge confronting policy-makers, therefore, is to pursue the reforms needed to facilitate the transition into a period of sustained growth driven by investment and innovation.

This chapter begins with an analysis of recent economic performance, with a view to understanding its sources and the prospects for its continuation. It then assesses the main lines of economic policy during 2004-06 before turning to the major challenges ahead. While there is a need for structural reforms in a number of areas, including some sectors still struggling with distortions inherited from the Soviet past, this *Survey* will focus on a specific set of challenges related to the transition to self-sustaining investment- and innovation-driven growth:

- creating a macroeconomic policy framework to smooth the adjustment to a situation of sustained high oil prices;
- engineering a significant improvement in the quality of public administration;
- improving the environment for innovation; and
- further reforming the healthcare system.

These challenges are addressed in the remaining chapters of the *Survey*.

Strong growth driven largely by transitory factors

Economic performance has been impressive

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 1.1). The economy experienced a 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. Recent growth has largely been sustained by dramatic improvements in the terms of trade (+33% over 2004-05).

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

Table 1.1. **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	12.6
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	83.2
As a per cent of GDP	11.1	8.4	8.2	9.9	10.9
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.

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: command GDP = TDDV + XGSV*(PXGS/PMGS) – 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.[1] 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[2] 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.[3] The calculation of command GDP provides a stark illustration of just how staggering the positive terms-of-trade shock of the last few years has been (Table 1.2). 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.[4]

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).[5] 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. 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

Table 1.2. **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
of which:					
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
Terms of trade change, %	**–5.3**	**–1.7**	**7.2**	**14.8**	**15.9**
Real GDP growth, %	5.1	4.7	7.3	7.2	6.4
Command GDP growth, %	**3.1**	**4.1**	**9.9**	**12.3**	**12.0**

1. Moscow Narodny Bank (MNB).
Source: Federal Service for State Statistics, MNB.

from a historically low 42% in 1999 to almost 70% in 2005,[6] 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.

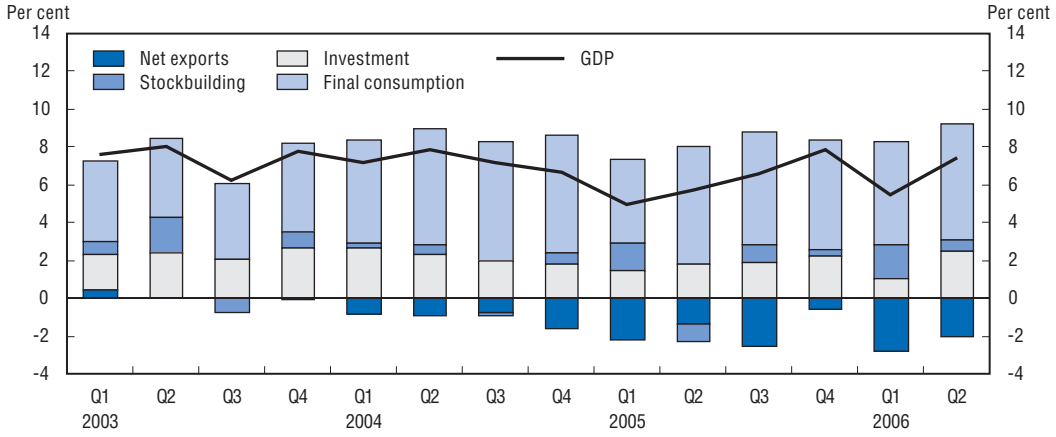
- The real effective exchange rate has gradually returned to its pre-crisis level, and most non-fuel, non-metal tradable sectors now have to cope with growing pressure from foreign competition. As a result, the contribution of net exports to GDP growth has turned increasingly negative since early 2004.
- 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 (Figure 1.A1.2). 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.[7]

Extraordinary terms-of-trade gains have fuelled domestic demand

On the demand side, domestic consumption has been the main driver of growth since 2000, but this trend has become much more pronounced since 2003 (Figure 1.1), as burgeoning commodity windfalls have fed into domestic demand. 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.[8] 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 consumption growing faster than incomes (Figure 1.2). The increase in credit outstanding to retail borrowers in 2005 was equivalent to almost 28% of the total increase in household consumption.[9]

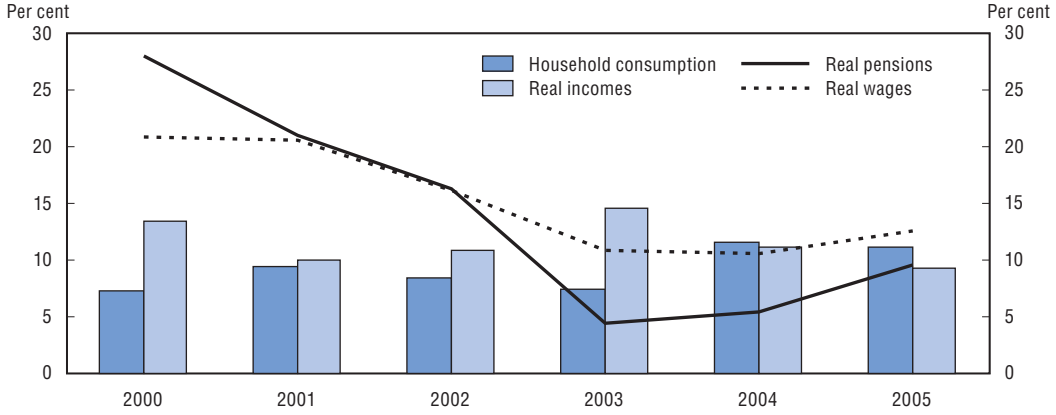
Strong growth, rapid wage increases and falling unemployment (from 10% in 2000 to 7.5% at end-2005) have contributed to a sharp reduction in poverty rates (Figure 1.A1.3). Measured as the share of the population earning less than the government-defined subsistence minimum,[10] the aggregate poverty rate fell from 30% in 2000 to 18% in 2004.[11] A substantial improvement in the welfare of the most vulnerable categories of the population has been observed in the vast majority of Russian regions.[12] Using data on poverty and growth rates across regions, it is possible to estimate the elasticity of poverty to variations in regional growth rates: over the period 2000-03, a one-percentage-point

Figure 1.1. **Contributions to GDP growth**
As a percentage of GDP in same period of previous year



Source: Federal Service for State Statistics, OECD calculations.

Figure 1.2. **Income, consumption and wages**
Annual percentage change



Source: Federal Service for State Statistics, OECD calculations.

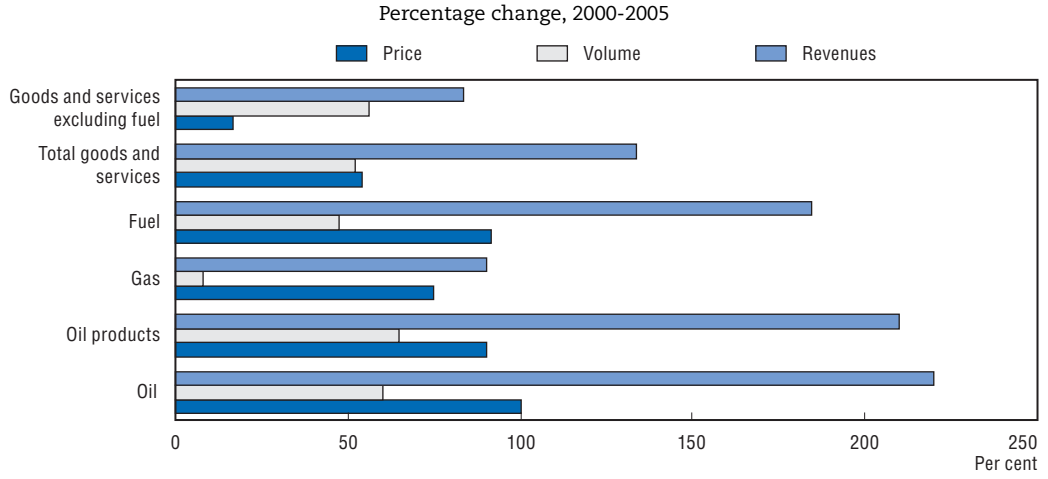
increase in the real rate of growth of gross regional product led to a fall in the regional poverty rate of approximately 0.3 percentage point. This calculation does not, however, take into account the simultaneous increase in inequality – measured by either the Gini coefficient or the decile ratio.[13] The partial elasticity of poverty with respect to growth at constant income distribution would actually be higher.[14] It is also necessary to take into account the potential impact of redistribution across regions. World Bank (2005a) points out that public transfers, along with growth and rising wages, played a key role in reducing poverty in the period 1999-2003.[15] Using data on real incomes rather than gross regional product[16] yields a much higher elasticity of regional poverty rates (approximately –0.7%; Figure 1.A1.4).

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[17] and a high elasticity of imports to domestic demand.[18] 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.[19] 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).[20]

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 (Figure 1.A1.5). Analyses of Russia's revealed comparative advantages (RCA) at a more disaggregated level show that, apart from hydrocarbons and metals, Russia enjoys small RCAs in only a limited number of sectors (power machines, wood, and fertilisers). On the other hand, it has strong comparative disadvantages in investment goods other than power machines, and in electronic consumer goods, autos and pharmaceuticals (OECD 2004a, Cooper, 2006). 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 1.3).[21]

Figure 1.3. **Increase of export revenues by commodities**



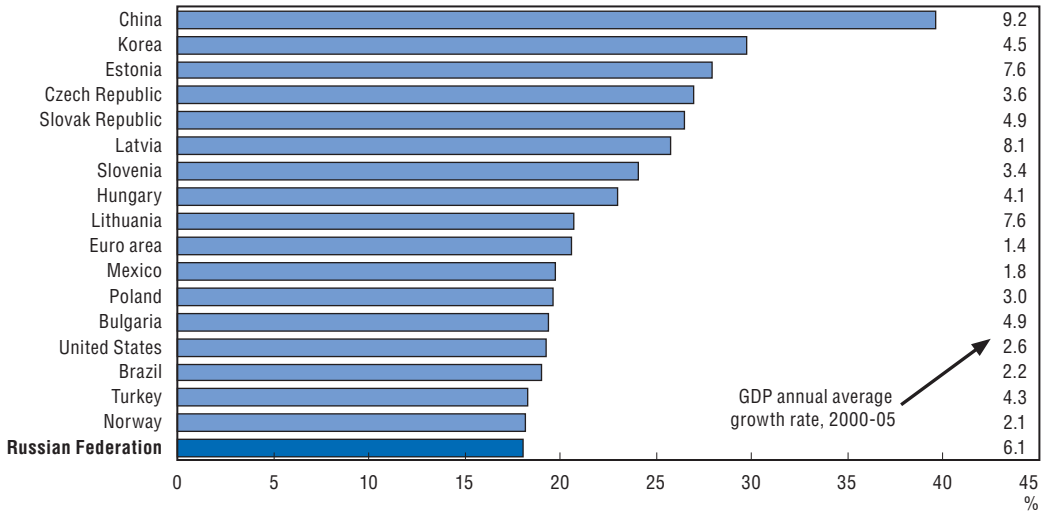
Source: Central Bank of Russia, Federal Service for State Statistics and OECD calculations.

Investment is growing strongly but investment levels remain rather low relative to GDP

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.[22] The investment rate, however, is still only about 18% of GDP.[23] This is far below the investment rates observed in other catching-up economies, in particular the faster-growing ones (Figure 1.4). 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,

Figure 1.4. **Gross fixed capital formation**

As a percentage of GDP, average 2000-05



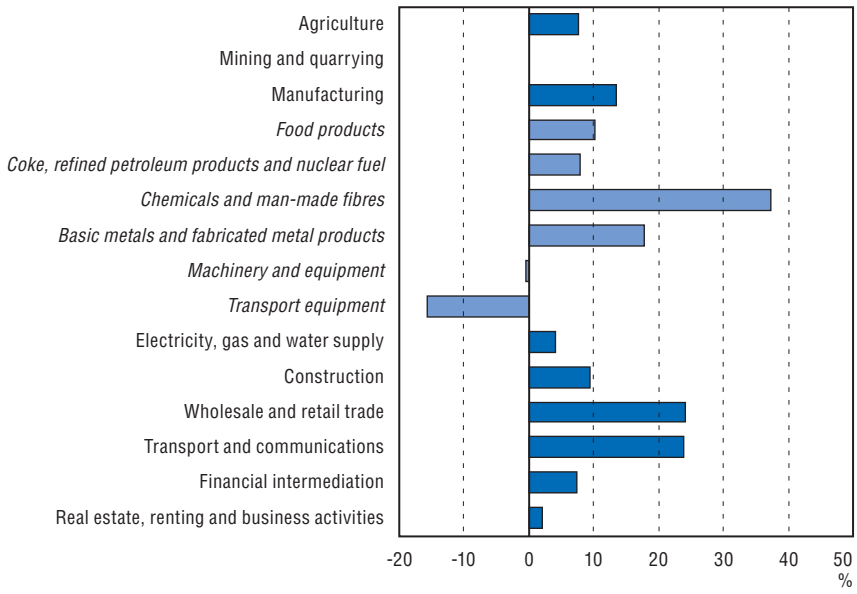
Source: IMF, Eurostat, OECD Economic Outlook 79 database and Federal Service for State Statistics.

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.

A detailed analysis of fixed capital formation reveals a high degree of variation across sectors (Figure 1.5). In 2005, the aggregate figure was strongly affected by the stagnation of investment in resource extraction and the major utilities sectors, largely for the reasons discussed below. 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.

Foreign investment has accelerated markedly since 2004. Foreign direct investment (FDI) inflows reached almost 3% of GDP in 2005, as against an average of around 1%

Figure 1.5. **Investment growth**
Annual percentage change, 2005



Source: Federal Service for State Statistics.

in 2000-03.[24] FDI remains very much concentrated in oil, metallurgy and trade. It still plays a marginal role in manufacturing, where it might be expected to have the greatest impact on growth (see Alfaro, 2003; and Sgard, 2001).[25] This expectation would appear to be confirmed in the Russian case by the performance of the automobile sector, where output growth is now increasingly driven by foreign producers operating in Russia.[26] The share of FDI in Russia's gross capital formation, at around 12% in 2005, is also much lower than in many emerging economies (OECD, 2006). In this context it is highly regrettable that the most prominent FDI-related issue on the Russian policy agenda since early 2005 has concerned legislation restricting foreign investment in "strategic" sectors. To be sure, such restrictions are to be found the world over, and they already exist in Russia – in some cases *de jure* (see OECD 2005a:65-7) and in others merely *de facto*. Other things being equal, clearly defined and consistently applied formal limits on foreign participation would certainly be preferable to ill-defined and arbitrarily applied informal ones, so new legislation might actually improve the investment climate, if the restrictions were not too severe. However, it cannot be taken for granted that whatever restrictions may be enacted will be clear or stable, let alone consistently applied.[27] The greater the discretion the legislation leaves to bureaucrats and politicians, the more problematic it will be.

Non-tradable sectors are increasingly driving growth

On the supply side, growth has increasingly been driven by non-tradables since 2003, a tendency that was particularly pronounced in 2005 (Table 1.3). 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,[28] but adjusting sectoral weights to take account of transfer pricing would not change the picture much with respect to the sources of growth.[29] The extraction sector has clearly lost momentum in volume terms,

Table 1.3. **Contributions to value-added growth**

Percentage change

	2003	2004	2005	H1 06/H1 05
Gross value added at basic prices	**7.4**	**6.9**	**6.2**	**6.4**
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

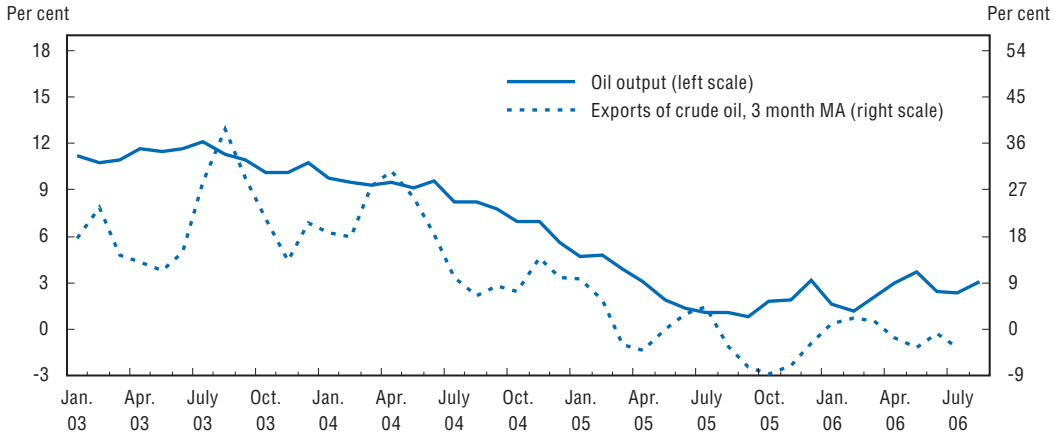
Source: Federal Service for State Statistics, OECD calculations.

while manufacturing has struggled to cope with rising cost pressures. In 2005, production growth 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.[30] 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.[31]

Given its importance in driving growth during 2000-04, the oil sector merits separate consideration. The slowdown in the growth of oil output and exports was fairly dramatic: oil production rose just 2.2% in 2005,[32] as compared with an average of 8.5% over 2000-04 (Figure 1.6).[33] Crude oil exports actually fell by 2%, although this was partly offset by a 17.4% rise in exports of refined products. Three major factors combined to bring about this sharp deceleration: tax changes, tightening infrastructure constraints and the Yukos case.[34] On its own, the increasing tax burden on the oil sector was neither unwarranted nor bound to choke off growth.[35] Some recent changes in the taxation of the oil sector are welcome – they make the tax system much more progressive with respect to the oil price – and much of the increase in the industry's tax burden was in any case a mechanical result of price increases, since the state captures more of the rent at high prices. However, the

Figure 1.6. **Crude oil output and exports, 2003-06**

Growth, year-on-year



Source: Federal Service for State Statistics and OECD calculations.

increased tax burden on the sector reduced oil producers' returns even as infrastructure constraints were pushing up the cost of exports and the Yukos case was raising questions about the security of property rights and also prompting more aggressive behaviour on the part of tax inspectors and regulators.

The Yukos case triggered a sharp slowdown in upstream capital expenditure by Russian oil companies.[36] Since most oil-sector investment in Russia is aimed at increasing 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. That the Yukos affair (including its impact on Sibneft) was the major reason for the slowdown is also suggested by the production data for 2005: crude oil output ex-Yukos, -Yuganskneftegaz and -Sibneft was up a respectable 6.3%.[37] This suggests that the oil-sector slowdown of 2004-05 was policy-driven and 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. While the authorities have recently adopted a number of changes to the system of oil-sector taxation that should make such investment more attractive, the current subsoil regime creates numerous disincentives to investment and leaves much discretionary power in the hands of officials. Yet the reform of the framework law on the subsoil has stalled, raising questions about whether and when the existing legal framework will be replaced by a regime providing greater predictability and security for investors.[38] Moreover, the administration of the current regulations often appears to be highly arbitrary, as has been seen in the recent conflicts between regulatory bodies and the foreign investors involved in Russia's three functioning Production-Sharing Agreements.

A mixed economic policy record

Macroeconomic management has remained prudent…

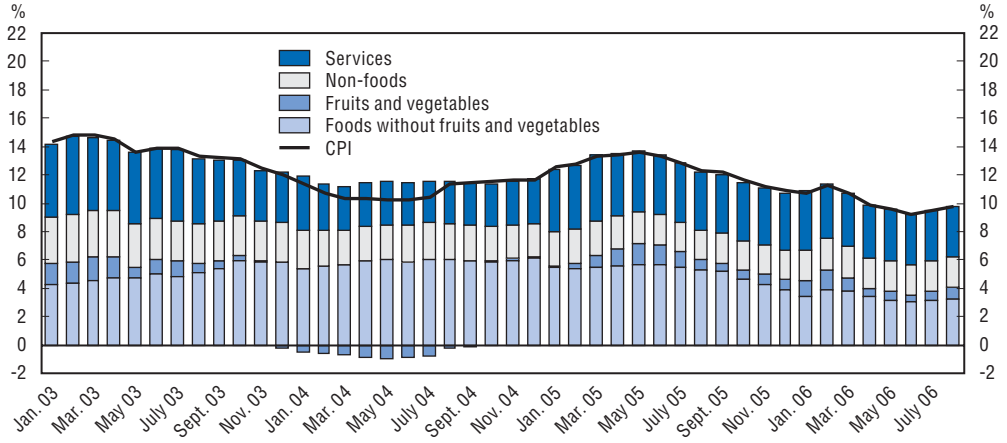
The authorities have done a fairly good job at maintaining macroeconomic – particularly fiscal – discipline, and the monetary authorities have made some progress in keeping inflation on a downward path while smoothing exchange-rate appreciation. The budget surplus has continued to grow rapidly, reaching 7.7% of GDP for the consolidated budget in 2005. The creation of the Stabilisation Fund in 2004 has helped to reinforce fiscal prudence.[39] However, although the scale of fiscal sterilisation *via* the Fund has increased dramatically since it was created, it has failed to keep pace with the flood of windfall revenues into the country. As a result, the non-oil fiscal balance deteriorated in 2005, due mainly to a cut in social taxes and increases in public-sector wages and pensions. While such fiscal easing may be warranted if based on a well-founded revision of the government's assessment of the long-run average price of oil, the magnitude of the fiscal impulse was significant and clearly pro-cyclical in 2005 – approximately 2% of GDP – with some further relaxation occurring in 2006 (see Chapter 2). Nevertheless, spending has remained under control: both federal and consolidated budget expenditures have fallen relative to GDP since 2002. On the whole, Russia has so far done well in resisting the temptation to use windfall revenues to go on a spending spree.

Faced with a strong balance of payments and massive foreign exchange inflows, the Central Bank of Russia (CBR) has struggled to reduce inflation 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. *De facto*, monetary policy revolves around managing the nominal exchange rate *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. 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 (Figure 1.7), 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.

Figure 1.7. **Contributions to CPI inflation**

Year-on-year growth rate



Source: Federal Service for State Statistics, Economic Expert Group calculations, OECD calculations.

... but the pace of structural reform has slowed markedly

Yet while macroeconomic management has generally remained prudent, structural policy in many spheres has been characterised by drift. There is something of a paradox with respect to Russia's recent reform record. OECD (2004a:67) observes that the government managed to press ahead with a number of structural reforms through the 2003-04 electoral cycle, despite the opposition of powerful vested interests. Yet the post-election period, during which many observers had expected to see a sharp acceleration of reform, witnessed instead a marked slowdown in progress and, in some areas, movement away from the programme of liberal reforms to which the government had been committed since 2000. The government's inability to approve a medium-term economic strategy for over a year was symptomatic of this loss of direction, although the ambitious and wide-ranging agenda set out in the programme finally adopted in late 2005 is to be welcomed. In general, the implementation of reforms legislated during 2002-03 has continued, albeit at uneven rates, but little has been done to advance the remaining major items on the government's structural reform agenda.

A number of factors appear to have contributed to the loss of momentum in early 2004. Perhaps the most immediate was the extensive reorganisation of federal executive bodies in the spring of that year, which disrupted the work of the government during 2004 and even into 2005 (see Chapter 3). Secondly, the one major new reform undertaken in 2004-05 – the conversion into cash payments of the in-kind prescription drug and public transport benefits previously granted to large segments of the population – triggered a wave of social protest that compelled the authorities to modify the reform substantially just weeks after it was introduced.[40] In many regions, it was not fully implemented. The "monetisation" protests seem to have made the authorities wary of attempting other reforms in socially sensitive spheres. They appear in particular to have put an end to plans to address the much larger issue of in-kind benefits in housing and municipal utilities during 2006-07,[41] which is an important precondition to reform of the troubled municipal utilities sector. Thirdly, continued improvements in the terms of trade and strong growth may to some extent have reduced the sense of urgency about structural reform. Finally, 2005 witnessed a marked shift in the government's priorities towards increased spending on infrastructure and various social policy objectives, particularly within the framework of the four "priority national projects" launched in 2006, and the operation of the new Investment Fund created in the 2006 budget (see below). Of course, there is no logical contradiction between market-oriented structural reforms and greater investment in infrastructure and the social sphere, but the shift in focus does imply some reduction in emphasis on the former, if only because the government can only do so many things at once.

It would, of course, be both inaccurate and unfair to suggest that 2004 and 2005 saw no progress on structural reform. On the whole, however, the greatest progress was made with respect to reforms already set in train by early 2004. Legislative activity since then has been limited. Thus, many of the reforms to fiscal institutions described in OECD (2004:37-8) have been implemented, including the abolition of unfunded mandates, the clarification of the fiscal responsibilities and prerogatives of different levels of government, and the transition to medium-term budgeting at federal level. The CBR has likewise made considerable headway in implementing the banking reforms initiated in 2003-04, but the legislative changes needed to address such issues as secured lending, mergers and acquisitions, and the creation of genuine term deposits[42] have not been forthcoming, nor has anything been done to address the dominant position of state-owned banks in the sector. Power-sector reform presents a similar picture: the restructuring of the electricity monopoly RAO UES is now well under way, but 2004-05 saw little progress with respect to the government's extensive legislative agenda for electricity reform.[43] Given the increasingly urgent need for investment in the power sector, this lack of progress reinforced concerns about prospects for electricity supply in many regions.[44] The prolonged period of government inaction, combined with some rather equivocal official statements on the subject, led to considerable uncertainty about the authorities' commitment to the reform until the cabinet signalled a renewed commitment to power-sector reform in December 2005. At that time, the government clarified somewhat its plans for gradually opening up generation markets and allowing equity offerings by generating companies. (See Annex 1.A2 for an overview of progress with respect to these and other structural reform issues.)

The failure to press ahead with the structural reform agenda outlined in 2000 represents an important opportunity foregone.[45] Gas-sector reform has stalled completely, although mounting concerns about the sustainability of gas production are prompting renewed attention to the issue.[46] Continued failure to reform the gas industry complicates the outlook for reform of the power and utilities sectors.[47] Agriculture is yet another field in which market-oriented reforms could do much to stimulate more efficient allocation of resources. The sector continues to be hampered by the lack of a functioning land market and by the arrangements that currently exist for leasing equipment. There is also a need to rationalise state support for the sector. (See Annex 1.A3 for details.)

Recent policy changes point to a more active role for the state in the economy

While marketising reforms have been de-emphasised somewhat, the government has undertaken a number of initiatives since 2004 that are aimed at defining a rather more active direct role for the state in the economic life of the country and for creating new mechanisms of interaction between business and the state. Three major initiatives stand out: the "priority national projects" in healthcare, education, housing and agriculture; the creation of the Investment Fund (Box 1.1); and the implementation of the 2005 law "On special economic zones in the Russian Federation".[48]

Box 1.1. **The Investment Fund**

The Investment Fund created in the 2006 budget is intended to provide public finance for joint public-private investment projects that will stimulate socioeconomic development by creating needed infrastructure of national significance, contributing to the development of the national innovation system or facilitating institutional change. The rules governing the fund stipulate that applicants proposing projects must demonstrate that they are profitable, that the tax revenue they generate will exceed the level of budgetary support they receive, that they will contribute to raising potential output (*e.g.* by resolving significant infrastructure constraints or stimulating innovation) and that they could not be undertaken without state support (*e.g.* because the public returns exceed the private ones or because the scale/risk involved make them unappealing to private investors on their own). This last criterion is crucial to ensuring that the fund does not merely become a mechanism for subsidising, or crowding out, private investment that would take place anyway: it should, on the contrary, be a vehicle for "crowding in" investment that is economically warranted but that would not take place without state participation.

Before a proposal is submitted to the authorities, it must be evaluated and given a positive assessment by an investment consultant approved by the government; under the rules now in force, only a handful of foreign investment banks are eligible to play this role. Applicants then submit their proposals to the appropriate line ministry or department. If that body gives its initial approval, the proposal is considered by a commission attached to the Ministry of Economic Development and Trade (MERT), which includes representatives of all the ministries and other state bodies concerned. The final selection is made from among the proposals passed by the MERT commission to a government commission chaired by the Minister of Economic Development and Trade. If a project is approved, the state's involvement can take the form of co-financing on a contractual basis, credit guarantees or equity participation. In any case, the project must involve at least RUB 5bn in investment, and private investors must provide a *minimum* of 25% of the capital to be invested.

The priority projects outlined in the late summer of 2005 are being implemented during 2006-07. They provide substantial new resources to address chronic weaknesses in parts of the public sector that have long suffered from under-funding and neglect by policy-makers (Table 1.4). The aim is to target the spending in such a way as to achieve palpable improvements in facilities, services and living standards within a relatively short time.

- The *health* project, which accounts for well over half the spending on priority projects, aims chiefly to strengthen primary care and to increase the availability of high-tech medical procedures.[49]
- The *education* project focuses on subsidies to assist the development of innovative educational establishments, bonuses for outstanding teachers, and grants for exceptionally gifted students. It also sets aside funds for expanding information technology (IT) provision in schools and developing new national universities and business schools.
- The *housing* project provides for credit guarantees and interest-rate subsidies in an effort to accelerate the growth of housing construction and offers assistance to families purchasing housing *via* subsidised mortgages, loan guarantees and the development of mortgage insurance. It also allocates funds for the development of public refinancing of mortgages in an effort to stimulate the development of the mortgage market.
- The *agriculture* project is chiefly oriented to stimulating the ailing livestock sector, promoting the development of small farms and checking the exodus of better qualified young people from rural areas by helping to provide adequate housing for them (see Annex 1.A3).

In health and education, the bulk of spending is on wages and salaries of budget-sector workers in those spheres, who have long been among the worst-paid professionals in Russia. Most of the spending on agriculture takes the form of subsidies (usually subsidised credits).

The renewed attention to the four sectors covered by the projects is likely to have some positive impact on aggregate welfare. That said, there remain a number of concerns about the design of the projects. Spending increases in many cases are not linked to reforms aimed at addressing the underlying structural weaknesses of the sectors affected. There is also a risk of substantial waste and corruption in the management of those elements of the projects that involve public procurement and the allocation of guarantees and subsidies. The formation of a Council on the Implementation of National Priority

Table 1.4. **Planned budgetary expenditure for Priority National Projects**

	2006		2007	
	RUB bn	% of GDP	RUB bn	% of GDP
Health	88.4	0.34	120.5	0.40
Education	25.3	0.10	31.2	0.10
Housing	35.4	0.14	46.2	0.16
Government guarantees	*26.5*	0.10	*33.5*	0.11
Agriculture	16.2	0.06	18.7	0.06
Total (excluding guarantees)	**191.8**	0.75	**216.6**	0.73

Source: RF Government, OECD calculations.

Projects chaired by the President of the Russian Federation reflects the importance the authorities attach to these projects and will, it is hoped, reinforce the incentives to monitor the projects closely.

The second major government initiative is the creation of an Investment Fund in the federal budget. The aim of the fund is to finance infrastructure investment and innovation-related projects in joint public-private partnerships (PPPs).[50] The sums involved are relatively small – around 0.26% of projected GDP for 2006 and 0.34% in 2007. Yet the fund should be seen as a capacity-building exercise. There is clearly a need for investment in basic infrastructure, in particular, but the inefficiency, corruption and lack of coordination that characterise Russian public administration mean that the efficiency of public investment is generally very low. The framework created for the Investment Fund is meant to overcome this and to provide a mechanism whereby large-scale public investment projects can take place in a transparent, efficient manner. Projects financed by the fund are to be selected *via* a multi-stage process (Box 1.1) and they must involve some private investment. The adoption of the long-awaited law "On concession agreements" in 2005 has provided new legal structures for the organisation of PPPs.[51]

The initial significance of the Investment Fund, therefore, may depend less on the economic impact of a modest increase in public investment than on whether or not the fund really does prove itself a successful model of how to select and execute public investment projects and PPPs in an efficient and transparent manner. A great deal will depend on the establishment of an appropriate legal framework[52] and the success with which the authorities ensure that the selection of projects is – and is seen to be – rational, rigorous, transparent and fair to all applicants. Good cost-benefit analysis could certainly help in this respect. The Investment Fund, like the priority national projects, is a high-profile initiative that enjoys visible, top-level support, a fact which may well mean that it is subject to closer scrutiny than many other spending programmes.

The third initiative, the creation of special economic zones, is a key element of the government's strategy to foster economic diversification and innovation (Box 1.2). Russia's experience with "special zones" has generally been an unhappy one – the zones created in the 1990s failed to generate much new investment but they cost the budget dearly and facilitated corrupt business practices. It is therefore important to underline the extent to which the 2005 law differs from previous initiatives.[53] First, the law abolishes previous special zones.[54] This must be counted as a step forward in and of itself. Secondly, the law provides a uniform procedure for the creation of special zones – the kind of opaque bilateral deals that were negotiated in the 1990s are excluded – and the rights and privileges of residents of special zones are fixed in law. Thirdly, the procedure for establishing zones is competitive and requires lower-level governments wishing to create such zones to make significant commitments of their own; they can no longer use special zones simply to extract resources from the federal budget.

It is important to note that the new law eschews the emphasis on regional development of previous such initiatives. While this means that the law is unlikely to reduce inter-regional disparities – and may even reinforce them – it also changes regional administrations' incentives. A competitive process that rewards successful regions for well designed projects should prompt other regions to try to emulate the winners. The federal resources associated with the creation of zones should thus reward good regional governance rather than poor regional economic performance. This may tend to limit the

Box 1.2. **The law on Special Economic Zones**

The 2005 federal law on Special Economic Zones (SEZs) provides for two categories of SEZ, which can be established on publicly owned land for a maximum period of 20 years:* industrial production zones and technical innovation zones. Technical innovation zones form a part of the government's innovation strategy and are discussed in detail in Chapter 4. Industrial production zones, which aim to stimulate high value-added manufacturing, can occupy up to 20 km^2 and must involve a minimum of € 10 million in greenfield investment (€ 1 million in the first year) in activities other than metallurgy or natural resource extraction and processing. Residents of industrial production zones are eligible for various tax incentives, including exemption from regional property and land taxes for the first five years, accelerated depreciation of capital investments, greater freedom to transfer their losses to following years and the opportunity to include R&D spending in current expenditures. In addition, zone residents will benefit from customs privileges, including exemption from customs duties and VAT on imports and from excise duties on Russian goods. Exports from the zones will not be subject to customs duties, VAT or excise taxes. Registration procedures for firms in special zones are to be simplified under a "one window" arrangement, and the number of tax inspections to which they may be subject is to be reduced. The state will also finance the creation of the zones' infrastructure.

* The law was amended in 2006 to allow for the creation of tourist-recreation zones as well.

"additionality" of the SEZs: zones are likely to be awarded to regions that are already relatively successful. If the implementing regulations are applied in a transparent, non-discriminatory manner, they may enable successful regions to stimulate some additional investment, but they are very unlikely to transform regional investment climates. It is also important that, within the very broad terms set out in the law, the selection processes for choosing zones should be neutral as between sectors: regions with different comparative advantages should compete on an equal footing.

The emphasis on PPPs and SEZs reflects a vision of the state-business relationship that sees the state as more than a neutral arbiter or provider of public goods: the state is to play an active, direct role in economic development, investing and intervening on its own and in partnership with business. However, state intervention in the economy has been pervasive throughout the transition and has hitherto achieved unimpressive results: a recent enterprise survey conducted under the auspices of the State University – Higher School of Economics found that one-quarter of the firms surveyed had received state support in 2004, in the context of programmes to promote exports, innovation or investment. Yet managers' assessments of the impact of state bodies' activities was overwhelmingly negative.[55] The projects launched in 2005-06 are thus intended in part to change this, by devising mechanisms that permit efficient, targeted action by the authorities. However, they are no substitute for further structural reform – on the contrary, the SEZ law, in particular, highlights the need for it. Much of the benefit of residency in a special zone consists in the opportunity to escape the bureaucratic and other barriers to investment that affect the economy as a whole. Similarly, the enthusiasm for PPPs stems in part from the need to reduce the high levels of risk involved in any long-term undertaking in Russia. Clearly, the long-term solutions to these problems lie in improving institutions and framework conditions for business.

The expansion of state ownership is disturbing

The state's evolving economic role is not limited to the kind of renewed activism described above. Perhaps the most disturbing recent policy trend has been the on-going drive to expand the direct role of the state in "strategic" sectors such as power-generation equipment, aviation, oil and finance. Increasingly, policy seems to have been focused not on market reforms but on tightening the state's grip on the "commanding heights" of the economy. This bodes ill for Russia's growth prospects: a large body of research confirms that privately owned companies generally perform better than state-owned firms or those in mixed ownership, especially in sectors characterised by robust competition, and Russia is highly unlikely to prove an exception to this rule.[56] Indeed, the Russian state's track record when it comes to owning and operating businesses is very poor, not least because the contradictions and delays that afflict government decision-making processes in most spheres of policy also come to affect the corporate decision-making of the companies it controls.

The legal and political onslaught against the oil company Yukos has, of course, been the most visible and controversial sign of the shift towards greater state control. This is not the place for a detailed analysis of the Yukos case,[57] but no assessment of Russian economic performance over the recent past can overlook the damage wrought by the affair. To the extent that at least one apparent aim of the campaign against Yukos was to engineer a change in ownership, the attack on the company increased uncertainty about the security of property rights and thus created further disincentives to long-term investment.[58] Moreover, the case highlighted larger institutional weaknesses that are deep-rooted and affect even companies that face no risk of expropriation: the rule of law is still weak, and the scope for arbitrary official behaviour is great. Indeed, high-level pressure on Yukos appeared for a time to signal to the bureaucracy that it should adopt a more aggressive stance *vis-à-vis* business. While no other company found itself under the kind of pressure brought to bear on Yukos, late 2003 and 2004 saw many businesses under mounting official pressure: oil and telecoms companies were threatened with the loss of their licences, attempts were made to revive investigations into past privatisation deals and corporate restructurings, and the tax inspectorate became increasingly aggressive, in many cases reopening accounts for past years and revising its interpretation of particular regulations.

Nevertheless, although the short-term costs were substantial, the Yukos case need not do lasting harm to Russian performance. The government has been working to re-establish a degree of trust between business and the state. Legislation reducing the statute of limitations applied to privatisation deals from ten years to three should help make property rights more secure, and the government continues to work on measures to reduce the scope for arbitrary or abusive action by the tax inspectorate. However, progress has been slow, particularly with respect to tax administration, and there appears to be considerable resistance within the state administration to measures that might curb tax inspectors' powers or freedom of action.

Of far greater concern than the immediate impact of the Yukos affair on Russian growth is the broader trend towards greater state ownership and control that it exemplifies. There is no sign that this is being reversed. The expropriation of Yukos subsidiary Yuganskneftegaz in a court-ordered auction to settle tax debts in December 2004 was merely the most visible instance of a broader trend towards asset

acquisition by the state itself and/or state-controlled companies, particularly Rosneft and Gazprom (Table 1.5).[59] While individual acquisitions have often been explained as "one-off" events dictated by the specific circumstances of a particular company or sector, the trend is now unmistakable and the overall scale of the expansion has been remarkable. According to one recent estimate, the state-owned share of Russia's equity market capitalisation rose from just 20% in mid-2003 to 30% in early 2006.[60] In 2003, state-controlled companies accounted for about 16.0% of crude production. By end-2005, that figure had reached 33.5%. On the assumption that just half of Yukos's remaining production assets end up in state ownership, it will approach 40%.[61] In many cases, moreover, state companies engaged in mergers and acquisitions (M&A) activity appear to

Table 1.5. **Major state acquisitions, 2004-06**

Company	Sector	Date	Mechanism
Guta Bank	Banking	August 2004	State-owned bank Vneshtorgbank purchases 85.8% stake with central bank support.
Mosenergo	Electric power	Summer-Autumn 2004	Gazprom raises its stake above "blocking" (25% + 1) level.
Promstroibank St Petersburg	Banking	September 2004	Vneshtorgbank purchases a blocking (25% + 1 share) stake.
Atomstroieksport	Nuclear construction	October 2004	Gazprom-controlled Gazprombank purchases 54% stake.
RAO UES	Electric power	Autumn 2004	Gazprom raises its stake to 10.5%
Tuapse oil refinery	Oil refining	December 2004	Rosneft purchases 40% from minority shareholders to take full control of the refinery.
Yuganskneftegaz	Oil and gas	December 2004	Rosneft purchases 76.8% stake from the firm OOO "Baikalfinansgrupp", the winner of a state-organised auction of Yuganskneftegaz shares to settle tax debts.
Tambeyneftegaz	Oil and gas	May 2005	Gazprombank purchases a 25% stake from Novatek.
Northgas	Oil and gas	June 2005	Gazprom regains control of independent gas producer Northgas, taking over a 51% stake following litigation.
Izvestiya (daily newspaper), *Chas pik* (weekly newspaper)	Media	June-September 2005	Gazprom-Media purchases control.
Gazprom	Oil and gas	July 2005	State-owned Rosneftegaz purchases 10.7% of Gazprom to raise state's direct stake in Gazprom above 50%.
Selkupneftegaz	Oil and gas	July 2005	Rosneft purchases 34% stake from independent gas producer Novatek.
Sibneft	Oil and gas	October 2005	State-owned gas monopoly OAO Gazprom buys 69.66% stake for $13.1 bn.
Verkhnechonskneftegaz	Oil and gas	October 2005	Rosneft purchases 25.9% stake from Interros Holding.
AvtoVAZ	Autos	October 2005	State arms export concern Rosoboroneksport takes control over 62% and installs new management.
OMZ	Machine-building	November 2005	Gazprom-controlled Gazprombank purchases a 75% stake.
Ulan Ude Aviation Plant, Moscow Helicopter Plant, Kazan Helicopter Plant, Kamov Holding, Rosvertol, Moscow Machine-building Plant "Vpered", OAO "SMPP"	Aviation	2005	State-owned defence company Oboronprom takes control of these enterprises in the course of forming a single, state-controlled helicopter holding via the consolidation of shares already held by the state, purchase of additional shares and share swaps.
(*Silovye mashiny*) Power Machines	Machine-building	December 2005	Electricity monopoly RAO UES purchases 22.4% stake, raising its stake above 25%, and acquires voting rights to another 30.4% until end-2007.
Udmurtneft	Oil	June 2006	Rosneft acquires a 51% stake from Sinopec after the latter buys 96.7% from TNK-BP for an estimated $3.5 bn.
Sibneftegaz	Gas	June 2006	Gazprombank purchases a 51% stake from Itera.
Novatek	Gas	June-July 2006	Gazprom purchases a 19.9% stake for a sum reportedly exceeding $2 bn.
VSMPO-Avisma	Titanium	September 2006	State arms export concern Rosoboroneksport purchases 41% stake for an undisclosed sum.

Note: The table excludes acquisition of foreign assets by state-owned companies.
Source: OECD from various sources.

to be pursuing their own ends, even where these contravene government policy, and they are able use political, legal and regulatory pressure to enhance their bargaining power.

While a great many factors seem to have contributed to the expansion of state ownership in recent years, the explanation would appear to stem in part from the combination of highly concentrated ownership and a weak state. Russia's industrial structure is heavily tilted towards capital-intensive sectors with relatively high barriers to entry and exit, and a high degree of asset specificity – particularly resource-extraction sectors. Given such an industrial structure, Russia would probably have a fairly high concentration of ownership of industrial assets in any circumstances, but this concentration is even greater as a result of the flawed privatisation processes of the 1990s. The state thus finds itself faced with the need to govern an economy dominated by a small number of relatively large companies. Yet both the legal order in Russia and the state's administrative and regulatory capacities were and are weak. As Chaudhry (1993) and others have observed, a weak state may find it extremely difficult to manage relations with (and conflicts among) large, powerful private companies. It will be tempted to rely on direct control rather than contract, regulation and taxation. In the case of Russia, these incentives are probably all the greater precisely because, whatever its other weaknesses, the Russian state possesses very substantial coercive capacities, capacities that are arguably out of all proportion to any of its other capabilities. Nor is nationalisation the only purpose for which they are used: it is often a matter of private companies "voluntarily" undertaking social projects or infrastructure investment at the behest of the authorities,[62] or seeking informal approval of mergers, acquisitions and other major transactions in which the state is not a party at all. In some respects, such informal interference in commerce is worse than more formal interventions, as it involves less accountability and less transparency.

Ironically, the same institutional weaknesses that generate incentives to rely on direct control also undermine the state's ability to manage state-owned companies well. In weak institutional environments, the creation of large state companies is likely to be associated with high levels of opacity, corruption and rent-seeking by insiders, who will be tempted to run the companies for their own benefit and will face strong incentives to resist increased transparency and accountability. At issue, then, is not merely the question of state versus private ownership in general but the capacity of the state to efficiently manage large companies in technically complex sectors. The country's existing large state-owned companies are hardly models of good corporate governance,[63] and their performance suggests that expanded state ownership will result in poorer performance by the companies affected. The state tends to interfere in the day-to-day operations of the companies it owns (including those with substantial private shareholdings), often in a manner that confuses the state's ownership functions with its other functions, such as regulation or industrial policy. The boards of state-owned companies are often dominated by state representatives who have little competence in business-related matters, making effective oversight of management even more difficult, while the fact that state representatives on company boards are given voting instructions by the state contradicts their legal duty to act in the interests of all shareholders. Finally, it is important to recognise that the state's interference in company affairs frequently serves to distort markets and to create perverse incentives even for private companies operating in sectors dominated by state concerns.

To judge from public statements and official programmes, the authorities are aware of the risks which come with greater state involvement in business: Russia remains committed, in principle, at least, to a private property-based economy, and leading officials have explicitly rejected "state capitalism" as a model for Russia. Moreover, the growth of the state sector has coincided with efforts to improve the investment climate and with further progress in reducing the "bureaucratic burden" on small and medium enterprises, in particular.[64] Yet the gap between rhetoric and action remains. State actions often contradict declared reform goals, and there does appear to be a constituency favouring a rather more *étatiste* and interventionist model.[65] While such an approach might have its attractions, it would not help over the long term. Russia certainly needs. a strong state commitment to, and involvement in, its long-term economic strategy, but this involvement should not take the form of a "hands-on" approach relying on direct control over assets and intervention in markets.

The challenges ahead: sound macro policy and maintaining high growth potential

Lasting increases in Russia's growth potential will require comprehensive reform

Recent Russian economic performance corresponds closely to the notion of a "growth acceleration", as defined by Hausmann *et al.* (2004). This points to both opportunities and risks for Russia. Hausmann and his colleagues find that most periods of accelerated growth are not sustained over the long term. In particular, they observe that external shocks tend to produce growth accelerations that fizzle out after around 7-8 years. However, they also find that economic reform significantly increases the likelihood that trend growth will remain at a new, higher level following an acceleration. In short, while accelerations appear most often to be triggered by exogenous developments, reforms can be crucial in ensuring that the improvement in growth fundamentals is permanent. The challenge confronting policy-makers, therefore, is to pursue the reforms needed to facilitate Russia's transition from a terms-of-trade induced growth acceleration into a period of sustained catch-up growth.

Given that Russia's per capita output in 2005 was about 37% of the OECD average in purchasing-power parity terms, it is clear that catching up will require a long period of growth at average rates well above those typical of the OECD. In order to do this, Russia needs. to meet three basic challenges: increasing *labour utilisation*, at least to the extent possible; raising *labour productivity via* capital deepening, human capital accumulation and innovation; and improving *framework conditions* for business. The last of these must be seen as the most fundamental, since it will have an impact on the success or failure of policies aiming to address the others. There is still a great deal to be done to strengthen the basic institutions of the market economy, including effective and impartial law enforcement, secure property rights and open entry into competitive markets. In many cases, it is not new legislation or programmes that are needed but better administration of those that already exist: Russia still suffers from a yawning enforcement/implementation gap in many important areas of policy. Overcoming this gap, which leaves room for considerable arbitrary behaviour by officials, would help to level the competitive playing field, ensuring more equitable treatment for all.[66] Given the responsiveness of Russian business to signals emanating from the state, concrete steps to improve the investment climate can generate dividends relatively quickly in the form of increased confidence and thus investment.

Meeting these three challenges will require maintaining disciplined macroeconomic management and implementing comprehensive reforms in a large number of areas. Despite the progress made in recent years, Russia still faces daunting challenges with respect to a wide range of structural reforms aimed at improving framework conditions for business and enhancing productivity growth. The issues highlighted in the previous OECD *Survey* remain high on the policy agenda: financial-sector reform is moving forward but, as noted above, much remains to be done, and the same may be said of reform the country's power sector. Gas-sector reform has barely advanced at all but is now the focus of increasing attention. The present *Survey* focuses on three other policy priorities which must rank among the most important now facing the government:

- the reform of public administration, which would bring direct benefits to businesses and private citizens alike, while also facilitating the more effective implementation of other reforms;
- improvements to the national innovation system, which are essential if Russia is to make the most of its large science base and realise its considerable innovation potential; and
- reform of the healthcare system, which should be a central element of a broader package of measures designed to tackle the country's on-going health and mortality crisis.

While reform progress has generally been disappointing since early 2004, the Russian authorities in late 2005 renewed their commitment to a wide-ranging reform agenda with the adoption of a new medium-term strategy, which reflects a keen awareness of the fact that Russia must still make the transition to investment-driven, self-sustaining growth. Moreover, Russia's progress towards, and eventual achievement of, WTO membership should also strengthen the pressures for a renewal of reforms in a number of areas. Most analyses of economic impact of Russia's WTO accession conclude that the direct trade effects – *i.e.*, the impact of tariff changes and improved access to foreign markets – will be limited. Most of the welfare gains arising from WTO membership in the short-to-medium run are expected to result from the reduction in formal and informal barriers to foreign investment in key services sectors, the overhaul of technical regulation, the strengthening of property rights and other reforms necessitated by the requirements of WTO membership.[67]

The government has also put forward highly detailed strategies with respect to administrative reform, innovation and health care. The chapters that follow assess these reform plans and try to identify the potential pitfalls and opportunities ahead. Implementing these reforms will prove far more difficult than designing and adopting them, however, and will place great demands on the political will and administrative capacities of the government. Nevertheless, if the authorities are able to deliver on their reform commitments, the Russian economy may well make a smooth transition to sustained, investment-driven, catch-up growth.

Macroeconomic policy needs to facilitate the economy's adjustment to high oil prices

Russia needs. to devise a macroeconomic strategy that will facilitate a smooth adjustment to an environment of sustained high oil prices. Policy in the years after the crisis was predicated on the belief that the oil-price recovery which began in 1999 would prove to be temporary. 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, it poses policy dilemmas and challenges of its own with respect to macroeconomic management. Chapter 2 explores the role of fiscal policy in smoothing the adjustment necessitated by this terms-of-trade change. Prudent fiscal management represents the best instrument for reducing inflation while simultaneously limiting the pace of real exchange-rate appreciation.

Administrative reform could do much to improve the environment for doing business

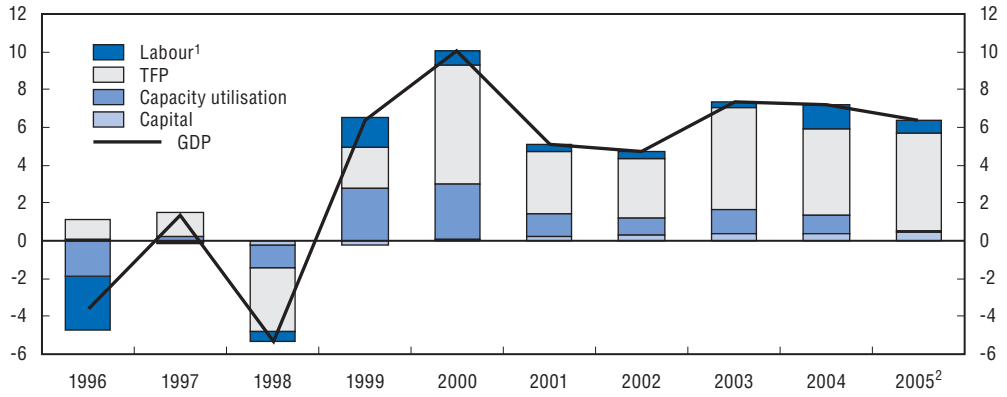
Given the limited room for manoeuvre with respect to labour supply, sustaining strong growth of labour *productivity* will be crucial for rapid catch-up. This will require a combination of capital-deepening and increases in total factor productivity (TFP). The key to the former lies in raising Russia's investment rate, which is low even by the standards of the advanced OECD economies, let alone in comparison with the fast-growing emerging markets of Asia (Figure 1.4). Progress here will depend on Russia's success in reducing barriers to investment, including informal barriers.[68] Surveys of both foreign and domestic investors suggest that the most important obstacles to investment are connected, in one way or another, with the quality of public administration: corruption, red tape and tax administration, as well as the generally low efficiency of public bureaucracies, are frequently mentioned.[69] Moreover, the probity, efficiency and responsiveness of the state administration are critical to the state's ability to devise, adopt and implement growth-enhancing structural reforms in a host of other policy domains, including those highlighted in this *Survey*. It is therefore no exaggeration to regard reform of the state administration as the most important structural reform of all. This challenge is addressed in Chapter 3.

A better framework for innovation can boost total factor productivity growth

Increases in TFP have accounted for the largest part of Russian growth in recent years (Figure 1.8). However, rapid productivity gains were fairly easy to achieve in the first years after the crisis, owing to the scope for relatively inexpensive restructuring (largely *via* labour-shedding in industry) and the fact that many firms were so far from the technology frontier that the acquisition of foreign machinery and equipment made extremely large productivity gains possible within a very short time. Sustained TFP growth over the longer term will be more difficult. The experience of OECD countries and a substantial body of empirical work suggest that, in addition to sound macroeconomic policies and well functioning product and financial markets, robust competition and innovation are of particular importance for long-run economic growth.[70] FDI-induced spillovers can also play a significant role in sustaining strong growth rates, not least by stimulating technology transfer and innovation.[71]

Given Russia's strong human capital endowments and its large science base, it probably has greater potential for innovation-based growth than most countries at similar levels of per capita GDP. There is also considerable demand for innovation, given the need to modernise industry and, in particular, to make it more energy efficient as the authorities raise artificially low energy tariffs above long-run cost-recovery levels. However, the

Figure 1.8. **Decomposition of GDP growth**
As a percentage of GDP in previous year



1. Employment and hours.
2. Preliminary estimate.

Source: Federal Service for State Statistics, Bessonova (2004) and OECD calculations.

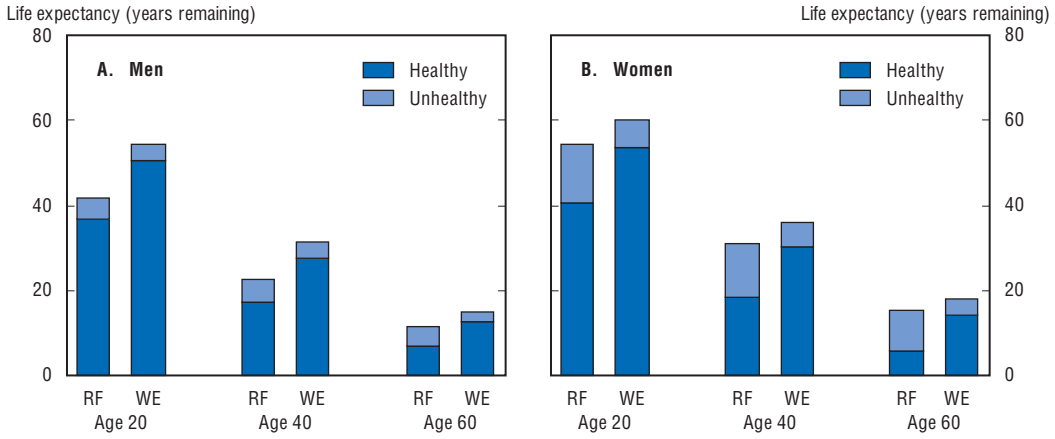
country's actual innovation performance remains far below what might be achieved given such favourable endowments. Realising Russia's innovation potential will require reforming the public science sector, strengthening intellectual property rights (IPR) and enhancing competition in factor and product markets. The need for competition points to the importance of open markets to trade and foreign investment: Bessonova *et al.* (2003) find on the basis of firm-level data covering 1995-2001 that the increased availability of imported inputs helped improve the productivity of domestic firms and that competition with foreign imports and with goods produced by foreign-owned firms in Russia does lead to faster restructuring of domestic enterprises. As OECD (2003a:18) observes, pro-competitive regulation is an integral part of effective innovation policy. Chapter 4 explores how changes in these and other policy domains could help Russia make the most of its innovation potential.

Much work remains to be done in restructuring Russia's healthcare system

With respect to labour utilisation, Russia's options are limited by demographic trends. Russia's population is both declining overall and also ageing fairly rapidly. Labour force growth is set to turn negative from 2007 and the ratio of pension-age to working-age population will begin to rise (Figure 1.A1.6). However, while both average hours worked and participation rates are already comparable to OECD levels (Figure 1.A1.7), working lives are much shorter, owing to Russia's early retirement ages (55 for women and 60 for men). One way to augment labour supply despite current demographic trends would be to extend Russians' working lives: as OECD (2004a:69-70) argues, this will be necessary in any case, if pension replacement rates are to be maintained at acceptable levels. Under the current arrangements, the financial sustainability of the system will depend on the overall system replacement rate (the ratio of average pensions to average wages) falling from around one-third at present to just one-fifth by about 2020, even if economic growth is relatively strong.[72] This is unlikely to be either socially desirable or politically sustainable. A gradual increase in retirement ages would make it easier to raise replacement rates without greatly increasing the burden on the working population.[73] It would also help offset the reduction in labour supply.

However, simply requiring – or inducing – ordinary Russians to work longer will create additional problems unless it is accompanied by a shift towards healthier ageing. One of Russia's biggest problems is that it is not only average life expectancy that is exceptionally low for a country at its level of development – *healthy* life expectancy is very low as well (Figure 1.9). Russians above the age of 40 are far less likely to be healthy than citizens of Western or Central Europe, and the gap is particularly large for Russian women: their average life expectancy at any given age is higher than that of Russian men, but they also tend to spend much more of their lives in ill health.[74] Poor health and high levels of preventable, premature death entail enormous human and economic costs. They also pose a threat to economic development as a result of both their long-term impact on secular trends in labour supply and their more immediate economic costs, which include productivity losses, reductions in household income and early exit from the labour force. This points to the need for a broad-based effort to tackle Russia's health and mortality crisis, a central part of which must involve a reform of the healthcare system itself.

Figure 1.9. **Life expectancy and healthy life expectancy at different ages**
The Russian Federation (RF) and Western Europe (WE), 2002



Source: Andreev *et al.* (2003).

Since 1991, the focus of healthcare reform in Russia has been the transition from an integrated, hierarchical model of healthcare provision to a more decentralised, competitive, insurance-based system. That transition is still unfinished, and many of the problems that afflict Russia's healthcare system today are a product of its half-reformed state. The government has recently been working to revive healthcare reform, but progress in preparing the legislative framework needed to complete the reform has been painfully slow. Moreover, creating real competition among insurers will be exceptionally difficult, requiring substantial up-front investment in rules, institutions and information. It will make huge demands on the state's still limited administrative and regulatory capacities – a fact which underscores the broader importance of reforming public administration – and it will require sustained high-level commitment if the reform is to be seen through to completion. This challenge is examined in Chapter 5.

Notes

1. For further discussion of the command GDP indicator, see OECD (2003b:37-8).
2. Rather than using different deflators for imports and exports, as is done when computing conventional measures of GDP.
3. 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.
4. See Chapter 2 for details.
5. 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.
6. 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.
7. 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.
8. 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%.
9. 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.
10. Until the end of 2004, the subsistence minimum was re-calculated quarterly and varied according to region and population category (pensioners, children and working people). In the fourth quarter of 2004, the national average for all groups was RUB 2 451 per person per month ($86.76 at the exchange rate then prevailing).
11. No estimate for 2005 is available, as no figure for the subsistence minimum was defined.
12. Child poverty, however, remains a severe problem (World Bank, 2005a).
13. The Gini coefficient rose from 0.395 in 2000 to 0.406 in 2004, while the decile ratio rose from 13.9 to 15.0.
14. This means, nevertheless, that the positive effect of growth on poverty has outweighed the negative effect of increasing inequality.
15. The Bank finds that the decline in the number of working poor was a major factor in the reduction of the poverty rate during 1999-2003.
16. These are obviously correlated: the coefficient of correlation at the regional level between gross regional products and gross real income amounts to approximately 0.5.
17. Investment goods imports grew by 40.4% in 2004 and 38.1% in 2005, in volume terms.
18. 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.
19. This reflects the fact that the elasticity of import volumes with respect to relative prices is less than 1.
20. 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.
21. 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.
22. Based on the national accounts.
23. In 2005, 38% of this total was invested in machinery and equipment.
24. The figure for 2005 is adjusted to exclude Gazprom's purchase of Sibneft, which, because it was settled offshore, shows up in the balance of payments as outward FDI.

25. It is worth noting that acquisition of foreign technology and know-how also occurs through trade and the import of investment goods. Imports of investment goods now account for around a quarter of total imports. Consumer goods account for about half and intermediate goods for the remainder. That said, FDI in services can also have a productivity impact, both in the services sector receiving the investment and in other sectors that consume services as intermediate goods.

26. In the first quarter of 2006, foreign-owned enterprises and joint ventures in Russia produced 254 000 light autos, as compared with 130 000 in the whole of 2004. While much of this activity consists of assembly using "Semi-Knocked Down" technology (the assembly of cars from big assembled parts), it is expected that "Completely Knocked Down" assembly (from manufactured components, including the welding of the body) will follow later in many cases, allowing producers to take advantage of lower import duties.

27. OECD (2006) observes that the forthcoming law on strategic sectors will be a test of the government's commitment to transparency and urges that any restrictions be clearly and narrowly drafted with respect to the definition of both sectors and security concerns, and operationalised *via* procedures that are transparent and reasonably swift. Whatever restrictions are imposed, they will come at an economic cost to Russia, though they may generate rents for some individuals or groups within Russia.

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

29. 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.

30. See Table 2.2 in Chapter 2. 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.

31. 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 (2003).

32. 2.3% on a yearly basis during the first six months of 2006.

33. 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.

34. See Ahrend and Tompson (2006:36-41) for a detailed analysis of these factors and their role in the oil sector slowdown.

35. OECD (2004a:63-4) argues that Russia should increase taxation of all resource sectors, not only oil.

36. The aggregate increase in upstream capital expenditure in 2004 was largely the product of rising commitments to the two offshore Sakhalin PSA projects led by the international oil majors. It also reflected exchange-rate developments: the dollar value of capital expenditure rose as a result of rouble appreciation.

37. Sibneft is excluded along with Yukos and Yuganskneftegaz because it, too, was caught up at the centre of the case. Sibneft's fate was thrown into question by the collapse of the merger with Yukos in 2003, and Sibneft's principals, uncertain about the company's fate but still keen to sell it, were more interested in taking money out of the company than investing. The company was thus in limbo for almost two years prior to its sale to Gazprom.

38. See Annex 1.A2 for a discussion of oil-sector taxation and subsoil law reform. See also Ahrend and Tompson (2006) and Skyner (2005).

39. Reforms to other fiscal institutions and fiscal policy processes in 2000-03 have also played an important part. For details, see OECD (2004a:37-8).

40. There were a number of problems with the introduction of the reform, but the principal cause of the protests was simply that the cash benefits were initially far from sufficient to cover the cost of the benefits they replaced.

41. The so-called *zhilshchno-kommunal'noe khozyaistvo* or ZhKKh.

42. The Civil Code still requires retail deposits to be available on demand, even if they have been contracted for a specified term. In September 2006, the Federal Assembly was preparing to begin considering a bill that would rectify this problem.

43. Its July 2004 schedule anticipated the preparation of 29 pieces of primary or secondary legislation; when it was revised in April 2005, only two of the 29 had been completed and the entire schedule was put back by a year.

44. The problem is particularly acute in the country's more dynamic regions, not least the city of Moscow itself, which was hit by a major blackout in May 2005.

45. See OECD (2004a), Chapter 3.

46. For a recent analysis, see IEA (2006).

47. See Ahrend and Tompson (2004).

48. See "Ob osobykh" (2005).

49. See Chapter 5 for details.

50. For details, see Resolution No. 694 (2005).

51. "O kontsessionykh" (2005).

52. In particular, much depends on how the new law on concessions functions in practice; see Annex 1.A2 for details.

53. This discussion draws on IET (2006:25-6).

54. The sole exception is the special zone for the Kaliningrad exclave, which has been substantially revised under new legislation. On the Kaliningrad zone, see Mau (2005).

55. See Yakovlev (2006) for details.

56. Boardman and Vining (1995); on the Russian case, see Tompson (2002).

57. For a close look at the affair, see Tompson (2005).

58. Some senior officials continue to insist that the affair was simply a tax case. However, it is difficult to make sense of the authorities' handling of the case in such terms. Often, the state took steps that *reduced* the budget's potential gains from the case, and other aggressive tax "optimisers" in the sector were treated relatively well by the authorities. The recent discount of the tax liabilities of former Yukos subsidiary Yuganskneftegaz is a telling example in this context.

59. Table 1.5 covers acquisitions in finance and industry in 2004-05. It does not cover print and broadcast media, where a major expansion in direct and indirect state ownership took place in 2001-03.

60. Weafer and DePoy (2006). This refers only to the equity holdings of the state, as opposed to the value of the companies its controls, which would probably be much higher. However, the figure is influenced in part by the fact that a large portion of the state's shares are in oil and gas companies, the value of which rose sharply during the period in question.

61. These comparisons are based on 2003 production data; obviously, differences in the rate of production growth in 2004-05 have altered somewhat the relative shares of different companies in total output.

62. This is sometimes presented as a form of "corporate social responsibility".

63. OECD (2005b) finds that Russian state companies often perform poorly with respect to transparency and disclosure, particularly in respect of related-party transactions and on-going event disclosure.

64. See Chapter 3 for details.

65. Disturbingly, the authorities seem as inclined to intervene in cases of "market success" (such as the oil industry) as they are to address instances of "market failure".

66. Yasin *et al.* (2006) conclude that Russia has not *one* investment climate but *many*, with different firms facing different conditions depending on their ownership, sector, region, political connections, *etc.* This must change if Russia is to generate the kind of investment-led growth it needs.

67. For an overview of studies of the expected impact of Russian accession, see OECD (2003c). See also Rutherford, *et al.* (2005a) and (2005b); OECD (2004c), OECD (2004d), Jensen *et al.* (2004), and Yudaeva *et al.* (2002).

68. See OECD (2006) for an analysis of many of these barriers.

69. See, *e.g.* the Executive Opinion Survey reported in WEF (2005:414); and *Moscow Times*, 3 March 2005.

70. See, *e.g.*, OECD (2001) and (2003a); Donselaar *et al.* (2004); and Keller (2004).

71. Ewe-Ghee (2001); Savvides and Zachariadis (2005).

72. World Bank (2002); Gurvich (2002).

73. See the discussion of pension reform in Annex 1.A2. Calculating notional defined contribution benefits on the basis of life expectancy would also help, by creating incentives for individuals to work longer.

74. Healthy life expectancy for Russian women is actually *lower* at age 65 than it is for men, even though their life expectancy is almost four years longer.

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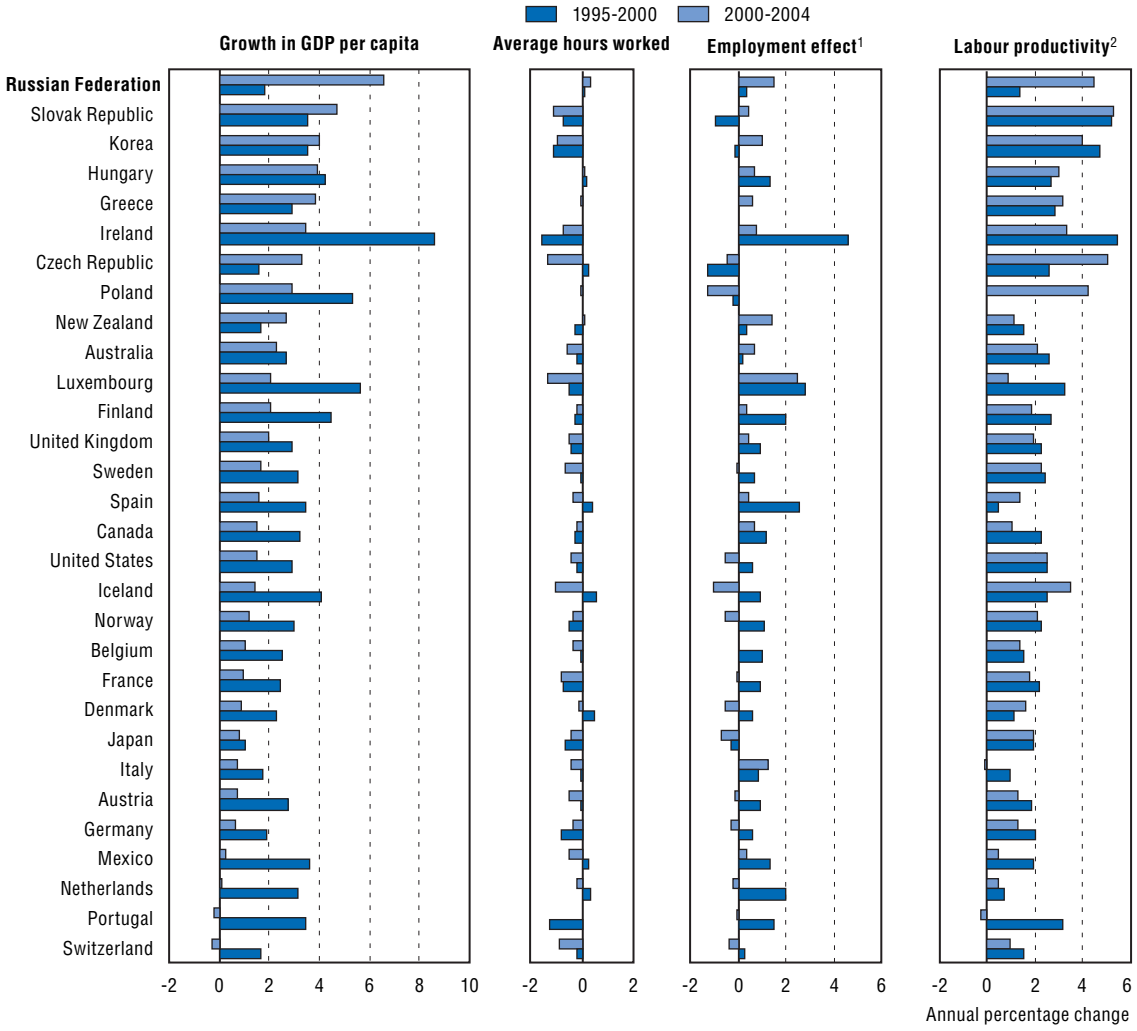
ANNEX 1.A1

Macroeconomic performance

Figure 1.A1.1. **Growth in GDP per capita**

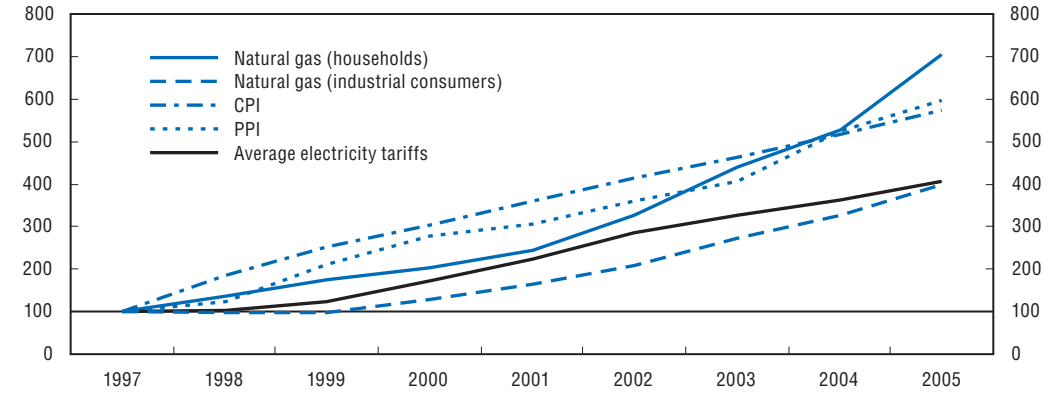


1. Employment per capita.
2. GDP per hour worked.

Source: OECD, Productivity database July 2005, Annual National Accounts database and Federal Service for State Statistics.

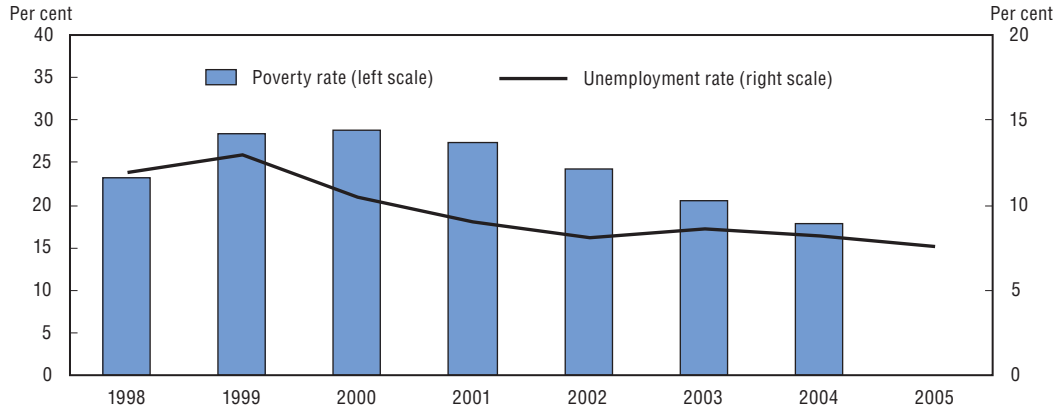
Figure 1.A1.2. **Change in regulated energy tariffs and other prices, 1997-2005**

1997 = 100



Source: Federal Service for State Statistics, Federal Tariff service and OECD calculations.

Figure 1.A1.3. **Unemployment and poverty rate**



Source: Federal Service for State Statistics, OECD calculations.

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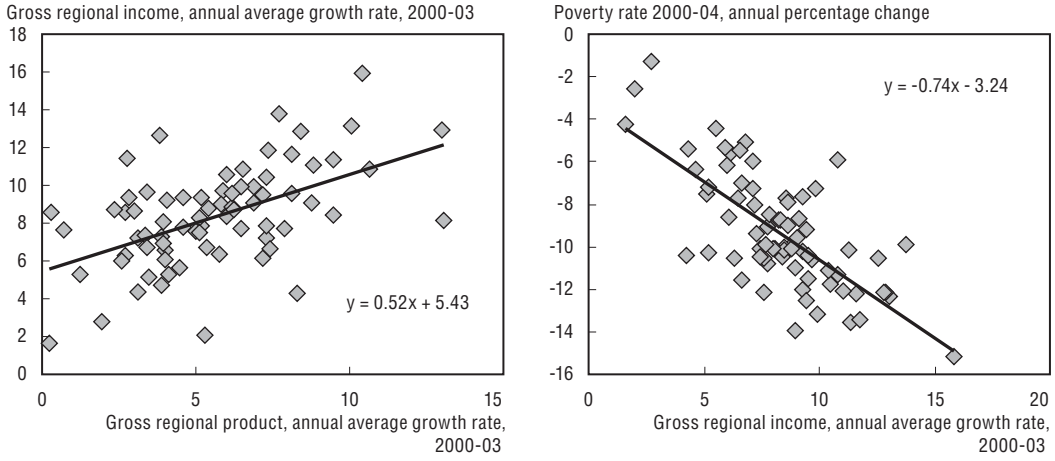
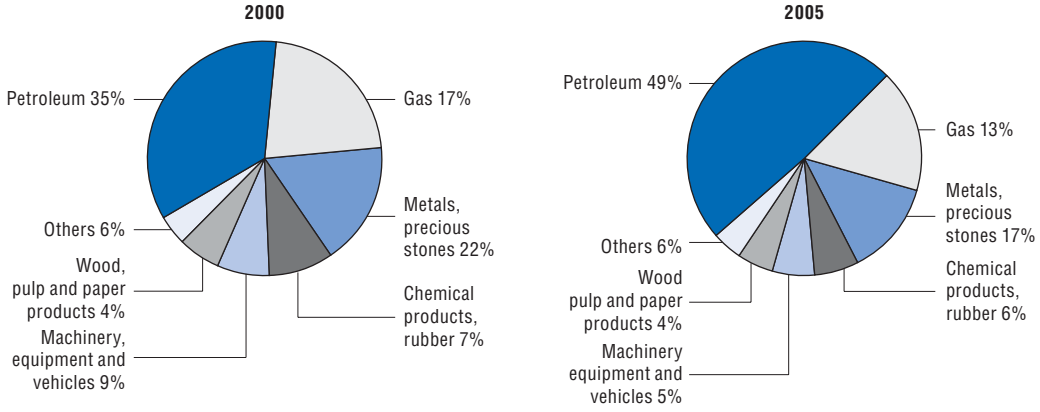
Figure 1.A1.4. **Changes in poverty rate and growth**



Source: Federal Service for State Statistics.

Figure 1.A1.5. **Structure of exports**



Source: Federal Customs Service and OECD calculations.

Table 1.A1.1. **Exports of goods**

Percentage of total exports

	Non-CIS			CIS			Total		
	1995	2000	2005	1995	2000	2005	1995	2000	2005
Foodstuffs and agricultural raw materials (excluding textile)	1.5	1.0	1.1	2.8	5.3	7.1	1.8	1.6	1.7
Mineral products	40.4	54.5	67.5	51.8	49.1	41.9	42.6	53.8	65.0
Oil			35.4			24.0			34.3
Oil products			15.5			5.8			14.6
Gas			n.a			n.a			13.2
Coal			1.5			2.8			1.6
Chemical products, rubber	9.9	6.7	5.5	10.8	10.2	9.7	10.0	7.2	5.9
Leather raw materials, fur	0.5	0.3	0.1	0.2	0.3	0.0	0.4	0.3	0.1
Wood, pulp-and-paper products	6.1	4.5	3.4	3.3	3.0	4.3	5.6	4.4	3.5
Textiles, textile articles and footwear	1.3	0.6	0.2	2.3	2.0	0.9	1.4	0.8	0.3
Metals, precious stones	30.7	23.5	17.6	9.1	10.4	12.4	26.7	21.7	17.2
Ferrous metals			7.9			6.2			7.7
Non-ferrous metals			6.5			5.7			6.5
Gems and precious metals			3.2			0.5			2.9
Machinery, equipment and transport means	8.3	7.5	3.6	18.2	17.0	21.1	10.2	8.8	5.3
Others	1.3	1.4	0.9	1.5	2.6	2.5	1.3	1.6	1.0
Total exports (US$ billions)	63.7	89.3	208.6	14.5	13.8	32.6	78.2	103.1	241.2
Share	*81.5*	*86.6*	*86.5*	*18.5*	*13.4*	*13.5*	*100*	*100*	*100*
Exports excluding minerals (US$ billions)	38.0	40.6	67.8	7.0	7.0	23.2	44.9	47.6	90.9
Share	*84.6*	*85.4*	*78.2*	*15.6*	*14.8*	*21.8*	*100*	*100*	*100*

Note: Decomposition of trade is calculated without Belarus (italicised figures).
Source: Federal Customs Service.

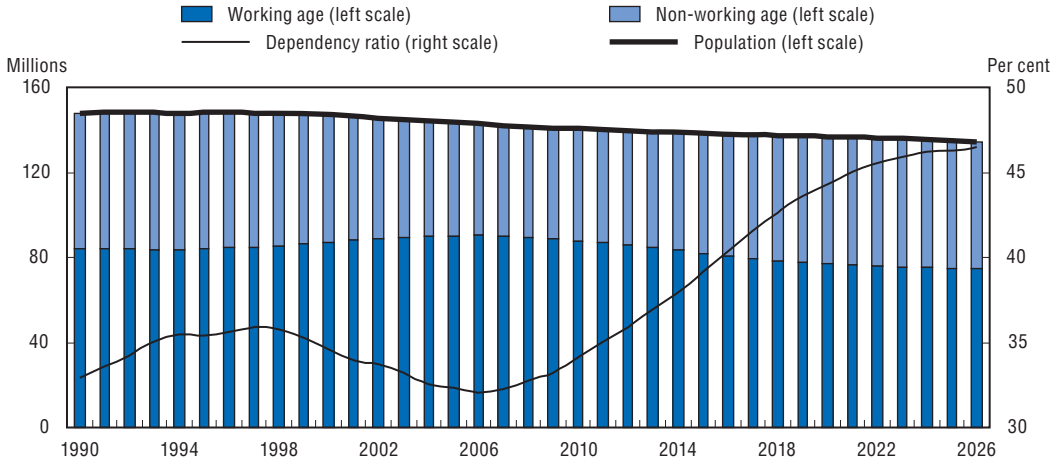
Table 1.A1.2. **Imports of goods**

Percentage of total imports

	Non-CIS			CIS			Total		
	1995	2000	2005	1995	2000	2005	1995	2000	2005
Foodstuffs and agricultural raw materials (excluding textile)	29.4	23.8	17.0	25.2	17.9	20.7	28.3	21.8	17.5
Mineral products	2.9	1.7	0.9	15.1	15.1	16.7	6.2	6.3	3.2
Chemical products, rubber	11.4	20.7	17.9	9.6	12.6	11.8	10.9	17.9	17.0
Leather raw materials, fur	0.4	0.3	0.3	0.3	0.4	0.0	0.2	0.4	0.3
Wood, pulp-and-paper products	3.0	4.5	3.4	0.8	2.5	2.8	2.4	3.8	3.3
Textiles, textile articles and footwear	4.7	3.9	3.3	7.9	9.8	3.5	5.8	5.9	3.3
Metals, precious stones and articles	5.0	4.9	5.4	16.9	14.8	20.9	8.6	8.3	7.6
Machinery, equipment and transport means	38.7	36.3	48.2	21.3	22.1	21.6	33.6	31.4	44.4
Others	4.5	3.8	3.7	2.9	4.8	1.9	4.1	4.1	3.4
Total imports (US$ billions)	33.1	22.3	79.6	13.6	11.6	18.9	46.7	33.9	98.5
Total imports (%)	70.9	65.7	80.8	29.1	34.3	19.2	100	100	100

Note: Decomposition of trade is calculated without Belarus.
Source: Federal Customs Service.

Figure 1.A1.6. **Demographic trends, 1990-2026**

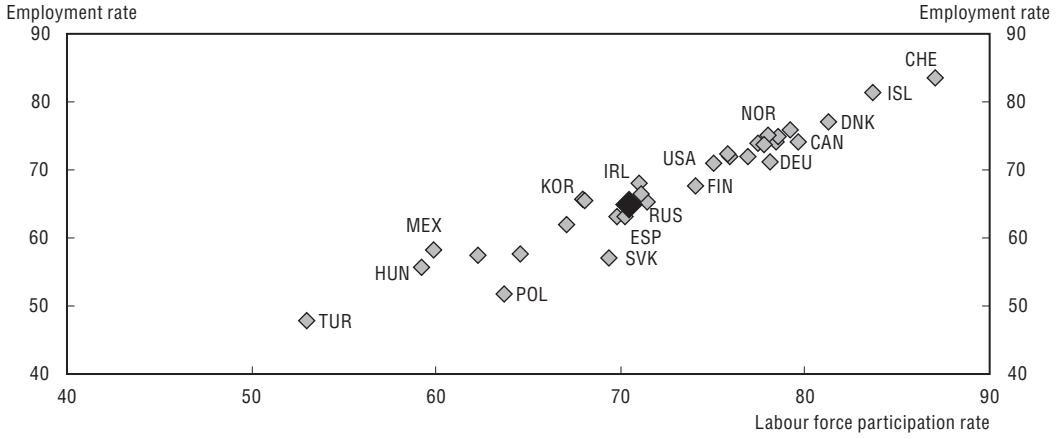


Note: Figures for 1992-2005 are actual. Figures for 2006-2026 are projections.

Source: Federal Service for State Statistics.

Figure 1.A1.7. **Labour force participation rates**

As a percentage of working age population, 2004



Note: "Working-age" is defined as 15 to 64.
This definition does not correspond to that which is commonly used in the United States (16 years and above), Hungary or New Zealand (15 years and above).

Source: OECD Economic Outlook 78 database and Federal Service for State Statistics.

ANNEX 1.A2

Progress with respect to selected structural reforms

Chapter 1 observes that, overall, the pace of structural reform slowed in 2004-05. However, implementation of structural reforms already under way has continued throughout the period, as has work on reforms in a number of other important areas. This annex provides a brief overview of progress with respect to the major lines of structural reform examined in previous *Surveys*.

Business environment

As noted in Chapter 1, 2004 witnessed a breakdown of trust between business and the state as a result of the Yukos conflict and related events. Since early 2005, the authorities have been working to reassure business and attract the return of flight capital, both by addressing the specific problems highlighted by the events of 2004 – particularly the scope for arbitrary action by tax officials – and also by seeking to improve the investment environment in other ways. Thus, the government has prepared legislation to facilitate the legalisation of previously unreported income.[1] The statute of limitations applied to privatisation deals has been lowered from ten years to three, and the government is working on measures to reduce the scope for arbitrary or abusive action by the tax inspectorate. The decision to accelerate the elimination of the country's remaining foreign-exchange controls in mid-2006 likewise helped to strengthen business confidence and investment flows into Russia.[2] The government has also compromised with business on the vexed question of the terms on which privatised enterprises will be able to purchase the state or municipal land on which they stand.[3]

However, such business-friendly legislation has been slow to reach the statute books, and these measures are by no means guaranteed to succeed. For one thing, the detail of such legislation can be critical. It has proved difficult, for example, to draft an amnesty law that would ensure that the declaration of previously unrecorded income would not prompt the tax authorities to focus on an individual or lead to investigation on grounds other than tax evasion (*e.g.* under anti-money laundering legislation). Moreover, the tendency has been for the scope of the amnesty to expand, reportedly on account of doubts about whether or not a limited amnesty could be administered. Ultimately, any amnesty adopted is unlikely to have much economic impact, but it will signal the state's desire to reduce uncertainty about possible prosecution for actions long past.

Technical issues likewise bedevil efforts to provide for the disposal of land under privatised enterprises. The basic principle is that enterprises should be able to acquire the land on which they stand for no more than 2.5% of cadastre value, except in Moscow and

St Petersburg, where it might be as much as 20%. Such rates as these would dramatically reduce the price enterprises had to pay for their land, which is currently fixed in terms of a certain number of years' worth of land-tax payments. However, the draft legislation appears to exclude from its provisions virtually any land on which enterprises have built anything since privatisation; since the question of what really counts as a new fixed structure (as opposed to an upgraded or refurbished one) is sometimes vague, this may leave a great deal of discretion in the hands of local officials.

Nor will it be easy to rein in the tax inspectors without running the risk of opening up spectacular new opportunities for tax evasion. Progress on this issue has been slow, largely because of disagreement about how to balance the protection of business from what President Vladimir Putin has called "tax terrorism" against the need to ensure that the tax inspectorate can do its job effectively. At times, it appears that every step taken to strengthen the regulation of tax officials' conduct is matched by one aimed at extending their authority. For example, work on curtailing tax officials' powers to conduct extended or repetitive inspections has coincided with the adoption of legislation that makes it easier for them to recover fines and penalties from taxpayers whom they judge to be delinquent, without resort to the courts. The burden is now on the taxpayer to contest the fines in court and persuade judges to overturn them *ex post*.[4] Overall, surveys of executives and entrepreneurs continue to show high levels of concern about the norms of tax administration and the instability of the tax system itself (reflecting not only changes in formal rules and regulations but also changes in the way they are applied in practice).[5]

Much also depends on the behaviour of the courts. While many taxpayers have successfully resisted large back-tax claims based on revised interpretations of the law, a large number of Russian judges exhibit a tendency to side with the state in tax cases, even when the law apparently aims to give the taxpayer the benefit of the doubt. While the most notorious examples have been linked to the highly visible and highly politicised battles surrounding the oil company Yukos, the courts have shown a willingness in many other cases to set aside statutes of limitations, as well as a readiness to invoke – or simply create – such concepts as "good faith taxpayers" when construing fiscal statutes in favour of the state.[6] Most worrying of all, perhaps, was the Constitutional Court's declaration that the protections of Article 113 of the Tax Code, which imposes a three-year statute of limitations on tax cases, applied only to "good faith taxpayers" and not to those "who oppose the performance of tax control". Many countries have legal provisions for limiting the application of some protections (excluding, for example, cases where violations did not come to light sooner because fraud had been committed). However, Russian law contains no definition of "good faith", and the court did not clarify the meaning of that term or indicate where the line was to be drawn between defending one's rights *vis-à-vis* the tax inspectorate and "opposing tax control".

The above caveats notwithstanding, the government's efforts appear to be going some way towards reassuring the business community about its commitment to improving the business environment: investment growth has picked up somewhat, and most indicators of business confidence – financial indices and surveys – have recovered since late 2004/early 2005.

Monopolies reform

The authorities have continued the process of tariff re-balancing begun in the early 2000s with a view to raising regulated energy and rail tariffs above cost-recovery levels and thereby eliminating the vast implicit subsidies previously extended by the infrastructure monopolists to the rest of the economy. While the pace of re-balancing has been uneven, owing to the authorities' tendency to use tariff restraint to hold down inflation, the overall direction of tariff policy has remained consistent, indicating the government's determination to raise tariffs to economically justified levels. Painful though it is for consumers, this process is to be welcomed, since the long-term sustainability of these sectors must remain in doubt as long as tariffs remain at artificially low levels. However, progress on questions of restructuring has varied markedly from sector to sector, with the greatest progress seen in respect of electricity and the least in the case of natural gas.

Electric power

The electricity reform initiated in 2003 comprises two major components: a legislative framework composed of six laws adopted in March-April 2003 and a plan for the restructuring of the electricity monopoly RAO UES itself, known as the "5+5" plan (referring to the five years to the market transition and the five years after).[7] During 2004-05, however, these parallel processes proceeded at different rates: the corporate restructuring of RAO UES proceeded relatively smoothly, but the legislative side of the reform largely stalled. Lack of progress on the legislative agenda, combined with mixed signals from members of the government, generated considerable uncertainty about the timing of liberalisation, the rules for the future liberalised electricity sector and the government's plans for the disposal of power-sector assets. It also left investors uncertain of the timing of market liberalisation, about the future rules governing the generation and capacity markets, and about the future regulatory framework for network assets.

The government renewed its commitment to electricity reform in December 2005, when it confirmed plans to: open up generation markets in annual increments beginning with the liberalisation of 5% of the market in 2007; raise investment funds *via* new equity offerings by the generating companies created in the course of the "5+5" restructuring; and take steps to phase out unfunded subsidies to household consumers. The government also approved an investment guarantee scheme – effectively a subsidy scheme for investment in new capacity – in an effort to trigger significant investment into the sector despite the delays to the reform timetable. RAO UES now expects very tight supply in many regions, even on the basis of conservative demand assumptions, and the sector's capital stock is ageing fast. In order to ensure sufficient investment until market forces really begin to operate, the sector is relying on investment fund money, privatisation proceeds. for a few generating companies, government guarantees, and higher prices. Such *ad hoc* measures are necessitated by the slow pace of reform and the low level of tariffs, at which greenfield investment in the sector is unattractive.

Little has been done to address the need for strong, independent regulators in a liberalised sector – something identified in both OECD (2004a) and IEA (2005a) as critical to the success of the reform in attracting investment to the sector, which is one of its major goals. Investors need a stable legal and regulatory framework, with predictable policies on tariff regulation, access to the grid, and so on, but the reform legislation leaves the government very wide discretion in the field of electricity regulation and lacks any

provision for a strong, independent regulator. The need for effective anti-monopoly regulation is likely to be extremely important, given that the structure of the liberalised market is will probably result in significant concentrations of market power in some regions (IEA, 2005a:46-48).[8] Moreover, as IEA (2005b) observes, the expansion into power generation of the gas monopolist Gazprom – the dominant supplier of fuel to the sector – raises further questions about how the liberalised sector will function if the regulatory framework is not strengthened.

Natural gas

There has been no significant move towards any real reform of the natural gas sector, although mounting concerns about the future sustainability of gas production and about Gazprom's own investment policies have brought this issue to the fore once again. In mid-2006, a decision was finally taken on the creation of a long-discussed gas exchange, on which an initial 10 bcm of production will be traded each year at free prices, being drawn in equal parts from Gazprom's output and that of the independent gas producers. This represents a fairly small beginning, but the creation of the exchange has at least triggered renewed attention to the issue of regulated third-party access (TPA) to Gazprom's trunk pipeline network – the independents' right to sell gas on the exchange will mean little without a suitable pipeline access regime. Russia has had a TPA regime in place since 1997 but it is very ineffective, depending largely on Gazprom's good will, and the Federal Anti-Monopoly Service put forward new proposals for strengthening it in late 2006. Failure to reform the gas industry constrains the growth of gas production, which could, with a modest degree of reform, begin to grow very fast. Given an effective, regulated third-party access regime for the trunk pipeline network and some access to export markets, non-Gazprom producers could increase investment and output very rapidly.[9] Unfortunately, the only significant recent change in this sphere was the adoption in July 2006 of a law enshrining in statute Gazprom's existing monopoly on gas exports. Lack of reform also complicates the restructuring of the electricity and utilities sectors, although the government's June 2006 order to RAO UES and Gazprom to conclude long-term gas-supply agreements marks a significant step forward; OECD (2004a:147) notes that the absence of long-term gas-supply agreements is an important impediment to investment in the power sector.

Railways

Officially, 2006 marks the beginning of the third and final stage of the restructuring of Russia's railways.[10] However, several important issues that were to have been resolved in the second stage remain open:

- The restructuring plan envisages the "gradual reduction of passenger traffic cross-subsidies at the expense of freight traffic" by the end of the second stage. Federal or local budgets are to take over responsibility for any support extended to passengers or particular groups of passengers enjoying preferential tariffs. However, there has been little progress here, and budgetary support for passenger operations is now to be considered only in 2007-09.[11]
- Developing competition among freight operators is a major goal of the reform, but little has been done to resolve the outstanding questions with respect to how competition on the railways is to develop. Indeed, there is still no fundamental agreement on whether the model to be employed will involve complete vertical separation or a regulated third-

party access regime.[12] In the end, different arrangements may prevail on different routes, since the scope for intra- and inter-modal competition varies across the country. ECMT (2004) argued that European Russia's network could actually sustain competition among several vertically integrated companies, but this option appears not to be under consideration.

The state rail monopolist, Russian Railways (RZhD), continues to use its dominant position to restrict the opportunities available to other carriers. In early 2006, the Ministry of Transport came into conflict with RZhD over the latter's application of access rules, which the ministry found to be discriminatory. Assessing what would constitute fair access charges – an essential element of any regulated third-party access regime – remains a problem, since RZhD's own accounts do not allow one to make an accurate calculation of how much the monopolist is charging itself for access.[13]

Municipal utilities

The process of tariff re-balancing mentioned above has encompassed the system of municipal utilities known in Russian parlance as the "housing and communal economy". By early 2006, residents of 68 of Russia's 89 constituent regions were paying for at least 90% of their housing-related municipal services costs. In 37, they were – in principle, at least – paying 100%, and all regions are now required to limit assistance to low-income households meeting specific criteria. However, subsidies remain extremely widespread in practice, with corporate customers effectively paying the price of keeping household tariffs low in many regions.

Moreover, there has been only limited progress with respect to the kind of reforms required to attract new investment to the municipal utilities sector. In-kind benefits in the sector remain common. Plans to monetise such benefits have been put off indefinitely, despite the fact that monetisation is likely to be essential to attracting private capital to the sector. In-kind benefits have been systematically under-funded by local and regional budgets – utilities have simply not been compensated for services provided at discount tariffs to benefit-recipients. As a result, investors considering utilities will want to know that they will be able to levy economic tariffs and collect them, leaving it to the authorities to provide direct support to groups they wish to subsidise.

Concessions law

The future of municipal utilities and many other infrastructure sectors will depend to a significant extent on how the new law on concession agreements works. Adopted in July 2005 after more than a decade of debate, the concessions law is intended to provide a mechanism for organising investment projects in the sector within the framework of public-rivate partnerships (PPPs) by allowing private investors to build or lease from the state objects that cannot by law be privatised, such as roads, pipelines and other public infrastructure. As of June 2006, however, no concession agreements in the utilities sector had yet been concluded.[14] In part, this was because some of the necessary secondary legislation was still incomplete but it also reflected the failure of the law to provide investors with sufficient guarantees concerning the stability of conditions. In addition, the prohibition on transfer of the concessionaire's rights under the lease contract to third parties, when combined with existing civil legislation prohibiting the use of future revenue streams as collateral, restricts the opportunities for securing external financing for many PPP projects.

A recent analysis of the law by Skyner (2006) notes that it lacks a number of the provisions commonly found in concession legislation and fails to specify clearly when or to what extent a concession agreement is regulated by civil law rather than administrative law. The law also lacks an effective stabilisation clause protecting investors against attempts at *ex post* changes in contract conditions.[15] Given Russian institutional conditions, uncertainty about such basic issues is likely to be a serious deterrent to many investors, especially in heavily regulated sectors like utilities, which are meant to benefit from the new legislation. The mandatory referral of disputes to state arbitration courts will add to concerns about the lack of clarity in the law and the dangers of *ex post* exploitation. The creation of a sound legislative framework for PPPs is likely to require not only some amendment of the concessions law but also efforts to ensure that its provisions are fully harmonious with other civil and tax legislation, public sector borrowing rules, access and right-of-usage rules, the system of fiscal federal relations and social policy (*i.e.* policies on tariffs and subsidies).

Tax reform

While the major overhaul of the tax system was complete by 2004, the government continues to revise tax legislation in an effort to reduce the overall tax burden, clarify rules and definitions, and improve tax administration. Perhaps the most significant recent development, however, was a matter of implementation: as from 1 January 2006, Russia's VAT, introduced at the beginning of the 1990s, finally shifted onto an accrual basis. This is an important step, since Russia's VAT has not hitherto functioned like similar taxes in most other jurisdictions. However, an issue has arisen with respect to timing. Time of supply is defined under the new arrangements as the date of shipment; internationally, the norm is the earlier of either the receipt of cash, issuance of a VAT invoice or date of shipment. This peculiar arrangement was apparently motivated by the desire to reduce fraud – it is difficult for officials to monitor false invoices – but it has raised questions about when buyers can take their VAT credit. Moreover, since shipment documents as well as invoices can be forged, it is not clear that the rule will reduce fraud.

The other major tax reform item on the government's agenda is the reform of oil-sector taxation. Here the aim is not to reduce the tax burden on the oil industry but to address the distortions caused by Russia's profit-insensitive system of oil taxation, which provides little incentive to undertake exploration or investment in new fields. The reliance on taxes that focus on volume and revenue can render production from higher-cost fields unprofitable even at relatively high prices and thus reduce substantially the number of fields that it makes commercial sense to exploit. Even the finance ministry now accepts the need for a differentiated natural resources extraction tax (NDPI) that takes account of the extent of field depletion, the size of recoverable reserves, the depth of the reservoir and other factors that affect the profitability of extraction. However, given the state of Russian field data and the limited capacity of the state bureaucracy to administer such a tax, a truly sophisticated NDPI is probably still some years away. For the time being, the authorities have opted for relatively simple measures, like tax holidays for projects in difficult regions. In the summer of 2006, a number of changes in the taxation of the oil sector were passed into law. These included:

- extension of the basic NDPI regime, due to lapse at the end of 2006, until 2016;
- a reduction of up to 70% in the NDPI for fields that are at least 80% depleted, based on ABC1 reserve estimates, for those companies that conduct production accounting separately for individual fields; and

- complete NDPI holidays for new fields in Eastern Siberia until cumulative production reaches 25mt or for a maximum of 10 years from issuance of a production licence (15 in the case of a combined exploration and production licence).

While far from ideal for the longer term, these may prove a useful interim solution.

In 2006, a new fixed patent system for certain activities entered into force. This represents an alternative to the simplified small business tax regime described in OECD (2004a:108-09). Under the patent system, regions simply establish a list of activities for which a fixed tax can be paid in the form of a patent to engage in that activity for a certain period.

Financial sector reform

Banking

The period since the last *Survey* has witnessed considerable progress with respect to the implementation of the ambitious banking reform agenda outlined by the government and the Bank of Russia.[16] While the new arrangements have yet to undergo the test of a serious crisis, the evidence so far suggests that the introduction of deposit insurance (DI), the overhaul of prudential supervision and the transition to international financial reporting standards are having a significant impact on the way the banking sector operates. While much remains to be done to enhance transparency in the sector, Russian banks have already become considerably more transparent to both the regulator and outsiders, particularly when it comes to questions of beneficial ownership. There are indications that some banks are relying much less on related-party lending, and banks are caring more about their own franchise value, which increases the incentives for them to behave prudently. The introduction of DI has done much to facilitate change, since it imposes much tougher regulatory norms on banks than the general supervision framework. DI has also helped to restore popular confidence in the sector: the rapid growth of the retail deposit base slowed sharply in 2004, largely as a result of turbulence in the sector during the summer, but bounced back in 2005 (Table 1.A2.1).[17] The DI ceiling, which was originally set at a flat 100% coverage of the first RUB 100 000, was raised in July 2006 to cover 90% of the next RUB 100 000.

Table 1.A2.1. **Selected balance-sheet indicators of the Russian banking sector**

1998-2005 (end of period, figures given as % of GDP unless otherwise indicated)

	1998	1999	2000	2001	2002	2003	2004	2005
Number of operating credit institutions	1 476	1 349	1 311	1 319	1 329	1 329	1 299	1 253
Assets	39.8	32.9	32.3	35.3	38.3	42.3	42.0	45.0
Capital (own funds)	2.9	3.5	3.9	5.1	5.4	6.2	5.6	5.7
Funds attracted from physical persons	7.6	6.2	6.1	7.6	9.5	11.5	11.6	12.7
Funds attracted from enterprise and organisations	10.7	9.7	9.9	10.1	10.1	10.5	11.7	13.6
Credits extended to physical persons	0.8	0.6	0.6	1.1	1.3	2.3	3.6	5.4
Credits extended to non-financial enterprises and organisations	13.0	9.9	11.0	13.7	15.3	18.0	19.3	19.8
As a percentage of:								
Total assets	*32.7*	*30.2*	*34.0*	*38.9*	*39.9*	*42.5*	*45.8*	*43.8*
Fixed investment	*4.8*	*4.3*	*2.9*	*3.5*	*4.8*	*5.3*	*7.3*	*6.5*

Source: Central Bank of Russia.

On the whole, these changes are the result of the implementation of measures adopted in 2003-04. Unfortunately, there has been only limited progress over the last two years in addressing problems that require some legislative action (OECD, 2004a:235-6). In particular, the sector is still awaiting amendments to the Civil Code and changes to the laws "On bankruptcy" and "On banks and banking" that would facilitate secured lending, allow the creation of genuine term deposits for retail customers,[18] and make mergers and acquisitions easier.[19] While work on all these issues is on-going, none has yet reached the statute books.[20] Nor have the authorities acted to reduce the role of the state in the provision of banking services. Official policy holds that state-owned banks should exist, if at all, to correct market failures and should be specialised in sectoral and other niches which the market will not fill on its own. In reality, however, the sector is dominated by state-owned or -controlled banks, and the last two years have actually seen an *expansion* of state ownership in the sector.

The immediate challenge facing the CBR in its capacity as supervisor is to ensure that the recent boom in retail lending does not lead to turbulence in the sector: the volume of bank credits outstanding to private persons grew from 0.6% of GDP at the end of 1999 to 5.4% at end-2005. While the development of consumer lending is on the whole a positive development, the authorities are well aware of the dangers involved in such explosive growth and are monitoring banks heavily exposed to retail lending especially closely. So far, despite relatively high default rates, this business remains very profitable. It appears, however, that this is in many cases a result of banks covering the losses from bad debtors by building all manner of charges and commissions into loan contracts. As a result, borrowers may not always understand that the real cost of borrowing is far higher than the quoted interest rate. While regulation should not be used to prevent banks from offering diversified products to retail customers, such products should be as transparent as possible.

Financial markets

Transparent, well regulated financial markets are needed to provide sources of long-term investment finance for Russian companies and to give Russian companies and investors greater flexibility when it comes to risk management. Financial market development will also underpin the development of the banking, insurance and pension systems. Though growing rapidly in both size and sophistication, Russian financial markets still play a relatively minor role in the allocation of investment resources. Issuing and trading volumes remain insignificant in a national perspective, and major Russian companies are increasingly inclined to raise capital abroad in preference to the domestic market.[21] Low trading volumes are partly the result of the structure of ownership of Russian companies: free-float ratios for major corporates are generally very low, because controlling owners want to keep a tight grip on them. However, there are a number of problems that policy-makers need to address in order to facilitate financial development in Russia:

- *Market infrastructure*. The market infrastructure is still not attractive to many companies. Faced with the absence of a central depository and liquidity mismatch between the two main clearing systems,[22] issuers and brokers alike are attracted to the more sophisticated and well capitalised clearing systems to be found in places like London. The creation of a central depository has been debated for over a decade without result.

- *Insider trading and market manipulation*. Russia has been working on laws to address these issues for some time, but nothing has yet been adopted, let alone been tested in practice.
- *Derivative instruments*. Small markets exist in equities and indices futures and options, as well as in currency futures, but there is still no proper legislation governing derivatives. They are still regarded as falling under the Civil Code provisions pertaining to wagers and so are not subject to enforcement by the courts. The authorities need to provide the necessary legal protection in terms of forward securities transactions in order to minimise legal risks in the use of derivative instruments and to expand the spectrum of underlying assets on the basis of which derivatives trading may be made. There is also uncertainty over the practice of close-out netting, whereby all transactions of a given type are netted at market value in the event of one party's bankruptcy. Such debt set-offs are not permitted in the event of bankruptcy in Russia, which greatly increases the risk for derivatives providers. Finally, the regulatory and supervisory structure for derivatives markets need to be clarified.
- *New instruments and activities*. The list of permitted securities set out in Russian law is relatively short, and no one can create new forms of securities without legislation. Securities laws need to be more open to financial innovation and in particular to provide a stronger legal basis for such activities as asset securitisation. Growing demand for credit resources on the part of the real sector stimulates demand for new refinancing techniques and instruments. In OECD economies securitisation has been a major mechanism for creating such refinancing instruments. The adoption of the 2003 law on mortgage securities marked the first major step towards the development of securitisation in Russia. Work is already under way on amendments to this law covering such issues as the exclusion of mortgage coverage from the bankrupt estate of the issuer in case of bankruptcy and the introduction of a subordination mechanism using several series of bonds with mortgage coverage. Further development of securitisation activities will require expanding the spectrum of assets and the range of assignable rights that may be used for securitisation purposes, and introducing such safeguards as restrictions on the possibility of invalidation of assignment.
- *Regulatory institutions*. The creation of the Federal Service for Financial Markets (FSFR) in 2004 has made financial market regulation less fragmented than it was: the Service is responsible for regulating securities markets, pension funds, and collective investment funds and commodities exchanges. However, there is still considerable dispersion of authority – the CBR, of course, continues to regulate banks, while insurance supervision remains under the Ministry of Finance. Moreover, some activities regulated by the FSFR are licensed by other state bodies. Cooperation among the various bodies involved in financial regulation is sometimes poor, despite the need for a unified stance and clear, coordinated signals.
- *The contracting environment*. The success of financial market reform efforts will depend in no small measure on increasing investors' confidence in the probity and reliability of the courts, improving corporate governance practices in Russia, and reducing official corruption.

The Russian authorities are well aware of the importance of building a sound financial sector, and the FSFR has presented a comprehensive strategy for financial-market development for 2006-08 to the government. The strategy emphasises the need to reduce transaction costs by improving market infrastructure, to minimise non-market sources of

risk by strengthening property rights and investor protection, to facilitate the development of collective investment vehicles, and to reduce unnecessary regulation. The FSFR management is well aware of the drawbacks of the current system of institution-based – as opposed to functional – supervision and has included in its strategy a proposal to establish a unified regulatory framework for all non-bank financial institutions with a collegial structure providing for the involvement of professional market participants and self-regulating organizations. However, no concrete steps have as yet been taken in this direction. The strategy sets four major objectives for the period (Table 1.A2.2).

Table 1.A2.2. **Objectives of financial markets development strategy**
% of GDP, unless otherwise indicated

	2005	2008
Stock market capitalisation	40	60
Value of outstanding corporate bonds	1.5	3.0
Assets of collective investment funds as a share of stock market capitalisation	1.0	5.0
Insurance premia	3.0	5.0
Share of transactions in Russian securities executed in the domestic market	40	70

Source: Federal Service for Financial Markets

The strategy addresses the major obstacles to financial market development and calls for action with respect to most of the specific problems identified above. What remains to be seen is whether the strategy will be adopted and implemented. The problems the strategy addresses are not new, and most of the solutions it proposes are not, in principle, all that controversial. Practice, however, is another matter: there have been repeated delays with respect to issues like insider trading and the creation of a single depository. Despite widespread acknowledgement of the need for such changes, inter-departmental conflict and private-sector lobbying have blocked them for years.

Competition policy

Until 2006, anti-monopoly regulation in Russia was based on the much amended 1991 law "On Competition and the Limitation of Monopoly Activities on Product Markets". Amendments adopted in March 2005 raised the thresholds for notification requirements in the case of mergers and acquisitions 150-fold in the case of pre-merger notifications and 20-fold for post-merger. The thresholds, at around $110 m and $7.3 m respectively, are still fairly low by the standard of western merger-control regimes. The March 2005 amendments did not change other aspects of competition law, as it was the intention of the government to replace the 1991 law altogether with a new competition law. The new law was finally passed by the Federal Assembly and signed by the President in July 2006. There are several major innovations in the new version:

- A new chapter on state aid provides definitions and general principles, as well as making it more difficult for state or municipal authorities to extend state aid – except where specifically authorised by federal laws or budget legislation, they will need the approval of the Federal Anti-Monopoly Service (FAS).
- The new law will encompass financial institutions. Anti-competitive behaviour and unfair competition in the financial sector are currently regulated under separate legislation on competition in financial markets.

- Public procurement rules have been incorporated into the law, including tender requirements for the selection of financial organisations that work for public bodies.
- A number of definitions have been added or amended. The definition of "dominant position" has been changed to allow for the possibility of "collective dominance", and the definition of "relevant market" has also been revised. A new definition of "concerted practices" has been included in the draft.
- Rules on monopolistic behaviour are to become tougher, with some anti-competitive actions being classed as violations *per se*, while others will be assessed for their actual impact and may be exempted.
- The provisions concerning exemptions from certain prohibitions contained in the law are largely modelled on EU legislation. They provide a more elaborate set of requirements for the granting of exemptions by the FAS.

The authorities are also preparing to amend the Code of Administrative Offences in order to strengthen the sanctions imposed for violations of anti-monopoly legislation and to make enforcement of competition law more effective. These will involve a very substantial increase in the hitherto very low fines that can be levied on firms for violations. The amendments will also introduce "whistleblower" provisions, allowing leniency or even full immunity for those who expose violations, and sanctions against individuals responsible for violations, including civil servants, board directors and company executives.

There is considerable uncertainty about how the new legislation will be applied, especially when it comes to new concepts like collective dominance – a potentially very important innovation, given the highly concentrated structure of many Russian industrial and service sectors. However, the amendments will plug many of the gaps in Russian competition law. They will also address many of the issues identified by OECD (2004b) as key priorities for competition law reform: providing credible sanctions for violators, reducing merger control submissions, and strengthening the powers of the FAS. That said, there is much still to be done. Further legislative amendments will be necessitated in due course by Russia's commitment under the Partnership and Cooperation Agreement with the European Union to bring its competition rules gradually into line with those of the EU. More also needs. to be done to give the FAS the resources and capabilities required to perform its role effectively.

Pension reform

Pension reform is probably the single most far-reaching social reform launched in recent years.[23] Its aim is to replace the defined-benefit, pay-as-you-go (PAYG) system inherited from the Soviet Union with a three-tiered system of state pension provision comprising:

- a basic pension financed on a PAYG basis, with no link to past earnings or contributions;
- a notional defined contribution (NDC) scheme in which benefits depend directly on an individual's past contributions; and
- mandatory pension insurance in the form of a fully funded pillar of the pension system.

Individuals may also invest on a voluntary basis in additional private pension schemes. The reform aims, among other things, to ensure the long-term financial sustainability of the system while avoiding a dramatic drop in replacement rates; to

increase the incentives to contribute and reduce incentives to retire early; and to facilitate the emergence of a population of institutional investors with long time horizons, thereby deepening Russia's financial markets.

As noted in OECD (2004a:69-70), the early stages of this ambitious overhaul of pension provision proved extremely difficult, and significant changes were introduced almost as soon as the implementation of the reform got under way. Developments since the previous *Survey* have raised concerns about the future of the reform on a number of counts:

- The reform is intended to strengthen the link between contributions and benefits, gradually reducing its redistributive element. In 2002-04, there was a slow but steady shift in the structure of pensions in favour of the earnings-related component. Each time pensions were increased, the coefficient used for the NDC portion was slightly higher than that for the basic pension. However, the previously unplanned 36% rise in the basic state pension in March 2005 (a response to the benefit-monetisation protests) meant that the system is now far less earnings-related than it was before the reform. Maleva and Sinyavskaya (2005) estimate that the previous proportions will not be restored until 2012.
- The funded pillar of the new system has so far failed to contribute much to financial system development. Few people are choosing to exercise the right to shift the funded portion of their pension contributions to private managers. Only 1.8 m (under 4% of those eligible) did so during 2003-05 inclusive. The contributions of the rest of the population remain under the management of the state-owned Vneshekonombank. In general, this appears to reflect a lack of information about the private alternatives (something the government has tried to address in new legislation adopted in May 2005) and a lack of trust in private pension funds and fund managers. However, it also reflects the fact that, for many, the sums involved are so small that it is not worth the effort: the payouts from the funded pillar in the first years after participants begin to retire will be tiny.
- Nothing has been done about the conflict of interest that Vneshekonombank faces: it is both the "residual" manager of contributions to the funded pillar of the system and the government's agent for managing the state debt. This position looks especially problematic in view of the "Debt Strategy of the Russian Federation", which appears to envisage investing pension savings for very long periods at very low interest rates. However, Vneshekonombank can do little else until the range of instruments in which it can invest pension savings is expanded: it will soon find that it has more money at its disposal than it can invest in government securities.
- The reduction in the basic rate of the unified social tax (ESN) from 35.6% to 26.0% in 2005 came principally at the expense of the Pension Fund's share of ESN revenues. The exclusion of persons born before 1967 from the funded pillar of the reformed pension system freed up some resources for paying current pensions, but the Fund still swung into deficit as a result of the cut. In 2005, a deficit of RUB 111 bn was covered by moneys from the Stabilisation Fund. On present trends, this deficit is expected to reach perhaps RUB 470 bn by 2012.[24]

It now appears that the authorities will reorganise the financing of current pensions so that ESN revenues fund only the NDC and funded pillars, leaving the basic state pension to be financed out of the budget. However, more must be done if the authorities are to ensure that the pension system remains financially sound without allowing system-wide

replacement rates – currently around 27-28% – to fall sharply over the coming decades. As OECD (2004a:70) suggests, a gradual increase in the standard retirement ages for men and women would be desirable, as would an explicit link between pension benefits and life-expectancy at retirement.

Privatisation and the management of state property

OECD (2004a) notes that the main difficulty in selling state shares in joint-stock companies is that the vast majority of the state's remaining stakes are small, and it is difficult, given Russia's current standards of corporate governance, to sell small stakes in companies that already have effective owners. Around half of all privatisation sales are postponed each year, owing to lack of demand for the assets involved. The other major reason for the slowdown in privatisation is that the state is increasingly inclined to hang on to its more valuable assets.[25] Thus, while 2004 saw the sale of stakes in Lukoil and the Magnitogorsk Metallurgical Combine, one of the striking features of 2005 was the absence of any really large privatisation transactions. The federal government sold stakes in 566 companies, but the largest deal of the year was the sale of OAO Polief for just RUB 3.38 bn (around $119.4 m). The original plans for 2005 had envisaged the sale of stakes in a number of large and relatively valuable enterprises, including Rosspirtprom, Domodedovo Airlines, the insurer Rosgosstrakh and the cargo ports of Novorossiisk and Tuapse, but none of these sales took place. The privatisation of the telecoms holding company Svyazinvest remains, as it has been for several years, under discussion but without resolution.

The process of liquidating, selling or corporatising federal state unitary enterprises (FGUPs) continues to meet resistance but is making steady, if slow, progress. This is far less visible and less widely discussed than privatisation, but it represents an important priority, since FGUPs as an organisational form are notoriously susceptible to rent-seeking by insiders and other abuses (OECD 2004a:92-3). Until recently, the vast majority of state unitary enterprise (GUP) directors did not even have contracts with the state. GUP managers have "economic authority" over the state property under their control, an ill-defined legal concept that allows them almost total freedom to operate enterprises for their own benefit, even to the point of alienating GUP assets.

Corporate governance

The period covered by the previous *Survey* witnessed a large-scale overhaul of Russian company law and the introduction of the new "Code of Corporate Behaviour", as the country's corporate governance code is known (OECD, 2004a:89-91). It is hardly surprising then, that the recent period has seen far less legislative activity in this field: implementation issues have largely dominated the agenda. The most significant legislative change during the *Survey* period was the adoption in January 2006 of amendments to the law on joint-stock companies that would make it easier for super-majority shareholders (holding 95% of a company's equity) to buy out the remaining minorities.

Most assessments suggest that the quality of corporate governance overall continues to improve, but progress has been uneven, across both companies and aspects of corporate behaviour. A survey of corporate governance trends by the Russian Institute of Directors (RID, 2006) concluded that there had indeed been significant improvements in the protection of shareholders' rights but noted that there were still significant weaknesses with respect to issues like the independence of auditors and valuers, the conduct of

procurements and the determination of dividend policies. Transparency has improved with respect to some issues but is still very weak with respect to others, such as beneficial ownership and board remuneration. The report also notes that corporate governance improvements in companies preparing for IPOs are often limited to those measures that will most impress potential investors in the run-up to the issue: there is an element of window-dressing involved. Increasingly, therefore, attention is focused on how to implement good corporate governance practices – both by strengthening enforcement, whether *via* the courts or the securities regulator, and by increasing acceptance of good corporate governance norms.[26]

Further significant legislative activity is planned. The Ministry of Economic Development and Trade (MERT) has put forward a medium-term plan for reforming company law that envisages steps in a number of important areas, including: better legal regulation of intra-corporate conflicts (in particular, to reduce the scope for greenmail), tougher liability for managers and board directors, proper regulation of conflicts of interest and use of insider information, and more demanding disclosure requirements for public companies. At the same time, the plan acknowledges that many Russian public companies are public in name only, having been constituted as such at the time of privatisation. Such companies incur significant costs if required to comply with the corporate governance code and other such norms, but they do not attract outside investment to offset these costs. The ministry aims to distinguish between these two groups of companies, with a view to imposing tougher standards on "real" public companies while reducing the burden of compliance on the rest.

The MERT programme also offers an opportunity to tackle the further reform of Russian legislation in the field of company law and corporate governance within the context of a single integrated approach. As OECD (2004a) observes, many elements of the corporate governance framework, such as ownership disclosure requirements, are scattered among different pieces of primary and secondary legislation and are not always fully consistent with one another. Harmonisation of definitions and requirements could make enforcement easier for the authorities and also reduce the costs of compliance for companies. It would also make the overall framework clearer and more coherent. Given the limited resources available to the institutions responsible for implementation and enforcement, this is an important consideration.

Customs reform

The previous *Survey* (OECD, 2004a:93-4) welcomed the adoption of the new Customs Code of the Russian Federation as a major improvement on previous Russian legislation in this sphere but warned of implementation difficulties ahead. In practice, the new code has indeed brought significant improvements, but some provisions have proved difficult to implement, and work continues on refining the code. In part, the difficulties have been transitional, arising from uncertainty among employees of the Federal Customs Service (FCS) about how to apply the new provisions and, in some cases, an apparent reluctance to take responsibility for applying the new legislation without guidance from above. However, FCS officials have indicated that more than 140 provisions need further amendment. Nevertheless, one recent assessment concluded that the FCS has become much more serious about protecting intellectual property rights – anti-piracy enforcement has been stepped up – and that the service's new risk-management procedures have indeed made for both faster, smoother procedures and increased detection of contraband shipments.

Land reform

OECD (2004a) observed that the substantial corpus of new land legislation adopted in 2001-03 constituted a major step towards the development of a well functioning land market in Russia but that more needed to be done to facilitate the development of a market in land, particularly agricultural land. That assessment still holds: the problem of property rights in land remains one of the most important unresolved issues facing the agricultural sector (see Annex 1.A3). However, the process does continue to move forward. The most important step taken during the *Survey* period was the adoption in July 2005 of a law simplifying agricultural land deals. During the roughly three years between the adoption of the initial law on the sale of agricultural land and the passage of the new law, only 2.3 m of 12 m owners of land shares undertook formal procedures to separate their parcels from collectively owned land. Continued short-term leasing remained the norm. The new law simplifies procedures for realising land ownership rights and removes a great deal of contractual uncertainty that remained under the 2002 legislation. However, the new act retains and toughens the restriction on use of the land for agricultural purposes, and it confirms the ban on foreign ownership of agricultural land (long-term leases are allowed, however).

Notes

1. Those taking advantage of the "capital amnesty" will be required to pay a 13% charge – equivalent to the current flat-rate income tax – and no further questions will be asked.
2. See OECD (2006) for a detailed discussion of these issues. The crucial point is that Russia now needs to develop functional alternative systems for recording and monitoring capital flows for other purposes, such as taxation and statistical record-keeping.
3. When privatised, enterprises were granted the "permanent right of use" of the land on which they stood. They are required by law either to acquire full ownership or to conclude a lease agreement with the relevant local or regional government by 1 January 2008.
4. As of 1 January 2006, the tax authorities may collect fines and penalties from companies without any court hearings whatsoever up to a maximum of RUB 50 000 per tax period (for most taxes, per month) in the case of companies and RUB 5 000 in the case of individual entrepreneurs. This concerns fines and penalties only: the tax inspectorate can already enforce collection of the taxes themselves even if liability is disputed.
5. See, *e.g.*, Yasin *et al.* (2006:34-5).
6. See especially the concerns raised in Zaripov (2006).
7. The main laws are "On electricity" ("Ob elektroenergetike" 2003) and "On the implementation of the law 'On electricity'" ("Ob osobennostyakh" 2003). Amendments to four other pieces of legislation removed impediments to the operation of these two basic laws. See Tompson (2004) for details.
8. IEA (2005b) highlights the likelihood that concentration of ownership will increase after market opening, so *ex ante* assessments may understate the risks here.
9. See Ahrend and Tompson (2004) and OECD (2005a).
10. See ECMT (2004) for an overview and assessment of railways reform in its entirety.
11. For details, see ECMT (2006).
12. ECMT (2006:2).
13. In other words, how much its own train operators "pay" to its infrastructure components.
14. *Vedomosti*, 29 May 2006.
15. The Law provides for amendment only where the loss is caused by a change in legislation, but it expressly excludes changes in legislation regulating the environment and public health.

Furthermore, regulations are currently lacking that identify the circumstance when this mechanism is triggered.

16. See OECD (2004a:217-62) for details.

17. Figures here are in current, not constant, roubles.

18. As noted in Chapter 1, all retail deposits are effectively demand deposits, regardless of the contract terms, because the Civil Code allows a depositor to reclaim his money at any time without penalty.

19. The CBR has done what it can: its Order No. 1632-U of 15 November 2005 simplifies the procedure for mergers and consolidations, but amendments to primary legislation are needed to scrap the provision requiring that merging banks offer all borrowers the option of terminating their lending agreements. The government in September 2006 also took steps to make it easier for non-residents to buy and sell shares in Russian banks, while unifying treatment of resident and non-resident investors in respect of these activities.

20. The Federal Assembly was due to begin consideration of a bill on "real" term deposits in September 2006.

21. From January 2004-March 2006, nine Russian companies placed domestic IPOs, raising a total of $579 m; by contrast, the seven companies that issued IPOs abroad (either directly or through foreign-registered subsidiaries) raised over $4.1 bn. Large bond issues likewise tend to be made abroad.

22. Low capitalisation and lack of coordination between the main clearing systems result in the use of two different settlement methods: deals requiring 100 per cent advance deposit of cash and securities or deals without any regulation of delivery terms. The former are very expensive, the latter very risky.

23. For details see OECD (2005a) and (2004a:113-20).

24. The Ministry of Economic Development and Trade anticipates a deficit of RUB 469 bn, the Ministry of Health and Social Development expects it to be higher, at RUB 4 91.5 bn, and the Accounts Chamber of the Federal Assembly has put forward an estimate of RUB 656.9 bn.

25. Privatisation plans are dominated by assets that are of interest neither to the state nor to private buyers. In late November 2005, Minister of Economic Development and Trade German Gref remarked that "they do not give us liquid enterprises for the privatisation plan" ("V tsentre", 2005).

26. See OECD (2005b) for details.

ANNEX 1.A3

The Russian agricultural sector

Although the agricultural sector has recovered considerably from the crisis years of the 1990s, its performance is mediocre and its long-term prospects in the absence of further reforms are uncertain. After falling by 44% in real terms during 1990-98, agricultural production bounced back after the 1998 financial crisis, as the sector profited from the post-devaluation collapse in imports and the dramatic fall in the real value of its debts. By 2002, however, the impact of these factors was largely exhausted, and the sector has since performed rather poorly (Table 1.A3.1).

Table 1.A3.1. **Agricultural production growth**

%, year-on-year

	1999	2000	2001	2002	2003	2004	2005
Agricultural production	4.1	7.7	7.5	1.5	1.4	3.1	2.0
of which:							
Crop production	9.1	13.6	10.8	0.0	3.1	7.5	3.7
Livestock production	–0.8	0.8	3.5	3.2	–0.5	–2.4	0.1

Source: Federal Service for State Statistics.

A number of underlying trends point to an uncertain long-term future for Russian agriculture. Investment rates are low, the stock of machinery and equipment continues to shrink, and sown areas continue to decline. The reduction in areas under cultivation is primarily a result of the sector's financial and equipment problems. Low investment largely reflects a combination of long payback times and the risks arising from both the instability of agricultural commodity markets and high levels of legal and institutional uncertainty. The failure to sort out property rights in the sector remains a major problem. Without a functioning land market, it is impossible to know what land should be taken out of production, and since land values are not reflected in production costs, the structure of agricultural production is distorted. Moreover, the evidence suggests that farms are not taking sufficient care to maintain soil quality.* Where land does not have a value that can be assessed and realised in the marketplace, owners have less incentive to look after it. Finally, the sector's human capital has also been degraded in recent years, as very poor economic and other conditions in rural areas prompted a large-scale exodus to the cities, with younger and more productive workers accounting for a disproportionate share of those departing.

* Mineral fertiliser use is around one-quarter of what would be needed to replace the nutrients being extracted from the soil as a result of agricultural production.

Since the collapse of the Soviet Union, state support for agriculture has been extremely modest, compared to OECD economies, owing chiefly to the limited resources available to finance such support. Nevertheless, the authorities have sought, *via* a mixture of protection and direct support, to keep the sector on its feet. These efforts have generally been extremely inefficient, although they have grown more sophisticated over time. Particularly important has been the shift away from direct subsidies and the periodic debt write-offs – which tended to stall rather than facilitate restructuring – towards greater reliance on subsidised credits. This has helped producers in need of short-term credit for working capital, but attempts to use a similar mechanism to help with the financing of longer-term (3-5 years) investments have had little impact. The new unified agricultural tax has also been helpful, especially to small farms. Efforts to help cash-strapped farms replace ageing equipment *via* leasing have also been undertaken, but they have been insufficient to halt the decline in the stock of tractors and other machinery. The exclusion of foreign equipment from such programmes (particularly second-hand and cheap foreign equipment) and the limited competition allowed even among Russian producers has undermined the effectiveness of leasing programmes: public support for leasing appears in many regions to be oriented to helping (some) equipment producers more than farmers.

A more general problem with state support is that it has been oriented to propping up struggling farms rather than creating conditions for the expansion of successful ones. A significant and growing number of efficient, market-oriented farms have emerged in Russia in recent years, but state policies are too often determined by the needs. and demands of the larger number of ex-Soviet agricultural enterprises that remain marginal, inefficient producers. Support for them is largely a matter of social policy, as these farms are generally in depressed areas, and they employ a large share of the roughly 50% of the rural population that is below the poverty line.

The current "priority national project" for agriculture represents the latest attempt by the authorities to rationalise state support for the farm sector. Its main aims are to support livestock production, to stimulate the development of small farms (mainly *via* the availability of subsidised credit) and to create conditions in rural areas that will draw younger specialists back to the sector. The main initiatives with respect to the livestock sector involve the provision of RUB 6.6 bn to subsidise interest on investment credits and the purchase of 100 000 head of breeding stock (cattle, pigs and sheep), as well as new equipment. The animals and equipment will be owned by the state leasing agency, Rosagrolizing. The livestock purchases represent perhaps the oddest element of the package, since this is a relatively expensive way to renew herds, and it will make unprecedented demands on logistics and veterinary services – even in Soviet times, the country never imported more than 10 000 animals per year. Moreover, high-quality animals may not yield the desired levels of productivity if conditions for maintaining them are inadequate, and the mass import of so many animals in such a short time raises the risk that this will be the case.

Unfortunately, the project has been launched at a time when there is little evidence of any progress in addressing much more basic institutional problems, the resolution of which is essential to the sector's long-term future:

- *Much needs. to be done to create a functioning market in agricultural land*. The 2003 law on the purchase and sale of agricultural land was a framework law; its implementation depends on the adoption of legislation at regional level, but only about one-third of regions have done so. An amendment now before the State Duma would effectively force this issue by establishing a framework for land markets in regions that do not adopt legislation of

their own. However, this will solve only part of the problem. The authorities also need to simplify the registration and transfer of property rights. The cadastre value of most farm land remains to be assessed. Crucially, the legislation governing collateral is still somewhat confused with respect to farm land, so even producers who own their land cannot necessarily secure financing against it. A law on warehouse receipts has been under discussion since the 1990s but has never been passed. Without it, farmers will find it hard to secure credit using their produce as collateral.

- *State support for the sector needs to be rationalised*. First, the authorities need to distinguish between the economic and social aims of rural policy: much support for agriculture tends, for social reasons, to prop up small and inefficient farms. However, this serves to preserve inefficient structures and reduce the market shares (and thus profits) of more efficient, market-oriented producers. Secondly, more assistance needs to be directed at facilitating adjustment to change rather than helping to avert it, not least by helping inefficient producers to exit the sector and find alternative means of making a living. Finally, the authorities need to shore up the provision of basic public goods for the sector, such as agricultural extension services and programmes to support livestock breeding and seed selection and development.
- *Leasing and equipment markets need to be made more competitive*. This may require tougher anti-monopoly regulation, but it is also likely to necessitate changes to the way government-supported leasing programmes work and more open access for foreign machinery, especially second-hand machinery.

More generally, there is a need for consistency and clarity in government policy. Without it, investors will tend to operate with short time horizons. Market access is one area where stability is needed. Given that Russian farmers often face competition from producers in countries where agriculture is very heavily subsidised, the authorities are committed to some continued protection for agricultural producers. In recent years, however, policy in this area has changed frequently, as the authorities reacted to conflicting pressures from agricultural producers and urban consumers. It would be preferable for all concerned if the nature and level of this protection were clear and stable, so that investors knew what to expect. This is even more the case with respect to property issues: no matter what the government does by way of protection or financial support, agriculture will remain a problem sector in Russia until issues pertaining to the assignment, protection and exchange of property rights are addressed.

The foregoing should not be taken to imply that the fate of the sector depends wholly, or even primarily, on the government's agricultural policies. Its future depends chiefly on the overall macroeconomic situation and the demand for agriculture produce, as well as on the investment climate in the country. Sector-specific policies will have a secondary (though by no means trivial) role to play. For example, the development of a functioning land market requires more than just the resolution of legal questions (essential as that is): it depends on the existence of strong demand for land, which, in turn, depends on how attractive investment in agriculture is. The resolution of problems with rural labour mobility and the quality of the rural labour force will likewise depend to a great extent on factors outside the agricultural sector and the domain of agricultural policy. Nevertheless, rationalising state policy towards the sector and improving institutions in it will be important in ensuring that Russian agriculture is able to respond to the opportunities presented by a changing market environment. That is why reducing structural impediments to factor mobility (particularly in respect of land) are so important.

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Chapter 2

Ensuring sound macroeconomic management

This chapter 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 chapter 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.

From the first recovery of oil prices in 1999 until the end of 2004, Russia's macroeconomic strategy rested on the assumption that high oil prices were a temporary phenomenon. This may yet prove to be the case – oil prices could fall sharply in coming years – but expectations have shifted. It is now generally believed that oil prices are set to remain at levels that are, by historical standards, rather high. While a world of sustained high oil prices may be good for Russia, the adjustment to this new environment also presents certain challenges, and it is not yet clear that Russia has adapted its macroeconomic strategy to reflect the belief that high oil prices are here to stay.

The first and most immediate problem Russia may face 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.[1]

This chapter 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.

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. The main policy recommendations presented below thus focus on the framework for forming, investing and utilising the Stabilisation Fund.

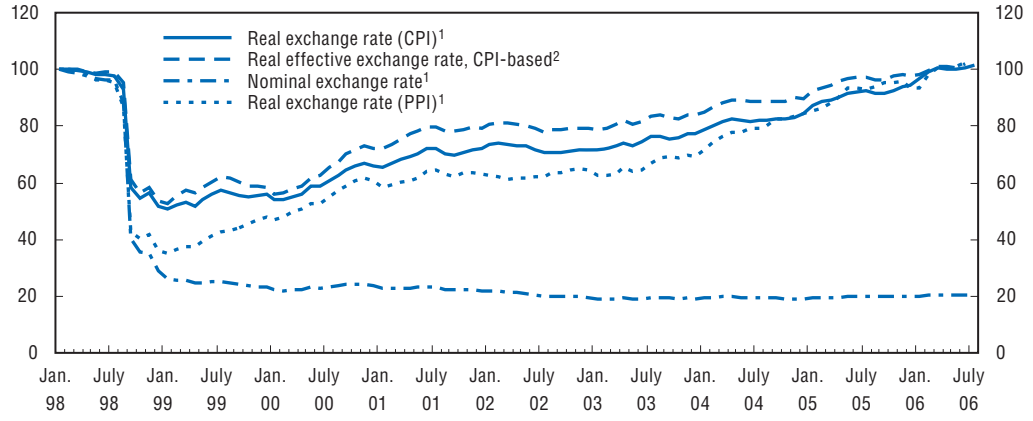
The real exchange rate, trade performance and competitiveness

A prolonged strengthening of the balance of payments has pushed the real exchange rate up…

On the back of high oil and commodity prices, the rouble has continued to appreciate steadily in real terms. In 2005, the CPI-based real effective exchange rate (REER) strengthened at an average annual rate of 8.1%,[2] a pace that slightly exceeded the upper bound of the implicit target set by the Central Bank of Russia (CBR).[3] In the first half of 2006, the trend accelerated slightly and real appreciation reached an annual average rate of 10%. There has, of course, been considerable debate about whether the CPI-based measure is really the appropriate one for assessing price competitiveness. However, the exchange rate has now returned to its pre-crisis level in real terms, whatever indicator is employed (Figure 2.1). Using a REER measure based on unit labour costs[4] would doubtless lead to the same conclusion, since real labour-cost dynamics roughly matched productivity gains over 1998-2005 (Figure 2.2).

Figure 2.1. **Real effective exchange rate**

January 1998 = 100



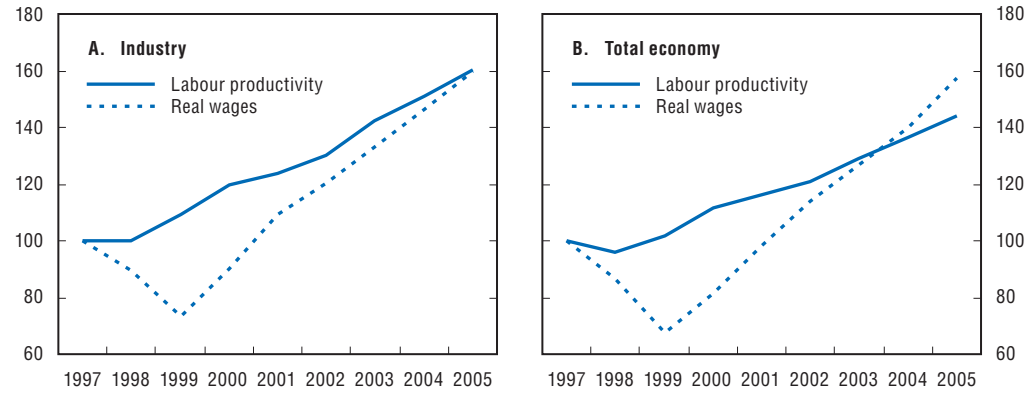
1. Using a currency basket (50% US$, 50% euro), index Jan.-98 = 100.
2. IMF calculation.

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

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 2.3).[5] In 2005, export prices grew by 22% in rouble terms, against 5.2% for import prices.[6] The positive terms-of-trade shock more

Figure 2.2. **Productivity and labour cost**

1997 = 100

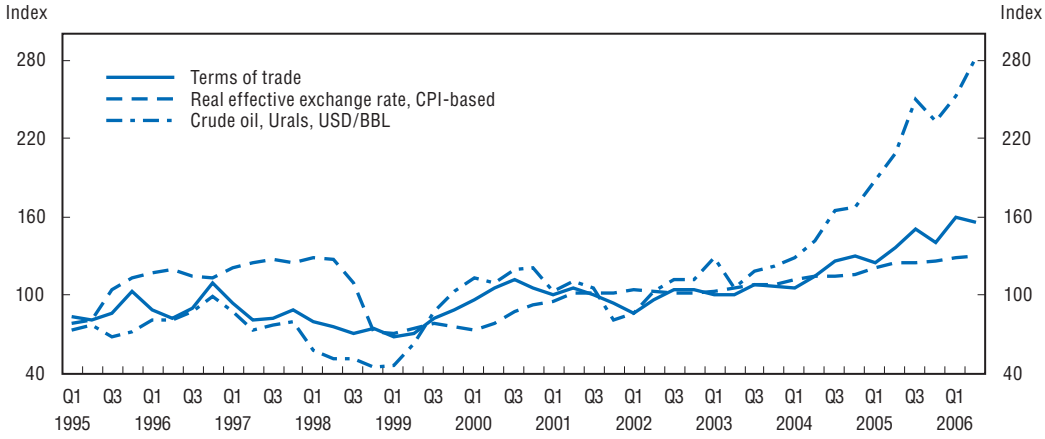


Note: In 2005 real wages are not adjusted for the cut in the Unified Social Tax and thus overstate the increase in labour costs.

Source: Federal Service for State Statistics, OECD calculations.

Figure 2.3. **Urals export price, terms of trade and REER**

Index 2001 = 100



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

than offset the marked slowdown in the growth of export volumes in 2005 and the continued very strong growth of import volumes. As a result, the current account surplus reached a record level of $83 billion, or 10.9% of GDP (Table 2.1). Consequently, the accumulation of foreign reserves has continued at a very rapid pace. Gross foreign exchange reserves rose by $61.5 billion in 2005 to reach $182.5 billion at year-end.[7]

In 2004-05, the capital and financial account turned negative, helping to alleviate somewhat the upward pressure on the rouble. In the absence of early external debt repayment of around $15 billion to the Paris Club, however, the capital account would have contributed to a net *inflow* of foreign exchange in 2005, owing mainly to a sharp rise in corporate borrowing abroad (Figure 2.4).[8] Large state-owned companies were in fact major contributors to the increase in non-governmental foreign debt.[9] These inflows were only partially offset by capital flight, which continued running at about 5% of GDP.[10] Foreign direct investment (FDI) plays a modest role in the balance of payments position, as FDI inflows remained below 2% of GDP, only marginally exceeding FDI outflows. It should be

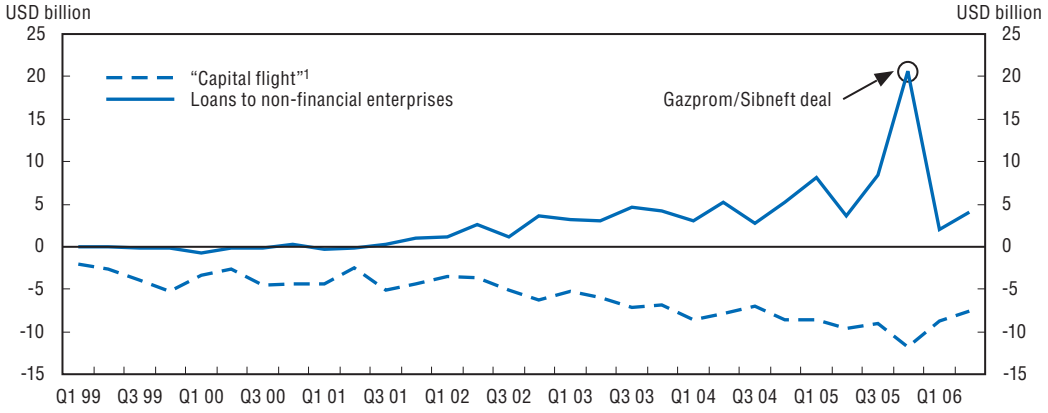
Table 2.1. **Balance of payments**
As a percentage of GDP

	2000	2001	2002	2003	2004	2005
Current account	**18.0**	**11.1**	**8.4**	**8.2**	**9.9**	**10.9**
Goods and services	**20.6**	**12.7**	**10.6**	**11.3**	**12.3**	**13.6**
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
Goods	23.2	15.7	13.4	13.9	14.5	15.5
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
Services	–2.6	–3.0	–2.9	–2.5	–2.3	–1.9
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
Investment income and compensation of employees	**–2.6**	**–1.4**	**–1.9**	**–3.1**	**–2.2**	**–2.5**
Current transfers	**0.0**	**–0.3**	**–0.2**	**–0.1**	**–0.1**	**–0.1**
Capital and financial account	**–14.3**	**–7.8**	**–6.5**	**–6.0**	**–8.9**	**–9.4**
Capital transfers	**4.2**	**–3.1**	**–3.6**	**–0.2**	**–0.3**	**–1.7**
Investment	**–12.3**	**–2.1**	**0.3**	**0.4**	**–0.9**	**0.4**
Direct investment	–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
Portfolio and other investment	–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
Changes in reserves	**–6.2**	**–2.7**	**–3.3**	**–6.1**	**–7.7**	**–8.1**
Errors and omissions	**–3.7**	**–3.3**	**–1.9**	**–2.2**	**–1.1**	**–1.5**
Balance	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

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

noted, however, that this outcome largely reflects the accounting treatment of Gazprom's acquisition of a 72.6% stake in the oil company Sibneft, which was settled off-shore.[11] Otherwise, FDI inflows would have grown significantly, to about 3% of GDP.

Figure 2.4. **Private sector borrowing and capital flight**



1. Non-repatriation of export proceeds and non-supply of goods and services against import advances plus errors and omissions.

Source: Central Bank of Russia.

... squeezing competitiveness in the manufacturing sector

There are increasing indications that the continuous real appreciation of the rouble has begun to affect the performance of non-fuel tradable producers. 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.[12] The 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.[13] Not surprisingly, then, it deteriorated markedly in 2005.[14] In addition, activity in most import-competing sectors slowed significantly (Table 2.2). Enterprise surveys confirm the growing pressure on manufacturers: although foreign competition may have a stimulating effect on domestic productivity (see Chapter 4), a third of industrial firms now consider it a major obstacle to expansion, as against less than 5% in early 1999 (Tsukhlo, 2006).[15]

Table 2.2. **Production in the manufacturing sector**

Growth rates, year-on-year, %

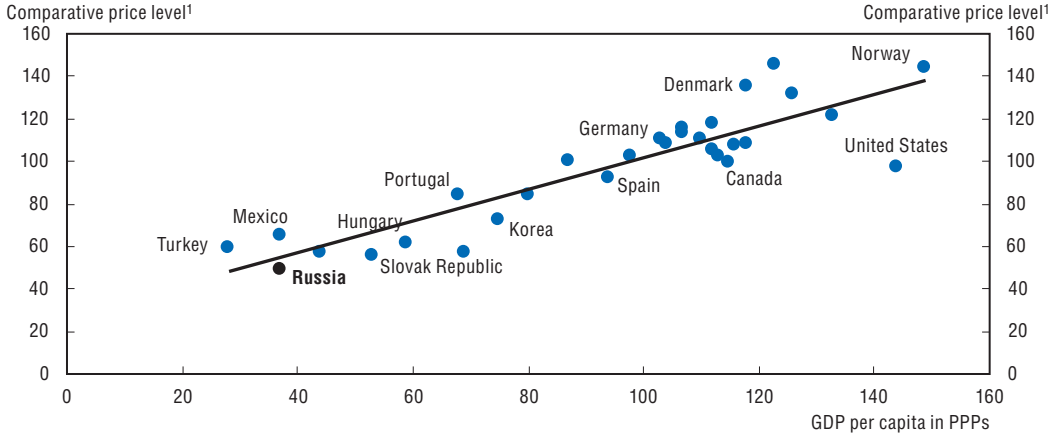
	2003	2004	2005	H1 06/H1 05
Manufacturing	10.3	10.5	5.7	4.5
Food products, beverages and tobacco	6.9	4.4	4.4	5.2
Textiles and textile products	1.2	–4.0	–1.5	10.8
Leather and leather products	11.5	–0.6	–2.7	12.3
Wood and wood products	9.7	8.7	4.5	1.9
Pulp, paper and paper products; publishing and printing	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.

The question that naturally arises in view of the growing difficulties of tradable sectors is whether the rouble is overvalued or not. At the aggregate level, the most straightforward measure of an equilibrium exchange rate – comparing price levels across countries with respective productivity levels[16] – suggests that it is not (Figure 2.5). Relying on a more comprehensive model, which considers exchange rate movements alongside productivity trends, the net flow of foreign assets and real oil prices,[17] Égert (2005) concludes that the rouble was close to equilibrium in 2003. Of course, the equilibrium exchange rate, on Égert's methodology, would have strengthened since then, but unless it has risen very rapidly indeed, his result would imply that the rouble is now at least slightly overvalued. A widely used alternative approach would define the equilibrium exchange rate as the real effective exchange rate that is consistent with a sustainable external position.[18] Focusing on the current account, however, is pointless in the case of Russia, precisely because real appreciation goes hand in hand with a growing external surplus, both of which are driven by rising commodity prices.[19]

Figure 2.5. **Relative productivity and price level**

2005, OECD = 100



1. Ratio of PPPs for gross domestic product to exchange rates.

Source: OECD and Federal Service for State Statistics.

Any attempt to assess an equilibrium exchange rate at the aggregate level is therefore fraught with difficulty. The policy-relevant question is whether or not the current level of the exchange rate hampers the diversification of production and exports, and how great the risk of so-called "Dutch disease" (Box 2.1) may be. One way to address these issues is to compute competitiveness or REER indicators at a more disaggregated level, excluding the fuel sector, in particular. Plekhanov (2005) has thus built an industry-related exchange rate and matched it with firm data. He finds that profitability and sales are positively correlated with exchange-rate depreciation. In particular, the rapid appreciation of the rouble against the US dollar has had a greater negative impact on light manufacturing industry – which is in direct competition with China – whereas the exchange-rate pressure on the chemical industry has grown during phases of appreciation against the euro. An alternative approach would be to compare directly the situation in Russia with countries endowed with similar industrial structures but lacking its resource wealth. In a comparison of Russia and Ukraine, Ahrend, de Rosa and Tompson (2006) find that, although labour productivity is generally higher in Russia, unit labour costs are not lower and have increased more rapidly in recent years.

Along the same line, Gianella and Chanteloup (2006) use both the relative non-fuel export prices of Russia and its competitors on third markets and import-price competitiveness indicators. They find that by the end of 2004, Russia had exhausted the price-competitiveness advantage gained after the 1998 devaluation (Figure 2.6) and that real appreciation has mainly affected Russian trade *via* the import channel.[20] By 2004, the improvement of the trade balance relative to 1996 could thus be attributed entirely to crude oil, oil products and natural gas.[21] The deterioration of the non-fuel trade balance is, of course, a foreseeable consequence of real appreciation and, to a large extent, the counterpart of rapidly growing revenues from fuel exports. The decomposition reproduced in Figure 2.6 shows the evolution of the real effective exchange rate for the non-fuel tradable sector alone. 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.

Box 2.1. **"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.[1] The strong appreciation of the real exchange rate generates competitive pressures on manufacturing tradables 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).[2] This shift of production may also generate negative consequences for other reasons:

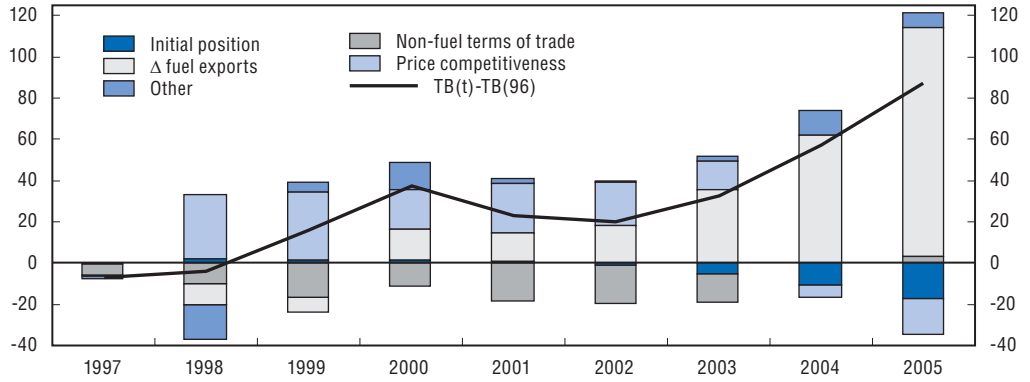
- The positive shock may be temporary, in which case it may be difficult to reverse the reallocation process and renew the industrial base afterwards.
- Even if the increase in wealth is permanent, the economy may be exposed to long-term losses, given the presence of spillovers and opportunities to "learn 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 2.2). 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.

Figure 2.6. **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).

Labour-market flexibility has helped Russia absorb the real exchange rate shock…

If the loss of competitiveness in the manufacturing sector has unambiguously altered its recent performance, this shock has not yet translated into negative developments for the labour market. First, unemployment continued to fall in 2004-05. Secondly, the intersectoral reallocation of the labour force has been relatively smooth in recent years. The shift of labour from the tradable sector to non-tradables has continued and even slightly accelerated since 2002, but the process is much slower than earlier in the transition period (Table 2.3). Moreover, the bulk of the reallocation during 2000-04 involved the

Table 2.3. **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
of which:							
Manufacturing	–	*21.8*	*18.6*	*18.6*	*18.4*	*18*	*17.7*
Fuel and metal extraction	–	*2.8*	*2.4*	*2.5*	*2.4*	*2.3*	*2.3*
Electricity and energy		*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 and 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
Total	100	100	100	100	100	100	100
Employment (1 000)	75 325	66 330	64 517	64 980	65 574	65 979	66 407

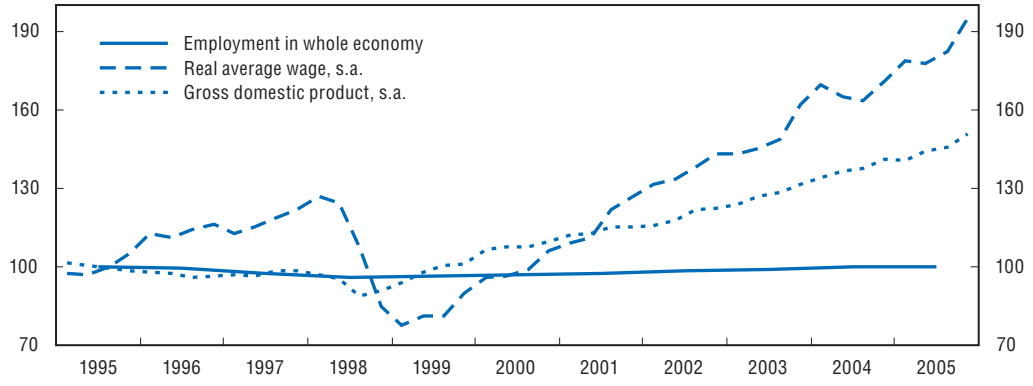
Source: Federal Service for State Statistics.

movement of workers out of agriculture – not manufacturing – and into the non-public tertiary sector, chiefly trade and catering. Employment in the booming resource sector has not expanded since 2001, an indication of how large the scope for restructuring was when the recovery began. In Russia, the intersectoral labour shift is facilitated by the relatively high level of turnover on the labour market. The gross job turnover ratio, defined as the sum of hiring and firing, rose steadily during 1995-2004 and reached around 60% of total employment in 2004,[22] as against approximately 40% on average in East European countries at the end of the 1990s (Cazes and Nesporova, 2001) and much lower rates in OECD countries. Interestingly, most exits from firms are voluntary quits rather than dismissals.

The relatively high level of employment flexibility in the private sector may appear surprising, given the rigidity of the Labour Code,[23] but the code is not rigorously enforced. Moreover, the rapid development of "non-standard" contracts in recent years has further contributed to employment flexibility[24] and helped reduce the potential frictions generated by exchange rate-induced job reallocation. Wage flexibility is also remarkably high in Russia, and this, too, helps smooth adjustment. In the early years of the transition and in the aftermath of the 1998 crisis, when the economy experienced huge negative shocks, real wages adjusted on a dramatic scale, reducing the pressure on employment. As a result, the employment level barely deviated from its trend (see Figure 2.7).

Figure 2.7. **Wages and employment adjustment**

Index 1995 = 100



Source: Federal Service for State Statistics, OECD calculations.

Part of the wage adjustment occurred through higher inflation, but wage flexibility on that scale – not observed elsewhere in Eastern Europe during the transition – requires a specific institutional framework and a specific wage-setting mechanism. In Russia, the minimum wage is very low and not binding, and the negotiated wage at firm level appears to follow a risk-sharing rule, where the risk associated with fluctuations in firm performance is shared by employees (Kapeliushnikov, 2003, Bigsten *et al.*, 2003). On average, the basic fixed part of the individual wage accounts for approximately half of the total negotiated wage,[25] while the wage premium, which depends on profitability, constitutes the other half.[26] This capacity of wages to react rapidly may also explain why restructuring has been delayed and, in some cases, has taken place many years after the recovery. Such a wage setting mechanism also explains why the proportion of voluntary

quits is so high in Russia: a firm hit by an adverse shock may avoid exiting the market by adjusting wages, but its workers – especially the most productive ones – will search for work elsewhere.[27]

... but the tightening of regional labour markets may make further adjustment more difficult

A well-functioning matching process between employers and employees also requires a relatively high degree of inter-regional mobility. This is particularly important in Russia, where the regional heterogeneity of industrial structure is great and where sector-specific shocks will thus have a highly differentiated impact on regional labour markets. In general, however, geographic mobility in Russia appears to be low by international standards (CEFIR, 2001, Lippoldt, 2002), and so is the share of interregional labour reallocation in total job reallocation (Friebel and Guriev, 2005). Moreover, interregional migration has declined markedly over the past decade[28] (Moiseenko, 2004) and the divergence in local labour market conditions widened during 1998-2003.[29] Consequently, unemployment rates vary widely across regions, and labour markets in the most dynamic areas are now becoming very tight.[30] In a 2005 enterprise survey conducted by the World Bank and the Higher School of Economics, the lack of qualified workers was the second most frequently named factor cited by managers as a constraint on their operations (Goldberg, 2006).

Structural factors like barriers to mobility and the emergence of skill shortages[31] will make employment and wage adjustment in the short to medium term more difficult. Data for 2005 would tend to confirm the tightening of labour market conditions. Wage growth remained very robust (averaging 12.6% in real terms)[32] and even accelerated over the course of the year, despite the fact that the gap between productivity and labour costs had closed (Figure 2.2). The wage share in total value added did not increase, but this was largely due to the impact of improving terms of trade on producer prices and a cut in payroll taxes in January 2005. The terms-of-trade improvement, however, was concentrated in the resource sectors and the cut in payroll taxes did not completely offset the exchange rate pressures: given the need to keep productivity growing fast, labour shedding continued at a rapid pace in manufacturing (–4% in 2005).[33] As in 2004, net job destruction was particularly pronounced in the light and consumer electronics industries. As observed in Chapter 1, during the early years after the crisis, the recovery from extremely low rates of capacity utilisation allowed enterprises to make fairly substantial yet "easy" gains in productivity to cope with cost pressures, but this room for manoeuvre has now disappeared. Clearly, further substantial increases in productivity are both possible and desirable, but they will be more difficult – and probably require more investment – than hitherto.

Despite the pressures generated by real appreciation, overall economic growth remains relatively robust and the resource sector, though slowing after 2004, remains a major contributor to growth. Moreover, the labour market has so far adjusted swiftly to exchange rate pressures. It would therefore be difficult to argue that Russia has *succumbed* to "Dutch disease". However, it is also clear that the difficulties confronting the non-fuel tradables sector are growing, as is evident in production, employment and competitiveness indicators. Labour market flexibility has helped to sustain growth during the current cycle, but the scope for further adjustment is shrinking: the unemployment rate is probably converging towards its structural level, public-sector employment is very high (around 37-39% of the workforce, according to Rosstat[34]), rapid house-price increases in urban areas may increase barriers to mobility, and wage equalisation across sectors will limit the

scope for downward adjustment. Despite the manufacturing sector's difficulties, wage increases have indeed been relatively uniform across different manufacturing industries and only marginally below economy-wide levels. In these circumstances, the potential contribution of the labour market to disinflation appears to be limited. The growth of public-sector employment reinforces this impression: employment in both public administration and the social sphere has been rising steadily in recent years (see Table 2.3). Moreover, wage increases in the public sphere (around 30% on average) substantially exceeded those in the private sector in 2005 and this trend is likely to continue.

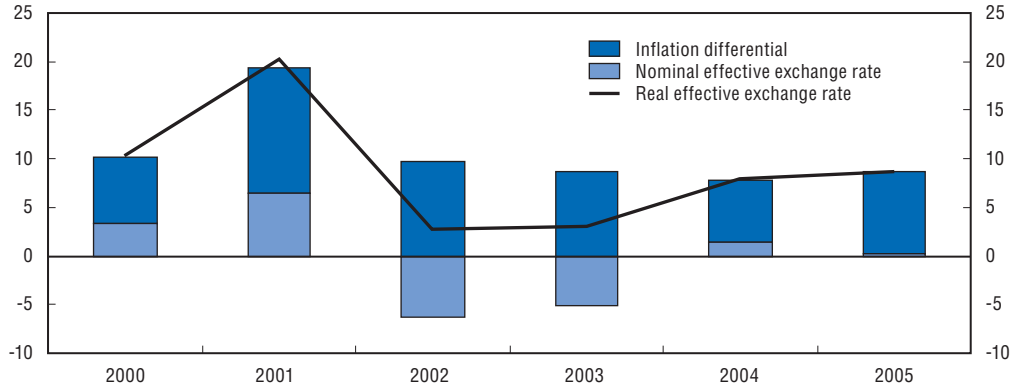
Curbing persistently high inflation

Monetary policy has been accommodating

Faced with a strong balance of payments and massive foreign exchange inflows, the Central Bank of Russia (CBR) has found it difficult to balance sometimes conflicting goals in its conduct of monetary policy.[35] The CBR continues to try to reduce inflation, which remains high,[36] while attempting to limit the rate of real appreciation of the rouble, in order to preserve the competitiveness of the manufacturing sector. *De facto*, monetary policy has revolved around managing the nominal exchange rate[37] *via* large-scale unsterilised interventions on the domestic foreign exchange market. Several econometric studies conclude that monetary policy has tended to focus on an implicit exchange rate target since the late 1990s.[38] 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 2.8). In emerging economies, the persistence of a higher inflation differential might be partly explained by the Balassa-Samuelson effect. Empirical evidence, however, would suggest that such an effect did not play an important role in explaining the dynamics of real appreciation in Russia (Box 2.2).

Figure 2.8. **Decomposition of real exchange rate appreciation**

Percentage change



Source: IMF, *International Financial Statistics*.

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[39] and need no longer rely on reverse repo operations with government securities, the absorption of

Box 2.2. **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,[1] 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.

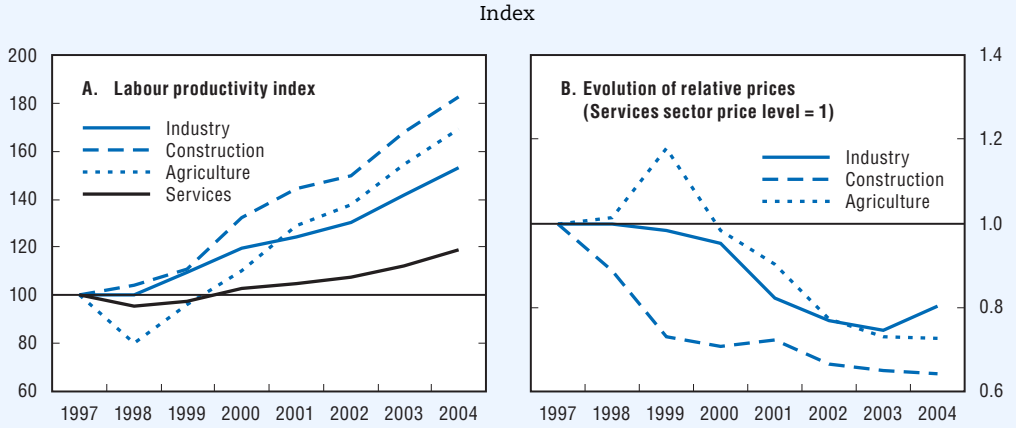
Several empirical methods have been used to test or assess the size of this effect, particularly for Central and Eastern European countries. One approach consists in looking at the transmission of the domestic productivity differential between the tradable and non tradable sectors into relative domestic 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 2.9 (on an annual basis). As expected, productivity gains are much higher in industry, agriculture and construction than in services, and prices increased more rapidly in the non-tradable sector than in the tradable ones.[2] 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.[3]

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.

Box 2.2. **Balassa-Samuelson effect** *(cont.)*

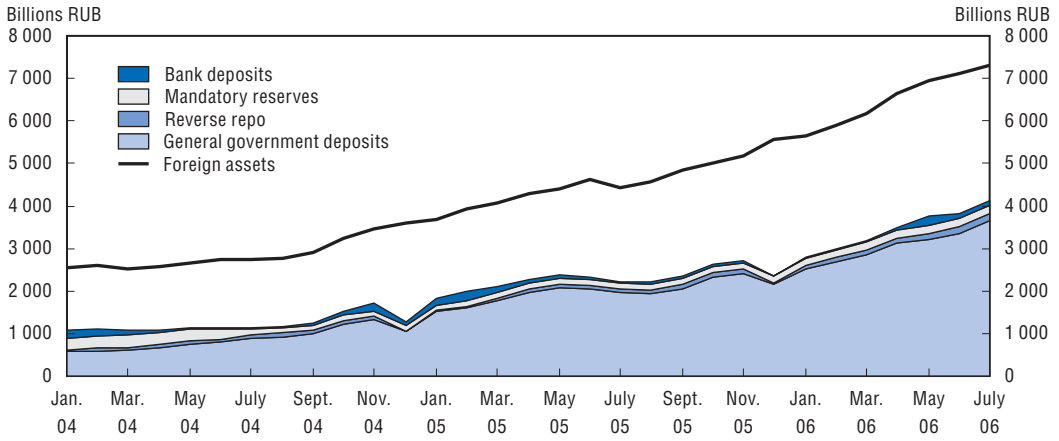
Figure 2.9. **Labour productivity index by sector and relative prices**



Source: Federal Service for State Statistics and OECD calculations.

liquidity *via* monetary tools remains relatively marginal (Figure 2.10). The market in the Bank's OBR bonds is still underdeveloped and the CBR has been cautious about using them (see below). While monetary sterilisation has been modest, reserve money growth has been limited by large-scale fiscal sterilisation: the build-up of government deposits with the CBR, mostly in the Stabilisation Fund, counterbalanced approximately half of the net increase in foreign assets during January 2005-June 2006 (Figure 2.10).[40]

Figure 2.10. **Liquidity absorption and the role of fiscal sterilisation**



Source: Central Bank of Russia.

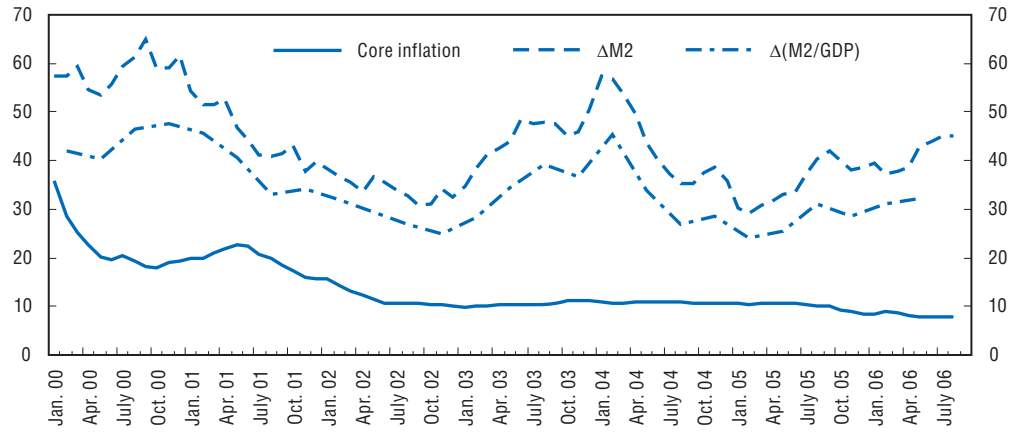
The stabilisation of core inflation owed much to money demand factors

Money supply growth nevertheless 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.[41] Core inflation, however, picked up only slightly in early 2006 and remained below 9% year-on-year (Figure 2.11). 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.

Figure 2.11. **Money supply growth, core inflation and level of monetisation of GDP**

Year-on-year growth



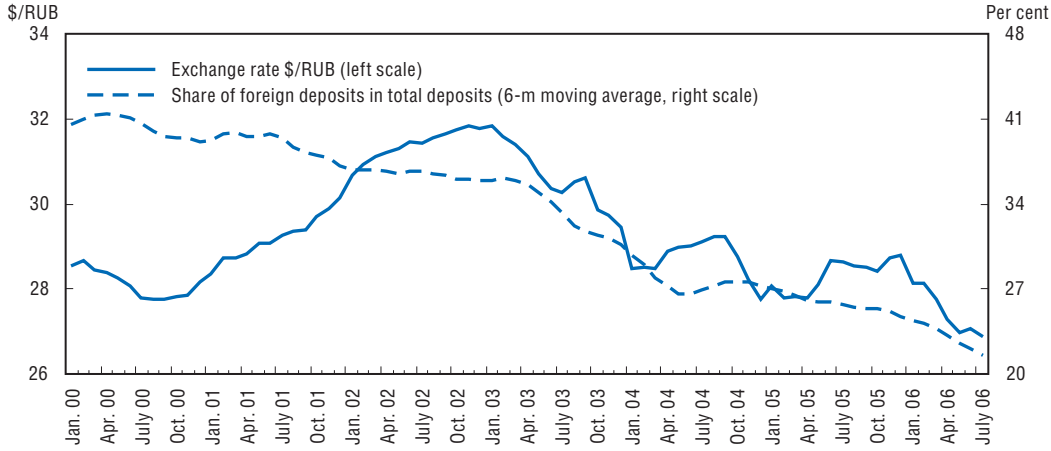
Source: Central Bank of Russia, Federal Service for State Statistics.

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 2.12).[42] Although assessing the degree of dollarisation of the Russian economy and its impact on inflation with any confidence is very difficult,[43] 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.[44] The dynamics of dollarisation thus help to explain changes in rouble velocity,[45] 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).

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

Although disinflation has proved difficult since 2002, changes in money demand have 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 2.12).[46] 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.[47] However, the monetary factors behind

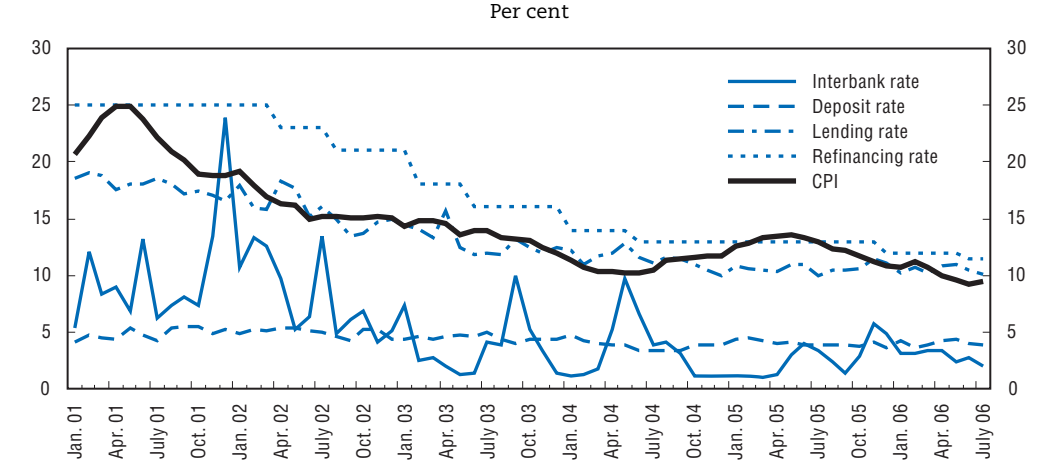
Figure 2.12. **De-dollarisation and rouble-dollar exchange rate**



Source: Central Bank of Russia.

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 2.13). 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.[48]

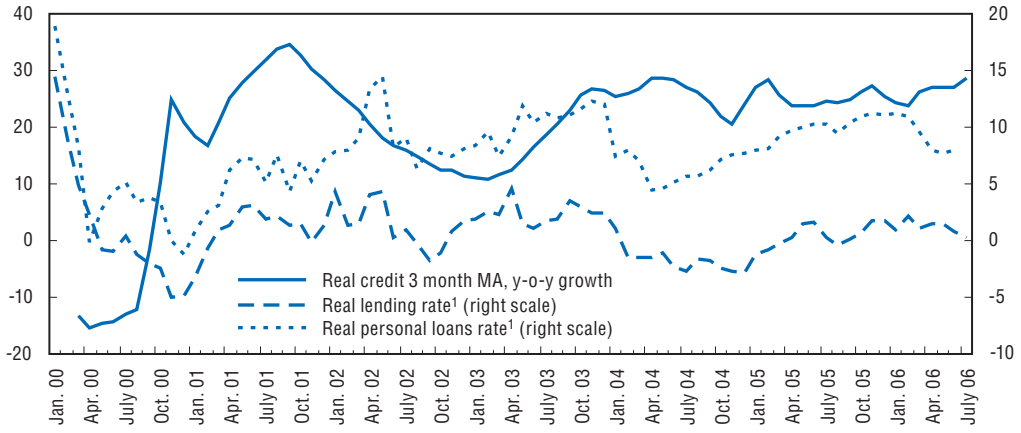
Figure 2.13. **Nominal interest rates and inflation rate**



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

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. The yields on OBR operations have therefore been maintained at relatively low levels (annual

Figure 2.14. **Real credit growth and real lending rate**
Per cent

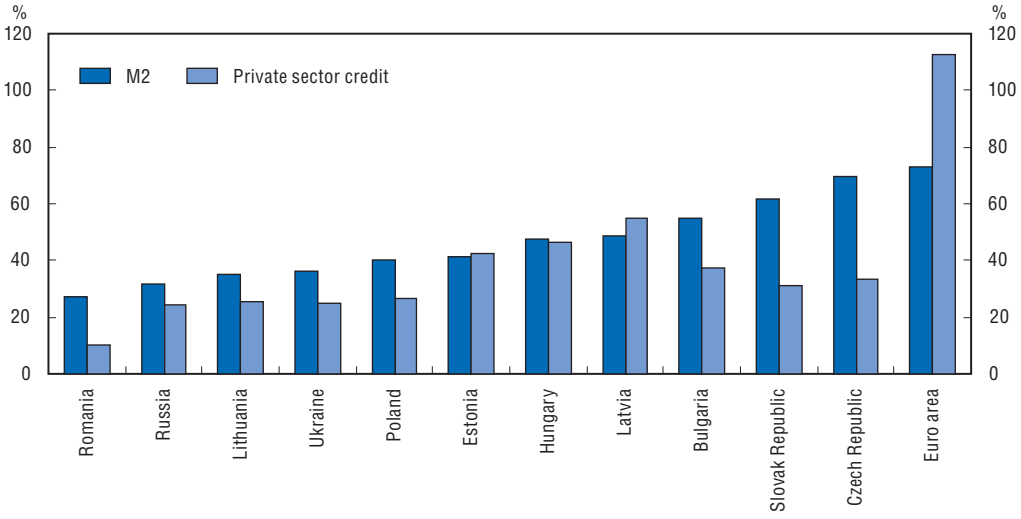


1. Nominal rates deflated with seasonally adjusted CPI (6 months forward).
Source: Central Bank of Russia, Federal Service for State Statistics, OECD.

rates fluctuating between 3.5 and 4.5% in 2005), with the cost of borrowing on foreign markets being taken as a reference. While this cap on yields for OBR operations may be lower than necessary,[49] 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.

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 (Figure 2.14), the level of monetisation of the economy is still low, even for an emerging market economy (Figure 2.15) and financial intermediation, *via* both banks and financial markets, is still under-developed. Bank-based intermediation is

Figure 2.15. **Level of monetisation in Russia and other emerging economies**
2004, as a percentage of GDP



Source: IMF, *International Financial Statistics*.

constrained by the fragile structure of banks' liabilities and by the relatively small capital bases of Russian banks.[50] 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.[51] In this context, the CBR conducts operations aimed at refinancing some banks, while withdrawing liquidity from others.

... and the exchange rate pass-through seems to have weakened

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.[52] In practice, both targets are close to each other: in 2006, the upper bound for real exchange rate appreciation was fixed at 9%,[53] while the inflation target was initially set at 8.5%. This implies a determination to keep the nominal exchange rate roughly stable. Over the long term, real appreciation is probably an inevitable part of the catching-up process (Box 2.2),[54] but concerns about the speed of exchange-rate appreciation are legitimate, given the deteriorating performance of the manufacturing sector described above. 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.

More active use of the exchange rate channel to curb inflation, beyond the establishment of a nominal anchor, might nevertheless prove counterproductive. Empirical studies suggest that the exchange rate pass-through into prices is relatively weak, and may even have attenuated somewhat in the recent past.[55] On the basis of estimates covering the post-crisis period, Dabrowski *et al.* (2002) and the Economic Expert Group (EEG) find that a nominal effective exchange rate appreciation of the order of 10% would reduce inflation by 3.0-3.5 percentage points.[56] 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).

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.[57] However, there is no clear consensus on the best way to achieve it. An anti-inflationary package drafted by MERT in early 2006 laid great stress on stimulating household saving[58] and on regulating the tariffs of the so-called "natural monopolies",[59] 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, as

Box 2.3. **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.[1] 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[2] 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.[3] 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 500 bn, 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 500 bn 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.[4] 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).

well as other structural factors, such as the contagion effect of rapid public wage increases and insufficient competition on product markets (see Chapter 4). Moreover, regulated energy and utilities tariffs are not all at full cost-recovery levels, which means that further price increases in regulated sectors are inevitable – and necessary – over the medium term. In the current circumstances and given the limited scope for relying on monetary instruments, fiscal sterilisation and fiscal discipline will have to play the key role if the authorities are to rein in inflation while limiting the speed of exchange-rate appreciation.

Fiscal policy: the principal tool for macroeconomic management

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

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 constant-oil-price budget balance[60] show that a large share of the extra fiscal revenue arising from higher oil prices since 2002 has been saved (Table 2.4).[61] In 2004-05, around three-quarters of the additional fiscal revenue was saved,[62] 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 2.3).

Table 2.4. **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[2]	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*
Δ Budget balance	0.1	–1.8	0.4	3.1	*2.8*
Δ Fiscal revenues from oil	–0.6	0.3	1.4	2.2	*4.3*
Δ Constant oil budget balance	0.7	–2.1	–1	0.9	*–1.5*
Urals price ($/bbl)	**22.9**	**23.7**	**27.2**	**34.6**	**50.5**
Δ Oil-related windfalls to the economy[2]	–2.2	–0.2	3.0	3.9	5.1
NB: Exceptional revenue (Yukos)	–	–	–	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 $78 t/cm (roughly the average export netback over the period).

Source: Gurvich (2006a).

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 2.4, the size of this stimulus reached 1.5% of GDP.[63] If the exceptional revenues stemming from Yukos' tax payments are excluded from

the estimate of "structural revenues",[64] 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 2.5). The stability of the expenditure share, however, owes a good deal to the rise in the GDP deflator induced by the positive terms-of-trade shock.[65] As a share of non-oil GDP, expenditures are on a rising trend and, in nominal terms, public expenditures rose by 27% in 2005. 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).

Table 2.5. **The consolidated budget, excluding off-budgetary funds (% GDP)**

	2001	2002	2003	2004	2005[1]
Consolidated budget					
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*
Federal budget					
Revenues	17.8	20.4	19.5	20.2	*23.7*
Of which federal part of the ESN	–	3.1	2.7	2.6	*1.2*
Expenditures	14.8	19.0	17.8	15.9	*16.3*
Of which debt service	2.6	1.4	1.7	1.2	*1.0*
Balance	3.0	1.4	1.7	4.3	*7.4*
Regional budgets					
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.

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

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.[66] 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 2.6). Federal expenditure on external debt service is expected to amount to 0.8% of GDP in 2006, down from 2.6% in 2001 (Table 2.5).[67] 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).

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

Table 2.6. **Evolution of public debt (% GDP)**

	2001	2002	2003	2004	2005
Public Debt	**45.5**	**36.1**	**29.5**	**22.4**	**14.8**
Of which external debt	39.8	30.1	24.5	17.9	10.8
Long term	33.6	25.9	21.0	16.0	8.5
Short term	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.

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 (Table 2.7), 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.

Table 2.7. **Medium-term budget plan (Federal budget, % GDP)**

	2004	2005	2006	2006	2007	2008	2009
			Budget law	Projected execution			
Revenues	20.5	23.7	20.7	22.6	22.3	19.8	19.3
Expenditures	16.1	16.2	17.5	16.1	17.5	17.3	17.1
Balance	4.4	7.5	3.2	6.5	4.8	2.6	2.2
Urals price ($/bbl)	34.6	50.5	40.0	65.0	61.0	54.0	48.0

Source: Ministry of Economic Development and Trade.

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 2.3). 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.[68] 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.

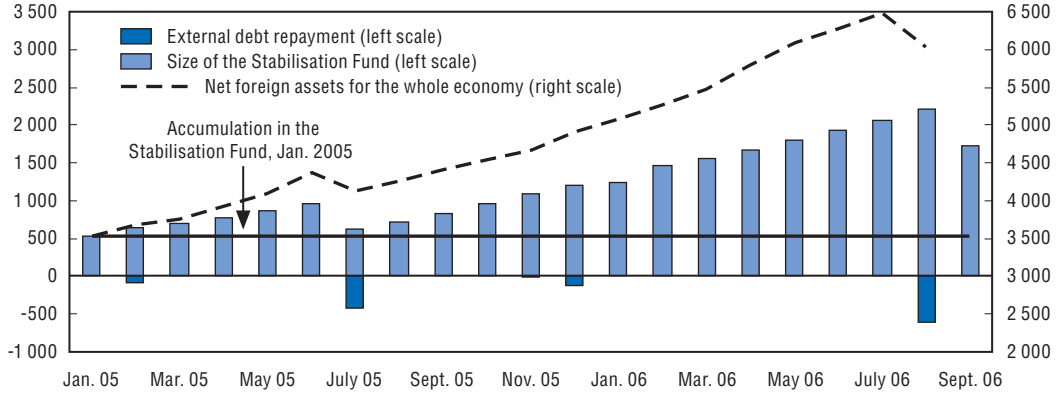
Fiscal discipline is ever more important – and ever more challenging

Given the CBR's limited room for manoeuvre, fiscal discipline must be seen as the key to managing imbalances between demand and supply and to reducing inflation while limiting the pace of rouble appreciation. 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.[69] 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.

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.[70] 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 actually sterilised *via* the Stabilisation Fund.[71] Consequently, the volume of fiscal sterilisation was significantly smaller than the increase in net foreign assets (Figure 2.16).

Figure 2.16. **Growth of net foreign assets and of the Stabilisation Fund**

RUB billion



Source: Central Bank of Russia, Ministry of Finance.

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 (Chapter 1), 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).[72] 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),[73] 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.

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 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 2.3), 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.

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

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.

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.[74] 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.

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 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.

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.

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.[75] 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.[76] 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.[77] 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.

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.[78] 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.[79]

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.[80] 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 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.

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

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.

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

Box 2.4. **Recommendations on macroeconomic policy**

Macroeconomic policy should be geared towards insulating the economy from large commodity-price fluctuations and managing the transition to a situation of sustained high oil prices. Fiscal discipline should be the main instrument for managing the adjustment to dramatically improved terms of trade. Fiscal sterilisation of windfall revenues will allow the authorities to restrain money supply growth and to smooth real exchange rate appreciation, hence facilitating the conduct of monetary policy and anchoring expectations. This implies that pressure for rapid increases in public expenditures should be firmly resisted as long as external conditions provide a strong stimulus to the economy.

Designing a clear fiscal rule, aimed at insulating the economy from commodity-price volatility

- Adjust the current rules governing the accumulation of fiscal reserves to the new environment of high oil prices.
- Protect the accumulated assets against pro-cyclical spending and establish expenditure rules for spending some of these reserves in the event of a downturn.
- Define a medium-term fiscal balance target, based on an assessment of the non-oil fiscal stance and long-run sustainability.
- Distinguish between two objectives for the accumulated fiscal reserves: one part should be considered as a buffer against oil-price volatility while the other should be used to generate investment income. The yield generated by the investment-for-income fund could thus be used to cover structural deficits.

Building on the existing Stabilisation Fund to operationalise these rules

- Broaden the Stabilisation Fund's revenue base to include export duties on oil products and natural gas.
- Establish a transparent procedure for the revision of the cut-off price: this rule should be devised so as to avoid rapid increases in spending and should be linked to the assessment of "conjunctural" revenues.
- Increase the minimum reserve in the Stabilisation Fund to match the potential impact of a sharp drop in commodity prices.
- Split the Fund into two parts with two distinct investment strategies: in highly secure and liquid assets for the "fiscal insurance" part of the Fund, and in a wider range of instruments for the investment-for-income fund. The diversification into riskier assets should be gradual, in order to avoid mismanagement and to allow for capacity building.

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.[81] 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.

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 the Stabilisation Fund similar to that outlined above and a metholodology 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.

Notes

1. 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).
2. The year-on-year figure was 10.5%.
3. Set out in its 2005 guidelines for monetary policy (see CBR, 2004). Strictly speaking, the CBR has only one *target* – inflation. It has only an exchange-rate *indicator*. However, since actual policy involves making trade-offs between the two, it is not inappropriate to speak of an implicit exchange-rate target.
4. A ULC-based estimate would tend to give a more accurate view of the evolution of cost competitiveness.
5. Russia's terms of trade improved by 15% in 2004 and again in 2005.
6. These estimates include both goods and services prices. The average price of Urals crude was up 46% in dollar terms in 2005. Average contract prices for natural gas exports rose by 39%, and other commodities prices (mostly metal) by 10.7% (MNB, 2006).
7. They rose further to reach $250 billion at the end of June 2006.
8. In dollar terms, new loans from the non-financial corporates more than doubled (from $15-16 billion in 2003-04 to $40 billion in 2005).
9. The total non-governmental external debt rose from 18.5% in 2004 to 23% of GDP in 2005. Gazprom's borrowing to buy Sibneft accounted for one fourth of the total new borrowing.
10. Capital flight is estimated as the sum of the following balance of payments items: net errors and omissions, non-repatriation of export proceeds and non-supply of goods and services against import contracts, plus remittances against fictitious transactions in securities.
11. Formally, Gazprom purchased the stake from the UK-registered (but Russian-owned) Millhouse Capital. The deal was therefore recorded in the balance of payments as outward FDI.
12. See, for example, Westin (2005).
13. Gianella and Chanteloup (2006) 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.
14. 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).

15. 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.

16. The positive correlation between prices and productivity is a deviation from the standard PPP theory. Such an upward sloping relation is, however, easily derived in a broader framework, disentangling between tradable, where PPP holds, and non tradable goods (the Balassa-Samuelson framework, see Box 2.2).

17. The underlying econometrics rely on the Balassa-Samuelson framework, but incorporated in a broader approach, the so-called "stock-flow" approach developed by Faruqee (1995).

18. This approach – the so-called- Fundamental Equilibrium Exchange Rate (FEER) – was introduced by Williamson (see Williamson 1983 and 1994). It combines the realisation of a current account target (the external equilibrium) and an internal equilibrium condition (basically, that production is at potential).

19. Therefore, at current oil prices, a very large rouble appreciation might occur before the question of current-account sustainability emerged.

20. This means that the loss in price competitiveness was greater for import prices and that the deterioration of the non-fuel trade balance occurred primarily as a result of developments on the import side.

21. See Annex 1.A1 for a detailed description of the decomposition of the trade balance.

22. According to data from the Federal Service for State Statistics (see Rosstat 2006).

23. The Labour Code was changed or significantly amended about 16 times between 1992 and 2001. However, none of these adaptations really led to an overhaul of the 1971 Labour Code, and the labour protection legislation inherited from Soviet times remained largely intact. A number of positive steps to ease the overregulation of the labour market were implemented in 2002, when severance procedures, in particular, were simplified (Gimpelson *et al.*, 2004).

24. See Smyrnich (2005) or Gimpelson (2004).

25. Data for 2002. The rigid part is lower in the highest-paying sector – the oil and gas industry (20%) – and higher in trade and catering (60-80%). The use of various forms of informal off-the-book payments may further increase the performance-conditional share. *De facto* wage flexibility in the 1990s was also expressed in widespread wage arrears.

26. Not surprisingly then, empirical studies point to a much higher elasticity of wages to unemployment rates than in OECD countries. Estimating a Wage Curve *à la* Blanchflower and Oswald (1994), Gimpelson (2006) finds that the wage elasticity with respect to unemployment is around 0.2, against 0.1 on average in OECD countries.

27. In other words, the more productive workers select firms rather than the more productive firms selecting workers.

28. An important spatial relocation occurred at the beginning of the transition, but this was largely the reaction to the massive "misallocation" of people to eastern and northern territories that took place under central planning (World Bank, 2005a).

29. The standard deviation of the unemployment rate across regions has increased sharply over the recent past, from 5% in 2000 to 6% in 2003 (excluding the Republic of Chechnya).

30. The unemployment rate is below 2% in Moscow and around 4% in St Petersburg.

31. 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).

32. 13% in the first half of 2006.

33. 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%).

34. Rosstat defines the "public sector" as encompassing employees in state and municipal administration, budget-sector institutions like public schools and hospitals, and wholly state-owned enterprises. Partially privatised enterprises are categorised as "mixed" ownership. They account for about 8.5% of employment but the meaning of this figure is unclear, since it includes enterprises that are controlled by the state as well as those in which the state shareholding is residual. Moreover, partially privatised enterprises in which non-residents hold stakes appear to be counted in the "foreign/mixed Russian and foreign" category.

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

36. 9.5% y-o-y in July 2006.

37. 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).

38. See Esanov, Merkl and Vinhas de Souza (2005) or Vdovichenko and Voronina (2004).

39. 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).

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

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

42. 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.

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

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

45. 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.

46. 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).

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

48. See Chapter 1 and Oomes and Dynnikova (2006).

49. 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.

50. See Tompson (2004) and Annex 1.A2.

51. As shown in Figure 2.15.

52. 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.

53. See CBR (2005).

54. 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.

55. 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).

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

57. The objective set in the medium-term budget plan is to bring CPI inflation down to 4.5-5.0% by 2009.

58. 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).

59. 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.

60. 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.

61. 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.

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

63. 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).

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

65. 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.

66. See Kudrin (2006).

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

68. 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.

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

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

71. 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.

72. 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.

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

74. 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).

75. 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).

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

77. 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.

78. 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.

79. 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.

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

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

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ANNEX 2.A1

External accounts

Table 2.A1.1. **Balance of payments**

USD billion

	2000	2001	2002	2003	2004	2005
Current account	**46.8**	**33.9**	**29.1**	**35.4**	**58.6**	**83.2**
Goods and services	**53.5**	**39.0**	**36.4**	**49.0**	**72.4**	**103.4**
Export	114.6	113.3	120.9	152.2	203.5	268.1
Import	–61.1	–74.3	–84.5	–103.2	–131.1	–164.7
Goods	60.2	48.1	46.3	59.9	85.8	118.3
Export	105.0	101.9	107.3	135.9	183.2	243.6
Oil and oil products	36.2	34.4	40.4	53.7	78.3	117.2
Natural gas	16.6	17.8	15.9	20.0	21.9	31.7
Others	52.2	49.8	51.0	62.2	83.0	94.7
Import	–44.9	–53.8	–61.0	–76.1	–97.4	–125.3
Services	–6.7	–9.1	–9.9	–10.9	–13.4	–14.8
Export	9.6	11.4	13.6	16.2	20.3	24.6
Transportation	3.6	4.7	5.5	6.1	7.8	9.1
Travel	3.4	3.6	4.2	4.5	5.2	5.5
Other services	2.6	3.2	4.0	5.6	7.3	10.0
Import	–16.2	–20.6	–23.5	–27.1	–33.7	–39.4
Transportation	–2.3	–3.0	–2.8	–3.1	–3.9	–5.1
Travel	–8.8	–9.3	–11.3	–12.9	–15.7	–17.8
Other services	–5.1	–8.3	–9.4	–11.1	–14.1	–16.5
Investment income and compensation of employees	**–6.7**	**–4.2**	**–6.6**	**–13.2**	**–13.1**	**–19.1**
Received	4.8	6.8	5.7	11.1	12.0	17.9
Paid	–11.5	–11.0	–12.3	–24.2	–25.1	–37.1
Current transfers	**0.1**	**–0.8**	**–0.8**	**–0.4**	**–0.7**	**–1.1**
Capital and financial account	**–37.1**	**–24.0**	**–22.6**	**–25.7**	**–52.3**	**–71.4**
Capital transfers	**11.0**	**–9.4**	**–12.4**	**–1.0**	**–1.6**	**–12.8**
Investment	**–32.1**	**–6.4**	**1.1**	**1.7**	**–5.5**	**2.8**
Direct investment	–0.5	0.2	–0.1	–1.8	1.7	2.3
Abroad	–3.2	–2.5	–3.5	–9.7	–13.8	–12.9
In Russia	2.7	2.7	3.5	8.0	15.4	15.2
Portfolio and other investment	–31.6	–6.6	1.2	3.4	–7.1	0.5
Liabilities	–14.1	–7.3	–0.2	19.9	21.2	40.4
of which:						
Net repayments of enlarged government[1]	–14.7	–10.9	–14.7	–5.5	–2.1	–18.3
Net loans to nonfinancial enterprises and households and changes in liabilities of banks	3.3	6.4	18.0	33.4	38.8	73.9
Assets	–17.5	0.7	1.4	–16.5	–28.4	–39.9
of which:						
Trade credits and advanced extended by non-financial enterprises and households	–4.2	0.5	–1.7	–4.0	–0.7	–7.7
Non-repatriation of export proceeds and non-supply of goods and services against import advances	–5.3	–6.4	–12.2	–15.4	–25.9	–27.2
Cash foreign currency held by nonfinancial enterprises and households	–0.9	–0.8	–0.8	6.6	2.0	1.9
Changes in reserves	**–16.0**	**–8.2**	**–11.4**	**–26.4**	**–45.2**	**–61.5**
Errors and omissions	**–9.7**	**–10.0**	**–6.5**	**–9.7**	**–6.3**	**–11.8**
Balance	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

1. Including local governments and the monetary authority.

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

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ANNEX 2.A2

Decomposition of the trade balance variation

The decomposition of the variation of the trade balance reported in Figure 2.6 is obtained in three steps. First, long-run price elasticities for imports and non-fuel exports are estimated using standard trade equations. In a second step, the non-fuel trade balance is differentiated to disentangle the price and volume effects. Finally, the variation of the overall balance is decomposed into its different components using the observed oil and gas exports and the estimated price elasticities.

Trade equations and price elasticities of non-fuel exports and imports

Traditional trade equations are based on the imperfect substitution model between differentiated consumer goods, which means that finite price elasticities can be estimated for the demand of these goods. The basic export volume equation has hence the standard following form:

$$X_{nonoil} = (ExtD_{nonoil})^{\eta_X} (CompetX_{nonoil})^{\varepsilon_X} \quad \text{(E1)}$$

where X_{nonoil} denotes the export volume of goods and services excluding oil and natural gas, $ExtD_{nonoil}$ is the non oil imports volume of Russian trade partners and $CompetX_{nonoil}$ an indicator of export competitiveness for non-oil and gas products. In a two-country model, the indicator of competitiveness could be written as ep_x^* / p_X, with *(e)* nominal exchange rate, p_x^* the export price of competitors and p_X the Russian non-fuel export price. In a multi-country model, the foreign price p_x^* is calculated as the competitor's price on a third market, using a double weighting system (see Gianella and Chanteloup, 2006). The elasticities of exports with respect to external demand η_x and competitiveness ε_X are assumed to be constant.

The import equation simply links import volumes to final domestic demand and the price of imported goods relative to domestically produced ones, respectively with the elasticity η_M and ε_M:

$$M = (FinalD)^{\eta_M} (CompetM)^{-\varepsilon_M} \quad \text{(E2)}$$

where $CompetM = \frac{p_M}{p}$, with p_M price of imports expressed in domestic currency

The error correction model (ECM) approach has been used for the estimation of the trade equation (E1) and (E2), the structural long-term relationship being estimated according to the method developed by Stock and Watson (see Gianella and Chanteloup, 2006). The structural parameters of interest are essentially the price elasticities ε_X and ε_M:

Table 2.A2.1. **Parameters used in the trade balance decomposition**

ε_X	ε_M
0.7	**0.6**

Source: Gianella and Chanteloup (2006).

Decomposition of the trade balance variation

The second step consists in decomposing the trade balance variation (for non-fuel products) between a volume and a price effect. The total balance (TB) of goods and services can be written:

$$TB = p_x X_{nonoil} - p_M M + p_{oil} X_{oil} = TB_{nonoil} + p_{oil} X_{oil} \quad \text{(E3)}$$

where X_{nonoil} and M are respectively non-fuel export and import volumes, p_X and p_M non-fuel export and import prices in domestic currency.

Differentiating the non fuel trade balance TB_{nonoil} we obtain:

$$dTB_{nonoil} = \underbrace{\Pi\left(\frac{dX_{nonoil}}{X_{nonoil}} - \frac{dM}{M}\right)}_{A=\text{variation in volume}} + \underbrace{(\alpha - 1)\frac{d(p_X X_{nonoil} + p_M M)}{2}}_{B=\text{initial position effect}} + \underbrace{\Pi\frac{d\tau}{\tau}}_{C=\text{terms of trade effect}} \quad \text{(E4)}$$

with $\alpha = \frac{p_x X_{nonoil}}{p_M M}$ the share of imports covered by non oil exports ($\alpha < 1$), $\tau = \frac{p_x}{p_M}$ the non-fuel terms of trade and $\Pi = \frac{p_X X_{nonoil} + p_M M}{2}$ is a weighted average of non-fuel exports and imports (hence an indicator of the size of trade).

The last step consists of expressing the volume changes in imports and non-fuel exports thanks to the trade equations (E1) and (E2) and using the value of the price elasticities to compute the contribution of the volume factor (A)

$$A = \Pi\left[\underbrace{\varepsilon_x d\ln competX_{nonoil} + \varepsilon_M d\ln competM}_{A1=\text{competitiveness factor}} + \underbrace{d\ln(ExtD_{nonoil}) - d\ln(FinalD) + residual}_{A2=\text{other factors}}\right] \quad \text{(E5)}$$

The decomposition reported in Figure 2.6 is finally:

$$dTB = \underbrace{\Pi\left(\varepsilon_x d\ln competX_{nonoil} + \varepsilon_M d\ln competM\right)}_{A1=\text{competitiveness factor}} + \underbrace{(\alpha - 1)d\Pi}_{B=\text{initial position effect}} + \underbrace{\Pi\frac{d\tau}{\tau}}_{C=\text{term of trade}} + \underbrace{d(p_{oil}X_{oil})}_{D} + \underbrace{other\ factors}_{A2}$$

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Chapter 3

Improving the quality of public administration

The inefficiency, corruption and lack of accountability that afflict public administration in Russia impose substantial direct costs on both entrepreneurs and ordinary citizens. This chapter examines the major weaknesses of Russia's public administration and assesses the government's recently revised programme of administrative reform. It lays particular stress on the relationship between public bureaucracies and the larger institutional environment within which they operate, as well as on the need for far greater transparency of public bodies and stronger non-judicial means of redress for citizens wishing to challenge bureaucratic decisions. Many of the problems of Russia's public administration are aggravated by the fact that the Russian state often tries to do too much: the chapter therefore explores the link between administrative reform and the scope of state ownership and regulation.

As Chapter 1 makes clear, the basic institutional framework of Russia's market economy is still a work in progress. There is a great deal to be done to strengthen property rights, establish the rule of law and foster competition in product markets. In general, the major remaining challenges are concerned with *changing*, rather than merely *reducing*, the state's role in the economy. Reforms that require the state to *refrain* from regulation, like price and trade liberalisation, have – with some exceptions – generally been relatively easy to implement, once adopted. Policies that require regulatory and administrative capacities of a high order have proved far more difficult. Yet these are the challenges that increasingly dominate Russia's reform agenda. The poor quality of public administration thus impinges directly on the state's ability to devise, adopt and implement needed structural reforms in a host of other policy domains.

It also imposes significant day-to-day costs on businesses and ordinary citizens. Business surveys show that domestic and foreign investors alike regard the corruption and inefficiency of public bureaucracies to be among the biggest obstacles to investment.[1] Moreover, a growing body of research finds that the poor quality of state administration creates particular problems for small and medium-sized enterprises, which are often less able to bear the costs of the "bureaucratic burden" than are larger, more established – and, in many cases, more influential – businesses. The SME lobby OPORA (2005) estimates that administrative barriers account for 8.5% of the cost of doing business in Russia. Finally, it should be noted that, quite apart from its impact on business or policy implementation, the poor quality of public bureaucracies creates real day-to-day hardships for private citizens engaged in such routine tasks as renewing passports, registering property purchases or having their cars inspected.

Building an honest, effective public administration is arguably, therefore, the most important structural reform priority: it will bring direct benefits to entrepreneurs and ordinary citizens and it will facilitate the successful pursuit of other reforms. The Russian authorities are well aware of the importance of improving the quality of public administration. Administrative and civil service reform has been a major priority since 2000. While the reform process has stalled more than once during that time, it has also been repeatedly renewed. In late 2005, the government approved a new *Concept* for administrative reform in 2006-08 in an effort to reinvigorate the reform process. This chapter considers the challenges Russia faces in the field of public administration reform, before turning to an examination of the government's reform strategy and the prospects for its successful realisation. The major conclusions that emerge from this analysis may be summarised as follows.

- The success or failure of public administration reform to achieve the government's aims will depend greatly on improvements in the broader institutional environment within which the bureaucracy operates.
- It is difficult to exaggerate the importance of transparency to the success of virtually every major strand of administrative reform.

- The Russian authorities need to give greater emphasis to the creation of effective non-judicial means of redress for citizens wishing to challenge bureaucratic decisions.

It should be noted at the outset that "administrative reform" and "civil service reform"[2] are, in Russian parlance, separate, though closely related, policy domains. Administrative reform encompasses both the reorganisation of executive bodies and fundamental changes to their methods of work, particularly the way in which they interact with one another and with citizens and organisations. Civil service reform, by contrast, focuses exclusively on issues concerned with the formation and management of the civil service, including recruitment, pay, promotion, discipline and security of tenure. In recent years, different commissions and working groups have been assigned responsibility for these two strands of public sector reform, and they have not always proceeded in tandem with one another.[3] This chapter will consider administrative and civil service reform issues together, as both are integral to any attempt to refashion the state bureaucracy.[4]

The challenge of administrative reform

The state bureaucracy today is a product of Soviet and post-Soviet state-building strategies

The starting point for the reform of public administration is the administrative system inherited from the Soviet Union. Soviet administration was in many respects the exact opposite of the "Weberian" ideal of a public bureaucracy as understood in most OECD countries (Box 3.1).[5] The Soviet system rejected both the separation of political and administrative spheres and the autonomy of the administrative bureaucracy. The state administration was intertwined with, and penetrated by, the ruling party at every level. Recruitment was politicised in principle, resting on the party-administered *nomenklatura* system,[6] and was often personalised in practice. The rule-oriented rationality of the Weberian model was rejected in favour of an overriding emphasis on the implementation of party decisions, which took precedence over legal norms.[7] Far from being characterised by a clear functional division of labour, Soviet administrative hierarchies were characterised by complex and often overlapping jurisdictions and lines of authority, which were intended to facilitate monitoring and control of officials by the political leadership. These are all enduring features of Soviet administrative practice: in some respects, the Russian bureaucracy today still resembles its Soviet predecessor far more than any Weberian model.

Box 3.1. **The "Weberian" model of public bureaucracy**

The traditional Western model of public bureaucracy, as reflected in the writings of Max Weber, emphasises a strict functional/hierarchical division of labour; the existence of career civil servants as a distinct group, formed on the basis of competitive recruitment and merit-based promotion; a distinctive rationality based on legality, impartiality, objectivity and regularity; and a public-service ethos. A combination of relatively good salaries and security of tenure, as well as the presence of a relatively clear career path, makes returns to investment in skills and tenure good enough to retain able administrators. In recent decades, there has been a marked shift away from some features of the Weberian model in some OECD countries as a result of reforms inspired by the so-called "new public management" (Box 3.4), but the core elements of the Weberian ideal remain central to the understanding of public administration in the OECD area.

The highly personalised nature of the administrative system inherited from the Soviet state merits particular attention. The Soviet administrative hierarchy, despite its complex and seemingly well defined formal institutions, relied heavily on an informal structure of personal networks within the party-state apparatus to function. Authority was often vested more in persons than in offices. Patron-client ties and the distribution of rewards often mattered more than the application and enforcement of rules and formalised codes of behaviour. Such personalistic administrative structures tend to weaken state capacities by encouraging rent-seeking and corruption, and by raising the costs of monitoring and enforcement.[8] Russia's early post-Soviet governments made little headway in addressing this problem. Indeed, such personalistic patterns of authority tend to be replicated by the still common practice whereby senior officials and politicians seek to bolster their authority over the institutions they run by securing the appointment of trusted personal associates to key posts.

The personalisation of relationships which pervades the bureaucracy lies at the heart of one of the paradoxes of post-Soviet Russia: as OECD (2005a:53) observes, Russia has a weak state but strong officials. The patronage dispensed by individual officials – particularly those managing state property or large financial flows – can be enormous, while the weakness of the administrative machinery often makes it easy for individual officials to use this power to pursue narrow private or political ends. In some spheres, the Russian state could also be called a weak state with strong components. A number of specific institutions rate highly on criteria of cohesiveness and effectiveness,[9] but in the absence of a strong co-ordinating centre, strong state institutions often pursue narrow institutional interests, working at cross-purposes with each other and with the government itself. At times, such institutions end up serving the interests of those who staff and run them. In other cases, the ties between state bodies and specific private sector interests are so close as to raise questions about "state capture".[10] These weaknesses undermine both rule enforcement and the Russian state's still limited administrative capacities. The lack of cooperation among state institutions has indeed been one of the main brakes on administrative reform.

Not all the pathologies that afflict the Russian bureaucracy can be attributed directly to the Soviet past. Fifteen years of transition have also left their mark. The bureaucracy underwent dramatic change in the 1990s, more as a result of economic and political developments than of any reform strategy.[11] Although the role of the state in economic and social life contracted, the number of people employed in public administration rose steadily, from around 1m in the early 1990s to over 1.4 m in 2005. Although this growth prompted a good deal of criticism and concern, there is little reason to regard the Russian public administration as unusually large: Russia actually has a relatively small administration overall, compared with most OECD countries, although there has been a great deal of growth in regional bureaucracies that is probably not warranted (Box 3.2).

More important than quantitative growth were the qualitative changes undergone by the state bureaucracy in the 1990s. First, there was a large-scale exodus of relatively well qualified mid-career officials, who could command much larger salaries in the private sector. Thus, the civil service by 2000 was substantially older and less well educated than its late Soviet counterpart, and mismatches between skills and duties were increasingly common. This has begun to change in recent years, as a growing number of well qualified young people have begun entering the service, but many of them do not remain for long, viewing a short stint in the bureaucracy as a way of developing skills and contacts that they

Box 3.2. **Is the Russian civil service too big?**

There is a widespread conviction in Russia and abroad that the Russian state bureaucracy is large and growing fast.[1] This belief was reinforced by the release in early 2006 of official data appearing to show a 10.9% increase in the number of persons employed in public administration in 2005 alone, a rise driven by a staggering 28% year-on-year increase in the number of people employed in the federal executive branch. In fact, almost all of the growth reported for 2005 was the product of the inclusion in the statistics of individuals not previously counted as working in "organs of state power and local self-management". If the institutions affected by reclassification are excluded, then bureaucracy appears to have grown by around 2.1% in 2005, with the federal bureaucracy growing by around 1.5%, rates typical of those observed during 1994-2004.[2] Of course, this points up another potential concern: the question of how much further re-classification may yet take place. At issue is not merely the number of people recorded in official statistics as working in the state administration – the real question is which categories of public-sector employees will enjoy the rights and protections granted to civil servants.

Issues of definition aside, the bureaucracy has indeed grown substantially over the last decade. Altogether, the number of officials employed in public administration grew by around 33% during 1994-2005, with subnational administrations accounting for most of the increase. The growth of federal employment in public administration occurred among federal employees posted in the regions: the central federal administrative apparatus actually grew *smaller* over the period. Strikingly, the growth of the bureaucracy accelerated after 2000, so it was more than just an employment-creation exercise during the economic contraction of the 1990s. Growth has partly resulted from the creation of the new agencies needed to regulate a market economy (the bankruptcy service, the securities regulator, etc., but these bodies are, for the most part, still relatively small.[3] There is good reason to believe that much of the growth in regional bureaucracies was driven by patronage and employment-creation considerations: Gimpelson and Treisman (2002) find that financially *weak* regional authorities tended to expand employment in public administration in the 1990s in order to extract subsidies from the federal centre. At the other end of the spectrum of Russian regions, Tompson (2005) finds that employment in "organs of state power and municipal self-government" has grown much faster in resource-rich regions than in non-resource regions, suggesting that resource wealth has in some places been used to finance the expansion of the bureaucracy – a phenomenon well known to students of resource-dependent economies.[4] Nevertheless, the public administration appears to employ an unusually small portion of the labour force when compared with most OECD and transition countries. Rosstat estimates that Russia in 2004 employed 3.2 federal administrators per 1 000 population, as against 3.8 in the United States and 5.1 in Canada and the United Kingdom.[5]

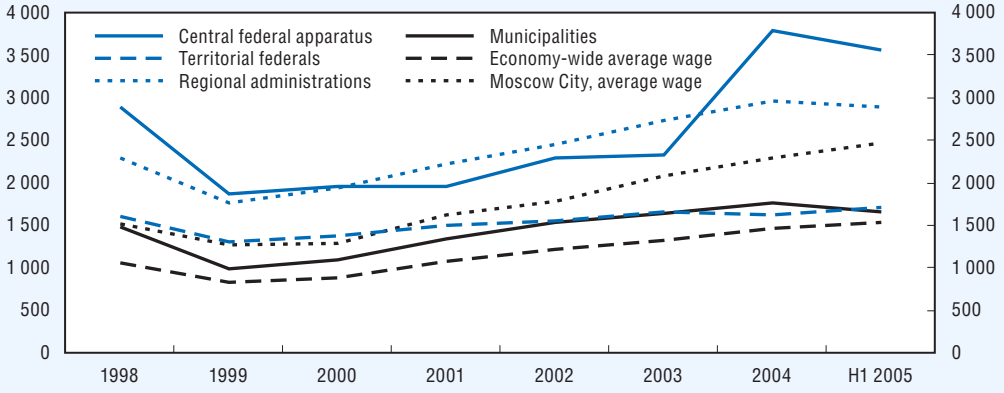
1. See, especially, the polling results reported in ISRAN (2005).
2. Unless otherwise indicated, the data in the box are from Rosstat (2006).
3. One might also note that little has been done to downsize the "traditional" bureaucracies left over from the Soviet era, such as the Ministry of Agriculture.
4. See Robinson *et al.* (2002).
5. See Rosstat (2005); and Parison and Evans (2004). These data should not be taken at face value, since comparisons across time and countries are complicated by problems of definition, including the creation of new types of officials and the reclassification of others in conjunction with the transition. As noted above, the reclassification of certain categories of official can have a very large impact on the aggregate numbers. Nevertheless, Brym and Gimpelson (2004:92-100), in what is perhaps the most detailed recent study of the problem, broadly concur with the view that Russia has a relatively small administrative bureaucracy.

Box 3.3. **Civil service pay in Russia**

Civil service pay remains a controversial and sensitive issue. It has long been argued that one reason for endemic corruption is that civil service pay is too low overall and that civil service pay scales are too compact. In fact, civil service pay is not bad by Russian standards. The concern with low pay stems from the fact that many civil servants could command much higher salaries in the private sector. This perception is fairly widespread: a 2005 poll found that only 17% of Russian young people would consider working in the civil service but that another 47% of respondents would consider a civil service career if the pay were substantially higher ("Rezul'taty", 2005). As is clear from Figure 3.1, much depends on the category of service in which an individual works: regional officials are generally better paid than their federal counterparts, although the overall average for regional officials conceals widespread differences among regions. Recent pay rises have chiefly benefited officials in central federal institutions, who are now better paid than their colleagues in regional administrations. The worst-off appear to be municipal officials and federal officials posted to the regions – the so-called "territorial federals".[1]

Figure 3.1. **Evolution of real wages in public administration, 1998-2005**

1998 roubles



Source: Federal Service for State Statistics, OECD calculations. Data for 2005 are first-half only.

Concern about pay compression stems from evidence that civil service pay differentials in Russia are unusually low by international standards (Parison and Evans, 2004). This makes it difficult to retain highly qualified people in the top grades, since they are the civil servants with the best earning prospects in the private sector. It may also encourage corruption, since low-paid senior officials will often find themselves taking decisions of great importance to private actors. In fact, pay scales in the federal civil service are not so compressed as they appear: while there is remarkably little difference in the level of basic salary (*denezhnoe voznagrazhdenie*) between the top and bottom of the hierarchy, actual differentials in take-home pay appear to be larger in Russia than in most OECD countries, because 80-90% of a senior official's pay may consist of monthly "monetary encouragement" (*denezhnoe pooshchrenie*, which is not, despite its name, linked in any meaningful way to performance), as well as increments for length of service and increments for special conditions of service. These additions tend to increase pay differentials even without taking account of bonuses and other additions to pay.[2] Altogether, a senior civil servant's take-home pay may be 15-20 times his or her base salary.[3]

Box 3.3. **Civil service pay in Russia** *(cont.)*

There may still be a case for higher pay. Senior officials' remuneration packages are often far below what they could command in private business, and they do not enjoy the security of tenure that their colleagues in some OECD countries still do.

1. Survey evidence suggests that civil service families are even more prosperous relative to the general population than Figure 3.1 suggests. See the results presented in ISRAN (2005:39).
2. Officials may, for example, receive an increment for work with classified documents – a rule that has in some cases prompted the classification of materials that are not at all sensitive in order that their circulation can provide the basis for paying secrecy increments to staff.
3. One reason for retaining this system appears to be the link between military and civil service pay: the current formulae have enabled the government to raise civil servants' pay substantially without incurring vastly larger military pay bills (Neimysheva and Grozovskii, 2006).

can then take into the private sector. Secondly, while the lower echelons of the public administration are dominated by women and younger workers, the upper echelons still tend to be dominated by older men, the bulk of whom began their civil service careers by about 1985.[12] Turnover among the former is very high, as the structure of the service gives younger officials little incentive to stay, while higher-level officials, many of whom are already pensionable, face little competitive pressure from below or outside the service.[13] Thirdly, there is compelling evidence that the problem of official corruption has grown markedly worse since 1991. This reflects a combination of factors, including the breakdown not only of the political and bureaucratic controls that existed in the Soviet system, but also of the norms and beliefs that (however imperfectly) supported the old order.[14] Another critical factor is the level of official salaries. Opportunities for personal enrichment grew dramatically in the post-Soviet period, even as officials' remuneration declined. Salaries have improved a great deal in recent years (Box 3.3) but it remains the case that many low-paid functionaries find themselves disposing of very valuable state assets or managing substantial financial flows.

Both official and public satisfaction with the quality of public administration is very low

Policy-makers from the president on down have repeatedly expressed dissatisfaction with the performance of the state machine.[15] Despite growing centralisation of power in recent years, the ability of the country's leaders to secure implementation of their policies remains patchy. In 2002, the Presidential Administration reported that only 48% of executive orders issued by the president the previous year had been promptly fulfilled. The figure for presidential decrees was 77%, albeit with serious delays in 20% of cases. "Red tape" and "lack of understanding" were the most commonly cited reasons for failure to implement presidential orders.[16] Of course, these numbers are of limited value, since they reveal nothing about the nature of the orders and decrees (for instance, which were not implemented, and why). Nevertheless, such estimates, however crude, provide a stark reminder of just how difficult the implementation of decisions made at the highest levels can be. This reality is also reflected in Russia's scores on the World Bank's comparative governance indicators – despite recent improvement on some dimensions, Russia consistently ranks in the bottom third, if not the bottom quarter, of the 209 countries rated (Table 3.1). The World Economic Forum's 2005 *Global Competitiveness Report* dropped Russia from 81 to 91 out of 117 countries with respect to the quality of public institutions.[17]

Table 3.1. **Governance indicators, 1996-2004**

	Russian Federation					Sweden	Poland
	1996	1998	2000	2002	2004	2004	2004
Voice and accountability							
Estimate (–2.5 to + 2.5)	–0.36	–0.26	–0.44	–0.44	–0.81	1.52	1.13
Percentile Rank (0-100)	39.8	41.4	35.1	36.4	25.7	99	85
Political stability							
Estimate (–2.5 to + 2.5)	–0.93	–0.62	–0.6	–0.52	–0.85	1.38	0.35
Percentile Rank (0-100)	17.1	23.6	25.5	29.2	21.8	93.2	57.3
Government effectiveness							
Estimate (–2.5 to + 2.5)	–0.5	–0.62	–0.62	–0.4	–0.21	1.92	0.47
Percentile Rank (0-100)	31.3	23.5	29	41.3	48.1	94.7	66.8
Regulatory quality							
Estimate (–2.5 to + 2.5)	–0.41	–0.37	n.a	–0.35	–0.51	1.54	0.64
Percentile Rank (0-100)	31.5	31.5	n.a	43.4	30.5	92.1	70.9
Rule of law							
Estimate (–2.5 to + 2.5)	–0.84	–0.78	–0.87	–0.84	–0.7	1.85	0.51
Percentile Rank (0-100)	19.9	22.7	18.7	21.4	29.5	96.6	64.3
Control of corruption							
Estimate (–2.5 to + 2.5)	–0.74	–0.69	–1.02	–0.92	–0.72	2.2	0.16
Percentile Rank (0-100)	26.7	25.7	9.7	18.9	29.1	97.5	61.6

Source: World Bank Governance Research Indicator Country Snapshots (2005).

Ordinary Russians, too, are increasingly dissatisfied with the performance of state institutions. The Institute of Sociology of the Russian Academy of Sciences (ISRAN) found in 2005 that 71% of Russians believed that the bureaucracy hampered Russia's development; only 27% thought that its activities were indispensable to the country. Respondents rated the contemporary Russian bureaucracy as inferior to its Soviet predecessor and its western counterparts with respect to all of the fifteen "professional and moral qualities" assessed. The outstanding characteristics that respondents associated with the post-Soviet Russian bureaucracy were "indifference to people" (63.7%) and corruption (58.5%).[18] A 2004 study by the Public Opinion Foundation found that 71% of respondents were dissatisfied with the quality of public services, as against just 14% who expressed overall satisfaction ("Kontseptsiya", 2005:6). Surveys show considerable variation in public satisfaction with different state institutions, but overall satisfaction with virtually all state institutions is low.[19]

There is thus broad agreement on the need for a dramatic improvement in the quality of Russia's public administration. To say this is not to deny that there are a large number of conscientious and able civil servants working in Russia, often in extremely difficult conditions, or to denigrate the importance of the work that they do. Historically, the bureaucracy has played the leading role in many of Russia's most important reforms, and the role of the civil servants in advancing reform in the post-Soviet period should not be underestimated. Many – perhaps most – Russian civil servants are acutely aware of the need for change.[20] A major aim of reform must be to create conditions in which such individuals can work most effectively and be properly rewarded for good performance. The roots of Russia's administrative problems are largely structural. A confused policy process at federal level is one major problem. The division of functions and responsibilities among institutions is often unclear, making it difficult to achieve the necessary coordination

among government bodies. A second problem concerns the lack of incentives – and, in many cases, resources – to ensure that agents further down the administrative hierarchy are both determined and able to perform efficiently.

Public bureaucracies tend to be opaque and often suffer from endemic corruption

Not surprisingly, endemic corruption is the most commonly cited reason for dissatisfaction with public administration. As noted above, both foreign and domestic investors see it as one of the biggest problems when trying to do business in Russia. While measuring corruption accurately is notoriously difficult, there is a widespread consensus that it has been growing in recent years. Transparency International's 2005 "Corruption Perceptions Index" (CPI) ranks Russia 126thout of 159 countries, on a par with Niger, Albania and Sierra Leone. Russia's index has been worsening steadily since 2002, when it was ranked 71st among the 102 countries then rated. Of course, the index is based on perceptions and could reflect an image problem. However, a large body of survey data suggests that corruption is indeed on the rise. The 2005 data generated by the World Bank-EBRD Business Environment and Enterprise Performance Survey (BEEPS) point to an increase since 2002 in the incidence of "unofficial payments" for licences and state procurement contracts, as well as a rise in the frequency of informal payments to tax, construction and fire-safety inspectors.[21] The BEEPS data also confirm other indications that kickbacks – payments to officials in return for the award of state contracts – are increasingly common and may now be the dominant form of official corruption.[22] Public opinion surveys paint a similar picture. FOM (2006) finds that 64% of respondents think that most or all bureaucrats are corrupt[23] and 29% report having had to bribe an official in the previous year. This latter figure is roughly unchanged from 2002 but is above the levels reported in the 1990s. Some 60% of respondents believe corruption is increasing, as against only 4% who think it is falling.[24]

Closely related to the problem of corruption is that of opacity. Kurtzman *et al.* (2004) rank Russia 40th among the 48 countries in their comparative assessment of the transparency of public institutions. They find, moreover, a clear negative correlation between opacity and GDP per capita, access to capital, indicators of financial development, and attraction of FDI.[25] These results are echoed in recent work by Bellver and Kaufmann (2005). In a study of 194 countries, they find institutional and political transparency to be strongly correlated with competitiveness and strongly *negatively* correlated with corruption.[26] And Russia performs very poorly on all three variables in their study. OECD (2006) notes that the problem of opacity, with respect to both legislation and its implementation, tends to be far worse at regional and local levels than at federal.

The institutions charged with administrative reform have little leverage over the bureaucracy

In a comparative study of international public administration reform, Manning and Parison (2003) observe that Russia is in an unfortunate starting position with respect to two key factors. First, reformers have relatively little "traction" on the problem. This has nothing to do with the quality of bureaucracy *per se*; rather, it is a measure of the ease or difficulty with which policy-makers can re-shape it. The authors identify eight variables that affect the degree of leverage reformers have over the civil service and the degree of institutional malleability of the bureaucracy.[27] Russia ranks relatively poorly with respect to all of them. Perhaps most critical of all is the absence of a strong, independent agency

capable of driving the reform. Secondly, Manning and Parison observe that, unlike some "low traction" countries, Russia still needs. to implement very basic reforms in order to establish a greater degree of discipline and formality. The issue is not merely to enhance the efficiency or responsiveness of a more or less well functioning administration – it is to transform a bureaucracy that performs even its most basic functions poorly.

Manning and Parison conclude that reformers in "low traction" countries are unlikely to make comprehensive and rapid progress, particularly if they are still struggling to implement the basics. Where reform succeeds. in such settings, it tends to depend on the reformers' success in gaining more traction by creating new capacities at the centre and securing greater resources to support pilot programmes and other reform efforts. It also depends on the readiness of reformers to seize – or create – opportunities for administrative reform *via*, for example, functional reviews or changes in the budget process. Certainly, Russia's experience with these issues suggests that traction is indeed a problem for the reformers: despite large numbers of studies, working groups, programmes and resolutions, actual progress in most areas has been slow.[28]

The good news for Russia is that policies in a number of other spheres are indeed moving in directions that could help create opportunities for progress in administrative and civil service reform. The move to a medium-term budgeting framework, as well as the shift to a performance-oriented budget process, should support administrative reform efforts. Moreover, survey research suggests that the Russian civil service is far less resistant to change than is generally thought. Indeed, Russian bureaucrats are well aware of the need for reform. They are even relatively open to many reform proposals inspired by the so-called "New Public Management" (NPM – Box 3.4) and – in principle, at least – in favour of greater transparency.[29] Surveys of officials also suggest that the state civil service's corporate identity is relatively weak. While civil servants' outlook and motivations vary, they are not radically dissimilar to those of other budget-sector workers or even many private-sector employees.

Box 3.4. **The "New Public Management"**

The precise definition of NPM is rather elusive, for it is more of an approach than a model as such. It tends to be associated with competition, performance incentives, open recruitment into middle and upper grades of the civil service, and more movement into and out of the service. NPM generally includes an emphasis on the centrality of the citizen/consumer to the whole process of public-service provision, as well as on the accountability of public-sector bodies (and even individual officials) for the results of their work. In this respect, NPM seems particularly relevant to those wishing to change the culture of the bureaucracy from that of a "state service" towards that of a "public service". Advocates of NPM also tend to favour the separation of policy-making from service provision, with the latter taken over by semi-autonomous agencies. Such agencies often operate in markets or quasi-markets, competing for resources with other public or private service providers. The separation of policy-making from service delivery is meant to free policy-makers from the burdens of existing service provision, while creating opportunities to provide performance incentives to actual service providers by putting agencies onto a contractual footing.

Unsurprisingly, officials remain more conservative with respect to some issues than others. There is thus widespread scepticism about linking promotion to performance reviews and the decisions of review commissions. Around half the officials surveyed in HSE (2004) agreed with the statement that advancement should be mainly (though not exclusively) based on a combination of acceptable performance and seniority. Civil service managers also appear to view formalised assessment with some suspicion, apparently fearing that it would reduce their own freedom of manoeuvre. Nevertheless, the crucial point remains that surveys of Russian officials tend to undermine the idea that bureaucrats constitute a cohesive, conservative caste that is determined to resist change. Younger officials, in particular, are open to reform. Most striking of all, the HSE survey found regional officials in regions that had undergone significant experiments in administrative reform to be far less conservative than their federal counterparts, who had not. While this does not imply that change will not meet resistance, it does suggest that there are opportunities for reformers to win the support of significant segments of the bureaucracy for some reform measures.

Public administration reform since 2000

The authorities have set out a wide-ranging administrative reform agenda

Although the first significant steps in the direction of administrative reform were taken in 2001, the clearest statement of administrative reform priorities was set out in a July 2003 presidential decree. The aims set out in the decree still form the basis for the reform agenda:

- reducing bureaucratic interference in commercial activity;
- rationalising the functions of federal executive bodies so as to eliminate unnecessary functions and wasteful duplication of work;
- developing a system of self-regulating organisations capable of assuming some regulatory functions in specific economic sectors;
- restructuring federal executive bodies so as to separate policy-making, regulation and service provision; and
- completing the process of clarifying the division of powers, responsibilities and revenue sources between various levels of government.

Progress in achieving these objectives has been uneven but in some instances, it has been quite significant. It is therefore important to assess what has been done so far, before proceeding to consider the challenges ahead.

The government's "de-bureaucratisation" drive has yielded significant benefits

Perhaps the most impressive achievements have occurred with respect to the effort to reduce bureaucratic interference in business and to create a more favourable climate for small and medium businesses. Successive federal laws adopted since 2001 have reduced the range of activities subject to licensing requirements, streamlined procedures for registering new businesses and reduced officials' power to conduct arbitrary inspections of enterprises.[30] The police and other officials (such as fire and sanitation inspectors) have also been deprived of their power to close down businesses on their own authority; they must now apply to the courts if they wish to close businesses for regulatory violations. Despite the well known weaknesses of the judicial system, this should significantly reduce small businesses' vulnerability to bureaucratic rent-seeking.

Compliance with the new legislation has been far from complete. Enterprise surveys confirm that officials continue to violate many of the guidelines set out in the "de-bureaucratisation" laws, such as restrictions on the frequency of inspections. Moreover, it is not always easy to ensure that the abolition of licensing regimes is real and not merely formal: in some instances, the abolition of "licences" has given rise to new systems of "permissions" (*razresheniya*) granted by regional or municipal authorities. Bureaucrats thus continue to regulate market entry even where it is clear that the law has sought to deprive them of this authority. Nevertheless, small business surveys present a picture of sustained improvement over 2001-05: inspections have become less frequent, registration simpler and the imposition of illegitimate licensing regimes less common (CEFIR, 2005).

The de-bureaucratisation drive reflects to some extent the need to find a way to reduce the bureaucratic burden on business even in the *absence* of a successful reform of the civil service. Unable to change the interfering and often predatory behaviour of many "street-level" bureaucrats quickly, the government chose simply to take away some of their power. However, this strategy clearly has limits. Bureaucrats find ways to resist curbs on their authority and de-regulation, though beneficial, is no substitute for an efficient, transparent and accountable public administration in Russia. "De-bureaucratisation" can be only a partial solution to the problem.

The second priority outlined in the July 2003 decree concerned rationalising the functions of federal executive bodies. A government commission analysed 5 634 governmental functions performed by federal executive bodies. It found that 1 468 of these were unnecessary, 263 were duplicative and 868 in need of significant revision ("Kontseptsiya", 2005:2). This wide-ranging functional review attracted much criticism, not least because it appeared to many observers to be simply a cataloguing exercise; rather than starting with the question of what state bodies *should* be doing, it inventoried what they *were* doing. Nevertheless, the review was an important evidence-gathering exercise. While it did result in some steps to eliminate duplicative functions or drop unnecessary ones, its principal value lay in exposing just how vague and confused the allocation of functions and powers was by the early 2000s.[31]

The reform of federal executive bodies got off to a rocky start

A much anticipated reorganisation of federal executive bodies was undertaken in March 2004, after several years of debate. In an effort to streamline the government structure, the federal executive was reorganised into three types of institution, with a specific role assigned to each:

- Federal *ministries* are policy-making institutions. They engage in policy analysis, development and evaluation in their respective domains and are responsible for drafting new legislation. They coordinate and monitor the activities of federal services and agencies within their jurisdictions.
- Federal *services* are supervisory and regulatory bodies. Funded from the state budget, they can issue individual regulations but not normative legal acts.
- Federal *agencies* are direct providers of public services to the state and/or private sectors. Their funding can therefore come in part from charges and fees paid by their "customers".

The reorganisation reflects a desire to separate policy-making, service provision and regulatory functions. In principle, this should make it possible to increase the efficiency of

executive bodies while reducing the conflicts of interest that arise when these functions are combined. It parallels a trend in many OECD countries towards organising the executive into a smaller number of more compact ministries focused on policy development (Parison and Evans, 2004:9). Unfortunately, there is as yet little evidence that the reorganisation has achieved any of these aims. First, it disrupted the work of the government for much of 2004-05, as officials were preoccupied with organising the new structures and sorting out their respective roles. Policy-making slowed, as it became more difficult for ministries and other executive bodies to agree draft legislation and other measures. In large measure, this is because the new *structure* was introduced without any corresponding body of new *rules* to govern it, suggesting that the reform was conceived and executed without adequate preparation. Indeed, the government adopted the basic template for the standing orders of the newly configured federal executive bodies only in July 2005.[32]

Secondly, the division of labour envisaged by the reform was only very imperfectly realised. Federal services continue in some cases to be subordinate to the ministries whose activities they supervise/regulate. Ministers retain considerable power over senior appointments within services and over the determination of their functions and goals. As a result, many services have lobbied for direct subordination to the prime minister – a dozen services are now directly subordinate to the head of government. However, this is hardly the solution, particularly in the case of institutions like the Federal Anti-Monopoly Service, which is required to evaluate many of the government's own acts. At the same time, as IET (2006:21) observes, many services and agencies continue to try to make policy, as well as to exercise regulatory and service-provision functions. Their policy-making ambitions, in turn, contribute to conflict with ministries.

There is still little indication that the Russian authorities are comfortable with regulatory organs that are genuinely independent and properly shielded from outside pressure. Yet there is a real need for strong, well resourced, independent regulators in a number of spheres.[33] It might therefore make sense to establish independent regulatory organs as a fourth element of the new structure.[34] Independent regulators were relatively rare in OECD countries before the mid-1980s, but their numbers have since grown dramatically, and they now play an important role in sectors where there is a need for economically efficient regulation shielded from direct political intervention.[35] However, it will not be easy – and might well be dangerous – to create such institutions in Russian today: they might easily fall victim to corruption and special interest "capture". Independent regulators need to operate in an institutional framework that ensures their transparency and public accountability, supported by adequate ethical controls and other checks and balances. These considerations should be reflected in any proposals for the creation of independent regulatory organs and they imply that progress in establishing such organs will depend on the success of efforts to improve the institutional context in which they would operate.

The difficulties of the reform's first years highlight the trade-off between flexibility and effectiveness that the government sometimes faces trying to press ahead with administrative reform. Flexibility and fitness-for-purpose are key elements of NPM approaches to public administration, but the initial reform was imposed in a uniform fashion across the government, with little or no allowance for the specifics of various fields of government activity. Many of the subsequent modifications of the reform have reflected an attempt to adjust it to take account of such specifics.[36] Given low "traction" and limited

opportunities, it is not hard to understand the decision to opt for a big-bang shake-up of the government. As noted above, reformers in a "low traction" environment must seize opportunities as they arise, and a more incremental approach would probably have lost momentum very quickly. However, the apparent haste with which the reorganisation was undertaken led to unnecessary disruption. The main problem was the decision to impose the new structure before the rules needed to operate it had been prepared. That said, it would be premature to dismiss the reconfiguration of the federal executive as a failure. The underlying approach it embodies represents a step forward from what preceded it, and the government continues to work to clarify roles and streamline procedures.

The clarification of intergovernmental relations is beyond the scope of this chapter, but there has been great progress since 2000 in sorting out the previously messy field of fiscal federal relations and in clarifying the division of powers and responsibilities between the federal government and the regions.[37] There is still a great deal to be done in respect of the municipalities, as implementation of the local government reform adopted in 2003 is still under way. This represents a significant revision of the original timetable – the new system of local government was to have been in place by 2006, but the regions now have until 2009 to set it up. However, given the enormous complexity of reform and the number of municipal structures to be created and staffed, it would seem to have been prudent to allow the regions more time for implementation. A hasty attempt to meet the 2006 deadline would have risked discrediting the entire reform, as well as undermining the capacities of the level of government that is closest to ordinary citizens.

Civil service reform has progressed slowly and along relatively conservative lines

Civil service reform made little headway in the 1990s. The first law on the state service, adopted in 1995, represented a throwback to traditional caste or corporatist views of the bureaucracy, focusing on the status of officials, and their privileges, perquisites and protections. There was little further progress until the adoption in late 2001 of the *Federal Programme for Reforming the State Service of the Russian Federation (2003-2005)*. The 2001 programme was largely based on the Commission's ideas, and it, too, has met stiff opposition. The programme aims to turn the "state service" into a "public service" – a transformation that would require a dramatic shift in the culture and outlook of Russian officials. The prevailing view of public administration still tends to see the state bureaucracy as an instrument for controlling and directing society, whereas the reform is intended to underline its primary role as a provider of services to society. The reform programme also aims to make the bureaucracy smaller, more transparent and less expensive. It envisages the possibility of outsourcing some activities and introducing competitive recruitment – required under the 1995 legislation but never implemented.

Unfortunately, progress in realising these aims has so far been limited. The first legislation adopted pursuant to the programme was the 2003 law "On the System of State Service of the Russian Federation".[38] It does little except to confirm the goals and principles enunciated in the concept, without stipulating concretely how these are to be achieved. The law defines three types of state servant (civil, military and police) and states what other legislation shall form the basis for their activities. It also provides for a register of state service posts, sets a mandatory retirement age and stipulates that the rank-structures of all three branches of service will be co-ordinated, so that transfers among them will be possible. In this, it resembles the pre-revolutionary "table of ranks", which also ensured clear equivalence among military, police, civil service and even ecclesiastical

ranks. Since it is difficult to imagine senior civil servants moving into high military or police posts, this has raised some concern that the new law will facilitate the colonisation of the upper reaches of the civil administration by senior officers of the military, police and security services.

In 2004, a much longer law established a basic framework for the non-diplomatic civil service, outlining the legal status of civil servants and the procedures for appointing, evaluating and promoting them.[39] It also made a start in regulating such issues as conflict of interest and the nature of civil servants' contracts, which had previously not been addressed in law. The 2004 law is generally quite conservative, reflecting those elements of the 2001 civil service reform programme that view the civil service as a distinct corps of individuals spending lengthy careers in state service and enjoying highly specific social guarantees and conditions of work. Pay and promotions are regulated within a single system. Promotion is still based largely on seniority, and pay formulae remain extremely complex and thus opaque. Nevertheless, the law does allow for a certain amount of experimentation, and it confirms such principles as openness, competitive recruitment and the linking of remuneration to performance. The question is what, if anything, will be made of these principles in practice.

The new administrative reform *Concept* and the future of public administration reform

The government has recently renewed its commitment to administrative reform

Administrative reform largely stalled for some time in 2004-05. This was no surprise, as the government was focused on resolving the problems created by the hasty reorganisation of the executive branch. In late 2005, however, the cabinet approved an ambitious *Concept* for administrative reform for 2006-08, along with a detailed timetable for the preparation and implementation of specific measures. The *Concept* outlines three major objectives, as well as the criteria against which success or failure in meeting those objectives is to be assessed (Table 3.2).

Table 3.2. **Administrative reform indicators and targets**

Goal	Indicator	2004	2008	2010
Increasing the quality and accessibility of public services	Degree of public satisfaction with service quality	14	50	70
Reducing bureaucratic interference in private commercial activities	The cost of overcoming administrative barriers as a share of total business income	8.5%	5.0%	3.0%
Increasing the efficiency and effectiveness of executive bodies	World Bank governance indicators (GRICS) for:			
	Government effectiveness	48.1	55	70
	Regulatory quality	30.5	60	70

Source: Ministry of Economic Development and Trade.

To achieve these ends, the *Concept* envisages a wide-ranging move towards performance management, in conjunction with the move to performance-based budgeting. This is to involve the development of criteria and procedures for defining clearly the tasks of federal bodies and their constituent units, along with measures for assessing performance of those tasks. The *Concept* also envisages the development of formal standards for the quality of public services, as well as administrative standing orders (*reglamenty*) outlining in some detail how services are to be provided, including the rights

and obligations of citizens and officials. In the first instance, such *reglamenty* are to be focused on common issues that bring citizens into contact with the bureaucracy, such as the issuing of passports. By the end of 2006, such standards are to be applied to 19 federal agencies and their counterparts in 26 regions. These service standards and *reglamenty* are to be supported by the development of effective mechanisms for redress of citizens' grievances in the event that their rights are not upheld. The further optimisation of the functions of executive bodies is to encompass additional steps to eliminate unnecessary or duplicative activities and to introduce new standing orders for federal and regional executive bodies, as well as to improve the efficiency and transparency of public procurement, to encourage outsourcing where appropriate and to develop special rules and methods of management for spheres of activity reckoned to be particularly prone to corruption, like tax and customs administration. Finally, the *Concept* promises steps to increase the transparency of state bodies and otherwise improve mechanisms for interaction between citizens and the bureaucracy. The *Concept* also provides for the conduct of experiments and pilot programmes in many areas, particularly when it comes to extending administrative reform to the regions.

There is clearly much in the new *Concept* that is to be commended. Since the discussion that follows will focus on the pitfalls and problems that lie ahead, it is important to acknowledge at the outset the strengths of the approach to reform embodied in the *Concept*. Four features in particular stand out. First, it is extremely comprehensive. Secondly, it shifts the emphasis from organisational restructuring, such as that undertaken in 2004, to a focus on the much more difficult – but no less important – problems of incentives, procedures and the creation of a much more "client-oriented" administrative culture. Thirdly, it recognises that the present stage of reform requires not any single sweeping measure but the painstaking elaboration of a wide range of new procedures, service standards and standing orders. Finally, the *Concept* recognises that there is still considerable scope for further reducing state intervention in the economy in the context of administrative reform and underscores the need for continuous monitoring of the optimal range of functions of state bodies. One option in this context might be a procedure similar to the institutionalised regulatory reviews conducted in Mexico since 2000.[40]

The *Concept* pays considerable attention to the question of ensuring that reform is supported by adequate financial, human and technical resources. It envisages reliance on experimentation and pilot projects, which makes sense given the complexity of the measures involved and the potential damage that ill-conceived measures could do. The government has already begun conducting competitions for the award of federal funds to support administrative reform projects undertaken by regional authorities and federal executive bodies.[41] This appears to be the most promising way to extend administrative reform to the regions – providing financial and other incentives for subnational governments to undertake reform initiatives and experiments of their own or to participate in those undertaken by the federal government. The challenge of extending reform to regional and municipal bodies is enormous and, given that most citizen interactions with the public administration are with regional or local officials, it is absolutely vital to the success of reform. Thus, while this chapter focuses on federal-level initiatives, it endorses the *Concept's* emphasis on the use of incentives, partnerships and other mechanisms to extend the process to subnational governments.[42] Over time, the evolution of service standards and the creation of effective mechanisms to uphold citizens' rights vis-à-vis the bureaucracy will ensure that the pressure for administrative reform at regional and local levels comes from

the public as well as the federal centre. It will be important that the government's commitment to this process be sustained: previous initiatives, like the "Electronic Russia" e-government programme launched in 2002, have often suffered from chronic under-resourcing, poor coordination and the lack of any clear strategy.

Given the complexity of the challenges involved, the timetable set out in the *Concept* looks somewhat unrealistic – in the best of circumstances, it will take a great deal of time to design suitable schemes for merit pay, to draft ambitious yet realistic quality standards for the provision of public services and to clarify the mandates, responsibilities and structures of accountability for the newly configured executive. This is not necessarily a problem. Less ambitious reforms in other countries have sometimes taken far longer than the three years set out in the timetable, and it would be unwise for the Russian authorities to rush such complex measures as those now envisaged. The challenge for the government is not to keep to the timetable but to ensure that reform does not stall, while at the same time avoiding the kind of disruptions that followed the March 2004 reorganisation. A "big bang" approach, involving revolutionary changes, would be inadvisable, but if a more incremental approach is to succeed, and not simply to lose momentum, then it will be critical that the reform enjoy strong, visible support at the highest levels. If middle- and lower-level officials come to doubt the government's commitment to reform, then resistance to change will grow and progress will become more difficult. There may thus be a case for creating a fairly strong unit, such as a Civil Service Department, at the centre of government, with responsibility for the implementation of reform measures across the state apparatus.

"Administrative reform" and "civil service reform" appear to be out of sync

The appearance of the new administrative reform *Concept* notwithstanding, the strategic direction of public administration reform is still far from clear. This arises in large measure from the artificial separation between "administrative reform" and "civil service reform". The new civil service legislation largely reflects the classic Weberian conception of a public bureaucracy. By contrast, the approach to administrative reform embodied in the *Concept* reflects the influence of NPM, which has been very influential in the West – and particularly in the main English-speaking countries – since the early 1980s (Box 3.4).[43] Formally, at least, the attempt to separate policy-making from service provision in the March 2004 reorganisation of federal executive bodies also reflected the influence of NPM thinking.

Of course, Russia need not – and should not – make a stark choice between "pure" Weberianism (an ideal type that does not in any case exist) and the wholesale adoption of the techniques of NPM. There will be elements of both in any reformed state administration and, indeed, both approaches find some reflection in the changes adopted in 2001-05. However, that does not mean that any possible combination of the two would be coherent: there is a danger that the different strands of public administration reform will be difficult to reconcile with one another.

Whichever overall orientation is ultimately chosen, the Russian authorities face a number of specific choices with respect to civil service reform, including:

- *The degree of unity or diversity to be achieved*. Historically, Russian ministries and other departments have operated according to rules, organisational cultures and career paths specific to each ministry or agency. The question of whether, and to what extent, Russia will maintain this tradition of separate arrangements for each major group of officials continues to be contested.

- *The vertical integration of state administrative bodies*. The authorities have only recently begun to standardise civil service rules and practices across federal, regional and municipal levels of government. A related issue, particularly in fields such as law enforcement, concerns the position of officials serving in federal ministries and agencies who work in the regions. Such "territorial" federal officials are often heavily influenced – if not co-opted – by regional authorities.
- *Recruitment and promotion*. The legislation adopted in 2003-04 establishes a basis for competitive recruitment while leaving numerous permissible exceptions to this principle. It points to a model based on the recruitment into the initial grades of individuals who will become career civil servants. However, there remain issues concerning the mechanisms by which individuals might be recruited into the service at higher grades and the establishment of promotion procedures that are transparent, efficient and fair.
- *Civil service pay*. Although there has long been wide agreement on the necessity of raising officials' pay, there is no consensus about how large the pay differentials within the service should be, how and by whom pay scales should be determined, or how merit-based pay and other such incentives schemes should work in practice.

Both approaches to public administration reform are fraught with risks

An examination of the contrast between Weberian and NPM approaches to reform can help to illuminate some of the obstacles to a successful reform of Russia's public administration. Clearly, any serious attempt to refashion the state administration into something like a classic Weberian public bureaucracy must address a long and difficult set of challenges. It will require a greater differentiation of tasks and personnel between the political executive and the administrative bureaucracy, the creation and application of a well designed system of administrative law, including effective legal controls over administrators' actions, and the creation of a professional, non-partisan civil service, whose political neutrality is protected by appropriate institutional arrangements. Despite the difficulty of meeting these challenges, it could be argued that the Weberian model represents the logical endpoint towards which Russian reformers should direct their efforts. The implicit systems and models adopted in many other post-communist states seeking to overhaul their bureaucracies have also been largely Weberian.[44] OECD (2005b:160) argues that, despite its defects, "the traditional centrally controlled bureaucracy is still a workable and robust system for public management where there has been disruption or discontinuity in the institutions of society and/or where the other institutions in society are not particularly well ordered." However, many in Russia fear the "conservative" potential of the Weberian model. A model of reform emphasising a relatively closed, hierarchically organised career civil service and the vertical integration of administrative structures could easily be used to create a Weberian bureaucratic façade, behind which little real change might take place. In particular, proponents of NPM-inspired reforms fear that a "pure" Weberian approach would not make the service sufficiently open or accountable to the public.

The implementation of NPM-style reforms would likewise be more than a little problematic in the current environment. NPM emerged in the West as a set of measures designed to reform traditional Weberian bureaucracies in order to make them more flexible and efficient. It tends to assume a more or less Weberian starting point, including clear lines of authority, a culture of rule-observance, and an understanding of officials' roles and duties in terms of the offices they hold rather than their personal connections. Successful

NPM-based reforms also require predictable resourcing, credible regulation and monitoring of staff (to prevent malfeasance), and a generally sound contracting environment. NPM is unlikely to achieve the desired results in an administrative system characterised by patron-client networks, and by low levels of transparency, accountability and respect for legal norms.[45] To put it simply, no country has ever moved from the sort of dysfunctional, clientelistic bureaucracy that exists in Russia to the kind of flexible, NPM-style public management that has been adopted in countries like New Zealand. Considerable progress with respect to certain basic reforms that are traditionally associated with the Weberian model will be essential to the success of any attempt to adopt the techniques of NPM.

The challenge facing Russia is thus enormous, whether it pursues a more or less Weberian or NPM-inspired path of reform. In fact, it will need a judicious mix of both approaches. Certain elements of the traditional Weberian model will be essential to any successful reform, but the country's long history of bureaucratic opacity, corruption and weak accountability to the public suggest that elements of NPM are also needed, particularly those emphasising transparency, open recruitment and empowering "citizen-consumers". By opting for a strategy based on NPM approaches, the reformers have signalled that the end goal of reform is to create a public administration that is *not* constituted as a separate "caste" and that sees its primary role as providing services to ordinary citizens, not controlling them.[46] However, Russia is clearly not ready for some of the more radical innovations of NPM, such as the widespread creation of "internal markets" in public services or a heavy reliance on performance-related pay in the bureaucracy. As noted above, many of the underlying institutional requirements of both traditional and NPM approaches are in any case the same; if they are not put into place, then a Weberian reform is unlikely to succeed either. An enormous amount thus depends on the framework conditions for reform.

The wider institutional context will be as important as the specific reform programme

Administrative and civil service reform in the narrow sense – reorganising structures or redefining roles – will achieve little in isolation. The quality of public administration is unlikely to be much better than that of the network of state and societal institutions within which it is situated. Administrative reform must therefore proceed in tandem with reforms aimed at improving this wider institutional environment. Indeed, changes to that environment may well matter more than the specific model of administrative reform the authorities pursue. Whatever the ultimate shape of Russia's reformed public administration, there are a number of basic issues that will need to be addressed if reform is not merely to produce the old pathologies in new configurations. These include:

- *Strengthening the rule of law*. In particular, it is necessary to establish better protection of the independence of the courts against pressure or interference from state bodies or private parties. A truly rule-governed administration cannot function where the rule of law is not upheld. This will require, among other things, a greater willingness by state bodies to be bound by the law themselves, to make good on their legal undertakings and to apply the law consistently.[47] It will also require reform of the procuracy and law-enforcement agencies, which have hitherto been largely untouched by judicial or administrative reforms.
- *Increasing the transparency of state institutions*. Real bureaucratic accountability – to ordinary citizens or elected politicians – will require greater access both to officials and to information about what officials are doing. Recent surveys find that many (though by no

means all) civil servants are opposed to greater transparency in principle.[48] Still more are likely to oppose it in practice, whatever they may tell researchers. Formal requirements for openness on the part of state agencies, necessary though they are, will probably not be enough to generate real transparency. No less critical will be positive incentives for bureaucrats to accept greater openness and more effective oversight of executive and judicial bodies by the legislature, by organs such as the Accounting Chamber, and by the press. In this respect, the *Concept's* omission of any clear plans for strengthening legislative oversight of the bureaucracy must be regarded as a significant lacuna. In many OECD countries, stronger legislative oversight has been important in ensuring accountability as public bureaucracies have grown larger and their tasks more complex.[49] The evidence also suggests that a lack of press freedom causes corruption.[50] An independent press can thus play a critical role in ensuring both transparency and accountability.

- *Strengthening civil society institutions*. The state administration does not operate in a political or sociological vacuum. The extent to which it can be made accountable to the public is partly a function of the wider relationship between state and society. Cross-country research shows that both the rule of law and the development of civil society are strongly and negatively correlated with corruption, in particular.[51] The strengthening of civil society institutions is also crucial for the development of more open, consultative forms of policy-making. Civil service reform would thus benefit from steps to foster the development of civil society.
- *Strengthening political accountability*. NPM-based reforms can, if successful, foster the development of a client-oriented culture in which "street-level" bureaucrats (Lipsky, 1983) are more responsive to citizens' needs.. They can also enhance the "upward" responsiveness and accountability of the bureaucracy to political leaders, which is critical to the coherence of public policies and the effectiveness of public service delivery. If that accountability is to be exercised in the public interest, politicians must have the incentive to monitor bureaucratic behaviour and intervene on behalf of their constituents. The accountability of politicians to their constituents is thus a crucial link in the chain of principal-agent relationships linking bureaucrats to the public.[52]

Recent progress with respect to these issues has been uneven. While there has been some progress in making state institutions more transparent than previously, there is still a very long way to go. The continued failure to adopt a freedom of information law, which has been in preparation for several years, suggests either that the opposition to it within the bureaucracy is firmly entrenched or that it is not regarded as a priority by the government. Neither conclusion is encouraging. At the same time, a number of indicators suggest that civil society in general, and independent media in particular, are growing weaker, as is political accountability.[53] These trends, if continued, will undermine attempts to implement the government's NPM-influenced administrative reform *Concept*. The basic aim of NPM is to empower the citizen-consumer and to make public bodies more responsive and more accountable to her in her everyday dealings with them. It is most likely to succeed in contexts where political accountability and societal feedback mechanisms are strong.

Much depends on how service standards are devised and adopted

The *Concept* attaches considerable significance to the process of adopting explicit standards for the quality of government services, supported by administrative *reglamenty* that detail how services are to be provided. This parallels a trend in many OECD countries

towards the adoption of "citizens' charters" and other service declarations: these can perform a useful function in clarifying organisational and individual objectives, which is particularly important in conjunction with steps to increase managerial autonomy and responsibility. Work on the first *reglamenty* is now under way, and a few have been prepared. The Ministry of Economic Development and Trade plans for the first 39 *reglamenty* to cover priority areas concerned with citizens' daily lives and their constitutional rights and freedoms. A further 352 are to be adopted by the end of 2008. If these arrangements are to result in real improvements in government services – and not merely to codify the *status quo* – it will also be critical to ensure that they are adopted in a transparent manner, on the basis of wide consultation involving not only experts and representatives of interested state bodies but also civil society. There appears to have been relatively little public participation in the process so far; this could and should change. Once service standards and *reglamenty* are adopted, it will be important to publicise them widely, to ensure that they are presented in a form that is clear and accessible to the public, and to make sure that the relevant standards and *reglamenty* are available to citizens dealing with public bureaucracies.

Performance management and performance-related pay should be approached with great caution

Given that labour is the principal input in most public services, personnel management must be at the heart of any administrative reform, and the *Concept's* emphasis on questions of performance management and performance-related pay reflects this fact. The challenges involved, however, are enormous. Devising effective performance targets for organisations or individuals can be extremely difficult, especially when agents are charged with performing multiple tasks, some of which may be easier to quantify or monitor than others.[54] Poorly specified targets can distort behaviour,[55] but smart targets – targets that are sufficiently specific, measurable, relevant and available in real time – can be hard to specify in many settings. OECD countries introducing performance management schemes in the public sector have tended to focus on the measurable at the expense of the important or to assign too many targets.[56] Nevertheless, a growing number of countries have found that such exercises help to clarify organisational functions and to enhance the transparency of performance (for example, *via* scorecards). They can also provide a basis for assessing performance and budgets – over 70% of OECD states now include non-financial performance data in budget documentation, although the great majority do not yet link most expenditure directly to output or outcome targets.[57]

Performance-related incentive schemes are increasingly used in OECD countries, but experience suggests that they should be employed in moderation. Specifying individual objectives and measuring performance can be expensive and costly, and very highly geared incentives raise the risk of distorting behaviour. Most performance-related pay schemes in OECD public sectors continue to rely on a base salary to provide 90% of compensation, with only about 10% being linked explicitly to measures of performance. The evidence suggests that the benefits of such arrangements stem not from the direct effect of financial incentives – these are quite limited – but from the secondary organisational changes that performance-related pay facilitates, such as greater focus on effective appraisal and goal-setting, clarification of tasks and increased attention to skills acquisition and employee-manager dialogue.[58] The personalism, opacity and lack of respect for formal rules that characterise many Russian public bureaucracies constitute a further reason for proceeding very cautiously with respect to performance-related pay: merit pay, incentives and more

flexible recruitment could easily degenerate in such an environment into pork-barrel politics and patronage, except perhaps in situations where performance was really evident to external observers.

Empowering citizens will be critical to success

Perhaps the biggest single weakness of the administrative reform *Concept* is the lack of attention devoted to citizens' ability to defend their rights when in conflict with the bureaucracy. The framers of the *Concept* are clearly aware of this issue: the document itself makes repeated reference to it and rightly declares that the introduction of service standards and administrative standing orders "presupposes" the creation of more effective non-judicial mechanisms for citizens and organisations to defend their rights and legal interests. Indeed, attempts to create a more "service-oriented" administration will achieve little if citizens cannot take such action. Yet the *Concept* provides no detail about what the government plans to do here: it is one of the few important questions to which the *Concept* does *not* devote a separate section.[59]

This is not a second-order issue by any means, or one to be left to a later stage of the reform. Indeed, it could accelerate other aspects of the reform significantly. Given an effective, independent procedure for resolving conflicts between citizens and public bureaucracies, it would probably be possible to write simpler *reglamenty* and service standards. The first *reglamenty* have been extraordinarily detailed – reportedly 40 pages on issuing internal passports, for example – because all manner of minutiae are addressed in them.[60] A strong mechanism for upholding service quality and handling citizen complaints – in other words, an effective system of administrative justice – could enable the authorities to rely less on specifying every last detail and more on setting clear, measurable standards against which agencies' performance could be assessed.

The government should therefore address as a matter of priority the arrangements for non-judicial appeal/review of decisions taken by officials in government bureaucracies. Other effective, non-judicial means of challenging official decisions should be available to both organisations and legal residents, whether they are citizens or not.[61] It should be possible to appeal against official *inaction* as well as official actions, and the procedures for doing so should be clear,[62] inexpensive and reasonably quick (officials should have to respond within specified time periods). Such non-judicial mechanisms should be multi-layered and multi-channelled, including opportunities for amicable resolution of errors, for arbitration or the employment of intermediaries, and for recourse to special commissions or tribunals. Where citizens' claims are rejected, the decision should be motivated and subject to appeal. A crucial element will be the establishment of the legal responsibility of officials to correct errors or violations of citizens' rights when they are uncovered and of their legal liability in the event that they are found to obstruct citizens' efforts to avail themselves of appeals procedures. At present, officials face no clear sanctions for refusing to consider citizens' appeals. Resort to such procedures should *not* deprive citizens of the right of eventual recourse to the courts. Indeed, non-judicial mechanisms will work only if they are backed by courts. The overall aim should be to provide individuals and organisations with effective and inexpensive mechanisms for defending their interests when in conflict with public bureaucracies.

Russia should also consider creating an official Ombudsman. Ombudsmen are a relatively recent institutional innovation in OECD countries – only three member states had such institutions in 1960, as against 27 today. Usually appointed by legislatures,

ombudsmen are rarely empowered to make recommendations that are binding on the bureaucracy, and they are certainly no substitute for a well functioning system of administrative appeal or for effective judicial mechanisms. Nevertheless, they have proved to be a strong source of pressure on governments for remedial action, both in specific cases and, in many countries, *via* the regular publication of reports on the performance of various agencies and other public bodies.[63]

A balanced, effective freedom of information (FOI) law would be another important step in empowering citizens. In many cases, it could enable them to avoid conflict with the bureaucracy in the first place. The experience of OECD countries, over 90% of which now have some form of FOI legislation, suggests that such laws not only make it easier to keep public bodies accountable, they can also strengthen efforts to implement performance-management strategies: wider availability of information on government performance can lead to better and more accessible services. FOI laws vary in scope and content, but the transaction costs involved in administering them are generally lower where openness and publication of information are the norm and secrecy the exception. The costs can also be reduced *via* the use of ICT for dissemination of information. Where possible, the availability of information on *forthcoming* decisions can be beneficial, facilitating wider consultation on policy and also making it easier for businesses to plan ahead. Russia has made considerable progress in this area, with some ministries making a particular effort to publish documents in draft form, but an FOI law is still needed.

An effective anti-corruption strategy will of necessity be multifaceted

Efforts to combat corruption will have to address questions of prevention, public education and participation, and strong, impartial law enforcement. It must also take account of the many different forms that corruption takes – one-size-fits-all solutions are not to be found. One important distinction is between those forms of corruption that involve collusion between officials and private citizens at the expense of the state and those that involve the abuse of power by officials to extract rents from private agents.[64] Different approaches are needed to combat these two forms of corruption:

- The best way to prevent the former is to make it as hard as possible to steal from the state. Otherwise, detection will be difficult, because the citizens involved will not complain. This approach is reflected in efforts to tighten control over budgetary expenditure and to increase top-down monitoring of officials and executive bodies by organs like the Accounts Chamber. Where detection is difficult, penalties should also be somewhat more severe in order to maintain some element of deterrence in anti-corruption legislation.
- Where bureaucrats try to extract rents at the expense of the public rather than the state, the citizen and the official have a conflict of interest. Here, the best approach is to give citizens effective means to defend themselves against racketeering by officials. Rooting out this latter form of corruption will depend crucially on the availability of effective institutions available to the victims of such corruption – ordinary citizens and entrepreneurs. These institutions must be both able and willing to discipline officials; they might include not only the courts but also recourse to regulatory bodies, ombudsmen or the sort of non-judicial appeal mechanisms discussed above.

Whatever the differences in emphasis between the strategies adopted for tackling these different forms of corruption, greater transparency, the elimination of unnecessary

regulation and the simplification of administrative procedures will be critical to both. So will better legislation governing conflicts of interest in the civil service. A free press able to rely on legal norms that favour the transparency of state bodies also has a key monitoring role to play.

Much, of course, can be done to reduce opportunities for corruption. The reform *Concept* rightly emphasises the need to analyse draft laws and regulations with a view to assessing – and minimising – their "corruption potential"[65] and to devise specific norms and procedures for governing situations where there is a particularly high risk of corruption.[66] Rules should be simple, transparent and standardised, with few exceptions and as little reliance as possible on bureaucratic discretion. However, too much emphasis on eliminating bureaucratic discretion can lead to inflexible, inefficient policies and procedures. Ultimately, there will always be situations in which it is necessary for officials to exercise discretionary judgement, even if this involves a risk of corruption. Where discretion is required, the criteria that determine officials' choices should be explicit, procedures should be in place to ensure that their activities are highly transparent, and their actions in most cases should be subject to some form of outside (administrative or judicial) review if need be. The *Concept's* commitment to further deregulation is also relevant here. One of the best reasons for avoiding unnecessary regulation is that it tends to create opportunities for corruption.[67]

There is also much merit in the *Concept's* suggestion that the corruption potential of many situations could be reduced if citizens were able to interact with public bodies electronically, rather than dealing with officials face to face. This constitutes an important argument for revising, but pressing ahead with, the "Electronic Russia" programme. Technology certainly offers no panacea, but electronic systems in some OECD countries have helped reduce corruption in public procurements, in particular.[68] In Russia, ICT could contribute much to increasing the quality and transparency of public procurement, particularly at regional level.[69]

While drafting corruption-resistant legislation is important, it will not reduce corruption so long as crimes go unpunished. Both corrupt officials and private agents who try unduly to influence the decision-making of judicial or administrative institutions must be brought to account in a fair, transparent process. This will require a good deal of political will, because big offenders are often wealthy private citizens or high-ranking officials. Moreover, a consistent approach to enforcement will be needed in order to ensure that anti-corruption cases are not (and are not perceived to be) merely political or commercial weapons. Anti-corruption "campaigns" are often politically expedient but they are rarely effective (Kaufmann, 2005b), and the *Concept's* omission of any plans for special anti-corruption commissions or other bodies should therefore be seen as a plus.

Finally, there is much that can be done to reduce corruption on the "supply side". Corruption, after all, is not limited to the state. The suborning of officials by private agents is no less a problem than the abuse of power by officials for personal gain. Russia still needs. to bring its rules and regulations into line with international standards with respect to criminalising the giving of bribes to domestic or foreign public officials.[70] "Whistleblower" protection measures could also play a role, provided that enforcement was effective enough to assure public and private sector employees that they would be protected if they reported suspected bribery. Finally, the adoption of a clear, well specified law on lobbying activities would clarify the boundaries of what is permitted and what is

Box 3.5. **Recommendations on the reform of public administration**

The 2005 *Concept* for administrative reform provides a comprehensive and ambitious strategy for pressing forward with the reform of public administration in 2006-08. The government's main priority should be to ensure its consistent, systematic implementation. Rigid adherence to the timetables set out in the strategy is not needed and may, in some cases, be undesirable, but neither should the implementation process be allowed to stall. A high level of political commitment to the reform is therefore required. In addition, the authorities may want to consider a number of measures that are either outside the scope of the concept or receive relatively little attention in it:

Improving the institutional context within which the bureaucracy operates

- Press ahead with reforms aimed at strengthening the rule of law, particularly those that serve to insulate courts from outside pressure, make law-enforcement agencies more transparent and accountable, and ensure that state institutions submit to court decisions.
- Adopt freedom of information legislation, along with other measures to establish a norm of transparency in public bodies.
- Strengthen mechanisms for ensuring parliamentary oversight of executive institutions, whether *via* the work of parliamentary committees or institutions like the Accounts Chamber.

Empowering citizens *vis-à-vis* the bureaucracy

- Ensure that arrangements for adopting public service standards and the related standing rules are open, consultative and result in documents that are clear and accessible to ordinary citizens.
- Create effective non-judicial mechanisms, including an effective system of administrative redress and an ombudsman or similar institution, for citizens and organisations seeking to defend their interests in conflict with public bureaucracies.

Fighting corruption

- Expand the range of opportunities for using ICT in interactions between officials and ordinary citizens or businesses, especially in fields such as licensing or procurement.
- Strengthen Russia's anti-corruption legislation, bringing it into line with international standards.
- Adopt "whistleblower protection" legislation and a law on lobbying.

Reducing the role of the bureaucracy in commercial affairs

- Continue with on-going efforts to reduce the scope of unnecessary regulation and bureaucratic interference in the activities of private businesses.
- Consider institutionalising regulatory reviews in order to combat tendencies towards creeping re-regulation.
- Reduce the role of the state as an owner of businesses engaged in activities that are commercial, contestable and not concerned with sensitive regulatory or public-service functions.
- Clearly separate the state's ownership role from its other functions, such as regulation and industrial policy.

forbidden when it comes to private agents' efforts to shape public policy. The effectiveness of a lobbying law would be enhanced by steps to strengthen the legislature's role in policy-making and parliamentary oversight of the executive: lobbying is likely to remain a legally difficult area as long as private agents regard the bureaucracy as a better point of entry for influencing public policy than the legislature.

The growth of the state's role as a property owner needs. to be reversed

The *Concept's* stress on reducing bureaucratic interference in business is difficult to reconcile with the recent expansion of the state's role in the ownership, management and regulation of "strategic" sectors (see Chapter 1), a trend that assigns to the state bureaucracy a role for which it is extremely ill equipped and which risks fuelling high-level corruption as well as undermining the performance of the companies involved. The Russian state has shown itself to be an ineffective owner, and, in many cases, continued state ownership of productive assets creates conflicts of interest for the authorities (particularly where the state's role as regulator is in tension with its role as owner). In many cases, it serves to distort competition. There is a strong presumption in favour of a shift to the private sector of activities that are commercial and (actually or potentially) competitive, and that do not involve sensitive regulatory or public-service functions. Further de-regulation and a reversal of the trend to expanded state ownership would reduce opportunities for corruption, enhance economic performance and also leave the public administration free to concentrate on its core functions.

Notes

1. A 2005 survey conducted on behalf of the government's Consultative Council on Foreign Investment found that the biggest obstacles to inward foreign investment were corruption, administrative barriers and selective law enforcement. See *Moscow Times*, 3 March 2005. About two-thirds of the companies surveyed were already doing business in Russia, suggesting that the problem is not merely one of external perceptions. See also WEF (2005:414): Russian executives rank "corruption" and "inefficient government bureaucracy" first and third among the most problematic factors in doing business.
2. We use the conventional English term "civil service" to refer to the permanent bureaucracy. The Russian term, *gosudarstvennaya sluzhba*, is more accurately translated as "state service". As will be argued below, this is not a purely linguistic point, as the difference in emphasis is reflected in the culture of the service.
3. The bodies involved have changed over time. At present, civil service reform is overseen by an inter-departmental working group headed by Deputy Head of the Presidential Administration D.P. Ivanov, while a separate working group, headed by Deputy Prime Minister A.D. Zhukov, oversees administrative reform.
4. Other aspects of the larger project of reforming public governance include the delimitation of powers and responsibilities between federal, regional and local authorities and the introduction of performance management, which is taking place as part of the larger reform of budgeting.
5. See Goetz (2001:1033).
6. See Voslensky (1984). It is important to note that the party fulfilled the functions of both ethical control and human resource management (HRM) for the state bureaucracy; the personnel departments of state bodies were little more than formal record-keepers. When the party disappeared, so did its ethics and HRM functions, for little was done to strengthen the personnel offices of state institutions.
7. In the Soviet period, rule violations were often tacitly condoned in the interests of task fulfilment. If the law came into conflict with the need to fulfil plan tasks, the latter tended to take precedence.
8. This is not to say that personalist administrative practices are synonymous with corruption and rent-seeking. However, the former tend to facilitate the latter.

9. The central bank, the privatisation agencies and some regional governments all fall into this category.
10. Hellman, Jones and Kaufmann (2000).
11. The discussion in this paragraph draws on the analysis found in Huskey and Obolonsky (2003).
12. See Rosstat (2005:33).
13. Brym and Gimpelson (2004:108-10).
14. See Huskey and Obolonsky (2003); and World Bank (2005).
15. A year after his first election, President Vladimir Putin declared that one of the chief lessons he had learned in office was that "it's very hard to fight with the bureaucracy" (*Izvestiya*, 21 March 2001).
16. *Oxford Analytica Daily Brief*, 12 November 2002.
17. See WEF (2005). These results are based on a survey of Russian executives.
18. ISRAN (2005:35, 69).
19. See, *e.g.* the results presented in Golov (2006) and FOM (2006). Only the army is rated favourably by more people (22%) than view it unfavourably (20%).
20. Indeed, one of the striking features of the ISRAN (2005) survey was that bureaucrats' own assessment of public institutions was remarkably close in many respects to that of the general population. See especially ISRAN (2005:24ff). The officials' assessments were, of course, less harsh, but they tended to identify much the same problems.
21. Overall, the BEEPS data suggest that the *burden* of corruption has fallen, with the ratio of bribes paid to total sales falling from 1.43% to around 1.07%. However, the frequency of bribes has risen and the reduction in the "bribe tax" appears to reflect economic growth rather than a decline in corruption. See World Bank (2006) for details.
22. See World Bank (2005:10-11, 14). The executive surveys conducted for WEF (2005) paint a similar picture of pervasive corruption.
23. Another 18% think that "around half" are.
24. These results are similar to those found in Golov (2006). Given the reluctance of some respondents to acknowledge having paid bribes, the estimates in these surveys are probably low of the true figures.
25. They also find that opacity is *positively* correlated with inflation.
26. See also Kaufmann (2005a).
27. Leverage is affected by the presence or absence of traditions of a strong civil service agency, strong single-party government, integrated civil service/ministerial careers, and heterogeneity in the public sector. Malleability depends on the degree of centralisation/decentralisation, the nature of administrative traditions, trade union membership and the presence of politically neutral permanent senior administrative positions.
28. The new administrative reform *Concept*, approved by the government in October 2005, was originally to have been approved in the autumn of 2004, in time for inclusion in the 2005 budget. There is still no law on freedom of information, although work on the draft has been under way for several years.
29. See Yakobson (2003:10-11); and HSE (2004).
30. For details, see OECD (2002:80-104).
31. *Cf.* Manning and Parison (2001) on the potential value of various kinds of more or less elaborate functional reviews.
32. The template for interactions among the newly reorganised bodies was adopted somewhat earlier, in January 2005. See "Decree No. 30" (2005) and "Decree No. 452" (2005).
33. See, *e.g.* OECD (2004a) on such sectors as financial services and electricity generation.
34. See Parison and Evans (2004).
35. See OECD (2005b:109-14).
36. Here one might note the rule, now abandoned, limiting the number of deputy ministers in each ministry to two. This had nothing to do with the essential ideas underlying the reform and took no

account of the specific activities of different ministries or of the reasons why the number of deputy ministers had grown so over the previous decade. (On the latter issue, see Nikolaev and Shul'ga, 2002). Similarly, some agencies for which there was no real need were carved out of ministries and have subsequently been liquidated.

37. See OECD (2002, 2004).
38. "O sisteme" (2003).
39. "O gosudarstvennoi grazhdanskoi" (2004).
40. See World Bank (2005); also OECD (2000).
41. For details see "Decree No. 336" (2006).
42. See also the discussion in Parison and Evans (2004:5).
43. With respect to the organisation of the civil service itself, the distinction being made here between "Weberian" and NPM models is analogous to the contrast between "career-based" and "position-based" systems in OECD (2005b:165-6).
44. Countries like Poland and Hungary have largely steered clear of NPM approaches. It is also noteworthy that western institutions involved in civil service reform efforts in Central Europe and Russia have also reinforced the tendency to focus on the classical model. See Nunberg (1999:264) and Goetz (2001:1034-5).
45. Not coincidentally, these are the very problems that many Weberian reforms are intended to resolve.
46. It does not follow from this that a traditional Weberian bureaucracy is necessarily concerned with controlling citizens above all; it may be oriented towards *either* task.
47. Some 40% of cases filed by Russian citizens with the European court of Human Rights concern unenforced Russian court decisions against state agencies; see *Moscow Times*, 1 June 2006.
48. See the results presented in Arkhangel'skaya (2003); and HSE (2004).
49. See OECD (2005b:44ff).
50. Ahrend (2002); Brunetti and Weder (2003); Egorov, Guriev and Sonin (2006).
51. Brunetti and Weder (2003); World Bank (2006:34).
52. In this context, is worth noting that higher levels of electoral competition appear to be associated with lower levels of official corruption. For the general argument, see Rose-Ackerman (1978:213ff). On Russia specifically, see Dininio and Orttung (2004).
53. For indicators of press freedom, see WEF (2005:554); Reporters without Borders (2005); and Fedotov (2005). Both the expansion of state control over the mass media in recent years and new legislation on non-governmental organisations give grounds for concern on this point. On the broader question of accountability, see the World Bank governance indicators in Table 3.1.
54. For a theoretical discussion, see Holmstrom and Milgrom (1991).
55. The history of the Soviet economic system provides a truly monumental example of this problem.
56. See Joumard *et al.* (2003:30-32).
57. OECD (2005b:64-81).
58. OECD (2005b:174-5ff); Joumard *et al.* (2003:32); and Reichard (2002).
59. See "Kontseptsiya" (2005). The document includes separate sections on performance management, standardisation, optimisation of functions, etc, but nothing on citizens' recourse.
60. Some drafts have included such details as the requirement that there be an adequate number of chairs in waiting rooms.
61. The mechanisms that currently exist are largely limited to private citizens. See Yuzhakov (2005).
62. They are rather vaguely described at present.
63. See OECD (2005b:44).
64. See Shleifer and Vishny (1993). An official might, for example, be charged with allocating some sort of permit to those who meet specific criteria and/or pay a certain fee. The official could collude with private citizens and accept bribes in return for issuing permits to those who do not meet the criteria or do not pay the fee, or he might demand payment over and above that required by the

law in return for issuing the permits to those otherwise entitled to them. His ability to do the latter depends to some extent on whether or not other officials can issue the same permit to the citizen if he refuses. In the former case, the citizen and the official work together to cheat the state; in the latter case, it is the citizen who is being cheated. This does not quite parallel the legal distinction between active and passive corruption; it focuses instead on the idea of corruption as theft and asks, first of all, who is stealing from whom.

65. For an excellent overview of the kind of issues that should be at the centre of such analysis, see "Pamyatka" (2004).

66. These include situations in which officials dispose of substantial sums of money, enjoy a high degree of discretion and are in close, regular contact with non-state organisations and private citizens.

67. OECD (2005a:62-3).

68. See OECD (2005c:12) on the experiences of South Korea and Mexico, in particular.

69. On the opacity and poor quality of procurement tenders in Russia, see Nikolaev and Kalinin (2004).

70. See OECD (2004b:62).

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Chapter 4

Raising the effectiveness of innovation policy

This chapter examines the potential role of innovation policy in enhancing long-term productivity growth in Russia. It begins by exploring the role of framework conditions for business in encouraging innovative activities, particularly with respect to intellectual property rights and competition. Realising Russia's innovation potential will also require reform of the large public science sector. This raises issues pertaining to the organisation and financing of public research bodies and, in particular, to the incentives and opportunities they face in commercialising the results of their research. Finally, the chapter looks at the potential role of direct interventions, such as special economic zones and technoparks, as well as the scope for improving the tax regime for private-sector R&D.

A substantial body of empirical work confirms the importance of innovation for long-run economic growth (Donselaar *et al.*, 2004; Keller, 2004). Recent OECD (2001, 2003a) studies of the determinants highlight the role of investment in information and communications technology (ICT) and human capital, combined with more efficient and innovative ways of producing goods and services. Other research suggests that science infrastructure and foreign knowledge enhance productivity growth in both developed and developing economies.[1] Russia is no exception. If it is to sustain strong growth over the longer term and to diversify its production and export structure away from reliance on raw materials, it must generate higher returns from investments in human capital and ICT and in fostering knowledge creation.

Russia's innovation potential is probably greater than that of most other countries at comparable levels of GDP per capita. The country benefits from a substantial science base and a well developed education system in science and technology. Yet indicators of actual innovation activity remain disappointing. There is a striking imbalance between the public resources devoted to knowledge creation and the observed outputs in terms of innovation. Closing this gap constitutes one of the major challenges for Russian innovation policy. The other is to stimulate greater private-sector involvement in R&D, which remains limited.[2] The Russian authorities are acutely aware of these challenges and have recently taken a number of steps to reinvigorate innovation policy. A strategy for the development of science and innovation to 2015 has been adopted, and work has begun on a range of initiatives to spur innovation. The information asymmetries involved in innovation and the positive spillovers generated by R&D activities provide a theoretical rationale for active public support. It is, however, widely recognised that such spillovers are hard to measure, that many targeted interventions have an uncertain impact and that the success of an innovation policy depends crucially on good framework conditions. A healthy business environment may be considered a precondition for boosting innovative activities. Russian innovation policy should therefore be carefully designed, with a balance between general and targeted measures.

This chapter begins with an examination of the innovation system in Russia today. It then considers the role of framework conditions in fostering innovation. It would be difficult to exaggerate the importance of improvements in the overall business environment when it comes to stimulating innovation. The discussion then turns to innovation policy *per se*. Here the chapter identifies two measures that should be considered as first priorities for the government: the reform of the state science sector and the strengthening of the intellectual property rights (IPR) regime. It argues that the authorities should proceed with caution when it comes to targeted initiatives like the creation of special zones and technoparks. Careful monitoring and evaluation of measures are emphasised throughout, as is the need to maintain *ex ante* neutrality between sectors. Interventions should be targeted at specific innovation bottlenecks, arising from market failures, and they should preserve risk-sharing with private investors and incentives for entrepreneurs to focus on wealth-creation rather than rent-seeking.

Innovation activity and performance: the Russian paradox

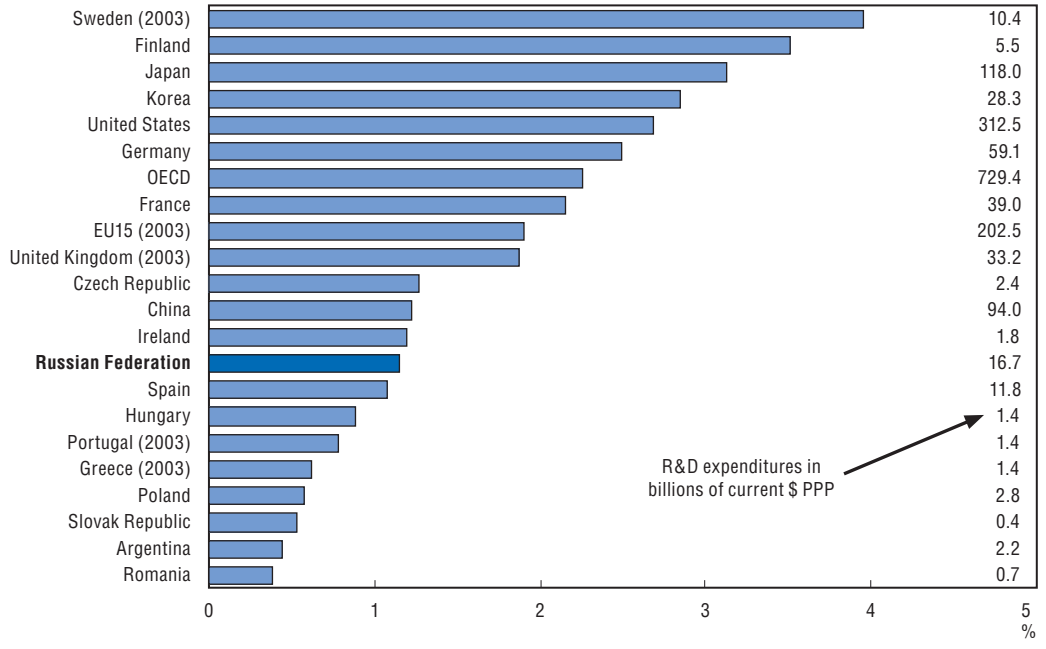
Russia invests heavily in public research and development…

The primary weakness of Russia's innovation system is the striking imbalance between inputs and outputs. Russia spends rather more on inputs into knowledge creation processes than most countries at similar levels of GDP per capita: it has an exceptionally large science base inherited from the Soviet Union and, despite the cutbacks of the 1990s, it continues to spend more on R&D than most emerging economies. Yet its performance on most generally accepted indicators of innovation performance is mediocre. In general, Russia performs best on international comparative innovation indices when they are weighted towards inputs into R&D; it performs less well on indices that emphasise revealed technical achievement; and it ranks worst of all on indices emphasising economic incentives.[3]

For cross-country comparisons of inputs to innovation, R&D intensity remains the most widely used indicator, although its limitations are well known.[4] Total R&D spending in Russia amounted to approximately 1.2% of GDP in 2004. While far below the OECD average, this compares favourably with R&D spending in most emerging economies (Figure 4.1). Moreover, R&D intensity has increased markedly in recent years, recovering from a post-Soviet low of just over 0.8% of GDP. In any case, part of the gap between Russia and the OECD average reflects the country's industrial structure. R&D activity tends to be lower in resourced-based economies, while countries with a large share of production in sectors like pharmaceuticals and telecommunications tend to have higher R&D spending (Sheenan and Wykoff, 2003; OECD, 2006a). Since R&D-intensive sectors are relatively small in Russia, the gap between Russian and OECD levels of R&D spending is actually smaller than one might expect.

Figure 4.1. **Gross domestic expenditures on R&D, 2004**

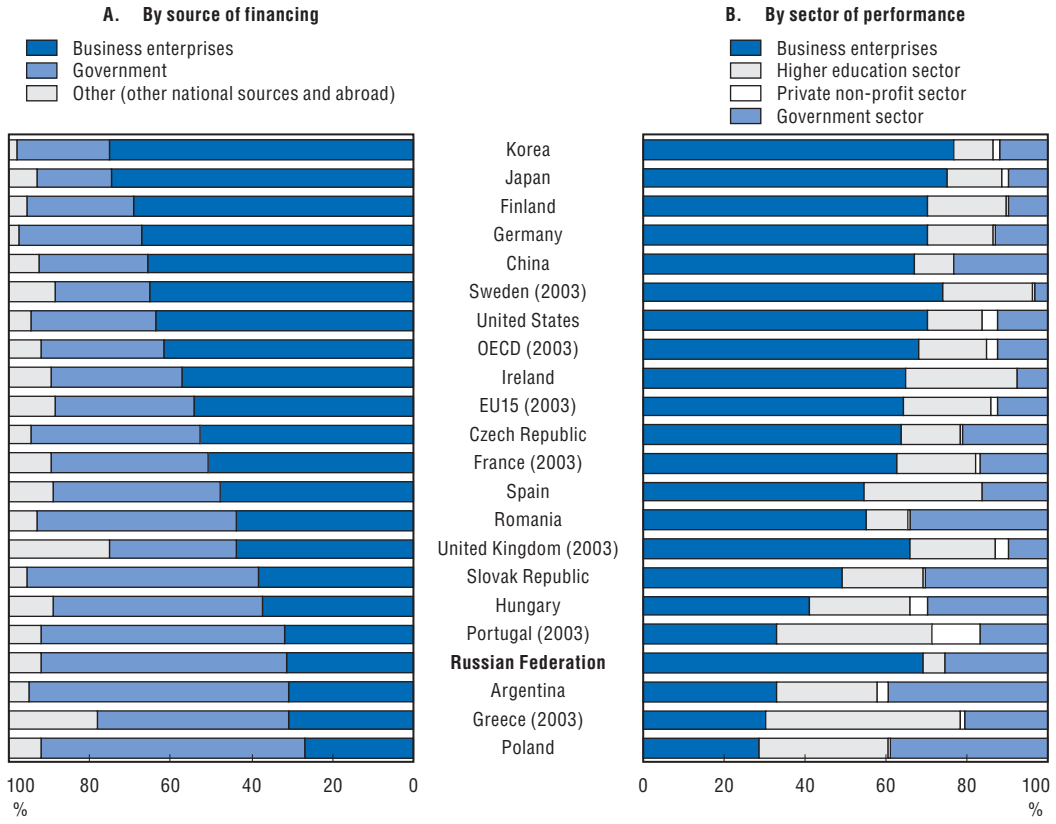
As a percentage of GDP



Source: OECD, Main Science and Technology Indicators database.

In contrast to what is observed in OECD countries, most Russian R&D is financed by the state (Figure 4.2A). Roughly 60% of R&D is publicly financed, and this ratio has proved fairly stable over time. Yet the bulk of R&D would appear, at first glance, to be conducted by the business sector (Figure 4.2B). This apparent paradox reflects the fact that state owned-companies and branches of research institutes are classified as business entities, and they conduct a large share of publicly financed innovation activities. Broadening the definition of the public sphere to include not only state institutes and state unitary enterprises,[5] but also joint stock companies that are majority state-owned, IET (2006) estimates that the state science sector consumes up to 98% of budgetary funding for science and represents about 86% of the fixed assets of the science sector.

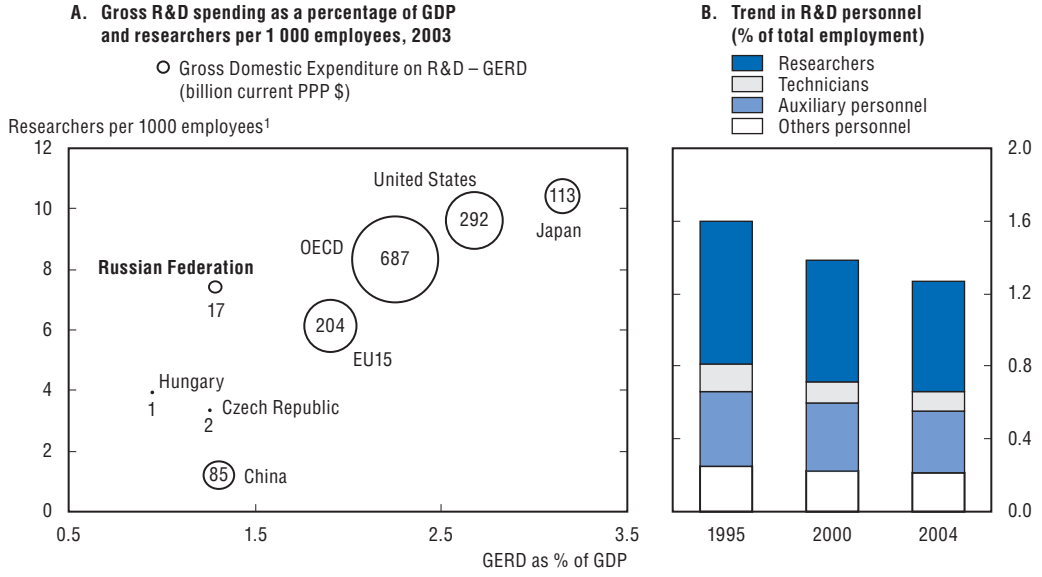
Figure 4.2. **R&D expenditures breakdown, 2004**



Source: OECD, Main Science and Technology Indicators database.

Human resources in R&D appear to be disproportionately large relative to total R&D spending (Figure 4.3A). The share of researchers in total employment is well above the average for the EU15, and labour costs account for about half of R&D spending. The share of support staff in total R&D personnel is also unusually high (Figure 4.3B) and has actually risen since 1990.[6] The overwhelming majority of R&D personnel work in the public sphere – 80% on the definition employed in IET (2006). Unusually high employment combined with lower overall spending means that, even in PPP terms, Russian R&D expenditure per researcher is only about 14-15% of the levels found in the United States or Germany (Gokhberg 2005b:4).[7]

Figure 4.3. **Gross R&D expenditures and R&D personnel**



1. OECD and United States, 2002.

Source: OECD, Main Science and Technology Indicators database and Federal Service for State Statistics.

... but the private sector is still more oriented towards imitation than R&D-based innovation

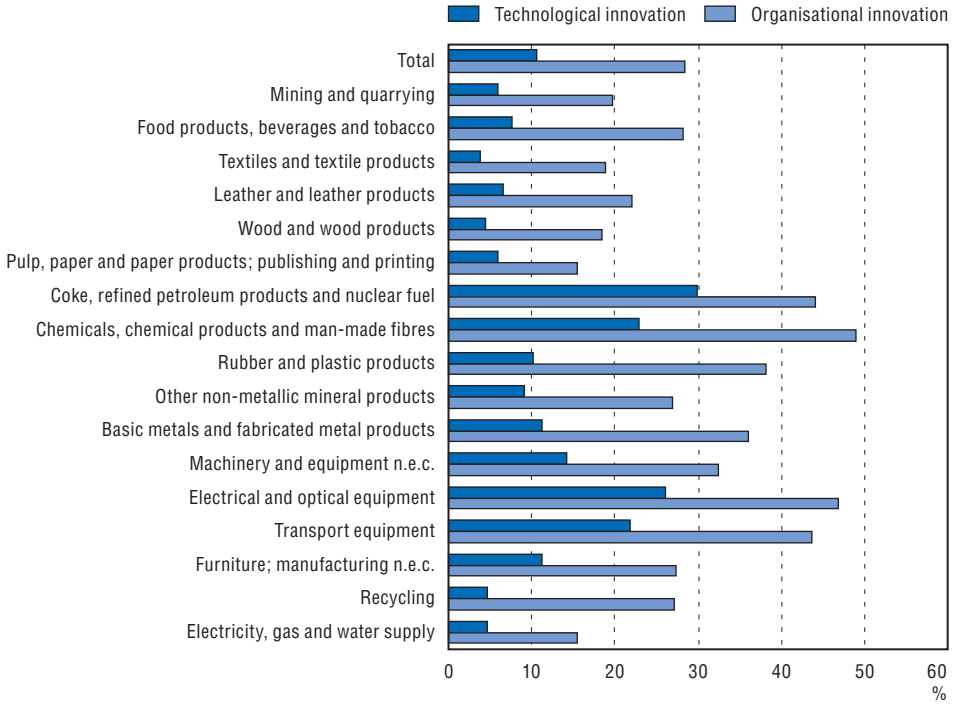
Despite rapid growth in recent years, business expenditure on technological innovation amounted to only 1.5% of industrial sales in 2004. For enterprises engaged in innovative activities, this share was only 3.3%. The government estimates that the corresponding figure for small businesses was about 0.4%.[8] Altogether, the number of industrial firms engaged in innovative activities[9] remains limited, at around 11%. Although this figure has doubled since the mid-1990s, there are only a handful of sectors in which the share of innovating firms is much above the average (Figure 4.4). Organisational innovation appears to be far more common across all sectors, although the sectoral structure of activity is much the same.[10] R&D activities in industry appear to be concentrated in a limited number of (probably large) firms (Figure 4.5). A similar situation is observed in services. In telecommunications, for example, only 16% of firms were engaged in the development and introduction of technological innovation in 2002, while the corresponding figure was 6.7% for the services sector as a whole.

Over half of business expenditure on technological innovation is aimed at improving production processes rather than creating new products. This accounts for the large share of spending on purchases of new machinery and equipment, often imported (Figure 4.6).[11] A large and growing volume of these purchases are focused on ICT, which highlights the linkages between technical and organisational innovation that arise when firms adopt more sophisticated ICT (Box 4.1). The acquisition of patent rights and patent licenses remains, on the other hand, marginal, and R&D accounts for only 16% of business spending on technological innovation, down from 27% in 1995.[12] The share of spending on production design fell from 19 to 7% over the same period.[13]

This shift in expenditure patterns reflects the crucial role of imitative strategies in the innovation process in Russia. For sectors in the economy located far from the "technology

Figure 4.4. **Innovating enterprises as a percentage of all industrial enterprises**

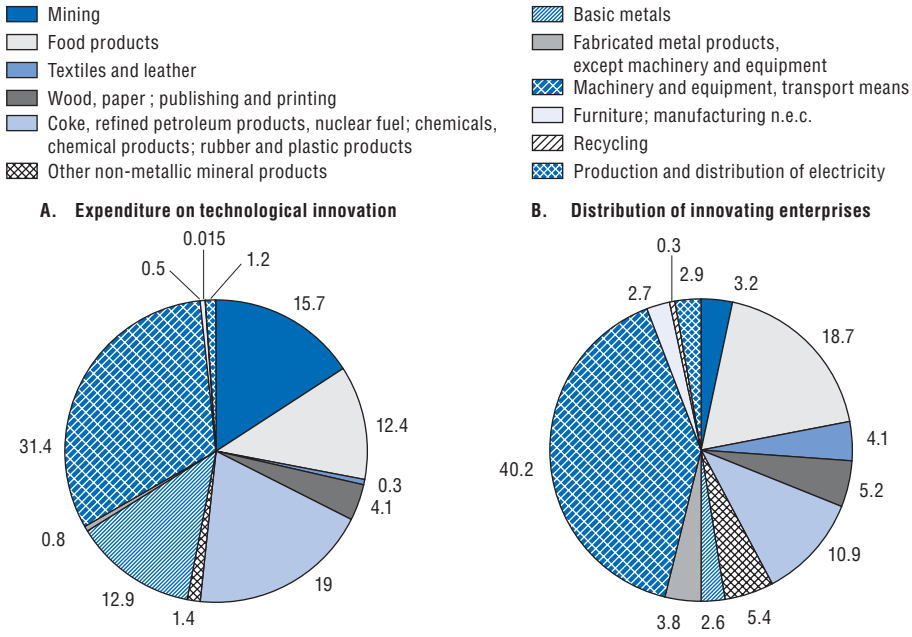
Technological and organisational innovation, 2004



Source: Federal Service for State Statistics.

Figure 4.5. **Innovating enterprises and expenditures on technological innovation by economic activity in industry**

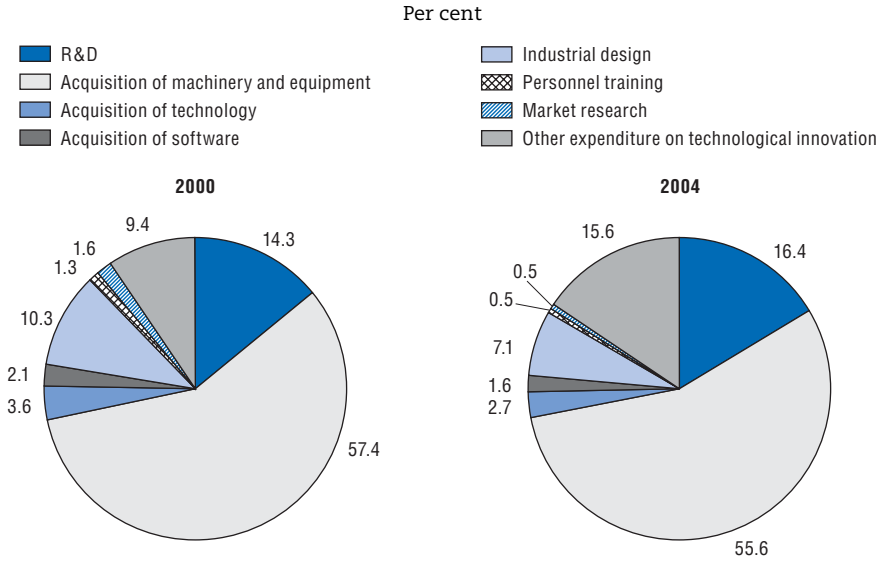
Per cent, 2002



Source: Federal Service for State Statistics.

OECD ECONOMIC SURVEYS: RUSSIAN FEDERATION – ISBN 92-64-02995-8 – © OECD 2006

Figure 4.6. **Expenditure on technological innovation in industry by innovative activity**



Source: Federal Service for State Statistics.

frontier", introducing already existing technologies may indeed lead to rapid productivity gains, with far less risk than radical innovation activities might entail. In sectors closer to the technology frontier, the growth of total factor productivity requires a much bigger R&D effort. Thus, roughly 30% of the firms surveyed by the Centre for Economic and Financial Research (CEFIR) and the Institute for the Economy in Transition (IET) in 2004 reported having innovation strategies based wholly or partly on imitation, as against just 11% relying solely on the introduction of novel products or technologies.[14] Overall, the survey found that only about 30% of innovating firms conducted any R&D at all.[15] Policies and institutions that facilitate the absorption and diffusion of knowledge are critical to such imitative strategies, a fact which underlines the importance of external openness for innovation. Indeed, since absorption and diffusion problems can limit the impact of targeted interventions aimed at stimulating innovation, resolving such problems may also be critical to the success of innovation policy.

Yet this appears to be a weak point for Russia, at least in the eyes of businesspeople: one of Russia's lowest ratings in the World Economic Forum's Executive Opinion Survey for 2005 concerned technology transfer, whether *via* foreign direct investment (FDI) or the licensing of foreign technology.[16] This suggests that Russia is missing a major opportunity to facilitate industrial modernisation and restructuring. As is well known, the importance of FDI stems not simply from the sums invested but from the positive spillovers that it can generate for domestic firms *via* the import of managerial expertise, technology and know-how. Savvides and Zachariadis (2005) find that foreign R&D has a particularly strong positive impact on TFP and the growth of value added. Moreover, the greatest potential spillovers are likely to be in manufacturing, where greenfield FDI in Russia is still relatively low. Studies of FDI in Russia suggest that the beneficial spillovers from foreign-owned firms to other firms in the same industry are significant, although the benefits of trade and FDI liberalisation depend on other policies, including financial sector reform, measures to improve labour mobility and reductions in regional bureaucracy.[17] Slow reforms tend to reduce the beneficial effects of FDI.[18]

Box 4.1. **The Russian ICT sector**

Empirical work suggests that the development of ICT spurs innovation and economy-wide productivity growth *via* three main channels: growth of both output and productivity in ICT-producing sectors; greater use of ICT in the production of other goods and services; and spill-over effects arising as a result of complementary innovations (*e.g.* organisational innovation in conjunction with increased use of ICT).[1]

The Russian ICT sector has been developing rapidly in recent years. Spending on ICT grew by an estimated 27.8% in 2005 to reach just over RUB 1 trn (4.7% of GDP). The telecoms sector is the main engine of growth, driven by the explosion of mobile telephony, but this growth is easing as the mobile telephone market approaches saturation.[2] The IT sector, which accounted for about 30% of ICT spending in 2005, is growing at annual rates of 20% or more. Around 70% of IT spending is on hardware, the bulk of which is imported.[3] IT consulting and audit account for a further 15-20%, and software purchases make up the remainder. The state accounts for almost 20% of IT demand and households for a further 20% or so. Business demand for IT products and services is concentrated in industry, financial services and telecommunications. Machine-building, resource extraction, metallurgy and the food industry together account for about 80% of industrial IT demand (CNews, 2006). The low share of expenditure on software reflects the prevalence of piracy in Russia rather than weak software demand.[4] At the same time, the software industry is the only major sub-sector with substantial export success: software exports reached an estimated $1 bn in 2005, up from less than $100 m in 1999.

There is still scope for enormous growth in the ICT sector. Overall penetration, though rising rapidly, is still relatively low – Russia has only about 19 personal computers per 100 population, just under half the median level for the OECD countries in 2004, and ICT infrastructure is in need of substantial modernisation. However, there are a number of obstacles to overcome if this growth potential is to be realised. The main structural constraints on ICT growth are as follows:

- *Lack of IT specialists*. Russia trains hundreds. of thousands of IT specialists each year, but IT companies complain that the generally high level of their fundamental education is not matched by their practical knowledge and skills. One way to address this problem would be to expand the provision of shorter (perhaps two-year) courses with an emphasis on developing practical skills for specific areas of work.
- *Lack of labour mobility*. The well known barriers to inter-regional labour mobility in Russia mean that IT labour markets are very tight in a few major cities (chiefly Moscow, St Petersburg, Novosibirsk and Nizhni Novgorod), while many of their potential employees are scattered across the country. Yet even in a sector with relatively high wages, the costs of relocation can be prohibitive.
- *Infrastructure*. While high-speed internet access is no longer a problem in the largest cities, companies in many Russian regions face real problems, owing to the low-quality and often expensive infrastructure linking Russian provincial cities to the rest of the world. In many areas, this problem is aggravated by the monopolistic behaviour of the local "Elektrosvyaz" companies – the state companies owning and operating regional networks.
- *Low R&D*. Industry observers believe that low levels of R&D will make it harder for Russia to make the transition from producing specific software modules for software products owned by foreign clients to developing and marketing their own software products.

The IT sector also points to high taxation as a problem. For software firms, wages and salaries make up by far the largest share of costs, so the unified social tax accounts for an unusually large share of their overall tax bill. Proposals now before the State Duma would establish a special tax regime for export-oriented IT firms. Such proposals should be viewed with great caution. Any concessionary tax regime linked to exports is likely to fall afoul of WTO rules, and the practice of designing sector-specific tax regimes risks distorting economic activity. Russia's social taxes are not, in any case, particularly high by international standards, and income taxes are low. It is difficult, therefore, to argue that the tax system penalises human capital-intensive activities.

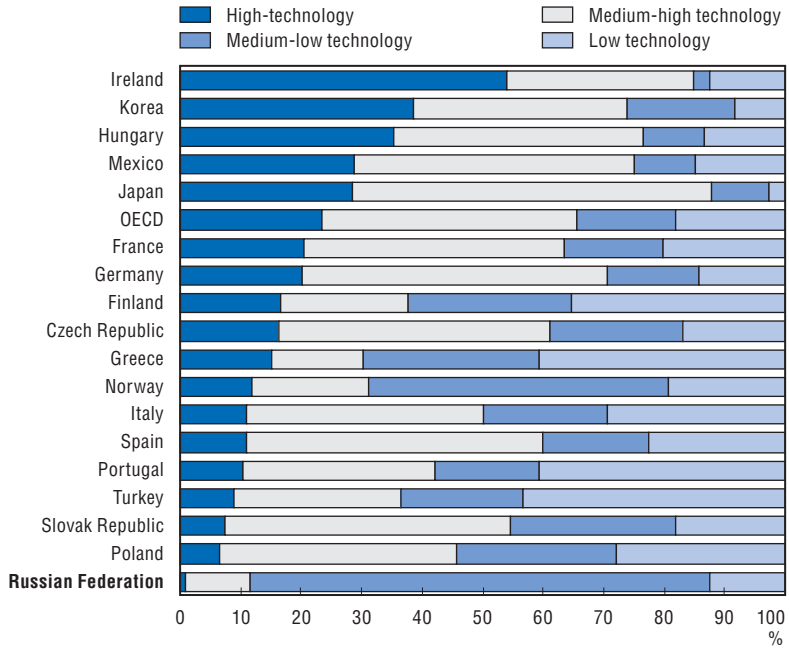
1. See OECD (2003c); Hempell (2002) and Van der Wiel (2001).
2. The telecoms sector grew by an estimated 44.1% in 2003, falling to 36.6% in 2004 and 31.4% in 2005.
3. Personal computers are a partial exception: around 80% of desktop computers sold in Russia are assembled there, albeit largely from foreign components.
4. BSA (2003) estimates that 87% of software sold in Russia is pirated.

The observed outputs of Russia's innovation system are disappointing

Not surprisingly, given the level of business spending on R&D, the production of innovative goods remains subdued. The share of technologically new or improved products in industrial sales was just 5.6% in 2004, and this share does not exceed 10% even for firms engaged in innovation. The share of high-value-added goods in manufacturing exports to OECD countries does not exceed 1% (0.2% for ICT goods) and reaches only 10% for high–medium value-added goods (Figure 4.7).

Figure 4.7. **Share of high and medium high-technology in manufacturing exports to OECD countries**

As a percentage of manufacturing exports, 2004

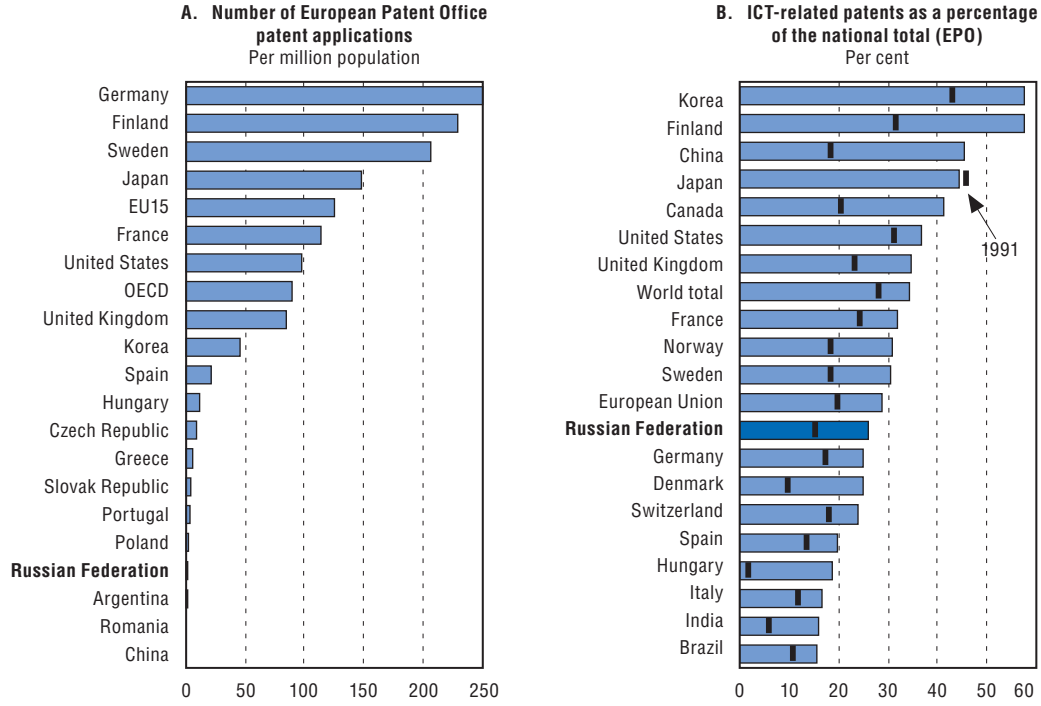


Source: OECD, STAN Bilateral Trade Database 2006/I.

Knowledge creation in the business sector is also hampered by limited interaction with the public R&D sector. Most research personnel in the Russian Academy of Sciences (RAS) system and in universities have little incentive to worry about the commercial application of their work. This lack of engagement between the science sector and business contributes to relatively poor performance with respect to innovation outputs. One indicator of this weakness is the relatively small number of patents held abroad (Figure 4.8A).[19] Moreover, a large proportion of patents held abroad are not Russian but foreign-owned. This may be one reason why Russia's share of ICT-related patents in the European Patent Office (EPO) total actually compares favourably with other emerging economies (Figure 4.8B). Of course, the question of whether and how patents are used is at least as relevant as the number of patents registered. Concerning patents held in Russia, Gokhberg (2003) estimates that only 5% of usable models produced during 1992-2002 became objects of commercial agreements.

A similar picture emerges when looking into more "upstream" or fundamental R&D activity, at least as measured by scientific publications. Russian scientists publish only 2.7% of the total volume of publications in the world's leading scientific journals (Figure 4.9).[20] On

Figure 4.8. **European patent applications and ICT-related patents, 2002**

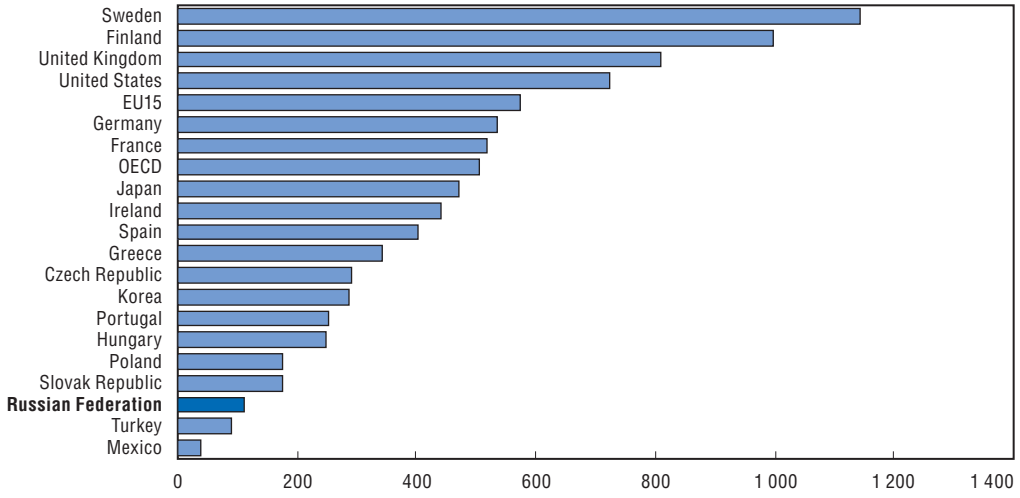


Note: Patent counts are based on the inventor's country of residence, the earliest priority date and fractional counts. Data for 2002 are OECD estimates.

Source: OECD, Main Science and Technology Indicators database, OECD, Patent Database, December 2005.

Figure 4.9. **Science and engineering articles, 2003**

Per million population

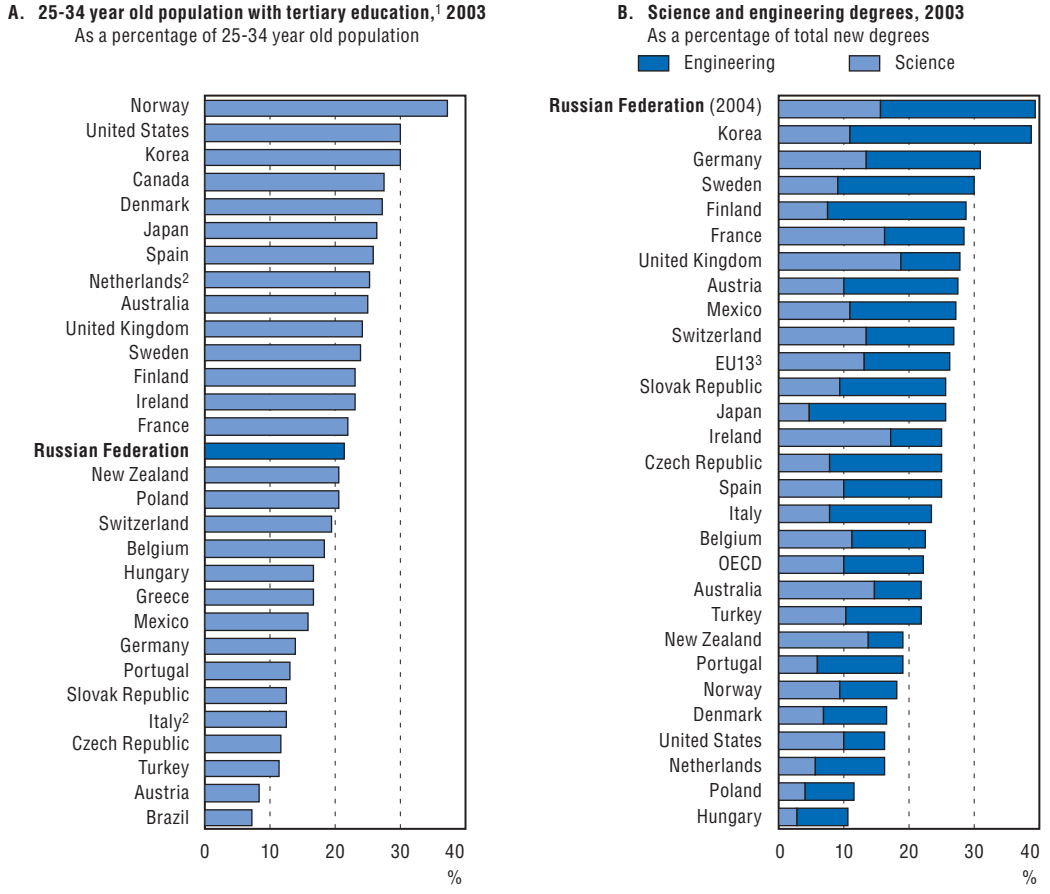


Source: OECD, Main Science and Technology Indicators database; National Science Foundation, Science and Engineering Indicators 2006.

the other hand, there have been remarkable achievements in a number of areas, and Russia still holds strong positions in fields such as space research, nuclear power generation and laser technologies, as well as in fields connected to the exploitation of mineral resources and areas that do not require major capital investment, like mathematics.[21]

In trying to build on these comparative advantages and to improve the diffusion of knowledge, Russia can rely on a well educated workforce. Tertiary education attainment is relatively high in comparison with OECD countries and Russia produces a far higher proportion of graduates in science and engineering subjects than do most OECD members (Figure 4.10). The number of IT graduates per annum has more than doubled since 1995, a product of the explosion in private-sector provision of IT courses.[22] Since the data on degree classifications do not correspond exactly, Figure 4.10B may exaggerate Russia's relative strength in this area. Nevertheless, there is little doubt that it is a strength: although the quality of higher education overall appears to have fallen during the 1990s, the quality of science and engineering education is reckoned to have held up fairly well.[23] Russia's innovation performance suffers not from a shortage of qualified specialists but from its inability to retain them: the country remains a major exporter of researchers, especially in their late 20s and 30s. Improving conditions of work for such researchers and offering them greater opportunities for career development will be important if Russia is to realise the innovation potential of its higher education sector.

Figure 4.10. **Russian higher education**



1. Tertiary-type A and advanced research programmes.
2. Year of reference 2002
3. EU15 excluding Greece and Luxembourg.

Source: OECD, *Education at a Glance, 2005*, Education database and Federal Service for State Statistics.

The limited involvement of higher education institutions (HEIs) in R&D represents a second missed opportunity in the university sector. In 2005, HEIs received only about 4.3% of budgetary funding for R&D, down from an already low 6.1% in 2004 (IET, 2006:314). The government aims to raise this share to 20% over the coming decade, while working to facilitate greater university engagement with the enterprise sector in R&D. This represents an opportunity both to help HEIs tap into new sources of funding for research and to engage their knowledge creation capabilities in innovation processes.

Getting framework conditions and institutions right

Improving framework conditions for business is critical to stimulating innovation

The gap between private and social returns to R&D and the asymmetry of information that exists between innovators and potential investors suggest a need for some degree of public intervention in innovation policy. In Russia, the mismatch between the public resources devoted to innovation activities and the unsatisfactory results achieved also constitutes an argument for reform. Ultimately, a successful innovation policy, in Russia as elsewhere, must provide the right incentives for those engaged in R&D, facilitate contacts between knowledge producers and business, and create an institutional environment that favours the reallocation of resources needed to turn new knowledge into wealth-creating activities. Given the potential for continued "imitation-based" development, it will also be important to facilitate access to know-how and technology generated abroad. Fulfilling these objectives will not necessarily require an increase in public spending: reform of the institutional framework is likely to be more important.

Yet if the case for a degree of public activism is clear, it is important to proceed with a realistic understanding of how far innovation policy can go and what can reasonably be expected of it. OECD (2006a:15) observes that the empirical evidence regarding the effectiveness of different instruments of innovation policy is mixed. This certainly appears to be true in the Russian case: Yakovlev (2006) reports that 12.6% of respondents to an enterprise survey said that they had received state assistance to stimulate innovation in 2004, but such assistance had little impact.[24] Moreover, the impact of specific interventions aimed at correcting market failures is likely to depend in no small measure on the capacities of the public bodies charged with implementing them and on the quality of the overall institutional environment.[25] Thus, while the objectives of innovation policy outlined above are no different to those in OECD countries, the specific actions required to achieve these objectives need to reflect Russian conditions.

The creation of sound framework conditions for business would appear to be a *sine qua non* for boosting private innovative activities. A good deal of research highlights the importance of good framework conditions for R&D activity (Jaumotte and Pain, 2005c; OECD 2006b), and most innovation policy initiatives are likely to prove inefficient if the appropriate framework is not in place. Russia still has much to do in this sphere: as the World Bank (2006) notes, this is precisely the area in which Russia's innovation system lags behind those of the advanced transition countries of Central Europe. Goldberg (2006) highlights survey evidence showing that innovative companies suffer more from problems with the investment climate than do other firms. Moreover, in sectors where Russia is still far from the technology frontier, the catch-up process relies heavily on an imitation strategy, for which general framework conditions matter most.[26]

To begin with, the development of innovative activities requires sound macroeconomic conditions. Analysing cross-country differences, Jaumotte and Pain (2005b) find that robust output growth, low inflation and low real interest rates have a positive influence on the rate of growth of R&D. The micro-level characteristics of the investment environment are also critical: secure property rights, low barriers to market entry and a stable institutional environment all have a role to play in fostering innovation. These results are hardly surprising: in a stable and predictable environment, businesses can operate with longer time horizons, and the risks involved in innovative activities are reduced. In the absence of such conditions, rational agents will focus on short-term gains, and there is likely to be little investment in any activity that does not generate very rapid returns. Given the importance of the so-called "bureaucratic burden" on business in Russia, these considerations suggest that progress in reducing corruption and reforming public administration will be important in fostering innovation.

A well-developed financial system, which reduces the cost of external financing, also helps foster innovative activities (Jaumotte and Pain, 2005b). In Russia, a large majority of firms rely on retained earnings to finance investment and innovation,[27] and enterprise surveys almost always report the shortage of own funds and the cost of borrowing as the principal barriers to investment and innovation. Funds devoted to innovation and risk-financing are scarce. The dearth of venture capital in Russia is probably part of the problem here: Jaumotte and Pain (2005d) find that the development of venture capital in OECD countries is negatively correlated with enterprises' assessment of the difficulty of securing external finance, and a similar situation appears to obtain in Russia. In Russia, however, the development of risk capital markets has been impeded by the under-development of financial markets overall (see below).

Framework conditions and the regulatory environment also affect the "import" of foreign know-how *via* FDI and collaborative R&D and innovation. Several studies have emphasised the positive impact of foreign-performed R&D and FDI on domestic total factor productivity (Guellec and van Pottelsberghe, 2001; EBRD, 2005; and Hemmings, 2005), and FDI restrictions are found to have a negative impact on patenting (OECD, 2006a). Improving the openness to flows of foreign knowledge may play an important role in boosting innovation in Russia, particularly given that Russia's human capital endowments leave it well equipped to absorb this knowledge.[28] Indeed, given the right framework conditions, this could be a major strength for Russia: Erken *et al*. (2005) find the quality and skill of the labour force, together with the quality of knowledge institutions, to be a critical factor in attracting foreign R&D.

One specific feature of Russia's business environment merits particular attention in this context: artificially low energy tariffs for households and businesses. This, combined with the energy inefficiency of the industrial capital stock inherited from the Soviet era, leaves Russia with an exceptionally high energy intensity of GDP: Russian energy consumption per dollar of GDP in 2003 was estimated to be 2.3 times the world average (in PPP terms) and 3.1 times the European average.[29] The Russian government estimates that the country could reduce energy consumption per unit of output by almost half from the levels of 2002-03.[30] Implicit energy subsidies are both economically inefficient – especially in view of rising energy prices worldwide – and environmentally damaging. However, the authorities in recent years have begun steadily increasing domestic energy tariffs, with a view to raising them above long-run cost-recovery levels,[31] as well as introducing tighter emissions standards in some spheres. There are obvious synergies between increased

energy efficiency and reduced greenhouse gas emissions, synergies that could be profitably exploited within the framework of the Kyoto protocol.[32] This creates significant incentives for enterprises to invest in cleaner, more energy-efficient technologies.[33] However, their ability to adapt successfully will depend on the creation of conditions that favour technology transfer and innovation.

Strengthening competition would stimulate innovation

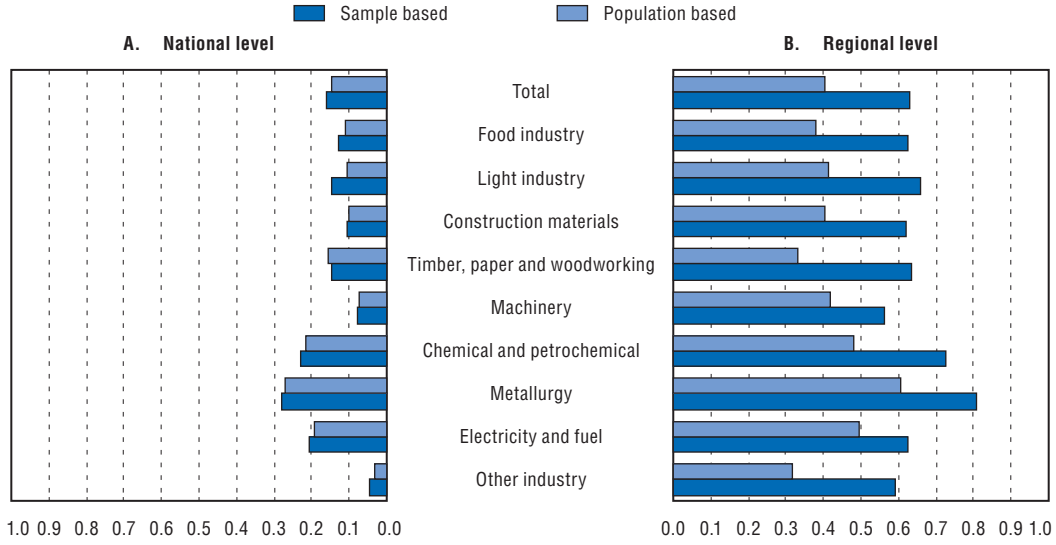
Greater openness may also increase productivity through the effect of stronger competition. The theoretical effect of competition in product markets on innovation efforts is ambiguous. Close competition between incumbents can stimulate innovation, but the possibility of gaining a certain degree of market power may also provide a strong incentive to innovate (the so-called Schumpeterian effect). However, most empirical research has found evidence of a positive correlation between innovation and competition.[34]

In the Russian case, the empirical evidence supports the view that openness to foreign competition boosts domestic productivity growth (Aghion and Bessonova, 2006). This effect is, however, found to be stronger for firms close to the technological frontier. For less productive firms, entry threat may create a disincentive to innovate by reducing their "life expectancy" and thus shortening time horizons. The greater incentive to innovate in order to escape competition from new entrants predominates, however, so an increase in entry threat is usually found to be growth-enhancing overall (Aghion *et al.*, 2002, Aghion and Bessonova, 2006). Kozlov and Yudaeva (2004) find that competition from both foreign and domestic competitors has an inverted U-shape effect on the innovation efforts of Russian producers. However, they conclude that most Russian firms are located on the upward-sloping part of the curve, where innovation activity increases with competition. This result is reinforced by survey data showing that Russian firms in more competitive environments spend significantly more on R&D and also innovate more than firms facing less competitive pressure.[35] Firms with greater market power innovate less, and monopolistic firms innovate least of all (Goldberg, 2006). Finally, a similar conclusion is reached when looking at the impact of competition on the *outcomes* of innovation activity rather than the inputs: recent empirical work points to a negative correlation between total factor productivity growth and concentration (Table 4.A1.1 or Aghion and Bessonova, 2006). The effect is found to be stronger for import-competing industries.[36] Finally, the incentive to innovate also increases with the degree of similarity between firms within a given sector (the degree of "neck-and-neckness" in terms of their distance from the technological frontier).

The question that naturally arises from the foregoing discussion is whether or not product markets in Russia are sufficiently competitive. Calculated on the basis of a 5-digit classification, Herfindahl-Hirschman Indexes and market shares at the national level do not point to a particularly high degree of concentration, except for metallurgy and electricity. This picture, however, is distorted by the high degree of segmentation of markets. At regional level, the same indicators suggest much weaker competition in all sectors (Figure 4.11).[37]

These results suggest that there are important institutional barriers to inter-regional trade. Over time, market shares have exhibited a fairly stable evolution and there has been no significant increase in competition since the mid-1990s.[38] Enterprise surveys give a complementary view of the segmentation of local markets: an OECD-sponsored survey of approximately 650 industrial firms found the *average* share of the three main clients in sales reaches almost 50% (Figure 4.A2.1). The same percentage obtains for the share of the enterprise's three main suppliers.[39]

Figure 4.11. **Herfindahl-Hirschmann concentration indexes, 2004**



Source: Bessonova (2006).

This raises the question of regulatory obstacles to business development. Anti-competitive barriers are now perceived to be one of the major problems for small businesses, along with corruption and frequent changes in the law.[40] According to the Federal Anti-Monopoly Service, entry barriers are a particular problem where regional authorities seek to protect local markets from outside penetration: the service has observed a sustained increase in violations of competition law by regional and municipal authorities.[41] Barriers to competition are found to be an even more serious problem than government regulations and tax administration, which seem to have improved since 2003. The potential sanctions incurred in the case of anti-competitive practices are currently too low,[42] which is one reason why some 43% of competition law infringements are repeat offences.[43] If lowering barriers to entry and improving the predictability of state policy towards business would benefit the business community in general, such steps are likely to have an even greater positive effect on innovation.[44]

A better domestic IPR regime would also help

From a theoretical point of view, establishing a balanced IPR regime is not easy. A certain level of protection is necessary to stimulate innovation, but over-protection risks allowing patent-holders and other innovators to capture excessive rents at the expense of the rest of society. Moreover, recent empirical work suggests that IPR strictness does not necessarily have a significant effect on R&D spending (Jaumotte and Pain, 2005b). In Russia, however, with its rather weak IPR protection, there is little doubt about the need to shift the balance towards both greater protection and more efficient specification and assignment of IPR.

The underdevelopment of the legal framework governing IPR is among the major obstacles to the commercialisation of R&D outputs in Russia. In an enterprise survey conducted by the Interdepartmental Analytical Centre (MATs), 50% of respondents cited weaknesses in the IPR regime as a major impediment to the commercialisation of R&D outputs: only lack of access to financing (57%) was cited more frequently. There have been

significant improvements in Russia's IPR regime in recent years, but they have largely been concerned with trademarks and copyright issues – questions that have loomed large in Russia's WTO accession negotiations – rather than with the products of R&D activity (Rospatent, 2005; Yusufov, 2004).[45] Resolution of problems concerning the assignment, specification and protection of IPR to R&D outputs would mark an important step towards the formation of a well functioning market in the products of R&D activity. The present regime complicates collaboration among agents (whether public or private) in R&D activities, inhibits technology transfer and sometimes creates conflicts of interest for researchers and the organisations that employ them.

The first problem concerns the *assignment* of IPR, particularly where R&D is financed from budgetary sources – as most Russian R&D is. Until recently, the state retained the rights to the results of budget-financed R&D, but under a government decree issued in November 2005, this is now an issue to be addressed in the contracts concluded between the state bodies financing R&D and the (state or private) organisations carrying it out. The decree allows IPR to be awarded to the latter, except in specified cases, although some compensation may have to be paid to the budget in return for acquiring these rights.[46] This is a significant step forward, but it is unlikely to trigger a dramatic upsurge in innovation in the near term. First, it will take time for R&D organisations to develop the procedures needed to regulate internal issues such as the allocation of rights between staff and the organisation of technology transfer offices (TTOs) or similar institutions to attract investors and facilitate commercialisation. This will not be easy. As OECD (2004c:81) notes, the emphasis on patenting the results of publicly funded research elsewhere has, with a few notable exceptions, generally failed to achieve the success that was hoped for. This is partly because the results of academic research are often far from commercialisation and thus difficult to value, but it also reflects the tendency of inexperienced new TTOs (often under pressure to maximise revenue) to demand more for their IPR than a prudent investor would pay. Secondly, the law may actually *reduce* the degree of *informal* appropriation of IPR produced by budget-financed R&D. R&D organisations that were previously indifferent to their employees' exploitation of the results of budget-financed R&D now have an incentive to prevent them from doing this. While this is in principle a positive development, it may slow some innovative activity in the short term.

However, the main reason why the short-term importance of the November decree should not be exaggerated is that IPR *enforcement* remains weak. WEF (2005) ranks Russia 105th of 117 countries in terms of its level of IPR protection.[47] In fact IPR protection in Russia is probably better than this result suggests,[48] but the WEF assessment is based on a survey of Russian businesspeople and thus gives some indication of how IPR protection is *perceived* in the country. The MATs survey data present a paradoxical picture. Some 3.8% of respondents regarded the quality of legal protection of R&D outputs as "good" and 38.7% as "satisfactory". Only 34.9% described it as "unsatisfactory". Yet two-thirds did not believe that patents provided effective protection of inventions, and around one-third of respondents reported having had their rights to the results of R&D violated. One in ten of these reported having successfully asserted its rights in court but none secured punishment of the violators or payment of compensation. The contradictory character of these results is probably more apparent than real: the relatively high level of satisfaction with IPR protection probably reflects the limited needs. of the great majority of firms, while the dissatisfaction reflects the experience of those that have tried to protect their IPR. In general, survey respondents attached a higher priority to improving the strength of

enforcement of IPR than to the transfer of IPR from the state to researchers, but the data suggest that the two measures in combination could indeed have a significant positive effect (Chulok, 2006).

Finally, there are problems with the *specification* of IPR in Russia. Some 45% of MATs survey respondents reported that patent protection was inadequate because Russian patent procedures fail to prevent the patenting of copy-cat inventions that differ from the original in insignificant ways. The principle of the "inventive level" is enshrined in Russian law but is rarely enforced.[49] Rospatent (2006) insists that it is becoming more demanding with respect to patent awards and the ratio of patents awarded to applications submitted has indeed fallen in the last three years. However, few patent applications are rejected owing to an insufficient inventive level, and assessing the degree of differentiation from inventions already patented can be difficult. Nevertheless, the real problem here concerns judicial behaviour rather than the law on the books: many judges fail to appreciate that the existence of a "copycat patent" is not a decisive argument in favour of the claims of the party holding it. Much here depends on the region. Judges in Moscow and some other regions appear to have a better grasp of IPR issues than their colleagues elsewhere. Precisely for this reason, many firms involved in IPR violations register in regions with weaker judiciaries – defendants generally have the right to fight civil suits in their place of registration.

There is a need to overhaul the arrangements for financing the state science sector

Fundamental reform of the state science sector will be critical to realising Russia's innovation potential over the long term. The first issue concerns finance. The sector's funding arrangements generate few incentives for research institutes or individual researchers to concern themselves with possible commercial applications of their work. Most science funding comes from the state budget – in 2005, the budget provided around 60% of total science funding – and it is largely allocated to institutions with few, if any, strings attached. Thus, the Russian Academy of Sciences has tended to receive around 40% of budget funding for science to allocate among its institutes, with the Russian Academy of Medical Sciences receiving 6% and higher educational institutions about 5%.[50] Only a small share of total science funding is allocated on a competitive basis. This emphasis on institution-based financing tends to protect incumbents and creates few incentives to increase efficiency, productivity or innovation. On the contrary, since much funding is "cost-based" and allocated with reference to employment levels and fixed assets, greater efficiency could lead to loss of funding.

There is thus a need to shift to greater reliance on competitive allocation and project-based funding. There has already been some progress in this direction. Ministry of Education and Science agencies involved in financing research have begun shifting towards much greater reliance on competitive procedures. However, these agencies are mainly concerned with financing applied research under federal targeted programmes, rather than with basic science, and they administer only a small part of the overall federal science budget, which is still allocated primarily on the basis of line-item budgets for institutions ("Strategiya", 2006:30). Thus, the 2006 budget envisages the allocation of only 14.6% of all civil science funding on a competitive basis. Just over half of this is to be channelled through the Russian Foundation for Fundamental Research and the Russian Humanities Science Fund. The Ministry of Education and Science wishes to shift the ratio of institutional funding to project funding from 80/20 in favour of the latter to perhaps 50/50.

The government strategy envisages reform of funding mechanisms proceeding in tandem with a shift in priorities towards greater financing of fundamental rather than applied research. The intention here is clearly to attract more private capital into downstream R&D, leaving the state to finance basic science.

One factor that may smooth this difficult transition in funding mechanisms is that it is to be implemented at a time when science funding is on the increase. Higher funding should ease some of the distributional conflicts that would otherwise arise. However, if this additional funding is not to be wasted, it will be important to ensure that it is targeted at clearly defined priorities, selected on the basis of wide consultations involving government, business, the scientific community and civil society. Technology foresight approaches employed in other countries could be adapted to Russian conditions to help structure this process. The priorities chosen, moreover, should be subject to regular review. While support for fundamental research will remain primarily a government responsibility, the authorities should seek to limit direct funding of applied research to areas where there is good reason to believe that social returns exceed the private returns and to employ co-financing mechanisms such as public-private partnerships where possible (OECD, 2004a).

While a shift to more reliance on competitive, project-focused finance arrangements is clearly welcome, there are significant dangers here. The potential for corruption in the conduct of tenders is obvious and highlights the extent to which science reform will be affected by the success or failure of public administration reform.[51] Critics of the new approach argue that the selection criteria used in those competitive processes that have been introduced focus primarily on the bid documents and on the status of the bidders, rather than on their track records (IET, 2006:315). The risk here is that competition for funds may be too restricted, leading to a high degree of monopolisation of available funds. This risk is heightened by the trend towards directing funds to fewer, larger projects. Such a concentration of resources is, in principle, to be welcomed, as it should allow better targeting of key priorities. State R&D spending is currently too fragmented. However, greater concentration of expenditure will make the quality of the tender/competition arrangements, as well as the probity and transparency with which they are conducted, even more important.

Changes to financing arrangements will also necessitate some organisational restructuring

There has already been much discussion of transforming the organisational structure of Russia's research institutes, and the government currently plans to turn many of them into "autonomous institutions", a new legal form for which legislation is now being developed. The draft legislation has attracted fierce criticism, and while much of it appears simply to reflect fear of losing guaranteed budgetary funding, the push to create autonomous institutions must be regarded as a highly risky initiative. The creation of new organisational-legal forms in Russia has often been fraught with problems, because each new form tends, initially at least, to be under-regulated in law and to give rise to its own peculiar governance problems and abuses. Nevertheless, there is clearly a need to move research institutes and HEIs away from the current system of simply transferring budgetary funds to them in amounts deemed sufficient to cover anticipated costs. Such "*smetnoe*" financing creates incentives to inflate costs and fails to establish a link between resources and outputs. Moreover, where institutes are interested in cooperating with

business in R&D projects, their status as budgetary organisations can limit their ability to operate flexibly.[52] Whatever legal form they ultimately take, public research institutes need both greater financial freedom *and* greater financial responsibility. Those responsible for administering the funds should be accountable for their use but their performance should be evaluated in terms of the institution's work and aims, not in terms of conformity to externally defined line-item budgets. Transparency, accountability and regular external evaluation of organisations' work will be the key requirements.

Restructuring the state science sector will involve not only reorganising many institutions (transforming state unitary enterprises and state institutions into other legal/organisational forms) but also consolidation and downsizing. The state science establishment is both too large and too fragmented – the state owns around 2 900 R&D organisations, and the number of research institutes has actually risen in recent years, mainly as a result of splits and spin-offs rather than any increase in research capacity. Many of these organisations now perform little if any research, while others conduct research that does not obviously need to be in the state sector. Some of the latter might be good candidates for privatisation, while others might simply need to be liquidated or taken over by other institutions. In numerical terms, at least, the medium-term reorganisation and consolidation goals set out in the government's reform strategy (Table 4.1) should thus be regarded as modest but by no means unambitious. Given the complexity of the issues involved in reorganising public science, it would be very risky to force the pace of reorganisation and consolidation. However, there is likely to be scope for a more extensive rationalisation of the public science sector over the longer term.

Table 4.1. **Organisational transformation of the state science sector, 2005-10**

	2005	2008	2010
Breakdown by sector (%)			
Academy of Sciences	32.7	31	34.4
Applied research sector	48.1	44.3	31.3
Higher education	19.2	24.8	34.4
Breakdown by organisational form (%)			
State unitary enterprises	48	2.4	1.3
State institutions	50	28.6	25
Autonomous state institutions	0	11.9	21.9
Non-commercial autonomous state institutions	0	9.5	15.6
Majority state-owned joint stock companies	2	47.6	36.3
Number of organisations (memorandum item)	*2 600*	*2 100*	*1 600*

Source: Ministry of Education and Science.

This consolidation process will extend below the level of institutes and R&D organisations to researchers themselves. At present, Russian science organisations still carry a great deal of "ballast": the Siberian Branch of the RAS, generally reckoned to be one of its more active and successful branches, nonetheless estimates that 20-25% of its researchers have published nothing for three years or more. An assessment carried out under the aegis of the Russian Foundation for Fundamental Research concluded that only about 50-70% of researchers were engaged in real research, and other studies suggest that perhaps only 40-45% of researchers are really productive (IET, 2006:302-7). Whatever the true figure, there are too many on the public payroll, as well as an unusually large number of support staff. However, reducing over-staffing is only part of the solution. There is also a

need to improve pay and incentives. Remuneration packages for productive researchers should be not only better but *better designed*, in terms of their ability to stimulate and reward good performance.

These changes cannot take place in isolation. Changing pay arrangements without changing conditions of work is unlikely to achieve much. In particular, there is a need to provide more avenues for the career development of younger researchers. At present, Russia seems to be a major exporter of such individuals: as IET (2006:318-19) observes, there has been growth in the number of researchers under the age of 30 and over the age of 50, and the research corps of the RAS and other institutes has aged substantially. However, the number of 30-49 year-olds employed in Russian research institutes has continued to fall, suggesting that many young researchers in their late 20s and early 30s are either leaving science or leaving the country, or both. While higher pay elsewhere clearly plays a role here, many of the departing researchers also cite frustration with the prospect of slow progress up the very hierarchical structures of Russian institutes. The scope for rapid advancement is simply far greater abroad. In addition to better salaries, the wider availability of funding on a competitive basis should help ameliorate this problem, by reducing mid-career researchers' dependence on funding controlled by their hierarchical superiors and creating new opportunities for them to pursue their work and advance their careers within Russia.

Designing efficient innovation-promotion initiatives

The fiscal disincentives to private R&D need to be reduced

Stimulating greater knowledge-creation in the private sector is as urgent a priority as reform of public R&D institutions. The government is therefore exploring ways to use the fiscal system to stimulate private R&D. Most OECD countries provide fiscal incentives for R&D in the form of tax breaks or direct subsidies. The two types of measure are not equivalent. Tax incentives potentially benefit all innovative activities, reducing the risk of capture and attempts by bureaucrats to "pick winners". On the other hand, direct funding may reduce dead-weight losses by focusing on areas where the gap between private and social returns is the highest and may be more effective in supporting innovative start-ups and small firms that have few tax liabilities. In both cases, there is the problem of assuring the *additionality* of government support, which should stimulate – not replace – private-sector investment. Otherwise, the state may simply subsidise activities that would have been undertaken anyway. This risk is probably greater with direct subsidies than with tax breaks. However, tax breaks may tend to favour incumbents to the detriment of new entrants.

In any case, empirical research into the impact of fiscal support on innovation yields mixed results. Jaumotte and Pain (2005c) find that tax reliefs have a bigger effect than direct subsidies, although their overall impact is limited.[53] Targeted subsidies are usually more successful when designed for small businesses (Hall and Van Reenen, 2000; David *et al.* 2000; Klette *et al.*, 2000). In general, the effectiveness of fiscal instruments appears to be highly sensitive both to environmental factors like the particular forms of market failure that need to be addressed or the framework conditions for business and to the specific design of the instruments themselves (OECD, 2004c; World Bank, 2006). In these circumstances, instruments adopted in OECD economies may not be easily transferred to emerging economies.

In the Russian case, an important first step would be to reduce the fiscal *dis*incentives to R&D. Until 2005, for example, private companies could write off R&D spending in even tranches over three years. If the R&D in question did not lead to a positive result, moreover, the write-off was capped at 70% of such expenditure, in an effort to prevent corporates from inflating reported R&D costs in order to reduce their tax bills. Now they can write off all such expenditure, and they may do so over two years rather than three in cases where the R&D is used in production or sales. The government is considering proposals to allow accelerated write-offs, possibly up to 100% in one year for capital expenditure. This could be a positive step, especially given that low levels of private R&D investment appear to be one of the major impediments to greater innovation in Russia. On the basis of an enterprise survey conducted in late 2005, Kuznetsov *et al.* (2006) identify these two measures as among the most likely to stimulate increases in business R&D. As noted above, the literature suggests that tax incentives are more efficient than subsidies. Such rapid write-offs would also avoid the distortions that arise from targeting subsidies or tax breaks at specific groups of enterprises.

If R&D work results in the creation of an intangible asset, such as a patent or some other object of IPR, it must be declared as such and depreciated over an extended period – a requirement that reinforces incentives *not* to patent, especially since these costs are incurred even if the patent does not generate income.[54] Amending this provision of art. 258.2 of the Tax Code should address this problem. Finally, the government should either scrap or substantially revise the existing VAT tax break for R&D, which is precisely the kind of tax incentive that is to be avoided: it applies only to R&D expenditures undertaken by "research organisations" – specifically, those that generate over 50% of their turnover from the provision of R&D services.[55] Whatever fiscal incentives are offered should be targeted to stimulate certain activities, not to support specific sectors or groups of enterprises.

Interventions intended to spur innovation should be carefully targeted and rigorously assessed

The government has recently undertaken a range of targeted interventions aimed at fostering contacts and information flows between business and science, creating favourable conditions for the growth of innovation clusters and developing venture capital (Box 4.2). Before examining some of the more important initiatives in detail, a few general caveats are in order:

- The empirical evidence concerning the effectiveness of such initiatives is mixed. Governments undertaking such efforts are to some extent involved in an on-going process of experimentation. Regular, rigorous, external monitoring and evaluation of programmes are therefore critical, as are mechanisms for winding up programmes whose benefits do not justify the costs involved.
- Programme evaluation, both *ex ante* and *ex post* should lay particular stress on additionality. Although the government's efforts do indeed address some of the main weaknesses of the national innovation system – weak links between business and science, and the low level of privately financed R&D – the emphasis on creating clusters under various rubrics conceals a considerable risk of dead-weight losses.[56]
- State support should in all cases be limited, in terms of both amount and duration. The aim of these initiatives should be to *spur* new activities, not to sustain them.

Box 4.2. **Targeted innovation initiatives**

The government has recently launched a large number of targeted initiatives aimed at spurring innovation. Among the most prominent are:

Special Economic Zones (SEZs). The biggest new initiative is the creation of 4 technical-innovation zones[1] within the framework of the 2005 law on SEZs (see below). The transport and engineering infrastructure for the zones is to be in place by end-2007.

Technoparks. The government is planning to create eight technoparks across Russia,[2] and its new innovation strategy lays considerable emphasis on the development of a network of technoparks, business incubators, technology transfer centres and other elements of innovation infrastructure. The regions have primary responsibility for creating the parks, which, unlike the SEZs, will not enjoy tax or customs preferences. They will, however, receive financial support from the state and will be eligible for participation in small business development programmes. The authorities hope that some large companies will use technoparks to modernise their plant and equipment and diversify their activities.

Science towns. Work is proceeding on the creation of more so-called "science towns" – large science and technology centres. There are already ten such towns, and several more towns are expected to receive this status, which entitles them to receive federal funds to develop their science base. Science towns can create technoparks and innovation "business incubators" on their territories.

Venture capital. Three ministries have undertaken venture capital initiatives.

- The Ministry of Economic Development and Trade is working on the creation of a 10-12 regional venture capital funds with initial capitalisation of RUB 2.1-2.5 bn, of which one-quarter would come from the federal budget, one quarter from regional budgets and the balance from private investors. These closed share investment funds would focus on high-risk (but potentially high-return) projects undertaken by small innovative firms.
- A Venture Investment Fund (VIF) project was launched under the auspices of the former Ministry of Industry, Science and Technology in 2000. It was supposed to be a "fund of funds", investing in venture funds rather than real-sector firms, but little was done owing to a lack of resources – only RUB 50 m was ever actually allocated to the VIF. It has been superseded by the Russian Venture Company (RVC) created in August 2006. The RVC has a capitalisation of RUB 15 bn provided by the state, which is to be used to finance 49% stakes in up to 15 new venture capital funds. The RVC's contribution to each fund will range from RUB 600 m to RUB 1.2 bn but will not in any case exceed the 49% limit. The aim of the fund is to improve the risk-return relationship for private investors, so the state's return will be capped at 3%, and private investors will be able to buy the state shares in successful investments for their nominal value.
- An August 2006 government decree established the Russian Investment Fund for Information and Communications Technologies (RIFICT), which is to be overseen by the Ministry of Information Technologies and Communications. The fund will be allocated an initial RUB 1.45 bn from the federal budget. Its authorised share capital is then to be increased via an additional share issue, and investment will begin once the state's share in the fund falls to 51%, a target that is to be reached within a year. The state share is to fall to 25% by 2009 and the fund is ultimately to be fully privatised. Investment in a single project is to be capped at RUB 100 m.

While these initiatives show a heightened awareness of the need to overcome the barriers to innovation in Russia, the rapid growth in the number of innovation-promotion projects highlights the need for coordination among state bodies, for close monitoring of the use of budgetary funds and for planned, rigorous and regular evaluation of the effectiveness of various schemes. There is otherwise a very high risk of duplication of effort, waste, rent-seeking and the prolongation of measures that may well fail to justify the costs involved.

1. These are in the Moscow district of Zelenograd (microelectronics), Dubna, in Moscow Oblast (nuclear physics-based technologies), Tomsk (new materials), and St Petersburg (IT).
2. Novosibirsk, Tyumen', Kazan (Tatarstan), Sarov (Nizhni Novgorod Oblast) and Obninsk. Two more have since been created in Moscow Oblast.

Adherence to the above criteria will not be easy, since programmes and bureaucracies often acquire a life of their own: those who benefit from tax breaks and other benefits will be reluctant to surrender them. It is therefore important to build in evaluation criteria, sunset clauses and other such mechanisms from the beginning.

It is also important that the development of specific innovation-support instruments be undertaken within the context of an overall strategy that is coherent and well coordinated. In this respect, the adoption of a strategy covering the period to 2015 is to be welcomed. However, the large number of measures envisaged by the strategy and the large number of actors involved raises the risk of duplication of effort, on the one hand, and very slow decision-making on the other. The development of both technoparks and venture capital funds, among other things, has been delayed by inter-departmental disagreements and turf battles. The multiplication of innovation-specific measures also raises the risk that initiatives will be under-funded and/or lose momentum very rapidly: the IT industry, for example, recalls the fanfare with which the government launched its "Electronic Russia" e-government programme in 2002. In the event, the programme has never received more than about 20% of planned financing. While the authorities' determination to do more to spur innovation is to be commended, the risks of waste, market distortions and rent-seeking involved in innovation-promotion programmes suggest that it proceed with caution as well as urgency when it comes to targeted interventions.

The state's role in promoting venture capital should be limited and well defined

Information asymmetries between firms and their suppliers of finance can be particularly strong in innovation. In many countries, venture capital (VC) firms help to rectify this by providing both equity and management services to firms. VC has thus played a key role in the development of radical innovations in many countries, especially where wholly new technologies are developed by start-ups rather than established firms.[57] VC is thus increasingly seen as having an important role to play in any drive to spur innovation in Russia. However, the Russian venture capital industry, though growing fast, is still in its infancy: the Russian Venture Capital Association (RVCA) estimates that VC firms invested $427 m in Russian companies in 2003-04, or around 0.04% of GDP, up from an estimated 0.014% in 2002.[58] Moreover, most Russian VC continues to be attracted to mature companies operating in mature markets. Ammosov (2006) estimates 2005 venture investment in Russian high-tech companies at just $62.7 m. However, VC firms' interest in high-tech companies – and, to a lesser extent, start-ups – is growing rapidly, albeit from a very low base.[59] A further peculiarity of Russia's VC industry is that it is dominated by foreign players, chiefly multinational financial institutions: only three of the RVCA's 16 full members have Russian origin, and two of these are government-sponsored entities providing technical assistance and consulting services rather than project finance.[60]

The obstacles to the development of VC are considerable. VC firms face the same problems that confront other financial firms, such as poor protection of minority shareholders (Annex 1.A2). VC investors are particularly affected by the lack of viable "exit" strategies, due to the under-development of the IPO market and the lack of depth of financial markets. The RVCA proposes creating a secondary market to serve as an outlet for IPOs. The association also claims that VC investors can be subject to double taxation under current arrangements, particularly if they provide management as well as funding. VC firms' growth is also constrained by problems with the broader business environment and the bottlenecks at other stages in the innovation chain. Because only a small percentage of

VC investments yield returns at the high levels required to make VC risk-taking worthwhile, a successful VC industry needs. a large number of suitable projects, the emergence of which depends on factors such as the conditions affecting market entry, the state of management and accounting practices in the *non*-financial sector, and the strength of IPR protection. Finally, Russian VC firms face a potential clientele that is not yet interested in VC, despite pervasive complaints about access to finance. A 2004 RAVI-sponsored survey of small innovative companies found that only 13% of those seeking external finance had turned to venture funds. While RAVI suggests that this partly reflects ignorance of VC, it is also largely due to a reluctance to offer equity to outsiders: only 9% of the RAVI survey respondents were prepared to consider offering a blocking (25% + 1 share) stake in return for investment and only 3.5% would consider parting with a controlling (50% + 1) stake.

The government has long been aware of the need to develop VC in Russia, and VC initiatives have been undertaken by a number of ministries in recent years (Box 4.2). This is not unusual: many countries subsidise VC firms and, as noted above, the VC industry in Russia is already heavily dependent on entities like the EBRD and USAID. Moreover, advocates of public involvement in VC argue that it is preferable to grant-based schemes, as it ensures that the private-sector plays the leading role in selecting projects and it gives entrepreneurs greater freedom in the use of funds. Some public grant programmes have been criticised precisely because the grants are often highly restrictive with respect to use of funds (to the point of specifying maximum allowed amounts for specific purposes) and because selection panels are often dominated by bureaucrats and academics, who focus on the scientific value rather than the commercial promise of proposed projects. Government support for VC does, of course, raise an issue of moral hazard, and the track record of state-owned or -managed VC funds in most countries is not very good.[61] The danger here is generally thought to be greater if support for VC funds take the form of loan guarantees, rather than direct government investment in them.

In that respect, Russia's approach looks more promising than some, particularly as the new innovation strategy explicitly states that the RVC's resources are to be allocated on a competitive basis and that the state's share in the new VC funds will decline over time. In some respects, the role that the innovation strategy envisages for the RVC looks similar to that of Israel's successful YOZMA fund, which, having played a critical role as a catalyst for venture capital development, was privatised and sold (Baygan, 2003). To minimise the risks involved in state financing of VC, the state's direct involvement should be limited to acquiring shares in VC funds and the private sector should not only invest but bear a good deal of the risk: the government might, indeed, wish to consider reducing the 49% cap on RVC holdings in individual funds. State-financed VC investments should be authorised by an independent committee, supervised by a representative board, on the basis of independent external peer assessments. The committee, board and assessments should involve some inputs from non-nationals, and all procedures should be transparent.

Special Economic Zones should be rigorously evaluated for their "additionality"

The June 2005 law on Special Economic Zones (SEZs) is perhaps the most high-profile government initiative aimed at diversifying Russia's production and export structure and stimulating innovation.[62] The law provides for two types of SEZ: industrial production zones and technical-innovation zones (TVZ).[63] It is the latter that are of concern here.[64] TVZ are in some respects best understood as technoparks with fiscal privileges rather than

large internal "offshore" zones of the kind that were created in some Russian regions in the 1990s – the maximum size of such a zone is 2 km^2, and they can be established for a period of no more than 20 years. The state defines the tasks for each zone, and federal, regional and local budgets finance the necessary engineering, transport and social infrastructure.[65] Residents of TVZ may be Russian or foreign individuals or firms. They enjoy certain tax and customs preferences, including exemption from regional property and land taxes for five years and protection against subsequent changes in legislation concerning taxes and duties. They are also subject to a unified social tax (ESN) rate of 14%, rather than the standard rate of 26%. This reflects the fact that, since human capital is critical to innovative firms, ESN can constitute a very large part of their tax burden. Residents will also be able to treat current R&D expenditures as costs for tax purposes. SEZ residents will be subject to simplified registration procedures and less frequent tax inspections, and will enjoy significant customs privileges.[66]

The SEZs will be overseen by a new Federal Agency for Managing Special Economic Zones, which has been created under the Ministry of Economic Development and Trade. A special committee consisting of representatives of various ministries is responsible for assessing applications for the creation of SEZs, and SEZ projects are approved on a competitive basis. The six SEZ sites approved in December 2005 will soon be followed by others. It was originally envisaged that each SEZ would have its own management company and its own supervisory board, which would include representatives of resident companies as well as the state. However, this is now in question and governance of the zones may yet give rise to disputes, as the respective roles of the agency and the regional authority, in particular, could be clearer. Moreover, the law stipulates that disputes concerning the creation and operation of SEZs are to be settled in Russian courts under Russian law; international arbitration does not appear to be an option.

The Ministry of Economic Development and Trade estimates that firms operating within a technical-innovation zone will be able to cut their costs by 23-29%[67] and that the average SEZ will generate annual output of $210 m, create 14 000 jobs and attract $330 m in foreign investment. The ministry calculates that a zone's activities will generate an average of $36 m per annum in fiscal revenues. However, OECD (2006b) observes that the government does not seem to have conducted an overall assessment of costs and benefits of SEZs. This lack of a careful *ex ante* cost-benefit analysis is a concern, particularly because the agency appears not to have any clear plans for *ex post* evaluation either. The establishment of a dedicated agency, together with the emergence of a corps of firms eager to enjoy SEZ benefits, virtually ensures that there will be a constituency supporting the continuation of the programme, although it is far from clear that SEZs will generate the kind of returns that would warrant its expansion. There is thus a serious question concerning additionality here: the zones may simply subsidise a great deal of activity that would have been undertaken anyway.

Creating exceptional conditions for specific sectors and enterprises risks distorting markets and weakening competition, particularly given that much of the attraction of the zones consists of nothing more than the opportunity to secure lower tax rates and to escape some of the defects of Russia's general business environment. In this context, the lower rate of ESN offered to residents of TVZ is a concern. It is meant to enable them to pay higher wages to skilled specialists. While this may, at the margin, reduce "brain drain", by reducing the pay differentials between Russia and other countries, it may also distort the domestic labour market, by granting a small sub-population of firms a significant

advantage when it comes to competing for highly skilled workers. Similar distortions may arise as a result of the tax and customs privileges enjoyed by firms resident in the zones. Moreover, Russia's recent experience with special zones of various types has not been a happy one.[68] Critics fear that the SEZs will turn into zones of concentration of "grey" activities – yet another generation of "internal offshores" serving purposes other than those for which they were created. This risk must be taken seriously, given Russia's endemic corruption and the state's limited administrative capacities.

As noted in Chapter 1, the government is well aware of these risks and has attempted, in drafting the SEZ legislation, to provide safeguards against the kinds of abuses seen in the 1990s. The authorities fear that, unless some risks are taken in an effort to jump-start innovation activities, Russia will remain on the sidelines of the world's high-tech sectors for many years to come. Nevertheless, the presence of these risks makes it all the more important that the zones be monitored carefully with respect to both probity and cost effectiveness. Moreover, while the authorities are keen to move rapidly to advance their innovation strategy, they should proceed with caution in establishing yet more SEZs before much is known about how the first wave are working. Once established, SEZs will be almost impossible to wind up prematurely without sending an extremely negative signal to investors about the dangers of *ex post* changes in policy. This must be regarded as an argument against expanding the SEZ programme too quickly.

Early-stage support for small innovative firms could help overcome financial constraints

As noted above, R&D activities in Russia are highly concentrated in large firms, and access to finance appears to be much more constraining for SMEs and start-ups. Enterprise surveys suggest that the gap between desired and actual levels of R&D activity, as a share of turnover, is much higher for smaller firms. This is hardly surprising, given the almost total absence of early stage venture capital or "angel investors" in Russia. Venture capital does not in any case offer a solution to the market failures that limit the emergence of innovative start-ups and early-stage development of such firms; in general, VC is aimed at assisting business growth at a later stage.[69] A measure of public intervention and direct support may therefore be needed to address bottlenecks in the innovation system that hamper start-ups and firms in the first stages of development. In order to avoid rent-seeking, such programs must be carefully designed. Selection should be made in a transparent manner and based on independent assessment of the quality of projects rather than criteria reflecting an *ex ante* desire to "pick winners". For such direct subsidies, grants and mini-grants are certainly more appropriate than loans, given the risky nature of investment and the uncertainty of future cash-flow generation. They should also, however, be limited in scope.

The Foundation for Assistance to Small Innovative Enterprises (FASIE), which administers 1.5% of the federal budget for civil science, has provided such assistance to small businesses since 1994. More than 1 000 projects have been co-financed over 12 years, and the track record of the Fund is good: roughly two-thirds of grant recipients are still in business. Since 2004, FASIE has been developing a new grant programme for start-ups, which also looks promising. The selection process relies on outside expertise, with the jury made up of representatives of the science sector, the business community and the fund. The initial small grant may be extended if the applicant attracts private investment. Building on such experience may help foster innovation in the SME sector, provided that other programmes follow similar rules. Greater emphasis on evaluating the outcomes of

such programmes should also be an important element in the design of future targeted innovation policy.

Business support services in the form of training or the establishment of incubators may also help innovators to develop the skills needed to commercialise the fruits of their work. The effectiveness of business incubators or technological parks in transition economies has been questioned (World Bank, 2006). In Russia, such facilities are often used simply to secure subsidised rents (IET, 2005). For recent graduates and university students, however, such incubators may prove helpful, provided there is a binding exit constraint that gives a clear incentive to obtain results.[70] More generally, business support should be as demand-driven as possible and should rely as much as possible on private sector expertise and skill.

Conclusion

The new emphasis on spurring innovation that has been evident in Russia over the last couple of years is to be welcomed. The country's innovation potential is both unusually great for a country at its level of per capita GDP and exceptionally poorly developed. Realising this potential should undoubtedly be a major emphasis of government policy. The first priority should be to sustain macroeconomic stability and strengthen framework conditions for business – policies that will not only facilitate innovation but will enhance overall economic performance. Indeed, sound framework conditions should be seen as the *sine qua non* of success, since innovation-promotion efforts will almost certainly fail if the overall business environment is not conducive to long-term investment in new activities. Secondly, Russia needs. to undertake the long-overdue reform of its public science sector, a reform that could, if successful, turn a sector that has long subsisted on budgetary subsidies into a significant source of growth. Finally, there is clearly scope for some public intervention where market failures occur in the innovation process. However, the authorities should proceed with caution in devising such interventions. Innovation policy remains a field in which there is still considerable uncertainty about what policies work best under any given set of circumstances. It is an experimental science, and the government should therefore proceed in that spirit, viewing measures like targeted interventions as experiments requiring rigorous evaluation and review at regular intervals, as well as a willingness to drop initiatives that fail to produce results.

Box 4.3. **Recommendations on innovation policy**

Improving framework conditions for innovation

- Ensure continued macroeconomic stability.
- Continue and where necessary reinvigorate institutional reforms aimed at strengthening the rule of law, protecting property rights, facilitating financial-system development and reducing the "bureaucratic burden" on business, particularly small business.
- Increase competition in product markets by reducing barriers to entry and strengthening the enforcement of competition law, particularly where competition is impeded by public bodies acting in the interests of incumbent firms or groups of firms.
- Facilitate technological cooperation and exchange by maintaining a high degree of openness to foreign direct investment.
- Rectify the regulatory and infrastructure constraints that impede the growth of Russia's dynamic ICT sector in many regions.
- Improve coordination between ministries and departments involved in innovation policy.

Strengthening intellectual property rights

- Further improve the enforcement of intellectual property rights by increasing the penalties for IPR violations and reducing the scope for relying on "copycat" patents.
- Increase judicial understanding of IPR issues and awareness of their importance.

Reforming the state science sector

- Press ahead with plans to shift to greater reliance on project-based rather than institutional financing of state-funded research, while enhancing both the independence and responsibility of managers of public R&D organisations for managing their finances. Such changes should be designed to enhance the opportunities and incentives for universities and institutes to pursue the commercialisation of the results of their research *via* the creation of technology transfer offices and/or spin-off companies.
- Ensure the involvement of the scientific community, the business community and civil society organisations in the determination of state priorities for funding R&D. These priorities should be reviewed regularly, to allow for shifts in priorities in response to economic and technological changes.
- Introduce performance-based evaluations systems to increase the responsiveness of public R&D institutions to these priorities.
- Improve the career prospects of promising younger and mid-career researchers by introducing mechanisms for performance-based pay and more rapid advancement.
- Reduce the number of direct recipients of R&D funds from the federal budget.
- Rationalise the structure of the state science sector. This is likely to involve a combination of mergers and reorganisations, as well as the privatisation of some research bodies and the liquidation of others.
- Work to facilitate information exchange and other contacts between R&D organisations and the business community.
- Increase the share of public research funding allocated to universities, while enhancing their financial incentives to strengthen links to other public R&D organisations and to private businesses.

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Box 4.3. **Recommendations on innovation policy** *(cont.)*

Promoting private-sector R&D

- Allow accelerated amortisation of R&D expenditures for all firms, not only those in special economic zones.
- Ensure that fiscal incentives for private-sector R&D are simple, universal, and aimed at promoting specific *activities* rather than supporting particular *populations* of firms. Except in the cases of start-ups and small firms, such incentives should generally rely on tax breaks rather than subsidies.
- Focus the government's involvement in risk-capital markets on leveraging private-sector participation *via* improved transparency and disclosure.
- Facilitate the development of private venture capital *via* reforms aimed at creating a more attractive legislative and tax framework for VC firms.

Specific innovation-promotion schemes

- Adopt regular, rigorous, external evaluation and monitoring of the costs and benefits of technoparks, special economic zones and other similar initiatives, laying particular stress on their additionality.
- Ensure that such initiatives focus on public goods provision and other identifiable market failures.
- Proceed with caution in expanding such programmes, especially before the results of early ventures are known: there may be considerable value in the (positive and negative) learning yielded by pilot projects.

Support schemes for innovative start-ups and small innovative firms

- Adhere to neutral criteria and principles when granting direct subsidies to small businesses and avoid a strategy of trying to "pick winners" among sectors.
- Ensure that selection procedures for any direct support programmes aimed at start-ups and small firms be highly transparent and rely upon broad expertise involving entrepreneurs, the applied science sector and private investors.

Notes

1. See, *e.g.*, Coe, Helpman and Hoffmaister (1997); and Guellec and van Pottelsberghe (2001). On transition economies, see World Bank (2006).
2. There would appear to be potential spillovers here with respect to human capital accumulation, since incentives to train workers and incentives to innovate are related. Enterprise surveys suggest that innovative firms train workers more than do non-innovators (Goldberg, 2006).
3. This observation is borne out by the comparison of different innovation indices in the annex to World Bank (2006).
4. One major limitation is that investment in innovation may also include activities that are not recorded as formal R&D, such as the acquisition of equipment and the training/re-training of workers.
5. . On the peculiarities of the state unitary enterprise, or GUP, as an organisational form, see OECD (2004b:93).
6. See "Strategiya" (2006:9).
7. At market exchange rates, this would be closer to 5%.
8. "Strategiya" (2006). The number of small businesses involved in "science and scientific activities" is approximately 22 000.

9. Defined as activity related to the transformation of ideas (usually R&D results or other S&T achievements) into technologically new (to the market) or improved products, services or production techniques. For more detail, see "Indicators" (2004:174).

10. The high correlation between the two types of innovation is consistent with the observation that productivity gains generated by ICT equipment are higher if they are accompanied by organisational changes (see Askenazy and Gianella, 2000).

11. Around half of these acquisitions are imports. In this context, the temporary suspension of import duties on a range of high-tech investment goods in 2006 is likely to have a significant, albeit one-off, positive effect on industrial modernisation.

12. Survey results presented in Kuznetsov *et al.* (2006) show a much lower share of spending on technical innovation – just 8% – devoted to R&D.

13. In real terms, spending on both activities has risen over the last decade, but it has been far outstripped by the growth of spending on new machinery and equipment and on "other" innovation activities.

14. For details, see Kozlov and Yudaeva (2004). The actual figures may be higher than these estimates suggest, since non-respondents were classified automatically as non-innovators – over half of all firms that actually responded to the survey claimed to be involved in innovative and/or imitative activity. Kuznetsov *et al.* (2006) also find evidence of a high degree of imitative activity in their survey.

15. This is consistent with Gokhberg's (2003) estimate that 70% of reported innovations are minor adaptations or improvements to existing technology. Since much of this technology is obsolete or nearing obsolescence, it would not make sense to devote substantial R&D resources to improving it.

16. See Lopez Claros (2005).

17. See Yudaeva *et al.* (2003) and Bessonova *et al.* (2003).

18. These conclusions highlight the complementarities among different strands of reform and also dovetail with the analysis of industrial competitiveness presented in OECD (2004a), which draws attention to the impressive productivity improvements recorded in sectors with exceptionally high levels of foreign participation.

19. Patenting activity may not be an ideal measure of innovation output in Russia, given that Russian firms appear to prefer commercial secrecy to patents in what remains, after all, an uncertain IPR environment. Survey data show that confidentiality is the preferred method of protection for 37% of innovative enterprises, against 30% for patenting. However, the European Commission's "Community Innovation Survey 3" suggests that the preference for secrecy is not unusually high in Russia. The survey covers the period 1998-2000 (Jaumotte and Pain, 2005d).

20. International publications are, of course, a lagging indicator, and the data for 2003 could yet be seen as the consequence of severe cuts in science funding in the 1990s. However, science funding has been growing strongly for a number of years and no inversion of the downward trend has yet been observed.

21. Gokhberg (2003:13).

22. This is the one science subject where private higher education has really developed: in 2003/04, less than 0.2% of students in non-state higher education institutions were in science and engineering subjects. This largely reflects the fact that such subjects are capital-intensive and therefore costlier to provide. Higher education in the natural sciences is still overwhelmingly concentrated in the state sector.

23. Staff-student ratios did not rise anything like as sharply as in most subjects – student numbers grew, but far less rapidly than in other disciplines – and science teaching remained concentrated in established state universities. The demand for Russian science and engineering graduates abroad also speaks well of the quality of their training.

24. In fact, this result suggests that the proportion of enterprises receiving assistance may actually have exceeded the proportion reporting that they were engaged in innovation activities. However, the discrepancy may reflect the characteristics of the sample, differences in definition or other factors.

25. For example, improved patent protection only works in the official economy. While strengthening such protection may, at the margin, increase incentives for firms to operate in the formal sector, it is likely to achieve little if the state is otherwise acting in ways that encourage businesses to retreat into the shadow economy. Likewise, the impact of policies aimed at assisting innovation-oriented start-ups will depend in part on the conditions for establishing new businesses in any sphere.

26. It should also be noted that general framework conditions also matter for non-innovative activities, where there are still very high returns expected in many Russian sectors.

27. See Kozlov and Yudaeva (2004): from 71 to 87% according to different surveys of enterprises.

28. See Jaumotte and Pain (2005a). One encouraging recent development in this respect was GM's announcement in October 2005 that it planned to establish an R&D centre in Russia.

29. "Energeticheskaya strategiya" (2003:21). Such high ratios of energy consumption to output are also in part the product of factors such as geography, climate and the structure of industrial production. These factors were compounded by the sharp fall in GDP during the 1990s – output fell far faster than energy consumption. Consequently, the growth of recent years has tended to reduce the energy intensity of GDP.

30. "Energeticheskaya strategiya" (2003:21).

31. And, in the case of electricity, ultimately liberalising prices.

32. See IEA (2006) for a discussion of how Russia may implement the Protocol.

33. It should be acknowledged that phasing out implicit energy subsidies is a only a first, albeit critical, step; there may still be scope for interventions intended to tackle directly the environmental externalities associated with industrial production.

34. The degree of concentration usually serves as a proxy for competition. See Nickell (1996) and Blundell *et al.* (1999). More recent work from Aghion *et al.* (2005) however suggests that the relationship is a concave one, with the Schumpeterian effect dominating at higher levels of competition.

35. Interestingly, the survey also highlights huge variance in firm productivity. This gap reflects in particular different attitudes towards innovation and the restructuring of production.

36. Import-competing industries are defined as industries where the share of imports exceeds 30%.

37. The concentration index is a Herfindahl-Hirschman Index for Russian industries in 5-digit classification. The index is calculated at the regional and national level in two ways: taking total industrial output as denominator (population-based market shares), which gives an *under*estimation of the real value, and on the basis of the total output of the sample (sample-based estimation) which gives an *over*estimate. The gap between the population- and sample-based indexes thus gives us a range for the extent of concentration.

38. On regional barriers to market entry in the 1990s, see Huber and Wörgötter (1998).

39. These results are not highly dependent on the size of the firm; see Figure 4.A2.2.

40. See CEFIR (2005) for details of the fourth round of the joint World Bank/CEFIR monitoring of the administrative burden on small business.

41. Discriminatory procedures for procurement/tenders are especially common. Given the potential role of public procurement in stimulating demand for innovation, this must be seen as a problem. For more on these issues, see OECD (2004d).

42. The maximum sanction is RUB 500 000. This amount is to be increased in a new competition law.

43. For a recent overview of competition policy issues, see OECD (2005b), Chapter 3.

44. Russia is hardly unique in this respect: Jaumotte and Pain (2005c) confirm the adverse effect of rigid regulations on business sector R&D expenditure and on the level of patenting in OECD countries.

45. Copyright/trademark issues account for around 80% of the disputes brought before the Patents Chamber of the Russian Agency for Patents and Trademarks (Rospatent).

46. Rights may remain with the state if the results of the R&D will be restricted in use or if the Russian Federation agrees to assume the costs of commercialisation. The rights may either remain with the state or be shared between the state and the researchers if the products of the research are required for state functions concerned with national security, defence or public health.

47. The country's score of 2.4 puts it far closer to a rating of "1, weak or nonexistent" than to "7, equal to the world's most stringent".

48. It is not clear how comparable the subjective judgements given by respondents in different countries are.

49. Thus, a firm patenting industrial chemicals, for example, may add a neutral component to a rival's product and patent the resulting "new invention", despite the fact that it differs from the original in no significant respect.

50. Other funding is divided among hundreds of research institutes and other organisations outside these systems.

51. That said, few would argue that the current system is by any means corruption-proof.

52. See, for example, Norilsk Nickel's difficulties in working with an Academy of Sciences institute; *Vedomosti*, 22 April 2005.

53. On the basis of a survey of a large body of empirical research, Kuznetsov *et al.* (2006) conclude that there is little difference between the impact of tax breaks and subsidies in the short run but that subsidies tend to be more effective in the long run. However, they do not appear to take size/state of development of the firm into account. In fact, the appropriateness of the instrument will depend in part on just such factors.

54. Article 258 of the Tax Code holds that such assets must be depreciated over the period covered by the patent or other right of exclusive use. Otherwise, they are depreciated over ten years.

55. Livanov (2006) notes that around 90% of the organisations that meet this criterion are state-owned anyway.

56. When conducting such evaluations, it should be borne in mind that a successful programme may spur more failures than successes: provided that the support extended is not too extensive and that the successes are great enough, the programme may nevertheless pay for itself (Rodrik, 2004).

57. Radical innovation is often undertaken by start-ups, because established firms face high adjustment costs when engaged in radical innovation.

58. RAVI (2005) and EVCA (2003).

59. RAVI (2005) finds that IT has become the largest sector for VC investments, with biotech the fastest growing. Investment in start-ups accounted for just under 5% of VC investment and investments in young firms for just under 20%.

60. This high degree of foreign dominance is likely to prove transitional, as it largely reflects the fact that foreign players enter the sector with a degree of expertise that local actors are just developing.

61. World Bank (2006:29-30).

62. "Ob osobykh" (2005).

63. Legislation on a third type of zone, the tourist-recreational zone, is also being developed.

64. For details on industrial production zones, see OECD (2006b:29-31).

65. The relative shares of the different budgets vary from zone to zone, but the most common pattern is roughly 50/50 between the centre and the region. Only in a few cases is there a local budget contribution.

66. These include exemption from customs duties and VAT on their imports and exemption from excise duties on Russian goods. Goods exported from SEZs will not be subject to customs duties, VAT and excise taxes.

67. This estimate takes account of lower tax bills and administrative barriers, state-financed infrastructure provision and the economies generated by concentration of production in the zones.

68. Nor has the experience of neighbouring Ukraine with such zones been a happy one. See Davis (2005).

69. World Bank (2006:28).

70. The experience of the Tomsk State University for Systems Management and Radio Electronics, for example, looks encouraging.

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ANNEX 4.A1

Competition and efficiency in Russian industrial sectors

This Annex presents a brief overview of the empirical results obtained by Bessonova (2006) concerning the influence of competition on enterprise performance in Russian industry. The theoretical framework is that developed by Aghion, Bloom *et al.* (2005) and the data set is that used in Aghion and Bessonova (2006). The database contains around 14 000 firms in 83 industries, covering about two-thirds of industrial output and employment.[1]

While Aghion and Bessonova (2006) focuses on the impact of *foreign entry* on total factor productivity (TFP) growth, the empirical estimation presented below concentrates on the impact of *competition on domestic markets* on growth and productivity. It also explores the potential interaction between competition and the degree of similarity between firms within a given industry. Aghion, Bloom, Blundell, Griffith and Howitt (2005) argue that the incentive to innovate maybe stronger in so-called "neck-and-neck" industries, because the potential gains from escaping competition are higher. This hypothesis is tested below on the Russian data, with the degree of "neck-and-neckness" measured by the standard deviation of the distance to the production frontier in a given industry[2] and the degree of competition by Herfindhal-Hirschmann concentration indexes.

The empirical model

The effect of the degree of concentration and the degree of "similarity" between industrial firms on their efficiency gains is estimated according to the following specification:

$$\Delta TFP_{it} = \beta_1 HHI_{jt-1} + \beta_2 \underset{k,k\in j(i)}{STD}\left(Dist_{kt-1}\right) \times HHI_{jt-1} + \beta_3 \underset{k,k\in j(i)}{STD}\left(Dist_{kt-1}\right) + X_{it}\gamma + \nu_t + u_i + \varepsilon_{it}$$

where ΔTFP_{it} is the TFP growth of firm (i) in sector (j) at date (t), HH_{jt-1} is the lagged Herfindahl-Hirschman Index of industry *j*, calculated at the regional level; $\underset{k,k\in j(i)}{STD}\left(Dist_{kt-1}\right)$ is the lagged standard deviation of the distance to the production frontier in sector (j) and X_{it} is a vector of firms and industry characteristics (essentially the level of employment and the import penetration ratio). Concerning the error components, ν_t are time dummies, u_i firm-specific effects and ε_{it} is an error term assumed to be uncorrelated through time (typically a "white noise"). TFP is computed according to the Jorgenson method (see Aghion and Bessonova, 2006).

The results

Results are reported in Table 4.A1.1. The coefficient β_1 is negative and significant in all specifications, which means that an increase in competition has a positive effect on

Table 4.A1.1. **Efficiency Regressions. TFP growth – Jorgenson method**

Dependent variable TFP growth	All industries	Manufacturing industries	Import competing industries	Export oriented industries
β_1	–0.151*	–0.158*	–0.390**	0.043
	[0.087]	[0.086]	[0.020]	[0.892]
β_2	0.207**	0.224***	0.338**	0.360
	[0.010]	[0.008]	[0.019]	[0.204]
β_3	–0.120**	–0.131***	–0.164**	–0.288*
	[0.002]	[0.001]	[0.018]	[0.069]
Constant	0.282***	0.298***	0.179	0.505
	[0.002]	[0.001]	[0.295]	[0.287]
Year dummies	yes	yes	yes	yes
Number of obs.	45 486	43 914	14 169	2 202
Number of firms	13 593	13 053	4 459	868
R^2	0.014	0.014	0.009	0.022

Fixed effects estimations.
p-values in parenthesis.
* significant at 10% level; ** significant at 5% level; *** significant at 1% level.
Source: Bessonova (2006).

efficiency. The impact is found to be stronger in import-competing industries (industries where the share of imports exceeds. 30%), while not really significant for export-oriented industries. The latter result is relatively intuitive, as Russia's exporters are mostly in resource sectors, where competition takes place at the world level. Interestingly, the positive effect of competition on productivity growth is found to be stronger if firms are relatively similar within an industry (β_2 is positive and significant). On the other hand, in industries characterised by substantial technological gaps between firms, increased competition is not associated with significant increases in efficiency (firms at the frontier need not fear the potential threat of their laggard competitors, for whom innovating in order to catch-up could prove costly).

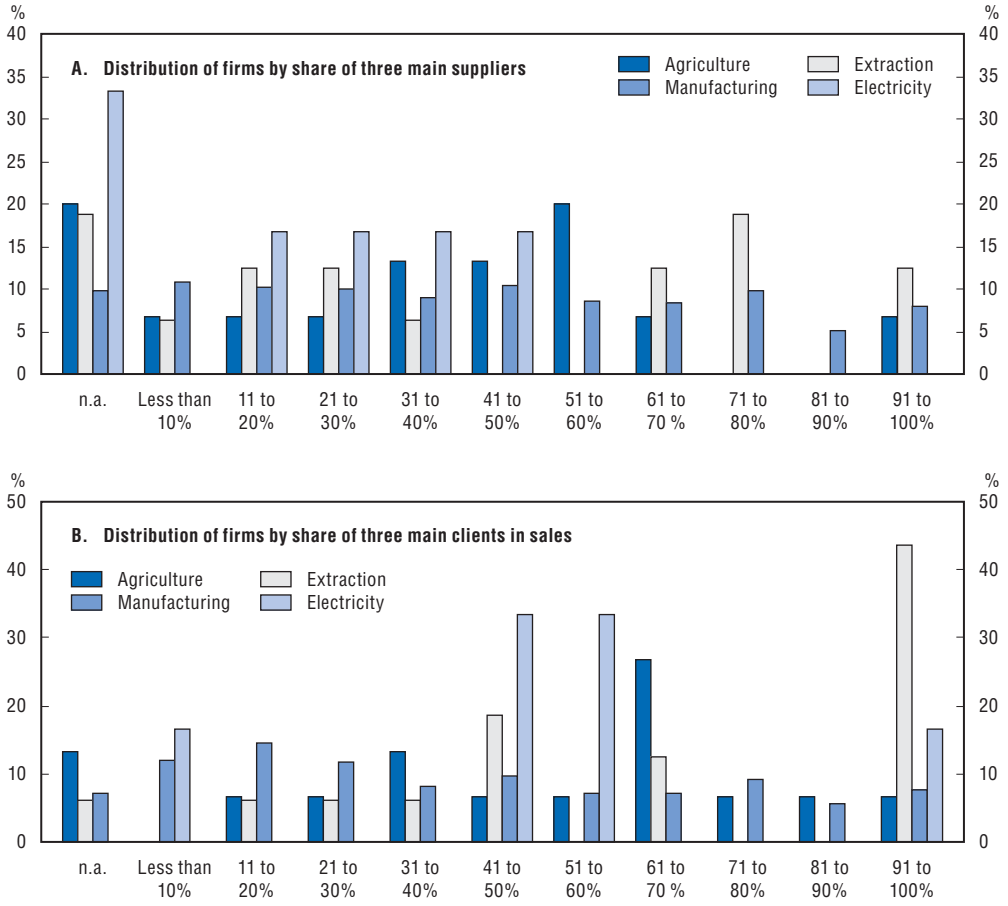
Notes

1. See Aghion and Bessonova (2006) for a description of the dataset. The database has, however, been extended to cover the period 1996-2004, rather than 1996-2002, as previously.
2. Distance to the frontier is computed as the gap between the labour productivity of a given firm and the labour productivity of the firm with the highest productivity in the industry.

ANNEX 4.A2

Concentration of suppliers and clients

Figure 4.A2.1. **Concentration indicator by sector**



Source: Survey of 643 individual firms conducted by the IET's Laboratory for Conjunctural Surveys on behalf of the OECD.

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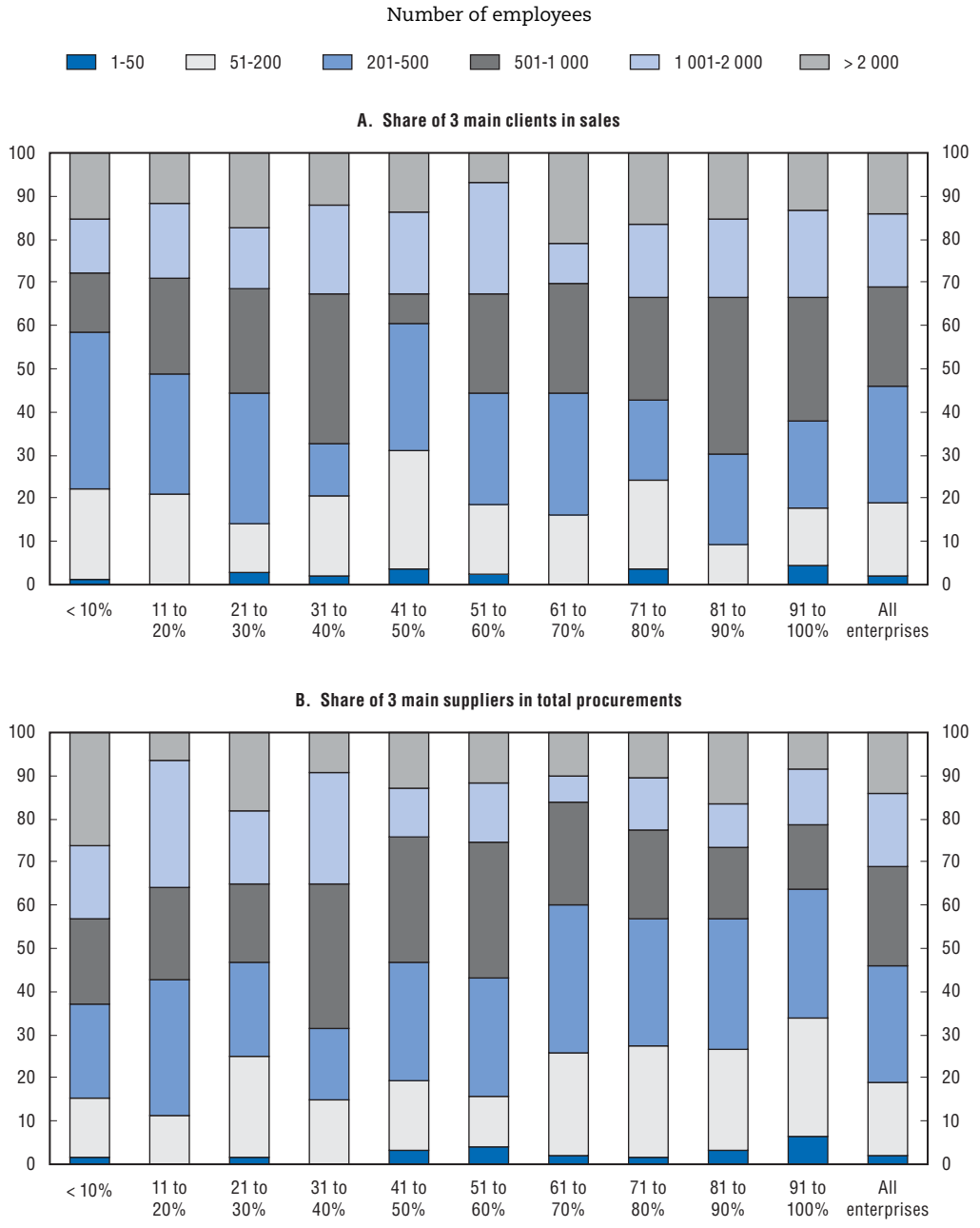
Figure 4.A2.2. **Breakdown of the concentration indicator by size of firms in the manufacturing sector**



Source: Survey of 643 individual firms conducted by the IET's Laboratory for Conjunctural Surveys on behalf of the OECD.

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Chapter 5

Reforming healthcare

This chapter examines the prospects for reform of Russia's healthcare system. It begins by exploring a number of fundamental imbalances that characterise the current half-reformed system of healthcare provision before going on to assess the government's plans for going ahead with healthcare reform over the medium term. The challenges it faces include strengthening primary care provision and reducing the current over-reliance on tertiary care; restructuring the incentives facing healthcare providers; and completing the reform of the system of mandatory medical insurance.

Since 1991, the centrepiece of healthcare reform in the Russian Federation has been the transition from an integrated, hierarchical model of healthcare provision to a more decentralised, contested and insurance-based system of public healthcare. That transition is still unfinished. The initial steps were taken in 1991-93, but little was done in the decade that followed to complete the process, and it is this that accounts for many of the problems facing Russia's healthcare system. The recent reinvigoration of healthcare policy is thus a welcome development, for it is critical that Russia act decisively and systematically to complete the healthcare reforms begun over a decade ago. This chapter examines the problems associated with the half-reformed state of Russia's public healthcare system before considering the steps that must be taken to bring the reform to completion. It begins by placing healthcare reform in its larger policy and institutional context, before proceeding to outline the structural imbalances and incentive problems that affect the system, largely as a result of the incomplete reforms of the early 1990s. This is followed by an analysis of the steps that need to be taken to address these problems.

The context of healthcare reform

Healthcare reform must be addressed in the larger context of Russia's health and mortality crisis

Russia continues to struggle with a health and mortality crisis. The deterioration in basic indicators of health and human welfare that began in the Soviet period and accelerated after the Soviet collapse has yet to be overcome. Recent economic growth seems to have had little impact on key indicators of human welfare (Table 5.1). Life expectancy at birth has failed to recover, having fallen sharply (mainly for men) in the 1990s. Mortality rates have fallen only slightly and remain at levels unseen for decades.

Table 5.1. **Selected health and demographic indicators**

	1990	1995	2000	2001	2002	2003	2004
Life expectancy at birth (years)	69.2	64.5	65.4	65.2	65.0	64.9	65.2
• Men	63.7	58.1	59.1	58.9	58.7	58.6	58.9
• Women	74.3	71.6	72.3	72.2	71.9	71.9	72.3
Death rate (/1000)	11.2	15.0	15.3	15.6	16.2	16.4	16.0
Death from circulatory diseases (/100 000)	137.1	225.0	205.0	211.2	227.9	246.7	249.6
Death from respiratory diseases (/100 000)	18.9	38.7	35.4	35.5	39.2	42.2	40.8
Death from diseases of the digestive tract (/100 000)	15.4	35.7	31.8	35.3	40.0	45.9	49.0
Death from infectious and parasitic disease (/100 000)	11.5	25.0	31.2	30.5	32.0	32.8	33.0
Deaths from alcohol poisoning (/100 000)	15.6	41.6	34.0	36.4	39.5	40.5	38.5
Suicides (/100 000)	33.9	56.4	49.8	50.2	47.9	44.5	42.4
Murders (/100 000)	21.4	44.4	38.0	39.0	40.2	37.9	35.6
Tuberculosis cases (/100 000)	34.2	57.8	89.8	87.8	85.5	82.7	83.3
Hepatitis cases (/100 000)	226.7	166.8	163.3	181.4	123.2	97.7	99.1

1. Data on death rates by cause of death are for the working-age population only.
Source: Federal Service for State Statistics.

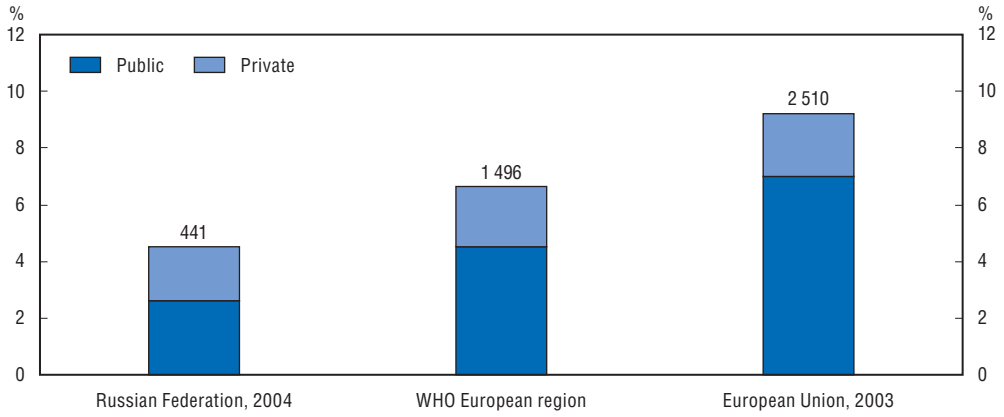
The share of deaths induced by infectious diseases, which are traditionally related to living standards, is also high for a country at Russia's level of development, and the incidence of tuberculosis and other "poverty-related illnesses" remains high, although viral hepatitis infection rates have fallen. This is not to suggest that there has been no improvement in recent years: while life expectancy overall has not yet risen much from the lows of the 1990s, there has been a significant rise in the average life expectancy of persons diagnosed with chronic illnesses over the last five years. This suggests that the economic recovery and rising healthcare expenditure are having a positive impact on healthcare provision. Nevertheless, the overall picture remains extremely grim.

Poor health and high levels of preventable, premature death inflict enormous human and economic costs on Russia. They also pose a threat to economic development, particularly when viewed alongside very low birth rates: as noted in Chapter 1, Russia's population has been declining for some years, and the working-age population will begin to decline from about 2007. The more immediate economic costs of ill health arise as a result of productivity losses, reductions in household income and early exit from the labour force. Moreover, the impact of the health crisis is socially regressive: both the likelihood of chronic illness and the probability that illness leads to early retirement are negatively correlated with income.[1]

Few would argue that the roots of this crisis are entirely, or even primarily, to be found in the state of the healthcare system. Indeed, some studies find little evidence of a link between health and mortality outcomes and access to healthcare in Russia.[2] High levels of mortality and morbidity reflect many other factors, including environmental degradation, unhealthy diets and high levels of tobacco and alcohol consumption (particularly among men), high levels of traffic-related fatalities and a sharp rise in murders and suicides.[3] Nevertheless, the evidence suggests that access to quality medical care has declined for much of the population since 1990 and that this aggravates Russia's health problems. Thus, while this chapter focuses on the reform of the healthcare system itself – *i.e.* on the delivery of medical services to the population – it should be emphasised that reform of the healthcare system will be insufficient to tackle Russia's health and mortality crisis. Healthcare reform must be undertaken as part of a broader programme of *health* reform, involving a range of policies that extend far beyond the bounds of healthcare delivery, encompassing such issues as: reform of the public health system,[4] greater emphasis on health education and promotion, increased efforts to combat the spread of HIV/AIDS,[5] more effective environmental protection, and steps to reduce Russia's exceptionally high road-death rates.[6] While these problems are beyond the scope of this chapter, it is important to recognise that the success of healthcare reform will depend to a significant extent on the success of other measures aimed at improving health and mortality outcomes, particularly those aimed at changing lifestyles.

At present, Russia spends a lower share of GDP on healthcare than most OECD countries (Figure 5.1), although its health expenditure-to-GDP ratio is fairly typical for a middle-income country.[7] In contrast to many OECD countries, cost-control problems are not (yet) at the centre of the reform debate. Indeed, Russia probably needs. to spend more on healthcare than it currently does, and the major long-term drivers of healthcare spending – rising incomes,[8] technological change and demographic change – all point to a significant long-term rise in healthcare expenditure. The impact of demography will be particularly important. The Russian population is ageing fast: the proportion of the population above the age of 60 is projected to rise from 17% in 2005 to 31% by 2050.[9] Since

Figure 5.1. **Health care spending**
As a percentage of GDP



Note: The figures above columns represent per capita healthcare spending, US$ PPP.
Source: WHO, Federal Service for State Statistics, OECD calculations.

healthcare spending per capita on pensioners (women over 55 and men over 60) is typically estimated to be roughly triple the level for working-age adults and double the level for children,[10] the system will come under enormous pressure as the population ages unless the *healthy* life expectancy (HLE) of Russians increases. Russian women, in particular, tend to suffer much more ill health than either Russian men or western women, and the gap increases with age.[11] This is one reason why the success of reform of the healthcare system will depend on broader initiatives aimed at improving Russians' health. Unless healthy life expectancy increases, the system risks becoming overburdened by a rapidly ageing, increasingly ill population.

At the same time, it is clear that Russian healthcare expenditure is poorly allocated and inefficiently administered. There is an urgent need to alter the structure of healthcare spending, while simultaneously enhancing efficiency. The authorities are committed to increasing healthcare expenditure substantially over the medium term, but rising expenditure in the absence of reform may not deliver higher quality or wider access to the population – it could simply create quasi-rents for healthcare providers.[12] It is therefore critical that increasing healthcare expenditure be accompanied by both structural reforms designed to improve the efficiency and effectiveness of the healthcare system itself and by a broader programme of health reform.

The Russian healthcare system today is the product of an unfinished reform

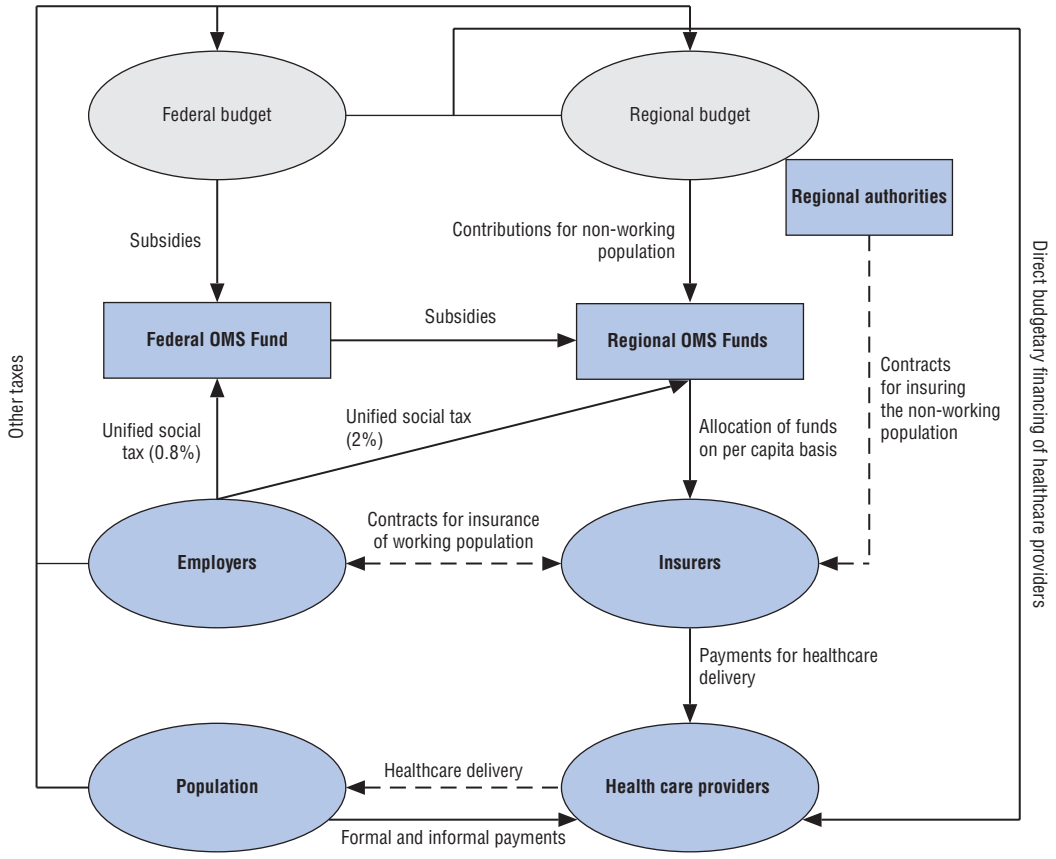
The Soviet healthcare system was centralised, integrated, hierarchically organised and wholly financed from general government revenues. Healthcare services were (in principle, at least) provided free to all citizens, and all health personnel were state employees. The system placed enormous emphasis on the control of epidemics and infectious diseases. This contributed to the development of a large and effective public health (*san-epid*) network, but the determination to isolate infected persons also led to over-provision of hospital beds., which contributed over time to an imbalance in the overall structure of healthcare provision. On the whole, the Soviet system tended to neglect primary care, apart from public health, and to place too much emphasis on specialist and hospital care. Low prestige and poor pay reduced the quality of entrants into the primary-care sector and

also encouraged the *de facto* privatisation of services *via* moonlighting or the levying of informal charges for supposedly free services. Despite these weaknesses, this integrated "Semashko model" achieved considerable success during the Soviet period in dealing with infectious diseases such as tuberculosis, typhoid fever and typhus. However, it tended to neglect non-communicable diseases and proved ill equipped to deal with the demographic and epidemiological shifts of the post-war period, which witnessed a steady rise in chronic non-communicable diseases. Thus, during the 1960s and 1970s, the decades-long improvement in life expectancy and health indicators stalled and, in some cases, went into reverse.[13] Moreover, by 1991, many of the strengths of the Semashko model had been eroded as a result of underinvestment in general and declining resources for prevention in particular. Despite a doubling in the number of hospital beds. and doctors per capita between 1950 and 1980, the quality of care was in decline by the early 1980s (Schroeder and Denton, 1982).

Faced with these problems, the Russian authorities opted in the early 1990s to make the transition to an insurance-based system. Their aim was to preserve the established principle of free provision – Article 41 of the 1993 constitution confirms a citizen's right to healthcare and medical assistance free of charge – while restructuring the system to make it more efficient and more responsive to actual needs.[14] The first law on medical insurance in the Russian Federation was adopted in 1991 and led to the creation of a Federal Fund for Mandatory Medical Insurance (FFOMS), as well as territorial funds in each of Russia's constituent regions. The mandatory medical insurance (OMS) system was intended to promote both efficiency and patient choice by enabling patients to choose among competing medical insurance companies, which, in turn, would act as informed buyers of medical services.[15] Thus, OMS funds would be channelled to healthcare providers *via* (public or private) insurance companies which would have incentives both to work for better patient care (in order to attract clients) and to press providers for greater efficiency (to hold down costs). Healthcare providers would have to compete for the custom of insurers, who would contract with them to purchase healthcare services. The introduction of this purchaser–provider split was also expected to help facilitate the restructuring of care, as resources would migrate to where there was greatest demand, allowing for a reduction in excess capacity in the hospital sector and stimulating the development of primary care. Finally, it was intended that insurance contributions would supplement budget revenues and thus help to maintain adequate levels of healthcare funding. Unfortunately, none of this has worked out as planned. The resulting system is overly complex and very inefficient (Figure 5.2). It has little in common with the model envisaged by the reformers. This is chiefly a result of the failure to resolve problems with financing, competition and micro-level incentives.

Despite the intention of shifting to an insurance-based system, federal and regional budgets still administer about 60% of public healthcare expenditure. The remainder goes through the OMS system. OMS was initially financed chiefly *via* dedicated employers' contributions to regional OMS funds, a system that led to considerable differences in the level of OMS income across regions and failed to generate sufficient revenues to finance the system's commitments. After the introduction of the unified social tax (ESN) in 2001, the OMS system received ESN revenues equal to a 3.6% rate of payroll tax – 3.4% to regional OMS funds and 0.2% to the FFOMS. This left the system as a whole under-financed and left the FFOMS without significant resources to help equalise healthcare finance across regions. Inter-regional disparities could only be addressed *via* the various regional-support

Figure 5.2. **Financing public healthcare in the Russian Federation, 2005**



Source: Adapted from Shishkin (2006).

programmes operating under the federal budget. However, inter-budgetary transfers went to regional *budgets*, not regional OMS funds, and most regions chose not to transfer them to the OMS system. Indeed, since the transfers were not earmarked for healthcare, these funds were often directed to other purposes. When the ESN was cut in 2005, OMS income from the tax fell to the equivalent of a 2.8% payroll tax rate – 2.0% to the regional funds and 0.8% to the FFOMS. The cut in income, amounting to an estimated RUB 16.0 bn in 2005,[16] thus coincided with some recentralisation of OMS resources, but its main impact was to reinforce the role of the budget in direct healthcare finance. As will be seen below, the combination of budgetary and OMS financial channels presents healthcare providers with conflicting incentives.

Nor did the OMS system emerge as an additional source of healthcare finance. Instead of supplementing budget revenues, OMS contributions largely offset the impact of reductions in budgetary spending on healthcare. Healthcare spending fell in both absolute terms and as a share of regional budgetary expenditure.[17] In the circumstances, a contraction of funding in absolute terms was probably inevitable, as all public budgets were under severe strain in the 1990s, but it is likely that the reduction in the healthcare *share* of budgetary expenditure reflected the authorities' awareness that the OMS system had created a cushion for offsetting cuts in healthcare spending. Nevertheless, public health expenditure held up better than social spending in other fields during the 1990s, thanks chiefly to OMS revenues.[18]

In most regions, the OMS system is characterised by a lack of competition. Although there are more than 300 private insurers and numerous public ones in the market, real competition for patients is rare. In principle, individuals have the right to choose their insurers, but this right is difficult to exercise in practice even where competing insurers are present. This leaves most patients with little or no effective choice of insurer – and, in many places, no choice of healthcare provider either.[19] As a rule, it is not the individual who chooses the insurer in any case; his employer does so. Thus, where real competition among insurers exists, it is often competition for employers, not patients, and many managers are motivated by concerns other than the quality of care procured for their employees. Employers frequently opt for "pocket" insurance companies, which they control. There are also reports of corruption in the selection process, with competition taking the form of "competing" kickbacks to managers.

The insurance companies themselves have failed to develop as active, informed purchasers of healthcare services. Most are passive intermediaries, making money by simply channelling funds from regional OMS funds to healthcare providers, for which they are allowed to claim reimbursement of administration costs; in 2004, these costs averaged around 3.1% of the payments processed. In the event of overspending on healthcare for their clients, insurers are generally reimbursed by regional OMS funds, so they have little incentive to plan for anticipated care volumes or organise the purchase of care efficiently.[20] In short, health insurers are not risk-bearers, which raises questions about their entire *raison d'être*. These problems are not unique to Russia. World Bank (2005b) observes that insurers have tended to play a passive role in reformed healthcare systems in Central Europe and the Baltic States, and OECD (2005a) draws attention to the passivity of private health insurers even in the OECD area. As will be seen, the reasons for this passivity are much the same across the region: a combination of weak incentives for insurers, provider resistance to the introduction of a new source of influence over healthcare decision-making, and regulatory restrictions intended to serve equity goals or other social policy aims.

While insurers do sometimes act to uphold patients' rights *ex post* when patient-provider conflicts arise,[21] they have neither the incentives nor the capacities to press actively for better-quality provision or greater efficiency *ex ante*. In some regions, branches of the regional OMS funds themselves perform the role of insurer. Many regional authorities long opposed the involvement of private insurers in the OMS system: as late as 2004, 19 regions still relied entirely on regional OMS funds to perform this role, as against only 47 in which insurance companies were the only OMS insurers – the insurers and the territorial OMS funds shared this role in the remaining 23.[22]

The impact of healthcare reform has varied widely across the country, because regional and local authorities have a very important role in healthcare policy. The vast majority of public healthcare institutions are owned and operated by municipalities (Table 5.2).[23] The federal level consists primarily of specialised institutions subordinated directly to the Ministry of Health and Social Development and the parallel healthcare systems still operated separately by some federal ministries and departments, the most important being that of the Ministry of Defence.[24] While the regions control only a small proportion of medical institutions, these are typically the most important establishments in the area, and the regions' power over municipal budgets ensures that they play a key role in overseeing municipal clinics and hospitals. Moreover, nearly all healthcare expenditure that is channelled through the OMS system is administered by regional OMS funds; the FFOMS spends very little of it directly.

Table 5.2. **Structure of healthcare provision by level of government, 2004**
% of total

	Federal	Regional	Municipal
		Outpatient care	
Outpatient clinics	1.5	17.3	81.2
Physicians in outpatient clinics	2.5	35.4	62.1
		Inpatient facilities	
Hospitals	2.6	19.8	77.6
Hospital beds	4.7	30.6	64.7
Physicians in hospitals	5.6	26.2	68.2

Source: RF Ministry of Health and Social Development.

The regions are thus key players in healthcare provision. While this allows for experimentation and adaptation of systems to local conditions, it makes for a certain fragmentation of regulatory practices and also gives rise to considerable inter-regional inequalities. If healthcare expenditures are deflated by regional consumer price indexes, there is an eight-fold difference between the highest- and lowest-spending regions. In view of the guarantee set out in Article 41 of the Constitution, these inter-regional differences raise constitutional as well as efficiency issues. In some areas, to be sure, regional experimentation could yield valuable results: as will be seen, regions are already exploring a wide variety of approaches to policy-making, management and financing, and the best practices of the most innovative regions are beginning to spread. However, it is important to ensure that the system remains a coherent whole, in the interests of both equity and efficiency.

The need for healthcare reform

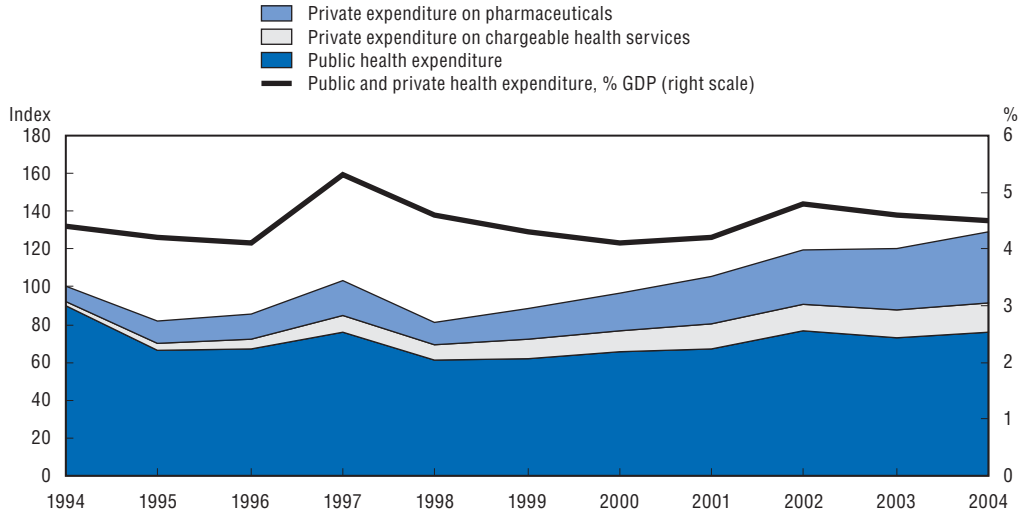
The semi-reformed state of the healthcare system aggravates its underlying structural imbalances

The Russian healthcare system today is characterised by a number of fundamental imbalances. The first is between *commitments and resources*. In principle, the constitutional right to medical care is given substance in a range of free services defined in the so-called Guaranteed Package Programme, administered jointly by the regions and the federal centre. Arrangements introduced in the late 1990s provide for the involvement of the federal and regional governments and OMS funds in planning provision and matching commitments to free healthcare with available resources. The Guaranteed Package Programme is also intended to facilitate a shift in provision away from inpatient care and towards greater outpatient care (see below). Under the programme, the federal government sets utilisation targets which define the minimum package of services for the regions and also serve as targets for this restructuring process. The regions are obliged to develop territorial programmes complying with the minimum norms set by the federal centre but may also include additional free services.

Similar guarantees have been adopted in many OECD countries in order to specify patients' rights or protections within the healthcare system and to ensure access to a specific set of services.[25] Docteur and Oxley (2003) note that such guarantees can provide incentives for those parties responsible for a patient's rights to take appropriate action. However, the Russian package (Annex 5.A1) is actually quite extensive for a country that

spends a relatively low share of GDP on healthcare, and in practice, the available resources are insufficient to cover the guaranteed package. Households finance a good deal of medical care that is supposed to be free; the household share of total health expenditure has risen rapidly, roughly quadrupling in the decade to 2004 (Figure 5.3).[26]

Figure 5.3. **Real public and private health expenditure**



Source: Federal Service for State Statistics; Shishkin (2006).

Shishkin (2004) gives a lower-bound estimate of the cost of financing the full programme of state guarantees in 2002 at RUB 348.3 bn (3.6% of GDP). The actual cost would probably have been somewhat higher. Yet *total* state expenditure in 2002 – including construction, equipment procurement and other activities not directly concerned with financing guaranteed services – amounted to just RUB 324 bn. In 2004, financing of the state-guaranteed package reached an average level of 81.8% nation-wide, although this figure conceals significant regional variations.[27] Only nine regions, accounting for 12.8% of the population, achieved full financing of the guaranteed package.[28] There are particularly severe shortfalls in the provision of high-tech medical procedures: the Ministry of Health and Social Development estimates that in 2005, the system covered around 10% of the demand for coronary angiography and heart-valve replacement, about 7% of the demand for joint replacements and roughly 35% of the demand for treatment of congenital heart defects.

As will be seen, there is a need to revisit some of the guarantees themselves, but the gap between commitments and resources largely reflects the low level of public healthcare spending. This is a problem common to many transition economies: the gap between extensive guarantees and limited means has given rise to financial strains and significant informal payments for what are supposed to be free services in many Central European countries.[29] Rosstat estimates that households spent RUB 53 bn on medical services in 2002, as against RUB 120 bn on medicines. On the basis of survey data, Shishkin (2004) estimates that informal payments to providers added another RUB 22 bn to the former figure.[30] Whether formal or informal, the increasing role of payments by households to state healthcare providers implies that access to the public healthcare system is becoming significantly more unequal, notwithstanding the provisions of Article 41 of the constitution.

The largest share of household spending on healthcare is devoted to pharmaceuticals, and the gap between commitments and resources is particularly stark when it comes to financing pharmaceuticals provision. Like almost all OECD countries, Russia tries to hold down rising pharmaceutical costs *via* a combination of cost-sharing and regulation. Drugs are in theory provided to hospital patients free of charge, but outpatients must pay for them – an arrangement which creates incentives for unnecessary hospitalisation. In practice, however, informal cost-sharing is pervasive in the hospital sector: it is estimated that around 80% of inpatients still have to pay part of the cost of their medicines. Apart from a few centrally supplied drugs related to public health needs. (*e.g.* insulin and vaccines), hospitals generally have to buy medicines on commercial terms from their budgets, which are limited. This, combined with ineffective enforcement of controls on wholesale and retail mark-ups, means that drugs available on the market are often unavailable to hospital patients unless they can pay.[31] It is reckoned that a substantial proportion of the demand for medicines in Russia simply goes unmet.[32]

The reliance on formal and informal cost-sharing with respect to pharmaceuticals provision underlies the unusually large household share in total healthcare expenditures in Russia, because pharmaceuticals themselves account for an exceptionally large share of Russian health expenditure. Household expenditure on drugs accounts for around 30% of total healthcare spending in Russia, as against an average of just under 12% in OECD countries. It is not clear what proportion of *public* health spending is devoted to pharmaceuticals in Russia, because such expenditure is channelled through multiple budgets and various levels of the OMS system, and comprehensive data are not available. However, the Ministry of Health estimated in 2002 that drugs and other medical supplies accounted for around 17-20% of total public health spending.[33] If this proportion held in 2004, then total pharmaceutical spending in Russia would have reached around 40% of all healthcare expenditure, as compared with an OECD average of 18%. This is not entirely surprising, since the pharmaceuticals share of health spending tends to be strongly negatively correlated with both per capita health spending and per capita GDP. In a country like Russia, this largely reflects heavy reliance on pharmaceuticals imports, which are expensive relative to locally supplied goods and services.[34] The high share of spending on pharmaceuticals may also reflect an ingrained cultural expectation, left over from the Soviet period, that any consultation with a physician will result in a prescription.[35]

The second major imbalance is between *the structure of provision and health needs*. The Russian healthcare system still reflects the tendency of the Semashko model to rely too much on specialist treatment and hospitalisation. Hospital stays are too common and too long, on average, and primary care remains seriously under-developed, both quantitatively and qualitatively (Table 5.3). While there has been some evolution away from this

Table 5.3. **Indicators of resource use in the health sector, 2004**

	Russian Federation	WHO European region	European Union
Physicians per 100 000 population	484.0	352.4	347.1
of which:			
General practitioners	22.5	65.8	98.9
Nurses per 100 000 population	798.7	670.0	731.2
Hospital beds per 100 000 population	1 125.0	691.3	591.6
Average length of stay, all hospitals	14.2	11.1	9.5

Source: Federal Service for State Statistics, WHO; European Union data on physician numbers are for 2003.

approach, progress has been slow: Starodubov (2005) reports that the share of healthcare expenditure devoted to in-patient services fell by only two percentage points over the preceding decade, and Russia still spends about twice as much on stationary care as on outpatient services, compared with the roughly equal shares typically found in OECD countries.[36] Only about 30% of Russian physicians work in outpatient care settings, and roughly 60% of these are specialists. While some of these specialists are paediatricians in what might effectively be described as family practice, the bulk of the burden of primary care falls on the 12% of physicians who work in district polyclinics. Historically, moreover, primary care has been the least prestigious and least remunerated field of medicine, and the reputation of ordinary primary care physicians – *terapevty*, in Russian parlance – is low in the eyes of both the profession and the population. The government has tried to rectify this by training physicians for two new specialisms – general practitioner (GP) and family practitioner[37] – but few have yet been trained. Many physicians insist that the GPs' training is inadequate, and the population still tends to confuse them with *terapevty*.

The potential benefits of a stronger primary care system are considerable, particularly when it comes to prevention and early diagnosis. WHO (2004) draws attention to the growing body of empirical work suggesting that greater emphasis on primary services is associated with better health outcomes, higher patient satisfaction, reduced expenditure and greater equity/access, particularly in middle- and lower-income countries.[38] Weakness at the primary care level results in over-referral of patients to specialists. In Russia, an estimated 35% of primary care consultations result in specialist referrals, around 5-10 times the rate typical of OECD countries. Patients often press actively for referrals, because they have no faith in their local district polyclinics, while *terapevty* and other primary care staff tend to over-refer owing to the weaknesses in their own training and, in many cases, the incentives for over-referral that some remuneration schemes create (see below). Moreover, the 35% referral rate actually *understates* the extent of reliance on specialist treatment, since ordinary Russians often bypass primary care providers altogether and approach specialists directly.

Yet while there is clearly a need to shift resources away from tertiary, and towards primary, care, healthcare restructuring is *not* primarily about bed closures, and bed closures can only follow provision of alternative, more appropriate services, medical facilities and forms of social support. This is particularly true of any attempt to reduce over-hospitalisation. Many patients, particularly elderly patients, are hospitalised for long periods simply because they cannot manage alone and there are no alternative care arrangements available. This highlights the need to address the problem of long-term care in conjunction with the restructuring of the healthcare sector.[39] The government's medium-term reform programme recognises this need, anticipating a significant, albeit gradual, increase in the number of non-hospital long-term care beds available. Starodubov (2005) points out that Russia's size and sometimes poor transportation networks mean that closures in rural areas and small towns must be managed carefully, if access to care for their populations is not to be compromised. He notes a tendency in some regions to "rationalise" bed provision at the expense of such areas.

Not surprisingly, given the above, there is also a substantial gap between *expectations and outcomes*. This is reflected in survey data showing that 60-70% of Russians are dissatisfied with their country's healthcare system. Only 11-13% express satisfaction with it, although just over a quarter express confidence that they can get good-quality medical care for themselves and their families. The latter figure suggests that a significant minority

of the population believe that they can secure what they need from the system despite its defects. Retrospective evaluations are more positive still: of those who state that they have recently undergone some sort of medical treatment, roughly half report having found it satisfactory. Unfortunately, around half also declared it unsatisfactory.[40]

The above-listed problems notwithstanding, Russia's healthcare reforms have brought some benefits. First, as noted above, the OMS system helped to maintain healthcare spending levels in the 1990s, even if OMS contributions did end up replacing, rather than supplementing, budgetary funds. Secondly, the creation of OMS marked the first steps towards a purchaser-provider separation, which, in turn, has helped to make funding less dependent on supplier interests and to focus greater attention on questions of cost and efficiency. It has also spurred the development of clinical protocols and medical-economic standards similar to those adopted in some OECD countries in an effort to increase healthcare providers' accountability for healthcare quality (Docteur and Oxley, 2003). In a small but growing number of regions, such standards are also being used in an effort to devise more rational tariff structures and methods of payment. Nevertheless, healthcare reform could hardly be called a major success. The unfinished transition to insurance-based medicine has left the country with an exceptionally complex system of mandatory medical insurance that has achieved few of the reformers' aims and that, despite its name, actually has relatively little in common with a system of medical insurance.

This unfinished OMS reform also constitutes one of the reasons for the very limited shift in the structure of provision. The reformers of the early 1990s focused their attention on the reform of healthcare finance, believing that if financial arrangements were properly restructured, then financial pressures would bring about the kind of broader restructuring of provision that the sector needed. In the event, reform of healthcare finance stalled, and the basic structure of the system remained largely unchanged as a result. This affects not only the provision of current services but also patterns of investment in the sector. Current financing arrangements do little to ensure that capital investment in the sector will be directed towards areas of greatest anticipated need, rather than being use to replace/perpetuate existing facilities and structures. This is a critical issue, given that the healthcare sector's fixed assets are generally very old.[41]

Healthcare providers and insurers face perverse micro-level incentives

The half-finished transition to an insurance-based system has left healthcare providers facing a confused system of financing. Direct budgetary expenditure still plays the dominant role in healthcare finance. In 2004, only about 40% of public healthcare spending was executed through the OMS system, although this figure varied widely from region to region. In Komi and Tuva, OMS expenditures in 2004 covered just 16% of public healthcare spending, as against a high of 95% in Samara, the only region in which the OMS share exceeded two-thirds.[42] The authorities aim to raise the nationwide figure to 60% by 2008. At present, the OMS system in most regions tends to reimburse healthcare providers' expenditures on salary, pharmaceuticals, disposables and food for inpatients. The fixed costs of regional and municipal public healthcare facilities are generally covered by regional and municipal budgets, as are services related to severe conditions, such as cancer, and emergency care.

While it was never intended that the budget should altogether cease to play a role in healthcare finance, the current mix presents providers with contradictory incentives. The problem is not so much with the *sources* of financing as with the *methods* used to allocate it. Most budget financing is still input-based – it is allocated to facilities and institutions,

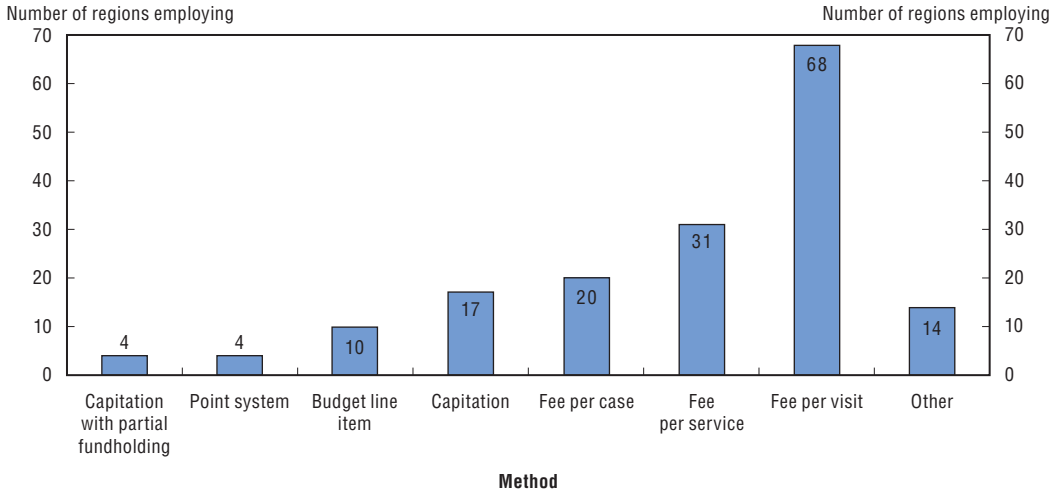
based largely on size and staffing, with little reference to volumes of care actually provided or forward-looking assessments of need. The OMS portion of providers' income is insufficient to create incentives to focus on outcomes. For example, restructuring an institution in order to better meet patient demand (as reflected in OMS income) can result in a loss of budgetary income (which may be based on staffing ratios, bed numbers, etc.). The incentives to resist the restructuring of capacities may also be reinforced by the fact that OMS tariffs for specific services in around three-quarters of regions are partly dependent on the status of the institution, rather than the nature of the procedure.

One reason for the limited share of OMS revenues in total public health spending has been the chronic under-financing in many regions of OMS for the non-working population, who are not covered by payroll taxes. This is a major problem: only a little over 40% of insured persons are working, and many of these under-contribute, owing to "grey schemes" for paying wages and salaries. However, regional budget transfers to cover OMS contributions for non-working people sometimes amount to less than 5% of regional OMS funding. In 2002, 24 regions allocated only about RUB 100 per person ($3.19 at the average exchange rate for the year) in premia for the non-working population; a further 19 regions spent between RUB 100 and RUB 200.[43] Such under-funding can create particular problems in poorer regions, since the issue of contributions for the non-working population is more acute in regions of high unemployment and/or high fertility.[44]

In an effort to address shortfalls with respect to the elderly population, the Pension Fund of the Russian Federation (PFRF) in 2003 began to participate in the financing of OMS coverage for pensioners in around a dozen regions. This number grew to 32 in 2004. The PFRF insisted on the maintenance of personal accounts for the pensioners so insured and on the use of specific payment methods to facilitate the monitoring of expenditure and ensure that PFRF funds introduced into the system were not diverted to other purposes. While the PFRF programme has not been formally wound up, it cannot be a complete or permanent solution to the problem, especially given that the pension fund itself faces funding problems over the coming years. Under arrangements put in place in 2005, the regions are now responsible for making contributions to the OMS system on behalf of the non-working population, but they receive subventions from the federal budget and the FFOMS to help pay OMS contributions for children, and the PFRF is – for the time being, at least – still involved in helping to finance healthcare for pensioners.[45]

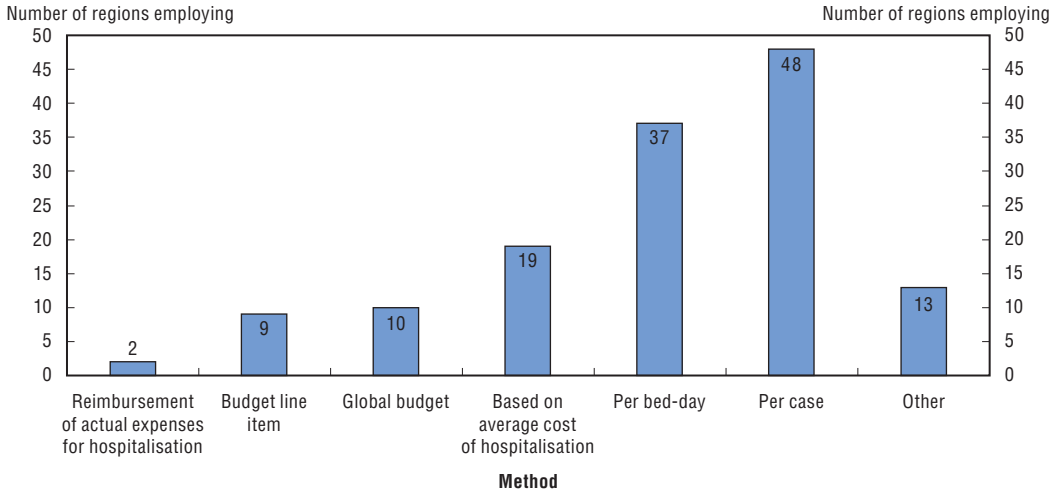
The mixed incentives generated by the combination of budgetary and OMS-based financing are compounded by the variety of formulae used to calculate payments to healthcare providers. Diversity is not, in itself, a problem. No single formula is likely to be appropriate for all forms of medical care. However, some widely used forms of payment generate perverse incentives for healthcare providers. At present no fewer than seven forms of payment are used for outpatient care (Figure 5.4). These include: financing of budgeted costs by line item, pay per visit, pay per service, pay per case, capitation fees based on assignment of patients, capitation with fundholding, and a points system similar to the Uniform Value Scale used in Germany. Six methods are used to pay for in-patient care (Figure 5.5): financing of line-item budgets, financing of global budgets, pay per bed-day, pay based on the average cost of treating one ill person, pay per case completed, pay for agreed volumes of care, and reimbursement of actual expenditures. Reliance on line-item budgets, global budgets and actual reimbursement of expenditures often eliminates incentives to economise. The challenge is to shift to forms of payment that align incentives to promote effectiveness *and* efficiency objectives.[46]

Figure 5.4. **Methods of paying for outpatient care through regional OMS funds, 2004**



Note: Different methods may be used for different providers in the same region.
Source: IISP (2005).

Figure 5.5. **Methods of paying for inpatient care through regional OMS funds, 2004**



Note: Different methods may be used for different providers in the same region.
Source: IISP (2005).

While matters are improving gradually, fee per outpatient visit is still widely used, as is pay per bed-day in the hospital sector. Both forms of payment tend to incentivise over-treatment, and the former minimises any incentive for primary care providers to focus on prevention.[47] At the opposite end of the spectrum, many healthcare workers in outpatient settings have little or no incentive to treat patients at all, since they are employed on fixed salaries and subject to little monitoring of outcomes. As a result, they tend to over-refer patients to more expensive specialist outpatient clinics and/or hospitals – which is often what patients want anyway. In 2004, only four regions employed an element of fundholding in respect of primary care providers.[48] In the hospital sector, only ten regions employed cost-and-volume contracts based on anticipated care needs.

The problem here is not a lack of awareness of incentive problems but a lack of administrative capacity: regions tend to adhere to forms of payment that are easier to monitor and administer. For the same reason, the PFRF insisted on personalised accounts and fee-per-visit arrangements in financing its additional support for pensioners: the Fund was concerned above all to ensure that the money it contributed was spent on treating its clients. At times, therefore, there are trade-offs between transparency and efficiency, a fact which highlights the extent to which the authorities' healthcare reform options might be broadened by a successful administrative reform.

The direction of healthcare reform

The government has recently been stepping up its healthcare reform efforts

The government is not by any means unaware of the problems just described, and after a long hiatus, the authorities have recently begun trying to reinvigorate healthcare reform. In an effort to accelerate progress on some of the most urgent of its healthcare priorities, the government in late 2005 launched "Priority National Project 'Health'", which is intended to bring about a palpable improvement in the healthcare system during 2006-07. The health project is by far the largest of the four projects undertaken by the government this year. It will channel an additional RUB 208.9 from federal and regional budgets into healthcare during the course of 2006-07, the bulk of which will be spent on increased salaries for primary-care physicians, the creation of 15 new high-tech medical centres and expanded immunisation and disease-prevention efforts (Table 5.4). This represents a substantial increase in expenditure focused on a limited number of priorities and administered under a high degree of political direction. It should, therefore, have a positive impact on healthcare in Russia. The project also marks a long-overdue resumption of active policy-making in healthcare, following a period in which little was done.

Table 5.4. **Priority National Project "Health"**
Planned federal expenditure, RUB bn

Measure	2006	2007	Total
Increased pay for primary care medical staff	12.8	17.7	30.5
Training of general (family) practice doctors, district therapeutists and pediatricians	0.2	0.3	0.5
Diagnostic equipment for polyclinics and other outpatient facilities	14.3	15.4	29.7
Upgrading emergency vehicle fleet	3.6	3.9	7.5
Programme of regular immunisation and vaccinations (including flu)	4.2	6.1	10.3
Prevention, diagnosis and treatment of persons infected with HIV-AIDs, hepatitis B and C	3.1	7.7	10.8
Screening of newborns for galactosemia and adrenogential syndrome	0.4	0.5	0.9
Additional prophylactic medical examinations of the working population	2.0	4.0	6.0
Construction of high-tech medical centres	12.6	19.4	32.0
Increased volumes of high-tech medical services	4.1	12.0	16.1
Project overheads	0.6	0.7	1.3
Total	**57.9**	**87.7**	**145.6**

Note: Figures exclude project financing from regional budgets.
Source: Ministry of Health and Social Development.

The focus on primary care and prevention is particularly welcome, although critics have raised questions about the efficiency of mass immunisation and screening efforts. The high-tech emphasis also makes sense. Although Russia's healthcare system is

generally still too biased towards hospitalisation and tertiary specialist care, it is under-resourced when it comes to high technology. Moreover, the investment in building new high-tech medical centres is to complement a shift in the financing of federal health institutions from line-item budgets (so-called *smetnoe* financing) to financing based on tasks performed. The planned introduction of a waiting lists system should increase both transparency and equity when it comes to rationing access to highly specialised medical facilities and procedures. It is also intended that such measures should reduce demand somewhat and ensure that the system's capacities are targeted at those in greatest need. As noted above, the authorities estimate that the healthcare system in 2005 was capable of meeting about 10% of the demand for high-tech medicine. Realisation of the Health project is intended to raise this figure to around 40% within three years.

That said, there remain a number of concerns about the design of the health project, not the least of which is its reliance on large spending increases that are in many cases not linked to reforms that address the underlying structural weaknesses of the healthcare system. While the project is meant to give renewed impetus to healthcare reform, it is far from clear that it will do so. Only limited steps towards greater efficiency or changed incentives are planned, and this must be regarded as a missed opportunity, since such reforms would be easier to implement in a context of rapidly increasing resources. Although the federal government has recently undertaken a number of experiments and pilot projects in cooperation with regional and municipal authorities in the field of healthcare reform, there has been no move to address the reform of the guaranteed package programme or the need for greater equity in access to healthcare. Moreover, the risk of large-scale corruption and waste must be regarded as high, given that over half of the expenditures envisaged involve centralised procurement of medicines, equipment, services and construction work. It is not entirely clear how the authorities intend to ensure efficient spending of the funds allocated for such purposes, although they are clearly aware of the challenge: the creation of a Council on the Implementation of National Priority Projects chaired by the President of the Russian Federation is indicative of a high-level determination to monitor the projects closely.

The mechanisms used to adjust salaries also raise problems. In principle, salary increases could have been introduced alongside changes in the way primary care medical staff were paid, and this was indeed what some policy-makers envisaged. In practice, however, the necessary changes were probably too complex to introduce quickly, and the authorities determined that salary increases should be implemented as a matter of urgency. Thus, the decision was taken to pay an additional RUB 10 000 per month to the pay of primary care physicians[49] and an additional RUB 5 000 to nurses in primary care facilities from the beginning of 2006 – sums sufficient in many regions to triple or even quintuple their take-home pay. While regions have discretion to introduce changes to remuneration packages when implementing the pay hikes, there is little evidence of their doing so.[50] As a result, the large, flat increase in remuneration for primary care staff risks distorting incentives throughout the medical system: early 2006 saw large numbers of specialists and hospital staff, who did not receive the additional increments, being reclassified as primary-care *terapevty*.[51]

The government has recently confirmed its healthcare reform priorities for the period to 2010

While many of the specific measures advanced as part of project "Health" are to be commended, it does little to foster the restructuring the system requires. This will remain to be undertaken over a longer period, outside the framework of the project. However, the

federal government reaffirmed its commitment to this restructuring in November 2005, when it defined its major goals for healthcare policy to 2010. Among the most important of these are to:

- bring commitments to the population into line with available resources by reforming the guaranteed package mechanism and strengthening its legislative basis;
- make the OMS system genuinely insurance-based;
- shift the structure of provision away from specialist/hospital care and towards greater reliance on integrated primary care; and
- change the remuneration schemes employed in the sector in an effort to restructure providers' incentives.

The challenges posed by these four priorities are examined in the sections that follow.

What can be done to balance commitments and resources?

While healthcare spending is expected to go on rising, both in absolute terms and relative to GDP, the balance between commitments and resources cannot be restored merely by increasing the latter. The guaranteed package itself will have to be re-examined. This will involve more than an assessment of what the Russian state can actually afford, although resource constraints will clearly be a critical factor. If the state guarantee is to have any meaning at all, the package must be transparent to both providers and patients, and must provide mechanisms for citizens to assert their rights if the commitments in the package are not met. Ensuring real accountability will require specifying not only *what* medical services are to be provided free of charge, but also by whom and in what setting. If the guarantee is to be effective, a patient's package of guaranteed services should probably be financed from a single source, so as to avoid cost-shifting among different actors. Moreover, clarity about the precise nature of the guarantees should help reduce the incidence of informal payments: patients who are not aware of the benefits to which they are entitled are likely to be more susceptible to requests for additional payments.[52] In the Slovak Republic, which faced a similar problem, the government has established a special office under the auspices of Ministry of Health to which citizens can appeal if they believe they have been charged for service that should have been free. The office is obliged to investigate such complaints and to take remedial action if necessary.

All this implies that the package will have to be very carefully designed, so as to avoid unsustainable commitments and ensure that the new package does not create incentives to choose more expensive state-guaranteed care in preference to cheaper paid services. If the package is poorly conceived, patients in some cases might simply be deterred from availing themselves of cheaper (paid) care at an early stage and may thus end up requiring more expensive (guaranteed) care later on. In others, physicians might come under pressure to "upgrade" patients' care in order to spare them financial hardship. Particular care should be taken not to reduce incentives to seek preventive care. If some reliance on co-payments for treatment or pharmaceuticals is envisaged, for example, these might be lower for those patients whose problems are detected in the course of regular screening or preventive procedures. Finally, the process for designing the package will itself be important, as changes in medical and economic conditions are likely to necessitate regular revisions.[53] The government should thus seek to design a transparent process involving government, medical professionals and representatives of civil society in any revision of the guaranteed package.

As and when the authorities tackle the question of matching state guarantees to available resources, they will need to address the need for more effective, equitable mechanisms for holding down pharmaceutical costs. As noted above, pharmaceuticals account for an extremely high share of healthcare expenditure, but *public* pharmaceuticals expenditure remains at relatively modest levels. This is largely the result of widespread informal cost-sharing arrangements. Any serious attempt to give substance to the formal guarantees could result in spiralling public expenditure on pharmaceuticals, unless the guaranteed package is carefully defined and is accompanied by other measures to manage expenditure on drugs. Reform should involve a narrowing of the list of free medications while eliminating the policy of providing inpatient drugs for free and requiring outpatients to purchase them. Since charging for many inpatient drugs is likely to be both undesirable and politically unacceptable, the solution is likely to lie in combining some reimbursement of outpatient drugs with policies to influence their use. Federal and regional governments already compile lists of essential drugs and work to ensure their availability to the most vulnerable groups, but financial constraints mean that even these are often paid for by patients out-of-pocket. Further steps are also needed to reduce the tendency to over-prescribe and to eliminate incentives to prescribe more expensive drugs when there are chemically identical products available at lower prices. Unfortunately, there are still problems with the reliability of generic drugs, so both physicians and patients continue to prefer branded products, a preference that is reinforced by aggressive promotion of brand-name drugs.

The "monetisation" of prescription drug benefits in 2005 highlights the potential dangers involved in trying to give real substance to formal guarantees of free provision. The great majority of persons who had previously enjoyed a right to free medicines opted for the cash benefit of RUB 4 200 per annum offered by the government rather than retaining their in-kind entitlement. In many respects, the reform was successful: the funds available were, for the first time in the post-Soviet period, adequate to finance the commitments made to beneficiaries in full, whether in cash or in kind, and the tendering arrangements do appear to have enabled healthcare authorities to procure the needed medicines at relatively low prices. However, the new system stimulated a dramatic increase in prescriptions for benefit recipients in a matter of months. This appears to have been the result of adverse selection: the minority who refused the cash seem – unsurprisingly – to have been those with greatest need for drugs.[54] Since the previous pharmaceuticals benefit regime had suffered from chronic underfinancing and thus left many eligible persons unable to obtain free or reduced-price pharmaceuticals, the government made substantial additional resources available to finance the programme. This triggered an upsurge in demand among those who had not chosen a cash benefit. The Ministry of Health and Social Development deliberately chose *not* to impose any overall controls on spending on such drugs, because it wished to assess the extent of the real suppressed demand for medicines among the affected groups. However, the sharp upsurge in prescriptions that followed the change highlights the danger of spiralling costs.[55]

How can a restructuring of provision be engineered?

The authorities remain committed to changing the distorted structure of provision described above. The government aims over 2004-08 to increase per capita provision of outpatient visits by 11.3%, to increase the provision of services in day-care facilities by 65% (albeit from a low base) and to cut the number of hospital beds. by 8.7%. Over the same

period, the number of doctors per 1 000 population is to fall by 18.8% and the number of nurses to rise by 8.8%. Popular resistance may make the transition to greater reliance on primary care more difficult than it would otherwise be. As noted above, primary care physicians have not traditionally been held in high regard, so patients often press for hospital referral rather than accept ambulatory care. Pharmaceutical financing arrangements reinforce this preference; changing them would reduce incentives to over-hospitalise. So, too, would improving the state of many primary care facilities: the priority national project's emphasis on investment in equipment and facilities for outpatient establishments thus reflects a real need that must be met if the government is to restructure provision.

Above all, however, this restructuring of care will depend on reinvigorating efforts to develop a large, well qualified corps of general practitioners (GPs) capable of providing integrated primary care and of acting as "gatekeepers" responsible for referring patients to secondary and tertiary care providers. GPs remain extraordinarily rare outside a handful of regions. The main exception is Samara, which has worked hard to make this transition. Indeed, Samara, which is home to 2.2% of Russia's population, accounted for an estimated one-third of the country's GPs in 2003 (Tragakes and Lessof, 2003). Moreover, many specialists insist that the overall level of preparation of the new GPs is little better than that once provided for *terapevty*. Whether or not this harsh judgement is warranted, it is clear that most of the handful of GPs who have entered service are finding it difficult to establish themselves in their new roles. Rese *et al.* (2005) find that the development of general practice continues to be hampered by vague legislation regarding its scope and by resistance from specialists and polyclinic managers, who often tend to deploy GPs as *terapevty*, resisting any extension of the GP's role to include such activities as working with social services to provide coordinated care for the elderly and disabled. While some regions, like Kemerovo, are far advanced with respect to the integration of social and medical services, the dominant tendency still seems to be to treat these as separate domains.

Tishuk and Schepin (2003) estimate that Russia will need around 90 000 GPs to staff the restructured system; as of early 2003, there were about 2 500. Yet a crash programme to turn out massive numbers of GPs in a short period would merely reinforce concerns about the quality of their preparation. The development of general practice will thus take considerable time and resources. It will also need to proceed in conjunction with the development of methods of payment for primary care that do not create incentives for over-referral or over-treatment. Simply put, primary care staff need incentives to keep their clients healthy. Experiments with fundholding in the late 1980s and early 1990s were not unpromising, and some form of weighted capitation with fundholding,[56] such as is used in Samara, could provide the basis for the further development of general practice.

What will it take to complete the transition to competitive insurance-based medicine?

With respect to healthcare finance, the government remains committed to completing the creation of a system of mandatory medical insurance that relies on competition among insurers to offer a degree of choice to patients and create real incentives for providers to raise both effectiveness and efficiency. Work on overhauling the OMS system was stepped up in 2003-04, after a hiatus of nearly a decade, and the government is committed to adopting new laws on healthcare, on the OMS system itself and on medical practitioners' professional liability. In addition, the planned legislation on "autonomous institutions"

(Chapter 4) is intended to cover some medical facilities as well. However, progress on all these pieces of legislation has been very slow, and none of them had reached the statute books by mid-2006.

In principle, competition among insurers should encourage them to minimise administrative costs and improve services. It should also strengthen healthcare providers' incentives to increase efficiency, at least to the extent that insurers really can engage in selective contracting – the insurers' bargaining position will be weaker where healthcare providers have market power. Competition among providers is thus an important element of the system. However, realising the benefits of competition while maintaining comprehensive coverage and assuring equity in access, is difficult even in developed market economies with mature financial and regulatory institutions.[57] In Russia, with its weak contracting environment and poor state regulatory capacities, the challenges involved will be all the greater.[58]

Whatever the final shape of the healthcare system, it will be crucial to do more to empower patients, who currently have little ability to choose, or influence the behaviour of, either their insurers or their healthcare providers – let alone to hold them accountable for the quality of care received. Yet merely giving patients greater rights *vis-à-vis* insurers and healthcare providers will be insufficient – and possibly detrimental – if reform does not take place in the context of a wider effort to educate ordinary Russians and incentivise them to take greater responsibility for their own health. In addition to health education and promotion efforts, this may involve some reliance on formalising some sort of limited co-payments. However, if formalised cost-sharing is not to perpetuate the problems created by widespread informal payments, it will be important to exempt or subsidise the poor and other vulnerable groups. This, in turn, depends on the state's ability to identify members of such groups accurately.

If Russia is to reap the potential benefits of insurance-based medicine, it will be essential to move towards a much greater reliance on OMS-based, rather than budgetary, administration of healthcare finance. While direct budgetary funding may not disappear entirely, it is unlikely that the structure of incentives can be clarified and improved without a move away from the dual financing that healthcare providers now face. This will probably need to be accompanied by an increase in the overall level of healthcare spending, not only because it remains rather low relative to commitments but also because the scope for competition on quality will be limited as long as funding is stretched so thin. Yet with Russia's low average wages, there must be serious doubts about the wisdom of financing the system wholly out of payroll taxes – increasing OMS revenues by raising the ESN is probably not desirable. A significant degree of reliance on general budget revenues is therefore probably both inevitable and necessary. Indeed, given the degree of inter-regional variation discussed above, a greater role for budgetary *sources* of finance may be needed in the interests of equity: reliance on payroll taxes will leave many poorer regions struggling to meet their obligations even under a streamlined benefits package. However, such budgetary expenditure could and should be *administered via* the OMS system.[59]

The authorities will also need to define the possible parameters for competition among insurers, which are currently very limited, since they cannot vary either the benefit package they offer or the rate of contributions. This is a problem common to many countries that have opted for public health insurance: insurers often play a very passive role, despite efforts to foster competition among them, precisely because they face few

incentives to hold down costs and are required to offer a pre-determined package at a fixed price. Particularly when the insurance is primary (rather than complementary or supplementary) for some or all of the population, governments understandably wish to regulate in the interests of such objectives as access and equity. However, this limits the scope and incentive for innovation.[60]

There should be some scope for competing on *price*, although this will entail the introduction of some form of limited co-payment for either insurance or healthcare services themselves. OECD experience with cost-sharing reforms suggests that modest levels of cost-sharing for specific services have a limited impact on total consumption of care but can reduce unnecessary consultations without compromising access.[61] However, great care must be taken in designing cost-sharing reforms that involve co-payment for services. Such reforms can deter needed primary/preventive care, particularly among the less well off, unless preventive care consultations are exempt.[62] Limited co-payment generally has little impact on non-elective hospitalisation and other high-cost services, for which price-elasticities tend to be low. Cost-sharing on a scale large enough to suppress demand substantially is thus likely to affect access (raising equity concerns), and may have additional social costs. Measures to exempt vulnerable groups from cost-sharing or at least to cap their contributions would entail additional administrative costs and might well mitigate much of the effect of cost-sharing, since, given Russia's income distribution, a very large share of the population would probably have to be protected.[63]

This implies that cost-sharing for services should be restricted to certain types of discretionary services and to products for which cheaper substitutes are available. For the most part, this would limit co-payments to the kind of services and products that probably should not be included in the guaranteed package anyway. However, an exception might be made in the case of outpatient pharmaceuticals: a system of tiered co-payments could be introduced alongside the extension of the benefits package to cover outpatient drugs, in order to encourage cost-effective therapeutic choices.[64]

On the whole, then, co-payment for insurance is likely to be preferable in respect of services covered by the guaranteed package, at least for time being. One form of co-payment that might make sense would be modelled on the Dutch system, which provides for limited co-payment of insurance contributions rather than co-payment for services. The same co-payment applies to all insurees of a given company.[65] In order to avoid the emergence of a two-tier system in Russia, the maximum size of the permissible co-payment could be capped at 10-15% of the premium. Requiring companies to accept all clients who wish to join, while setting co-payments for all clients at a single level, would help prevent discriminatory screening by insurers: clients would choose insurers based on price, rather than insurers using pricing mechanisms to screen clients. Of course, any shift towards co-payment would be politically sensitive, but surveys suggest that the population is far from uniformly hostile to some form of co-payment (Shishkin, 2004:16), not least because so much formal and informal co-payment already takes place.

Steps are also needed to enable insurers to compete with respect to the *package* offered and on the *quality* of services offered. At present, all insurers are required to offer more or less identical coverage under a standard contract. It would probably make sense to insist that all OMS-participating insurers offer a basic minimum package – effectively, the range of services subject to state guarantees – but they should have the freedom to offer packages that include non-guaranteed services, as well as the possibility of offering additional

benefits (more comfortable facilities, faster treatment, etc). This, in itself, would facilitate at least some degree of competition on quality. However, real competition in terms of quality would require more selective contracting on the part of insurers. The general tendency at present is for insurers to contract with all providers in a given area. They will need financial and other incentives to change this. This will probably involve more sophisticated contracts with the territorial OMS funds, which tend at present to pay the insurers simple capitation fees, differentiated in most cases only according to age and sex. Since most insurers bear no risk and simply collect fees for transmitting reimbursements from OMS funds to providers, they have no need to press for lower costs or better quality.

Closely related to this is the necessity of developing medical insurance companies' own informational, analytical and supplier-assessment capabilities. If they are to play an active role in the system, they will need to be capable of participating in the organisation of healthcare delivery in cooperation with healthcare providers. This would entail their involvement in assessing anticipated care volumes and planning regional programmes. They should have a key role to play in financial innovation in the sector, pressing healthcare providers to adopt more efficient payment mechanisms and supporting organisational and technical innovation. It is critical that insurers become real risk-bearers, capable of planning and managing the risks involved in medical insurance, rather than acting as passive middlemen, as they currently do in most regions. At present, the generally employed practice of retrospective payment for care delivered, combined with OMS reimbursement of cost overruns, gives insurers no incentive to negotiate more efficient contracts with providers. Only when insurers actually profit from better planning of care volumes and more efficient treatment of patients will they have an incentive to begin accumulating data on the most efficient clinical interventions and setting appropriate standards for providers. Ultimately, insurers need to develop the expertise required to assess – and even participate in the development of – so-called clinical-economic standards and clinical protocols.

While the aim of reform is to ensure that market signals create appropriate incentives for insurers over the longer term, there is much that regional authorities can do in the short-to-medium term. Sheiman (2006) points out that insurers have played a significant role in restructuring healthcare and increasing efficiency in a few regions, like Samara and Kemerovo. Yet the key factor in these cases seems to have been not competition in the market but the readiness of the regional authority to impose more extensive requirements on insurers wishing to handle OMS funds. Of course, regulation and competition are not alternatives here: by imposing more demanding requirements on participating insurers, including reporting requirements, the regional authority may actually be able to *foster* competition. Indeed, the authorities may need to stimulate competition among insurers in many regions. Although some insurers enjoy considerable market power in certain regions, the structure of the OMS insurance market is only part of the problem. In many places, creating real competition will also necessitate some restructuring of healthcare *providers*, to ensure that they do not have market power. Where providers dominate a particular market, the ability of insurers to engage in any kind of selective contracting will be limited. The Dutch experience points to the importance of loosening regulatory and other constraints that restrict supply: freedom to engage in selective contracting will mean little if insurers have little or no choice of provider.[66]

A further important step will be the creation of mechanisms that make it easier for individuals to choose their insurers themselves. The agency losses involved in leaving this decision in the hands of employers are substantial. There is no obvious reason why

employers should ordinarily make such choices on behalf of their employees when the insurance in question is publicly financed – the Russian situation does not resemble that of a country like the United States, where the employer may be offering healthcare coverage as part of the remuneration package. The temptation for managers is to deal with captive insurers, in order to control the financial flows involved.[67] There may, of course, be a role for employment-based schemes where employers are able to negotiate particularly good packages for their employees, but the "default option" should be individual choice. This will require more than reducing the bureaucratic barriers facing an individual who wishes to change insurers: it will entail a major effort to provide citizens with the information needed to make informed choices. Here, too, the Dutch experience is relevant: as OECD (2002:108) observes, a major reason for relatively weak competition in the Dutch system following the introduction of limited co-payments for insurance was the lack of information made available by insurers to actual and potential clients. Insurers in Russia should be required to present operational plans, justifying particular provider choices, and to report on their performance in forms that were readily accessible to the public and easily comparable across insurance companies.

Fostering the emergence of a truly competitive pool of medical insurance organisations capable of playing the role envisaged for them will also make considerable demands on the state. For a start, there is a need for new arrangements for regulating insurance companies in the OMS system. This is probably not a job for the general insurance regulator, Rosstrakhnadzor, alone. The risks facing OMS-participating insurers will be related to their ability to assess care needs. and contract efficiently with healthcare providers. There will thus need to be a regulatory authority with medical expertise, which Rosstrakhnadzor lacks, although it may have a role to play in overseeing insurers' management of investment portfolios.

A large part of the regulator's task will relate to the prevention of "bad" competition for individual clients. Insurers will naturally want to attract the healthiest (lowest-risk) clients, but if competition is not to undermine equity objectives, then it will be important to ensure that this does not occur.[68] In principle, all insurers should face more or less equal risk, and risk-screening should be prevented. Such screening can be made more difficult by imposing regulatory and reporting requirements on insurers. In many OECD countries (*e.g.* the Czech Republic, The Netherlands), the authorities simply ban selection, requiring insurers to accept any enrolees at uniform premia. However, some countries have gone further in an effort to minimise the incentives to engage in risk-screening by equalising risk. This is the approach taken in Germany, where the risk-adjustment mechanism compensates health funds for the risks associated with the gender, age, dependents, income and chronic conditions of their clients.[69] The Dutch system also takes account of disabilities as well, and includes a regional factor.[70] Empirical research suggests that personal health history is the best indicator of future healthcare consumption, but the information requirements involved in linking capitation payments to personal history would be enormous. It is likely that a less-than-perfect risk-equalisation formula, coupled with regulations banning selection, would be adequate to minimise "cream-skimming".[71]

Is there scope for regional diversity of approach?

It is clear from the foregoing that creating real competition among insurers is an enormous challenge, requiring substantial up-front investment in rules, institutions and information. It will make significant demands on the state's administrative and regulatory

capacities. If the resulting competition turns out to be weak, the benefits that it generates may be correspondingly limited – and the costs may then outweigh the benefits. Thus, some observers take the view that Russia is unlikely to be able to create a well-functioning, competitive insurance system in the foreseeable future and that the resources such an effort would require should be directed elsewhere.[72] However, as noted above, conditions vary widely from region to region. In a few, like Samara, the OMS system seems to work well. In most it does not, but whether it is better to opt for another model or to improve the OMS framework depends in part on regional conditions and capacities, as well as on regional authorities' own commitment to making the system work.

At least one Russian region is already moving towards an alternative approach: a single-payer model. In Leningrad Oblast, the regional OMS fund is now responsible for paying healthcare providers, and the insurers' role has been reduced to secondary functions concerned with quality assurance. Leningrad's move highlights one of the potential benefits of Russia's federal structure: there may be scope for varying the role of insurers across regions. The federal authorities themselves might therefore seek to stimulate enter into discussion with regions about possible pilot projects involving different variants of healthcare reform. If the authorities in a given region are not ready and willing to make a sustained push to complete the creation of an insurance-based system and to commit the resources needed to achieve this end, then they might well be better off considering another model. Given where Russia now stands with respect to healthcare reform, the single-payer model might well be a logical alternative for some regions. The essential condition that must be preserved is equal access: within the limits of the guaranteed package, persons with equal need should receive equal treatment, and individuals who require medical assistance outside the regions where they are registered for OMS should not have problems securing it.

In principle, a single-payer model should allow for a reduction in administrative costs and would eliminate some of the potential problems with competitive insurance identified above, such as risk screening. Greater pooling of financial resources and risk would arguably be more economically efficient and more equitable. In addition, the single-payer model would preserve the basic purchaser-provider split introduced in the early 1990s, which should certainly be retained. Moreover, regional OMS funds, operating as single payers, should have the market power required to negotiate from a position of strength when concluding contracts with healthcare providers. The funds would need to be able to refuse to contract with providers whose services or quality of care was deemed unsatisfactory. However, it would be a mistake to see the single-payer model as a simple panacea, not least because it would leave the state in the role of both sole provider and sole buyer of healthcare services, raising the risk that the purchaser-provider split would mean less in practice than on paper. The key would be to define the OMS funds' tasks in such a way as to present regional OMS managers with incentives to act in the best interests of the patients they represent, pursuing both efficiency and quality of care. This would not be easy: in the absence of competition and the profit motive, other means would have to be found to motivate and monitor the managers of both regional OMS funds and healthcare providers; the inclusion of some sort of performance criteria in managerial contracts might help, although the criteria would have to be carefully calibrated if they were not to lead to undesirable distortions of managerial behaviour.

Ultimately, any mechanism for quality assurance that does not ensure providers' accountability to consumers is likely to involve very large agency losses. Any shift to a single-payer model would therefore necessitate the development of mechanisms to ensure greater competition in the provision of healthcare services. Unable to choose their insurers, patients would have to be given greater freedom to choose primary healthcare providers at least, whether public or private, even if this freedom were constrained by the power of the OMS funds to refuse to contract with providers whose services were deemed unacceptable.

How can the problem of micro-level incentives be resolved?

It would in any case be a mistake to see the choice between an insurance-based model and a single-payer system as the only important question connected with healthcare finance. Whichever model of financing is preferred, much will have to be done to change methods of payment to healthcare providers and, where possible, to foster competition among them. Indeed, it may well be that changing the micro-level incentives confronting healthcare providers will matter more than the question of competition among insurers. With respect to primary care providers, the challenge is to avoid the extremes of under-treatment and over-referral, on the one hand, and over-treatment on the other. Practitioners should be motivated to pay attention to patient preferences and to keep patients healthy.[73]

There is room for experimentation here, and Russia's federal system allows ample scope for just that, but the most promising approach is likely to involve some form of weighted capitation fees for primary care. However, such a system could create incentives to screen potential patients if the capitation weights were poorly devised. At the very least, there would need to be restrictions on primary practitioners' ability to turn away patients who wished to register with them, but more sophisticated capitation weights would reduce incentives to screen and thereby also reduce the need to rely on regulation. Current practice varies: most regions used capitation weights that take account of age and gender, and a fair number include place of residence, but other criteria are little used. Given the role envisaged for primary care providers as gatekeepers, an element of fundholding would probably be desirable at some point, particularly if outpatient specialist care is organised on a fee-for-service basis, as is common in OECD countries. The risk of supply-induced demand is high, and it would be important for GPs to have the incentives and authority to limit it. However, the transition to fundholding will take a long time, since it depends directly on the strengthening of primary care in general and the development of a corps of well qualified GPs in particular. The gatekeeping/fundholding role should not be imposed on providers who are not yet equipped to provide good, integrated primary care.

In the hospital sector, there is a clear need for more active purchasing/contracting by payers – whether they are private insurers or regional OMS funds. This implies a significant reduction in the hospital sector's reliance on direct budgetary funding (whether line-item budgets or block grants), as well as a decisive move away from bed-day payments. Payment per service risks over-treatment, which may be less acute in the case of payment per treated case, but both systems will necessitate other forms of expenditure controls. In OECD countries, hospital-payment systems are increasingly organised around diagnostic-related groups (DRGs). Fees in such systems are set prospectively according to diagnosed medical conditions and standardised treatment costs. Different pathologies are grouped into homogeneous cost groups and average costs of treatment are estimated. A provider

then receives a lump-sum payment for treating a patient; the size of the payment depends on the group to which the patient is assigned. Prices are set administratively for each category. A minority of Russian regions have, in fact, developed systems of clinical-statistical groups (KSGs) along these lines; some are quite elaborate, while others are still rudimentary, but most regions have yet to adopt such an approach.[74]

Docteur and Oxley (2003:32) observe that systems like this help ensure that resources are allocated on the basis of output and can give purchasers some control over the intensity of treatment. Hospitals face incentives to reduce costs and to reorient their provision to address changes in demand. Though increasingly popular in OECD countries, such approaches are not unproblematic. Prices have to be set to reflect actual cost structures and need to be adjusted regularly as practice patterns change: without an effective system of quality-control and good prices, DRGs can simply creative incentives to reduce the quality of care in the interests of cost-reduction. Moreover, prospective cost-and-volume contracts can reduce the incentives for hospitals that engage in both preventive care and treatment to pay sufficient attention to the former.[75] Care must also be taken to prevent providers from "bumping" patients into higher-cost categories. Some sort of risk-sharing in the event of cost-overruns must also be agreed, since providers will try to avoid high-risk patients if they must bear the risk of cost overruns arising from exceptionally expensive cases. Finally, care must be taken to control costs globally, lest output increases lead to excessive spending across the system.

Conclusion

The government's medium-term priorities for healthcare reform reflect well the major problems affecting Russia's healthcare system, and its recent efforts to revitalise the healthcare reform process are to be commended. However, implementing the complex and ambitious agenda the government has set for itself will not be easy. Healthcare is an area in which reform will of necessity proceed relatively slowly. It will take time to develop new capacities, particularly in the field of human resources. In pursuing the kind of restructuring outlined in this chapter, great care must be taken to minimise the risks of disruption to the healthcare system. Different strands of reform need to proceed in tandem, so as to ensure that rules, institutions and incentives are coherent, and that resources are adequate to support the development of new activities and forms of care. However, these concerns should not be seen as grounds for delay. On the contrary, they all point to the conclusion that healthcare reform will be a long and complex process. The longer it is put off, the greater the risk that it will eventually be undertaken precipitously and executed in haste in response to a crisis in the system.

Box 5.1. **Recommendations on healthcare reform**

Reform of the healthcare system must be undertaken as part of a much broader drive to improve health and mortality outcomes, encompassing reform of the public health system, improved health education and promotion, and increased efforts to reduce deaths arising from external causes, such as environmental degradation and unsafe roads. Nevertheless, there is much that can be done to improve the delivery of medical services to the population. Moreover, reforms can help ensure that the increases in healthcare expenditure, which Russia needs., are used to best effect.

Resolving the mismatch between commitments and resources

- While raising public healthcare spending, revise the guaranteed benefits package to bring formal commitments into line with available resources, dropping those guarantees that create perverse incentives or are likely to prove financially unsustainable.
- Create mechanisms to enable citizens to take effective action, at reasonable cost, if the commitments made in the revised guarantee package are not met.
- Establish a framework for regular, transparent review and revision of the guaranteed package in light of medical, technological and economic change.

Strengthening the OMS system

- End the "two-channel" budget-insurance system of financing healthcare and ensure that the great bulk of healthcare spending takes place *via* the OMS system, if necessary by channelling most budgetary resources through OMS funds.
- Create mechanisms to make it easier for individuals to assess the relative performance of medical insurers and to choose their own insurers.
- Strengthen the regulatory framework governing the activities of medical insurers in the OMS system, imposing greater demands on them to play an active role, while simultaneously expanding their freedom to compete with one another. It is critical that they be made risk-bearers.
- Encourage pilot projects in the regions with respect to OMS reform, including, where appropriate, experiments involving a single-payer system.

Reducing uneconomic hospitalisation and specialist care

- Build on the current push to increase investment in primary care in order to establish a long-term, coordinated effort to strengthen the training of primary care physicians (GPs) and to provide them with practice settings that favour the provision of integrated primary care.
- Shift away from cost-reimbursement or capacity-based methods of financing healthcare establishments in favour of more efficient methods, such as cost-and-volume contracts.
- Experiment with fundholding and other methods of remuneration for primary care providers that enhance their incentives to keep patients healthy or to treat them on an outpatient basis where possible.

Pharmaceuticals provision

- Eliminate the inpatient/outpatient distinction in determining eligibility for free medicines and restructure the arrangements governing access to free medicines, emphasising proven efficacy, safety and cost-effectiveness – with particular stress on the added value of new or especially expensive drugs. A tiered system of co-payments may have a role to play here.
- Continue efforts to promote more rational drug prescription *via* the development and application of more sophisticated drug formularies and treatment guidelines.

Notes

1. On Russia, see World Bank (2005a); Suhrcke (2005). With respect to the impact of epidemic diseases on economic performance, see Bell and Gersbach (2004).
2. Brainerd and Cutler (2005).
3. For a detailed recent analysis of Russia's mortality crisis and possible solutions, see World Bank (2005a). On the economic and human costs, see also Suhrcke (2005).
4. The public health (*san-epid*) system inherited from the Soviet era has decayed substantially since 1990, as a result of under-funding and fragmentation, but there is still much here on which to build in creating a modern public health system (Tragakesand Lessof, 2003).
5. HIV/AIDS is not by any means among the leading causes of high mortality at present, but Russia is now experiencing one of the fastest-growing HIV/AIDS epidemics in the world. The long-term consequences of failing to address this issue speedily are potentially catastrophic; see UNDP (2004).
6. ECMT (2006) finds that Russia has the highest road-death rate in Europe.
7. In 2002, Russia ranked slightly below the median among CIS countries in terms of public health spending as a share of GDP.
8. In both OECD and emerging market economies, healthcare expenditure exhibits a tendency to rise faster than real GDP.
9. Russia's population is greying rapidly despite low levels of life expectancy at birth (LEB): this is because the fall in LEB reflects elevated mortality rates in all decades of life; as Russians grow older, the gap between Russian and western levels of life expectancy falls.
10. These estimates are based on insurance company figures on expenditures *via* the system of mandatory medical insurance. Comprehensive data on the breakdown of all public healthcare spending by age group are not available.
11. See Figure 1.12 in Chapter 1. Although female LEB exceeded male LEB in Russia by 13.2 years in 2003, Andreev *et al.* (2003) estimate that the gap in *HLE* at the age of 20 was just 3.9 years and falling. Above the age of 65, Russian men have lower life expectancy but higher HLE than Russian women.
12. Docteur and Oxley (2003) observe that the market failures typically associated with healthcare mean that this risk is high.
13. For details, see Brainerd and Cutler (2005); also Wheatcroft (1999) and Feshbach and Friendly (1995).
14. Greater efficiency and greater flexibility in responding to changing needs were among the major reasons for the decision to undertake a similar reform of health insurance in the Netherlands (Bertens and Bultman, 2003).
15. A number of OECD countries, including Germany, the Netherlands and Belgium, also allow competition among insurers within the framework of public health insurance schemes.
16. Estimate of the FFOMS in Taranov (2005).
17. It fell from around 15% in 1995 to just under 12% in 2001 before recovering to 13-14% (Rosstat, 2006).
18. At its lowest point, healthcare spending was down about one-third from 1991 levels in real terms, whereas social spending in some other areas fell by half.
19. Of course, there is no link, in principle, between choice of insurer and choice of primary care provider. However, in many places, choice of the latter is either very limited or determined *via* the insurer.
20. See Bertens and Bultman (2003) on similar inefficiencies that arose in the Netherlands owing to reimbursement of sickness funds' expenses from a single central fund.
21. The FFOMS estimates that around 70% of such conflicts are resolved in favour of the patient.
22. IISP (2005).
23. Although private provision has been developing in Russia since 1991, the healthcare sector is still overwhelmingly public. Non-state healthcare providers in 2004 accounted for just 0.6% of hospital

beds, 2.7% of outpatient capacity and 6.2% of healthcare employment (Rosstat, 2006). These data include staff of church-affiliated and other non-state, non-commercial organisations.

24. Such parallel systems account for around 15% of outpatient facilities and 6% of inpatient. Most ministerial systems offer secondary care only in outpatient settings. The Ministry of Defence is the major exception.

25. For example, Sweden adopted a revised Guarantee for Medical Treatment in 1997, and Austria a patient's charter in 1999. Many US states also have patients' "bills of rights".

26. Not all household payments are "informal". Healthcare institutions can offer paid medical services. This should not extend to guaranteed services but it often does.

27. See IISP (2005); and Shishkin *et al.* (2005). A regional programme for state-guaranteed care is elaborated for each region, on the basis of an assessment of expected care needs.

28. Tyumen', Rostov, Chuvashiya, Lipetsk, Novosibirsk, Jewish AO, Udmurtiya, KhMAO and Sverdlovsk. A few of these regions actually exceed 100% provision, offering more extensive guaranteed packages.

29. World Bank (2005b:117).

30. Shishkin also finds significant regional variations in the scale and structure of household healthcare spending. Surveys yield widely varying estimates of the prevalence of household spending for medical care, though all find that it is relatively common, especially for outpatient and dental care; see Balabanova *et al.* (2004), Feeley *et al.* (2001), Belyaeva (2001a and 2001b), IISP (2003) and Shishkin *et al.* (2004). See also the Russian estimates yielded by the Russia Longitudinal Monitoring Survey, available at *www.cpc.unc.edu/rlms/*.

31. Wholesale mark-ups are limited to 25% of the manufacturer's price and retail mark-ups to 30% of the wholesale price, but actual mark-ups are often in the 120-200% range. See Tragakes and Lessof (2003).

32. Tragakes and Lessoff (2003).

33. Specifically, the ministry estimated that this item accounted for 20.3% of OMS spending, 28.9% of federal spending on health and 14.3% of the health expenditure of consolidated regional budgets.

34. Indeed, the low price elasticity of demand for medicines contributed to a sharp jump in real household spending on pharmaceuticals after the 1998 rouble devaluation, even as real incomes fell sharply. While Russia's pharmaceutical industry has recovered somewhat from the output collapse of the 1990s, the country's revealed comparative disadvantage in medicines and pharmaceutical products has grown somewhat since 1998.

35. Tragakes and Lessof (2003); Karnitski (1997); Hovhannisyan *et al.* (2001).

36. World Bank (2004) reports that 64% of healthcare spending in Russia in 2001 was devoted to inpatient care. See also OECD (2005b:73). The average OECD member state devoted 31% of healthcare spending to inpatient care and 34% to outpatient, with the balance being devoted to medical goods, collective services and other items. However, it is important to note that the OECD figures for inpatient care exclude most long-term care for the elderly and disabled. Including this would raise the OECD average to about 37% of spending. There are, moreover, wide divergences among OECD systems in the inpatient/outpatient balance.

37. Whereas in international terminology, the terms "general practitioner" and "family practitioner" are synonymous, they refer to distinct groups in Russia. A general practitioner (GP) covers all specialties for adults except gynaecology. He/she does not cover paediatrics either. A family practitioner, by contrast, is effectively a GP who is also qualified to cover gynaecology and paediatrics. As a result, GPs are often confused with *terapevty* in the public mind. The Ministry of Health and Social Development favours training GPs as family practitioners – *i.e.* covering all the above-mentioned specialisms.

38. In some cases, however, such an emphasis can raise costs by exposing previously unmet needs.

39. According to WHO data, Russia has one of the lowest ratios of nursing and elderly care home beds per head of population in the European region.

40. See FOM (2006); Levada-Tsentr (2005); and VTsIOM (2003).

41. The Ministry of Health and Social Development estimates that the fixed assets of the healthcare sector were over 58% amortised by end-2004. Amortisation rates for the sector's machinery and equipment had reached 62-64%.

42. Shishkin *et al.* (2005:5).

43. Taranov (2005) notes that this figure in 2004 was as low as 1.4% in one region, which implies a more or less total failure to provide for insurance of non-working people.

44. It does not help that the informal share of wages and salaries is often greater in such regions, so OMS contributions for the *working* population are frequently depressed as well.

45. In 2005, the federal authorities provided RUB 6 bn for children's OMS contributions, divided roughly equally between the federal budget and the FFOMS. The regions spent about RUB 13.0 bn on contributions for the non-working population, and the PFRF provided around RUB 10.0 bn for pensioners (Taranov, 2005:12). However, the extent of the PFRF's future involvement is unclear: no formal decision has been taken to wind up the experiment launched in 2003, but it is hard to see how it can continue indefinitely given the PFRF's financial position and the undesirability of financing healthcare from pensions funding on a permanent basis.

46. Docteur and Oxley (2003) treat "effectiveness" as concerned with health system performance, without regard to cost. Effectiveness reforms may be cost-increasing, -neutral or -decreasing. "Efficiency" refers to the relationship between cost and outcome: efficiency reforms aim at better outcomes for any given amount of healthcare spending.

47. It should be noted that most other widely employed methods of paying for primary care also limit the incentives to focus on prevention. In the hospital sector, reliance on bed-days stimulates such practices as sending patients home on weekends/holidays without formally discharging them – i.*e.* while recording them officially as being in hospital.

48. Kemerovo, Irkutsk, Samara and Primorskii Krai.

49. Including district *terapevty*, district paediatricians, general practitioners and family doctors.

50. The subventions in question are transferred not to regional budgets but to regional OMS funds. These, in turn, conclude separate agreements with healthcare providers who conclude additional contracts with their staff, covering the requirements for receiving the additional increments. In practice, these requirements seem to be minimal, so the incentives facing primary care staff have changed little.

51. See *Vedomosti*, 14 February 2006.

52. See the discussion of benefit-package reform in Central Europe in World Bank (2005a:121-22).

53. See Docteur and Oxley (2003:20) and World Bank (2005b:122).

54. There is also a risk that many who made the transition from in-kind to cash benefits have underestimated the cost of meeting their pharmaceutical needs and may have to go without needed drugs.

55. The main constraint involved appears to have been long waiting times for those needing physicians to fill out free prescriptions for them. See IET (2006:336-42) on the introduction of the new system of drug benefits.

56. Under fundholding arrangements, primary care providers (*e.g.* general practices) receive funds to purchase designated services on behalf of a specified population, typically some hospital services and drugs. Primary care providers are allowed to retain surpluses for practice augmentation, creating an incentive to avoid over-referral and seek low-cost suppliers, but because they compete for clients, primary care providers also have an incentive to seek appropriate, high-quality treatment for their patients.

57. See OECD (2005a), (2004) and (2002); also: Docteur and Oxley (2003:38); and van den Ven *et al.* (2004).

58. The discussion that follows draws on the lessons identified in Sheiman's (2005 and 2006) comparison of the Dutch and Russian reform experiences and his assessment of the prospects for establishing effective competition among insurers in Russia.

59. Hospital investment may remain the major exception to this shift. Many OECD countries still finance hospital investment out of central and regional budgets – even those, like Germany and the Netherlands, that rely on public medical insurance systems similar that which Russia is creating. The main risk here is that separating such investment from hospital operating budgets can lead to hospital over-supply and an increase in the capital-intensity of care if the capital costs are *de facto* free to the hospitals. The United Kingdom and New Zealand have sought to address this problem by introducing capital charges into hospitals' contracting arrangements. See Docteur and Oxley (2003:33).

60. See OECD (2005a); on the eight transition countries that entered the EU in 2004, see World Bank (2005b).

61. See OECD (2004:64) on the German case, and World Bank (2005b:118) on Slovakia's experience.

62. Germany's system of co-payments exempts preventive care consultations and also provides lower fees for people on social assistance. See OECD (2004:64).

63. See Docteur and Oxley (2003): The main impact of cost-sharing on demand will hit ambulatory care and pharmaceuticals. The chances of early diagnosis are likely to be reduced, possibly requiring more expensive treatment later on, and there is a risk that patients will not purchase/take prescribed drugs.

64. A tiered co-payment system assigns different levels of co-payment to different drugs. Many might be on a zero-tier (*i.e.* no co-payment) but co-payments for others could be used to encourage cost-effective choices among therapeutic alternatives (*e.g.* by encouraging the use of generic drugs where possible).

65. See OECD (2002:108).

66. See OECD (2002).

67. Unless managers are taking kickbacks from insurers, as reportedly occurs in some cases.

68. Bertens and Bultman note that the Dutch health insurance reform was necessitated in part by the fact that risk-selection by private insurers destabilised the system of voluntary insurance in the 1980s.

69. OECD (2004).

70. Bertens and Bultman (2003).

71. Cf van de Ven *et al.* (2003).

72. Sheiman (2005) inclines to this view.

73. Docteur and Oxley (2003:29).

74. In a comprehensive study of the organisation of regional healthcare systems in Russia, Shishkin *et al.* (2005) find that five regions had highly developed KSG systems in 2004 (with 270 or more KSGs defined) and a further nine had elaborated systems of medico-economic standards (MESs). Another nine regions had limited systems of KSGs or MESs (under 100 groups or standards), while 61 had none.

75. OECD (2004:67).

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ANNEX 5.A1

The Guaranteed Package Programme

The Guaranteed Package Programme stipulates that the following services are to be provided by the budget:

- emergency care;
- ambulatory, polyclinic and hospital care provided to patients with socially significant diseases, including: skin and venereal diseases, tuberculosis, AIDS, mental problems and drug addiction;
- pregnancy and delivery abnormalities;
- some types of conditions of children and infants;
- systematic monitoring of healthy children (*dispanserizatsiya*);
- specialised pharmaceutical care and prostheses; and
- some other types of expensive medical care, including high-tech procedures.

Free services to be covered by the OMS funds include:

- ambulatory, polyclinic and hospital care provided to patients with contagious and parasitic diseases, excluding venereal diseases, tuberculosis and AIDS;
- cancer, endocrine system diseases, skin diseases;
- nutritional abnormalities and nervous system diseases;
- blood diseases, immune system pathology, heart and circulatory diseases;
- eye, ear and respiratory diseases;
- pathologies of the digestive system, all types of injuries and poisonings;
- bone and muscle diseases;
- some types of inborn adult pathology; and
- some other diseases.

Some services are explicitly excluded from the guaranteed package, specifically:

- cosmetic surgery;
- homeopathic, alternative, or "non-professional" therapies offered by practitioners with no medical qualification (although some regions do allow territorial OMS funds to finance such therapies);
- dental services, with the exception of basic provision for children, veterans and some other groups;
- medical prostheses including dentures (except for veterans and other specified groups);

- rehabilitation or convalescence in institutions other than those approved by the Ministry of Health;
- educational activities and health promotion literature from non-Ministry of Health-approved health centres; and
- pharmaceuticals for outpatients.

Medical staff are empowered to determine the most appropriate treatment and may refuse to provide treatments demanded by patients who have referred themselves.

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Glossary

AAA	Bond rating denoting the lowest risk of default
ABC1	Proved oil reserves, on a geological basis, under Russian reserve classification practices.
BEEPS	Business Environment and Enterprise Performance Survey (World Bank/EBRD)
CBR	Central Bank of Russia
CEFIR	Centre for Economic and Financial Research
CPI	Corruption Perceptions Index
DI	Deposit insurance
DRG	Diagnostic-related groups
ECM	Error correction model
ECMT	European Conference of Ministers of Transport
EEG	Economic Expert Group
ESN	Unified social tax
FAS	Federal Anti-Monopoly Service
FASIE	Foundation for Assistance to Small Innovative Enterprises
FCS	Federal Customs Service
FDI	Foreign direct investment
FGUP	Federal state unitary enterprise
FFOMS	Federal Fund for Mandatory Medical Insurance
FOI	Freedom of information
FSFR	Federal Service for Securities Markets
GDP	Gross domestic product
GP	General practitioner
GUP	State unitary enterprise
HEI	Higher education institution
HLE	Healthy life expectancy
HSE	Higher School of Economics
ICT	Information and communication technologies
IET	Institute for the Economy in Transition
IPO	Initial public offering
IPR	Intellectual property rights
ISRAN	Institute of Sociology of the Russian Academy of Sciences
IT	Information technology
M&A	Mergers and acquisitions
MAT	Interdepartmental Analytical Centre
MERT	Ministry of Economic Development and Trade
NDC	Notional defined contribution
NDPI	Natural resources extraction tax

NPM	New public management
OAO	Open joint-stock company
OBR	Central Bank Bond
OKONKh	General Classification of Branches of the National Economy
OKVED	General Classification of Types of Economic Activity
OMS	Mandatory medical insurance
PAYG	Pay-as-you-go
PFRF	Pension Fund of the Russian Federation
PPP	Public-rivate partnership
RAO UES	Russian joint stock company Unified Energy Systems (electricity monopoly)
RAS	Russian Academy of Sciences
R&D	Research and development
REER	Real effective exchange rate
RID	Russian Institute of Directors
RIFICT	Russian Investment Fund for Information and Communications Technologies
RVC	Russian Venture Company
RVCA	Russian Venture Capital Association
RZhd	Russian Railways
SEZ	Special economic zone
SME	Small and medium-sized enterprise
TFP	Total factor productivity
TTO	Technology transfer office
TVZ	Technical-innovation zones
VAT	Value-added tax
VIF	Venture investment fund
VC	Venture capital
WHO	World Health Organisation
WTO	World Trade Organisation

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