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Diversification of the Russian Economy and Growth

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Summary: Russia has benefited from high oil prices and as a result experienced a five-year period of strong economic growth, fuelled largely by the natural resources sector. This period of "cheap" economic growth has come to an end. Structural changes with regard to better capacity utilization of capital stock and higher labour productivity have to take place in order to put the country on track to long term growth and catching up. Future growth also depends on a more diversified production structure, decreasing the relative importance of the natural resources sector. However, investment and in particular FDI as well as the development of exports have signified a development in the opposite direction over the past years. However 2002 may have been a turning point with a stronger Ruble and shifting prices of natural resources accompanying a distinct upward trend both in productivity and industrial output. Therefore talking of dutch disease seems to be inappropriate for Russia at least on a macroeconomic level. Nevertheless, reforms in the public sector and among Russia's weak banking sector are necessary to guide the country on the road to sustained high per capita growth rates.

Zusammenfassung: Russland profitierte von relativ hohen internationalen Rohölpreisen und registrierte in der Folge starkes wirtschaftliches Wachstum in den vergangenen fünf Jahren, das hauptsächlich vom Rohstoffsektor getrieben wurde. Diese Periode eines „einfachen" Wirtschaftswachstums geht nun ihrem Ende entgegen. Strukturelle Veränderungen im Bereich der Nutzung vorhandener Kapazitäten des Kapitalstocks und Ressourcen sind notwendig, um das Land auf einen Pfad eines langfristigen Wachstums und eines wirtschaftlichen Aufholprozesses zu führen. Das zukünftige Wachstum hängt auch von einer stärkeren Diversifizierung der Produktionsstruktur ab, bei der das relative Gewicht des Bereichs der natürlichen Ressourcen sinkt. Allerdings deuten die Investitionsaktivitäten und insbesondere die ausländischen Direktinvestitionen sowie die Entwicklung des Exports der vergangenen Jahre in die entgegen gesetzte Richtung. Das Jahr 2002 scheint jedoch einen Wendepunkt zu markieren, bei dem ein starker Rubel und schwankende Preise natürlicher Ressourcen mit einem deutlich aufwärts gerichteten Trend bei Produktivität und Industrieproduktion einhergeht. Daher erscheint es zumindest für die Gesamtwirtschaft unangebracht, von Symptomen der dutch disease in Russland zu sprechen. Nichtsdestotrotz sind Reformen im öffentlichen Bereich sowie im immer noch schwachen Bankensektor geboten, um das Land zu langfristig tragbaren Wachstumsraten beim Pro-Kopf-Einkommen zu führen.

Резюме: Россия, выигрывая от высоких цен на нефть, испытала в последние пять лет период сильного экономического подъёма, обусловленный в значительной мере сектором природных ресурсов. Этот период «дешёвого» экономического роста подошёл к концу. Для того чтобы вывести страну на путь роста и подъема в длительном периоде должны произойти структурные изменения для улучшения использования капитала и более высокой производительности труда. Будущий рост зависит от усиления диверсификации структуры производства, при которой будет уменьшаться относительная важность сектора природных ресурсов. Тем не менее на протяжении последних лет инвестиции, в частности, прямые иностранные инвестиции, а так же объемы экспорта, обусловливали развитие в противоположном направлении. Несмотря на это, 2002 год возможно являлся поворотным пунктом с довольно устойчивым рублём и колеблющимися ценами на природные ресурсы, сопровождающийся однозначной тенденцией роста как в продуктивности, так и в объёме промышленного производства. Поэтому для России говорить о симптомах dutch disease кажется неуместным, по крайней мере на макроэкономическом уровне. Тем не менее реформы в государственном секторе и в слабом банковском секторе России необходимы, чтобы вывести страну на путь устойчивого и растущего высокими темпами дохода на душу населения

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Diversification of the Russian Economy and Growth

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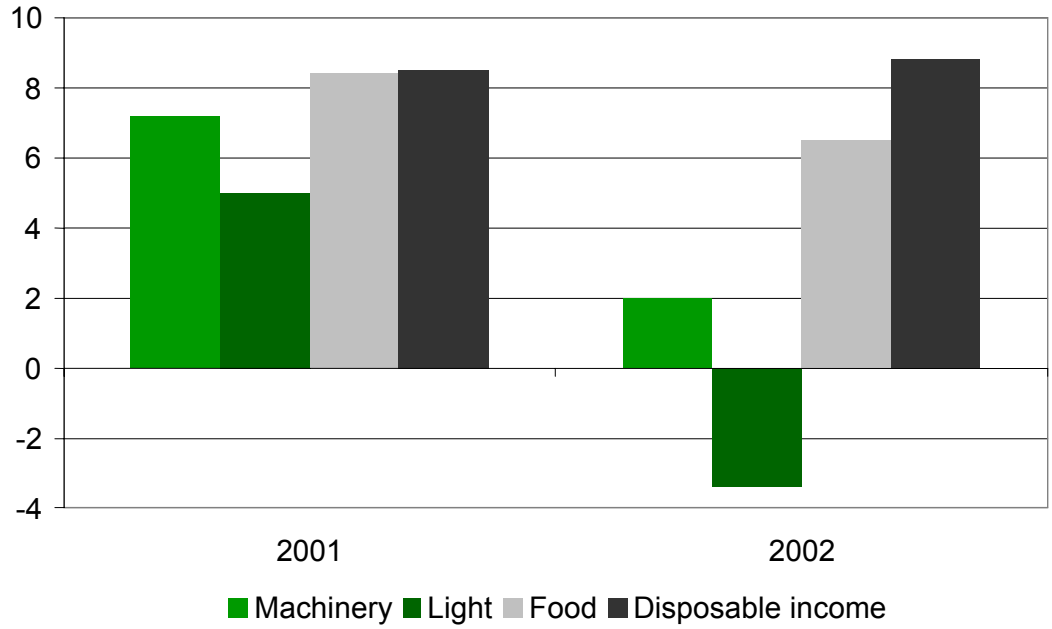
1. Growth mechanism is changing

Russia's economic performance in 2002, with GDP up over 4.3%, compared favorably with slow growth in Europe and the US. However, even this represents a slowdown in growth on previous years, even with high oil prices.[1]. It is important to consider that high GDP growth rates between 1999-2002 (6.4% annual average) have been achieved on the back of high oil prices, a strong balance of payments, healthy fiscal performance, and increased capacity utilization. Increased fiscal revenues (which largely resulted from high oil prices) easily allowed the government to raise wages in the public sector and stimulate domestic demand considerably.

However, the period of «cheap» growth, as has been the case in recent years, has effectively come to an end. Higher capacity utilization, which contributed to rapid growth in productivity, is already out of the question[2]. Sooner or later oil prices are likely to go down and stabilize at some lower level, which will reduce export earnings. Apart from this, the recorded slowdown in economic growth in 2002 indicates that the existing model for economic growth has come to an end of its useful life. The drop in manufacturing concurrent with rapidly growing real disposable incomes in 2002 clearly proved that (chart 1).

Chart 1: Growth of output and disposable income (in %)



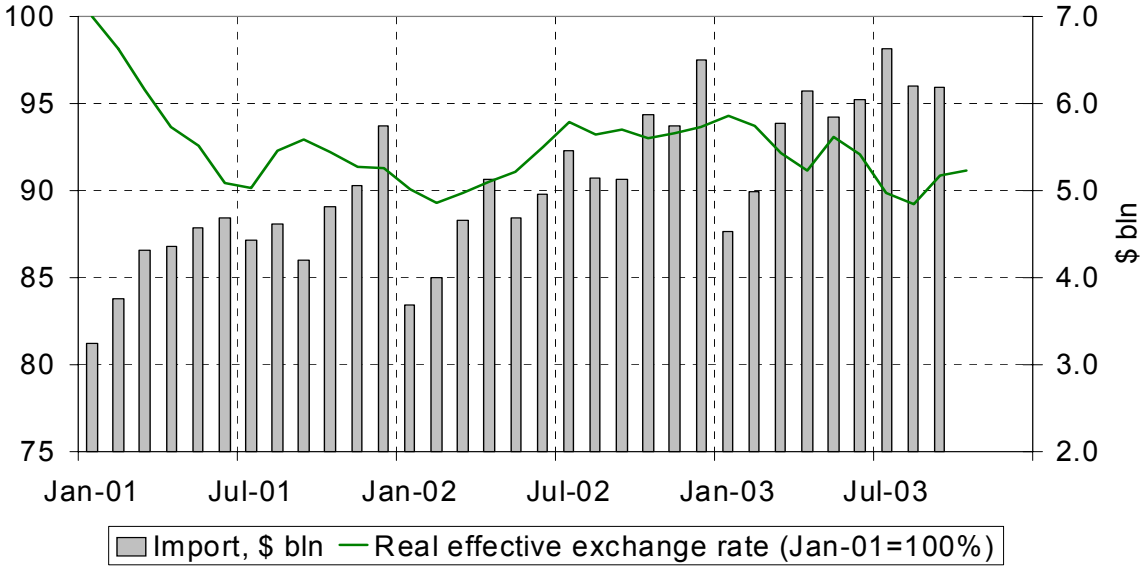
Source: Goskomstat RF

It is widely recognized that the structure of the national economy is skewed towards the fuel and energy sector, which accounts for 30% of industrial output, one third of consolidated budget revenues and over half of federal budget revenues. Exports of fuel and energy make up about 55% of total exports (for details see section 3). Russian

[1] According to the most recent data the Russian economy grew 6.4% in 1999, 10.0% in 2000 and 5.0 in 2001
[2] Especially in the sectors which are able to produce competitive goods

manufacturing lacks competitiveness and thus the gap between rapidly growing incomes and domestic production was compensated for by increased imports in 2002 and early 2003. It is important to note that this occurred despite a relatively stable real effective exchange rate. In fact, this exchange rate actually decreased by 1.7% (chart 2) in 2002 due to that fact that the ruble gained slightly against the dollar in real terms, while strongly depreciating against the euro.

Chart 2: Imports increased on back of stable real effective exchange rate



Source: Goskomstat RF, Central Bank of Russia

Growth slowed in 2002 as increased domestic demand saw consumer preference shift towards more expensive higher quality goods, a sector in which Russian manufacturers are unable to compete with imports. The food industry provides a clear example of how growing incomes have transformed consumer demand. In 1999-2000, when incomes were low, production of cheap foodstuffs (such as vegetable oil, bread, etc.) grew more rapidly. In 2001, as real incomes increased, production of those foodstuffs stopped expanding and the focus shifted to more expensive high-protein foods. In 2002 and early 2003, growth in the Russian food industry slowed further from 8.2% in 1H02 to 3.4% in 4Q02 and 3.6% in January-February 03. Since demand for food was almost entirely saturated, consumer demand shifted toward more expensive consumer durables and services (Table 1).

Faster growth in services last year should be seen as a sign that the economy has become healthier as it has been able to react to rapid growth in real incomes by expanding the services sector and increasing production of consumer goods. However, it is too early to say that economic restructuring is complete. A lot more changes can be expected. Effectively, the structure of exports has remained relatively unchanged, with energy and semi-manufactured goods still the major source of export revenues and the economy therefore still highly dependent on international energy prices (in spite of the fact that in 2003 this dependence seemed to have fallen). In any case, a drop in oil price would mean less oil revenues coming in and a weaker current account weakening domestic demand. Services would be the first to feel the pinch.

At the same time more progress in economic restructuring was seen in early 2003. Productivity seems to have increased considerably. Nevertheless, the problem of

diversifying the economy and export basket and further improving the business climate remain as topical as before. More radical structural reforms are also still needed.

Table 1: Services grew faster than GDP in 2002, change y-o-y, %

	2001	2002
GDP	5.0	4.3
Goods production	6.5	3.3
Industry	4.9	3.7
Construction	9.9	2.7
Agriculture	11.2	1.6
Services production	3.5	5.3
Market services	4.2	5.8
Transport and communications	5.4	6.0
Trade and public catering	3.9	8.1
Non-market services	–0.6	2.3

Source: Goskomstat RF

In any case, the macroeconomic performance last year clearly indicate that the country can no longer rely on the advantages of easy growth and that repeating the same growth pattern which emerged after the 1998 crisis will be difficult for Russia if not impossible. Growth in the non-interest spending that took place in the past few years was able to stimulate domestic consumer demand to some extent. Now it is likely to stimulate mostly imports. ***Thus Russia seems to be on the brink of an intense structural transformation.*** This transition cannot be considered as an equilibrium state.

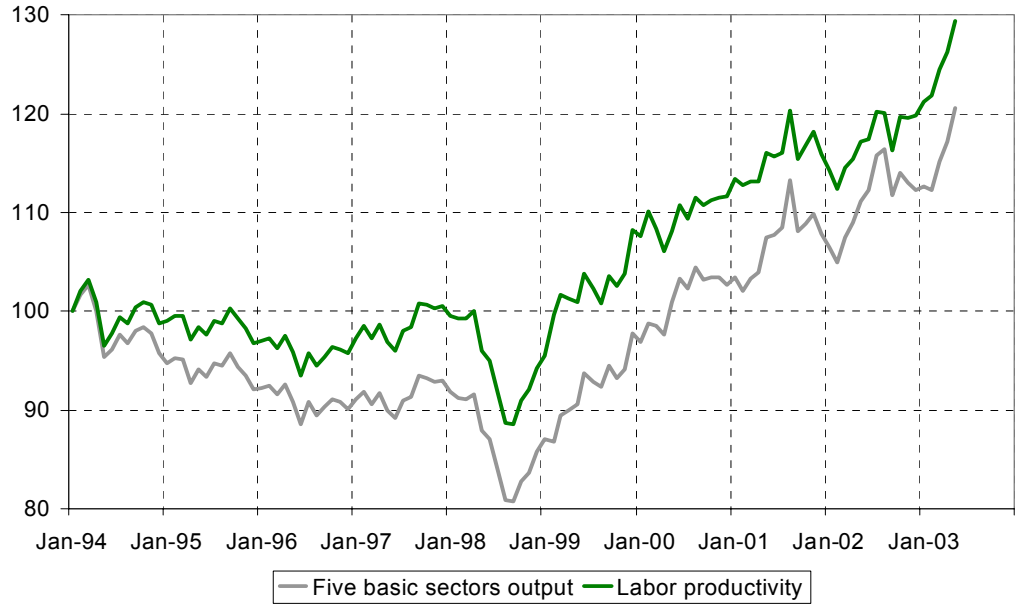
2. He is able who thinks he is Able (Budha, 6th century BC)

In his annual address to the Parliament in 2003, president Putin stated that Russia needs to double its GDP in ten years. This would require an average annual growth rate exceeding 7%, an attainable target at first glance. Many other countries such as China, Korea and Japan have demonstrated prolonged periods of rapid growth. The Soviet economy was also able to deliver fast growth in the early 1960s, as well as in previous decades.

After the 1998 crisis, during the period from 1999 to 2002 the Russian economy grew, on average, about 6.4% a year. In 2003 growth is expected to be at the same level, or even higher. How sustainable is this growth? Would it be possible for modern Russia to repeat the success of Asian economies and maintain high growth rates over a decade? If yes, then what are the necessary conditions for it?

Growth theory suggests that three major factors may contribute to economic growth, namely, labor, capital and total factor productivity (TFP). As analysis reveals, Russia's economic growth in the coming years can be driven by productivity in the first order, i.e. as has occurred in recent years (chart 3 shows labor productivity has risen in line with growing output, and even exceeded it).

Chart 3: Labor productivity and output, Jan 94 = 100%, seasonally adjusted



Source: Goskomstat RF

Unlike China or other Asian countries that have demonstrated high growth in previous decades, the Russian population is declining in the long run. In addition Russia cannot rely on large quantities of cheap labor moving from rural to urban areas as occurred in China, Korea, and in other Asian economies and has significantly contributed to high growth rates in those countries. The share of the rural population in Russia (roughly 20%) is still high by European standards, but is much lower than was the case in the Asian economies at the start of the periods of rapid growth. So, accumulation of human capital, or more precisely of the labor force, cannot contribute much to economic growth in Russia. Moreover, according to demographic forecasts the situation will deteriorate in a few years as the demographic burden (the number of dependents per 1000 workers) will start growing rapidly due to the aging population.

Analysis has revealed that the Asian economies in the past decade also grew largely as a result of capital accumulation. In fact, capital accumulation was the major driver of economic growth in those countries. That was also the case in Soviet Russia. Capital accumulation in the Asian economies was financed both from domestic sources and by foreign capital inflows.

Total Factor Productivity (TFP) in the Asian economies has also been growing but at a lower pace than capital. A decomposition of growth in developed economies displays a different picture: TFP usually grows more rapidly relative to labor and capital.

The exact meaning of TFP cannot be specified. In the most general case it incorporates technological change, changes in capacity, knowledge accumulation, etc. It may also incorporate the contribution of such effects as openness to trade and investment regime, progress in basic and higher education, information technology, research and development. TFP cannot be measured directly: it must be estimated in an indirect manner, through for instance, growth accounting. The TFP therefore includes all uncaptured parameters and measurement errors.

The decomposition of growth by factors by using growth accounting techniques enables a better understanding of where growth originates from, i.e. to estimate

quantitatively the contribution of each factor to economic growth. However, there are certain methodological difficulties in carrying out growth accounting, especially in the case of countries like Russia, which have demonstrated dramatic structural changes.

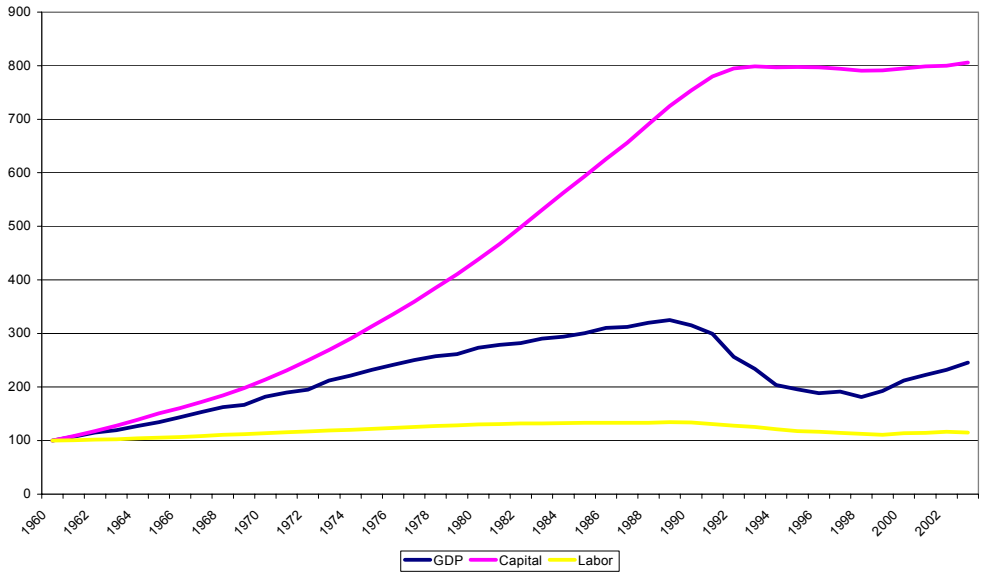
Growth accounting usually employs some traditional production functions, namely the Cobb-Douglas function, which assumes constant returns to scale in the two major inputs, labor and capital. In the case of equilibrium and under the assumption that factor markets are competitive, the shares of capital and labor in the production function are considered as the share of rental payments to capital and the share of wage payments to labor of total income. The assumption of constant returns to scale also means that the economy is in equilibrium and that all the variables of the model, such as output, labor and capital evolve essentially together. This usually seems to be the case for many developed countries, but for developing and transitional economies little evidence has been found. It is hard to accept that the Russian economy has ever attained long run equilibrium in the past: econometric analysis shows that there was no equilibrium even before the transition.

It can be seen that over the thirty-year period from 1960 to 1990 Russia's output roughly tripled, while its measured capital stock grew eight times (see chart 4). At the same time, effective labor increased roughly by one-third. In 1990, the capital-output ratio was nearly four times higher than in 1960, indicating strongly diminishing returns with respect to capital for the Soviet period. At the same time increasing returns with respect to labor should be considered as a possibility. This may highlight the fact that the economy has been operating below capacity not only in the 1990s, but in Soviet times as well. Over-accumulation of capital stock (part of which can be considered as the "wrong" capital stock, a result of the misallocation of investments) was not (and could not be) accompanied by the required growth of the labor force. Labor therefore became the limiting factor in the economy, which, in spite of rapid capital accumulation, had remained labor-intensive. As seen from the Chart output has an N-shape pattern, which can be roughly approximated by a polynomial function of the third order. If inputs are roughly linear (or can be approximated by a smaller than third-order curve), then returns to scale are most likely non-constant.

In addition, the basic growth model, which is based on the assumption of constant returns to scale, neglects such inputs as land and natural resources, which are of particular importance in the case of Russia.

Similar doubts about the reliability of the assumption of constant returns to scale are not only relevant for the pre-transition period. After 1992 many old Soviet-type businesses disappeared, while new companies emerged without substantial investments as they were able to rent capital stock from the former state enterprises, though for different activities. Metal processing plants, for instance, located in city centers, could have leased office space to the emerging trade companies or banks. Thus with minor investments part of this capital stock was put back into operation, possibly yielding higher returns. Various substitution and reallocation effects have taken place during the transition period and this is still going on. So, at best it may be possible to consider some level of local equilibrium in the case of Russia.

Chart 4: Output, labor and capital in Russia from 1960-2003 (1960=100)



Source: Goskomstat RF, Kuboniwa and Ponomarenko (2000)

In the case that the actual data do not suit the model based on the assumption of constant returns to scale, one should consider two possible means of dealing with this problem. One means is to adjust inputs, namely, labor and/or capital, by quality so that the adjusted data will fit the model based on the assumption of constant returns to scale. The other is to specify the model so that it will fit the measured inputs. The OECD's Productivity Manual suggests the first method, developing the methodology for adjusting measured inputs. In the case of labor it refers to a magnitude adjusted by self-employment, by working hours, by multiple job holdings, quality of human capital, etc. Capital inputs should be adjusted by age-efficiency profiles, asset retirement patterns, age-price profiles, efficiency declines due to decay[3] of the capital stock, and others. Instead of the *gross capital stock*, after the necessary adjustments, one derives the concept of *net capital stock*. Finally, the shapes of the labor and capital curves become similar to the shape of the output curve, so that some linear combination of inputs -- assuming constant returns -- gets close to the output curve. It is, however, in the case of Russia practically impossible to do this same sort of adjustments of inputs.

In the long run there is no major difference if one attempts to adjust inputs so that a better approximation of the actual curve may be obtained if constant returns to scale are assumed, or if one relies on non-constant returns model without adjusting inputs (below we denote TFP in those two cases as TFP1 and TFP2). In both cases some closer approximation of the actual curve can be obtained and residuals between actual and fitted curves should become roughly the same. Thus if the nature of growth is understood as a process of structural transformation in which growth itself is becoming unbalanced then increasing returns should not be rejected.

Correct estimation of factor shares is one of the major difficulties in growth accounting. The exact values of the factor shares are usually taken as 0.7 for elasticity of output with respect to labor and 0.3 for elasticity of output with respect to capital. In our simulations we vary factor shares within a reasonable range and use both the constant and

[3] Decay differs from depreciation since depreciation measures the loss in value of capital goods, while decay is in fact efficiency decline that reflects the loss of productive services delivered by capital goods.

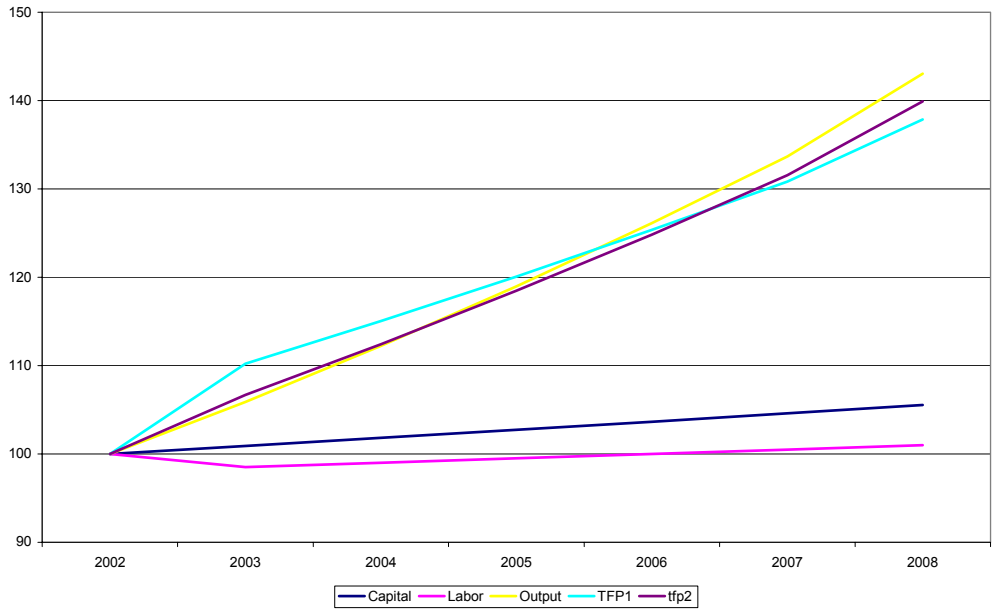
non-constant returns to scale assumption. All in all, we will skip further methodological comments in this paper and for better interpretation of results will rely on sensitivity analysis providing some range of exogenous variables, such as TFP (for more details see Gavrilenkov (2003)).

Post-crisis growth in Russia originated largely from changed fundamentals, and should therefore be reflected by changes in total factor productivity. As mentioned the average annual GDP growth rate between 1999-2003 will exceed 6%, while both capital stock and labor have grown on average by 0.5%. This leads to the conclusion that growth was really driven by higher efficiency.

As econometric analysis shows, in order to increase capital stock by about 0.5% to 1% per year investments in fixed capital should grow not less than 10% each year. Even if investments grow faster than this, capital accumulation will remain slow, especially in the near future given the fact that the current level of investments is low while capital stock is far larger. The latter originates from the existing structure of the Russian economy, in which capital-intensive sectors producing low value-added products still dominate in Russia.

It is highly probable that employment on average will remain unchanged in the medium run, or not exceed a growth rate of 0.5% per year, i.e. as was seen between 1999-2003. Under those assumptions Russia needs to increase total factor productivity by 5,5% to 6,5% (depending on the type of production function used) each year in order to secure an annual growth rate of 7%. To secure a 6% average annual growth rate (as was the case in recent years) TFP should rise 4.5% to 5.5% each year (chart 5). In theory this does not look impossible, however this can only occur if investments are directed not only at the energy sector, but also at sectors with higher valued-added, such as services and manufacturing. Simulations show that if productivity remains unchanged than economic growth is unlikely to exceed 1%

Chart 5: High growth rates may be secured only by rise in productivity



Source: Goskomstat RF, own calculations

3. To change and to change for the better are two different things (German proverb)

The diversification of exports is increasingly being touted as one of the priorities of Russian economic policy. However, producing the goods, as it were, and fulfilling this task over the coming decade appears tricky, if not impossible. The roots of the country's dependence on natural resources exports run deeper than the economic transformation of the 1990s. Indeed, the Soviet economy experienced turbulence during periods of low prices, such as was seen in the second half of the 1980s, when a drop in oil prices forced the government to substantially boost foreign debt in order to finance imports.

Table 2 takes countries with different incomes per capita (including developed countries and emerging markets) and compares their ratios of gross and net exports to GDP. As can be seen, both of Russia's ratios are fairly high, indicating that the economy is both heavily dependent on export revenues and unattractive to foreign capital.

Unlike many other economies, particularly those in transition, Russia has managed to generate enough export revenues to finance economic growth in the last few years. At the same time, most transition economies have experienced strong capital inflows, which have boosted not only per-capita income and the import of consumer goods but also the inflow of investment goods. The latter has helped these economies to diversify substantially and East European countries have been able to redirect trade flows to the West.

Table 2: Gross and net exports of selected countries (as % of GDP)

	Gross exports, % of GDP	Net exports, % of GDP
US (2001)	7.2	-4.2
Japan (2001)	9.3	1.7
Euro zone (2001)	15.3	1.2
China (2000)	23.2	3.2
Mexico (2001)	25.6	-1.6
Brazil (2001)	11.6	0.5
Russia (2002)	30.9	13.3
Poland (2000)	22.8	-7.8
Czech Republic (2001)	58.9	-5.4
Ukraine (2002)	45.3	1.7

Source: United Nations, ECE

Similar developments took place in the Asian economies a few decades earlier. Foreign direct investment (FDI) and/or private foreign borrowing fueled major change in many sectors, the rapid expansion of manufactured exports and economic growth. Many of FDI's well-known spillover effects were also seen, including better business climates and higher production efficiency.

However, as is often the case, Russia is charting its own path. FDI has yet to feature prominently: in recent years, the cumulative FDI per capita has been much lower than in most transition economies (see table 3). On an annual basis, Russia has attracted less FDI than countries like Poland or the Czech Republic, which have a much smaller population.

Table 3: Accumulated FDI per capita in selected transition countries, 1990-2001

	FDI, $ per capita
Russia (2002)	190
Poland	916
Hungary	2,392
Czech Republic	2,761
Slovakia	1,115
Kazakhstan	744
Estonia	2,097
Croatia	1,371
Slovenia	1,021

Source: United Nations,ECE

Meanwhile, the bulk of FDI that Russia did receive went to the oil sector (see table 4), which did nothing to diversify exports. And while the food, retail and finance industries were also major recipients, their goods and services are mainly for the domestic market. Another important factor is that the average annual FDI inflow of around $3 bln was not enough to change the economy's sectoral composition substantially. Finally, much of the foreign investment came from Cyprus and should therefore be treated as repatriated capital.

Table 4: FDI receipts by sector

	1995	1997	1999	2002
Total	100.0	100.0	100.0	100.0
Fuel	13.0	5.9	27.9	16.7
Metals	3.0	3.6	1.7	2.1
Machinery	5.0	2.2	3.0	6.5
Wood	4.2	1.9	3.3	3.3
Food	12.4	9.5	22.6	11.0
Construction	10.0	4.8	1.4	2.2
Transport	0.5	0.5	12.1	2.8
Retail and public catering	23.2	8.5	14.0	24.0
Finance	7.9	42.5	0.7	1.4
Other	20.8	20.7	13.3	30.0

Source: Goskomstat RF

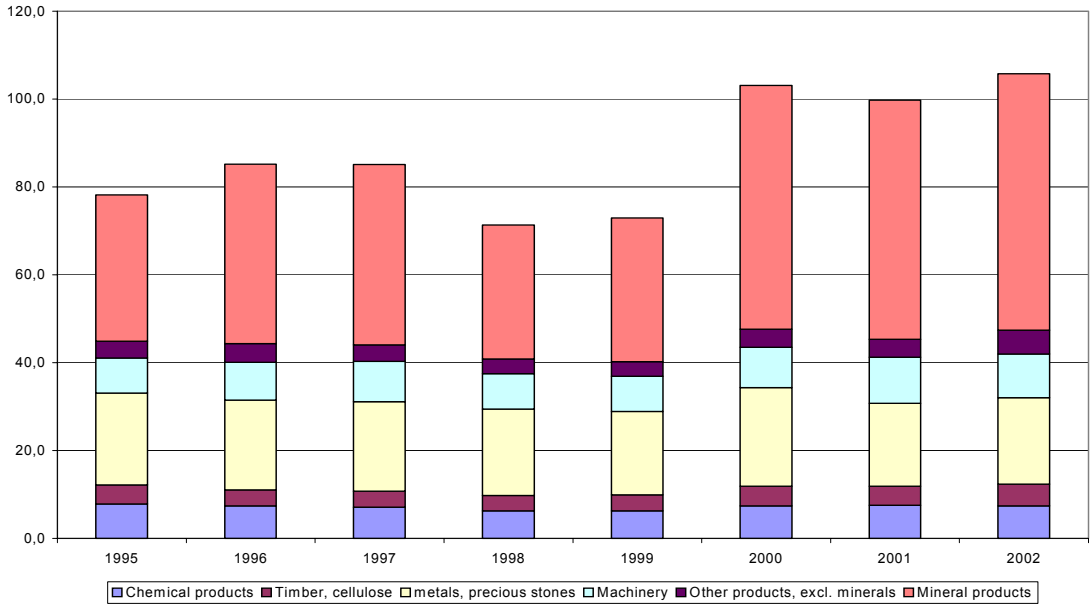
As the capital-intensive oil and gas industry generates the bulk of export revenues, it received a substantial part of domestic investment. Manufacturing, however, received minimal investment, so was unable to increase the production of competitive goods for export. Furthermore, the reallocation of the export-oriented industries' "excess" capital over the last decade was practically impossible due to a generally poor investment climate, coupled with a weak financial system. The result was capital flight. Most of the attempts to reallocate the capital in major top-down businesses also largely failed. For example, domestic metals producers, who took control of many manufacturing and machine-building companies, were unable to modernize auto manufacturing at GAZ or UAZ.

Admittedly, the situation started to change towards the end of 2002, as investment activity increased, followed by the apparent disappearance of capital flight in 1H03.

However, the action against YUKOS in mid 2003 has dealt a serious blow to the investment climate and may have indeed ended this trend, although it is too early to judge.

Consequently, as chart 6 shows, the volume of exported manufactured goods (in dollar terms) has changed little over the past seven years. Non-mineral exports have hovered around $44 bln and, despite a slight increase since the 1998 crisis, are still a long way from dominating the picture.

Chart 6: Domestic exports by commodity groups ($ bln)

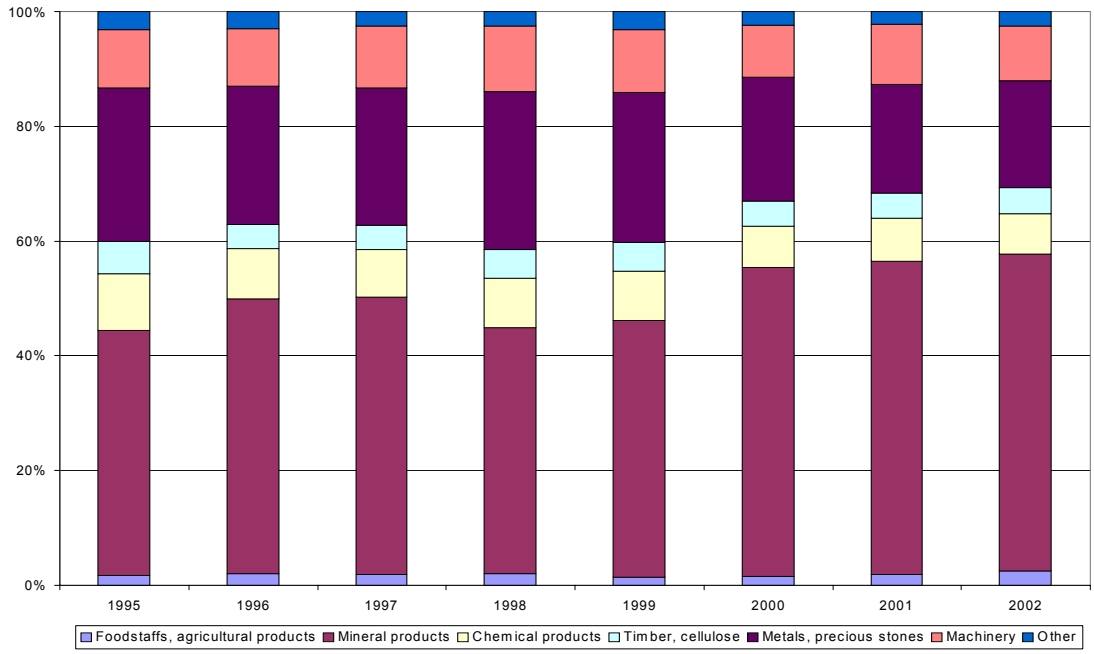


Source: Goskomstat RF

The largest increase has clearly been in the export of mineral products, mostly oil and gas, which chart 7 reiterates. As seen from these two graphs, energy resources, metals, timber, cellulose and chemical products account for around 85% of exports. Given the rather small share of machinery and other manufactured products, real exchange rate fluctuations have little influence on exports, unlike changes in metal or energy prices.

On the basis of these statistics, the export structure looks unlikely to change substantially in the coming years. Oil companies' expansion plans, particularly to finance the construction of new pipelines and terminals, will guarantee substantial exports in that sector, even given lower oil prices. The manufacturing sector has no possibility to increase exports in the medium term. At the same time, metals and chemical products are unlikely to see any major growth, as every time Russia has attempted to boost these exports in physical terms, prices have been falling. This explains the minute change in dollar revenues over the years.

Chart 7: Breakdown of domestic exports by commodity groups (%)



Source: Goskomstat RF

In the oil and gas industry, the bulk of export receipts are generated by only a few large, listed companies: YUKOS, LUKoil, Sibneft, TNK and Surgutneftegaz. The same is true of the metallurgical industry. In the ferrous sector, most of the export cashflow comes from Magnitogorsk Metal, Novolipetsk Metal and Severstal; in the non-ferrous sector, from Norilsk Nickel, SUAL, RusAl and Alrosa. Given the reasons outlined above, it is hard to envisage how these companies will substantially boost export volumes in the coming years. It can be seen that Russia's export structure closely mirrors its stock market, with only small-cap companies existing outside the oil and gas and the metals industries.

The pulp and paper industry is set to expand rapidly in the future, mainly on the back of more export growth. First, however, all legal problems related to ownership in the sector need to be solved. Admittedly, like the machine-building industry, expansion here will not change the structure of exports massively. However, the greater use of technology will require more investment and know-how.

Elsewhere, in the near future, we expect strong companies to emerge in the consumer industries, such as the food, agriculture, retail and service sectors. That said, these are more domestically oriented.

4. Vivat, Crescat, Floreat! (May it live, grow and flourish!)

In spite of obvious advantages high oil price and capital inflows create a number of macroeconomic problems and challenges at the same time: it is expected that on the back of massive foreign exchange inflows in 2003 the ruble will appreciate rapidly, thus negatively affecting the competitiveness of the Russian economy. But this is only one side

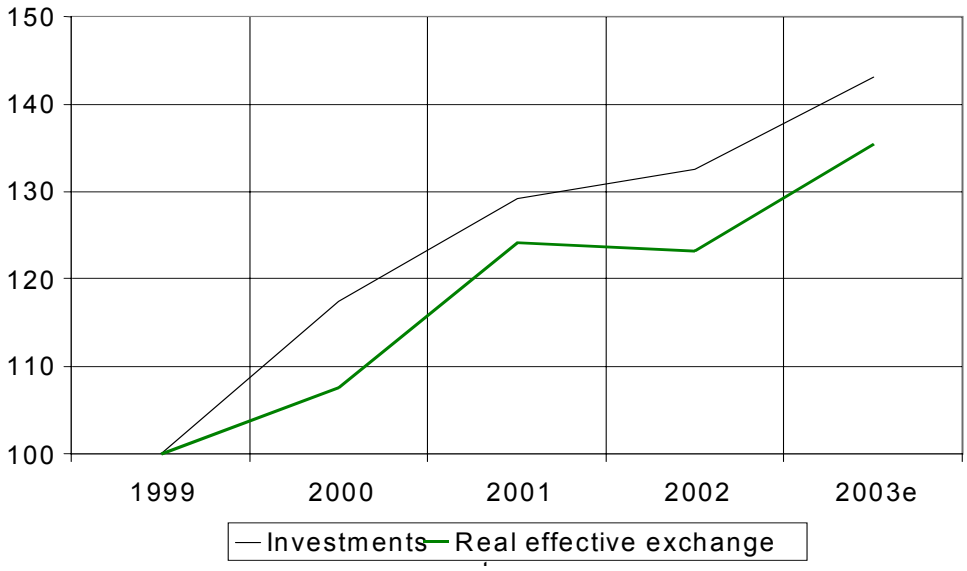
of the coin. On the other hand massive foreign exchange inflows and appreciation of the ruble creates an extremely favorable environment for the restructuring of the economy.

In theory rapid appreciation of the ruble creates well-known problems - competitiveness of domestic manufacturing falls, profitability of the exporters also goes down. In principle it may negatively affect economic growth. On the other hand, however, strengthening of the ruble is a challenge: it stimulates more intense structural change, in the first order cost reduction. A strong ruble is harmful for the "old" economy, inherited from the Soviet period. At the same time a stronger ruble may stimulate investment activity, given the fact that the stronger the ruble, the more investment goods can be imported. As seen from chart 8 investment activity was closely correlated with the real exchange rate: the faster the ruble appreciated the higher the growth rate of investments that was recorded in the post-crisis period. As a result the Russian economy in the entire 1999-2002 period was growing on the back of a real appreciation of the ruble.

It now appears to be a propitious moment for more active restructuring of the Russian economy. Several factors have converged to provide this moment. A stronger ruble means that more investment goods can be imported. It could, of course, be argued that the ruble was even stronger in 1996-98, a period when investment activity was low. However, Russia now offers a far better investment climate, with improved institutions and a lower tax burden, to cite just some of the advances made. At least some government efforts have paid off.

Due to massive capital inflows and the strong current account, money was also cheap in Russia in 2002-2003 and interest rates were low. The fact that the government has been able to run a budget surplus explains the aridity of the Sovereign bond market and the negative real interest rates on what bonds there are. Deposit rates were also negative in real terms most of the time (see charts 9 and 10) and ruble appreciation has prompted much turning of backs on dollar savings. Stagnation on global markets means that there was no reason to export capital; on the contrary capital inflows have been massive in the first half of 2003, until the YUKOS afair.

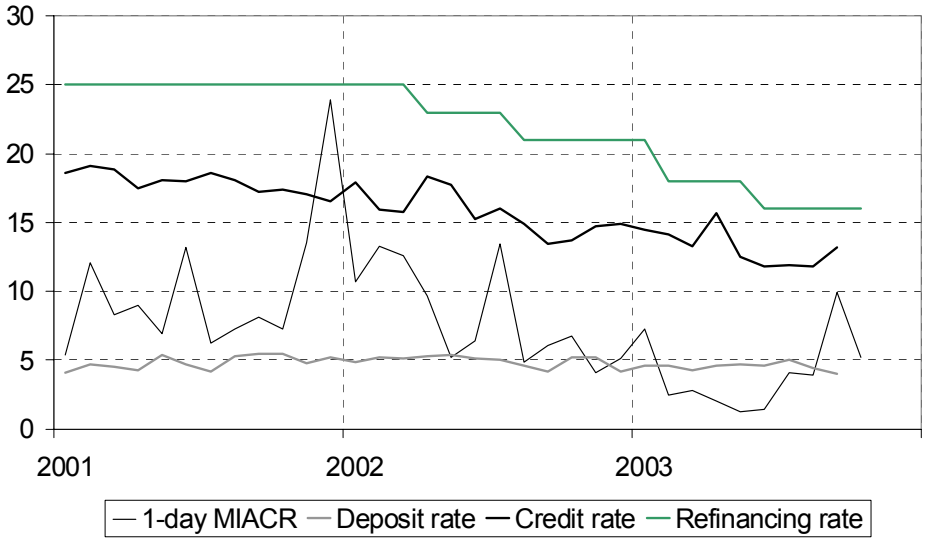
Chart 8: Real investments and effective exchange rate (1999=100%)



Source: Goskomstat RF, Central Bank of Russia

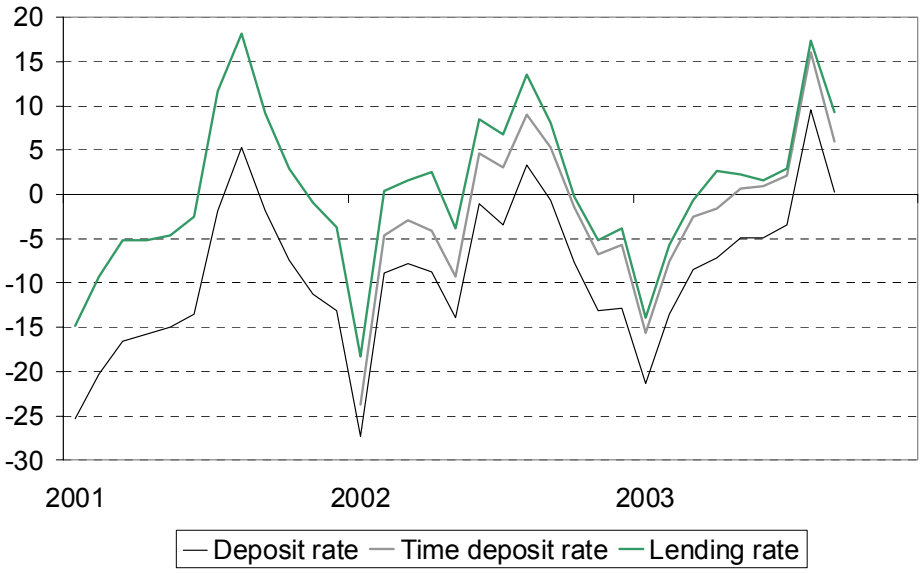
As a result, in 2003 there are more incentives to invest in Russian fixed capital than ever before. Apart from equities, this may be viewed as the only way for most domestic investors to preserve their money, another major difference from previous years. It would not be a surprise to see investment rise by 12% or more this year and it should certainly be a major driving force behind Russian economic growth in 2003. Investment activity has already picked up substantially in the first half of 2003, which reflects the trend in chart 8.

Chart 9: Nominal interest rates



Source: Central Bank of Russia

Chart 10: Real interest rates



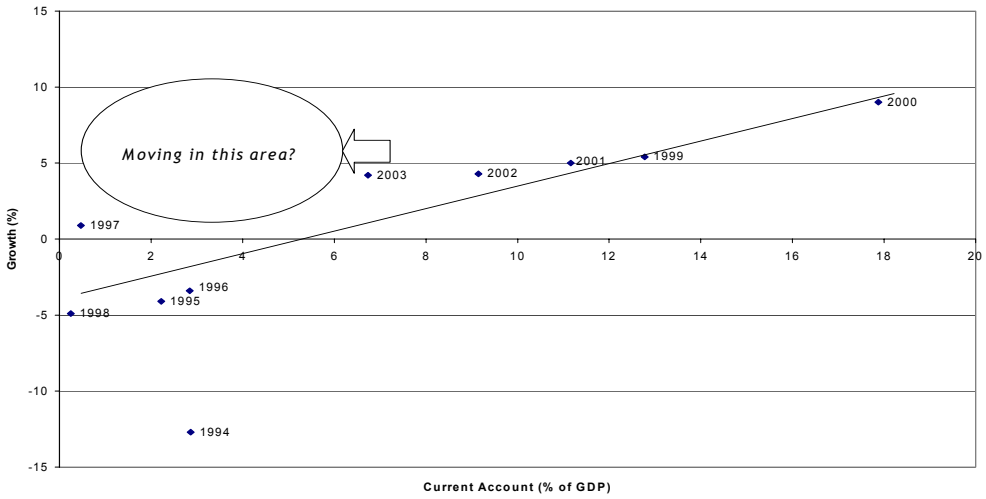
Source: Central Bank of Russia

The fact that money is cheaper than ever before has also triggered a hike in investment activity beyond the energy sector, a prospect which has full government backing. Diversification of the economy is indeed one of the priorities laid out in the government's recent medium-term economic program.

Up until now, the Russian economy has been very dependent on world energy prices, i.e. the higher the price, the larger the current account and the higher the rate of growth (see graph below). An exception was 1997, the only pre-crisis year when Russia attracted foreign investment on a large scale.

As a result of the expected diversification of the economy and ruble appreciation, the current account is supposed to shrink. Russia will import more investment goods (as well as consumer durables) and should thus be able to move away from linear dependence between the current account and economic growth (chart 11).

Chart 11: Current account and economic growth



Source: Goskomstat RF, Central Bank of Russia

5. Three ways of restructuring

Wer Nichts Waget, Der Darf Nichts Hoffen
(Who dares nothing need hope for nothing, Friedrich Schiller)

The long-awaited acceleration in economic performance recorded in early 2003 was accompanied by a number of structural changes that could have long-lasting effects:

- Strengthening of the ruble.
- Faster growth in energy prices; these had already grown substantially over the previous few years, however electricity prices rocketed up 12% in the first quarter of 2003.
- Ongoing rapid increase in real wages.

These all imply a rise in costs, however this was offset by a rapid increase in productivity in early 2003. Employment was up 2.8% y-o-y, while output from the five basic sectors rose 6.7%.

There are also other important indicators of a change in the growth mechanism:

- Preliminary estimates for first quarter balance of payments show negligible net capital flight, due to external borrowing of around $4.9 bln by Russia's non-financial sector and banks. As a result, the country's dependence on the oil price has decreased.
- Not only exporters, but also industries targeting the domestic market were able to up production substantially in early 2003. Higher domestic demand was partly down due to increased non-interest spending by the government on areas such as defense.
- Meanwhile, increased investment activity has stimulated production in those industries that produce investment goods.

The rise in costs placed significant pressure on industries, particularly those targeting the export market. These had previously benefited handsomely from a combination of cheap domestic costs and high global market revenues, guaranteeing considerable profits. The excessive value-added was used to fund a large proportion of Russia's capital flight, while the price distortions brought about implicit subsidization, with some sectors of the economy benefiting at the expense of others. The greater these distortions, the greater the role of the government and the higher the degree of administrative control. As a result, the changes should provide a stimulus for a restructuring of the economy.

The need to reallocate the "excessive" financial resources generated by export-oriented sectors to the rest of the economy used to be and to some extent still is one of Russia's key problems. There are in theory three possible routes for reallocation:

- **Higher taxation**

  Simple administrative reallocation through the higher taxation of exporters has to some extent already been tried in the past (notably in the final years of the Soviet system) via high export duties. This mechanism has not proven to be very efficient. The more the government collects in taxes, the more it tends to spend on simply financing the economy, laboring under the belief that the greater the amount paid to pensioners and public sector employees, the better for the economy. The upshot of this is continuous inflation.

  What is more, growing incomes prompt a shift in consumer demand from cheap to more expensive, higher-quality goods, such as consumer durables (see section 1 of this paper), a market in which Russian producers are less able to compete. This fiscal policy will therefore stimulate growth in imports, even with a weaker ruble (as was the case in 2002), unless industries are restructured.

- **Reallocation of property**

  Another way of reallocating value added is through the reallocation of property. There were indications that raw material exporters had acquired a large number of manufacturing firms and begun investing more broadly across the economy. In the short to medium term, this could contribute to a substantial improvement in Russia's macro numbers, with higher growth rates achievable in both investment

and consumption. For long-term consequences such as progressive inefficiency of investment and slowing growth rates, see Gavrilenkov (2002).

- **Institutional and structural reform**

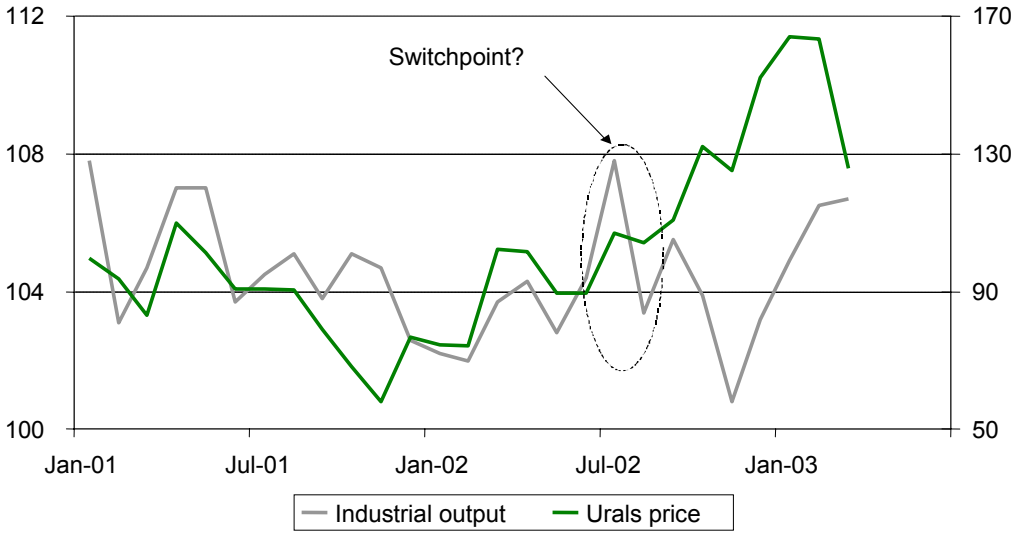
  The third method of reallocating the value added from a limited number of exporters to the rest of the economy is associated with institutional and structural reforms, above all through adjustments in relative prices. As we have stated, Russia's previously distorted relative price structure has allowed some sectors to be subsidized by others. Cheap energy, for example, has offered a competitive advantage to certain sectors of the economy, but is a disadvantage for the economy as a whole.

In fact, Russia will experience all three mechanisms. However, there are more advantages to be gained from the third.

A rise in energy prices, even if they are not brought immediately into line with international levels, should force energy-intensive exporters of semi-finished goods, such as ferrous/non-ferrous metals and chemical products, to start considering energy savings, cost reduction and modernization, thus beckoning in the long-awaited restructuring. This means that a larger part of the value-added now generated by those exporters would be reallocated to manufacturing on market principles, namely through increasing domestic demand for more efficient technology, machinery and equipment, as well as higher energy payments. This echoes the government's desire for diversification of the economy and will also help reduce Russia's dependence on the oil price.

Econometric analysis shows that the relationship between the oil price and macroeconomic indicators is currently not as strong as it has been. The change began in mid 2002, when Russian companies started to borrow more heavily on international markets, and has continued into 2003. The graph below (chart 12) shows that y-o-y industrial growth was closely correlated with the oil price until mid 2002 and that this relationship has now all but been broken. Apart from increased foreign borrowing, this has reduced Russia's dependence on the oil price, volume crude exports have also grown steadily, thus contributing to a strong current account at a lower price for crude.

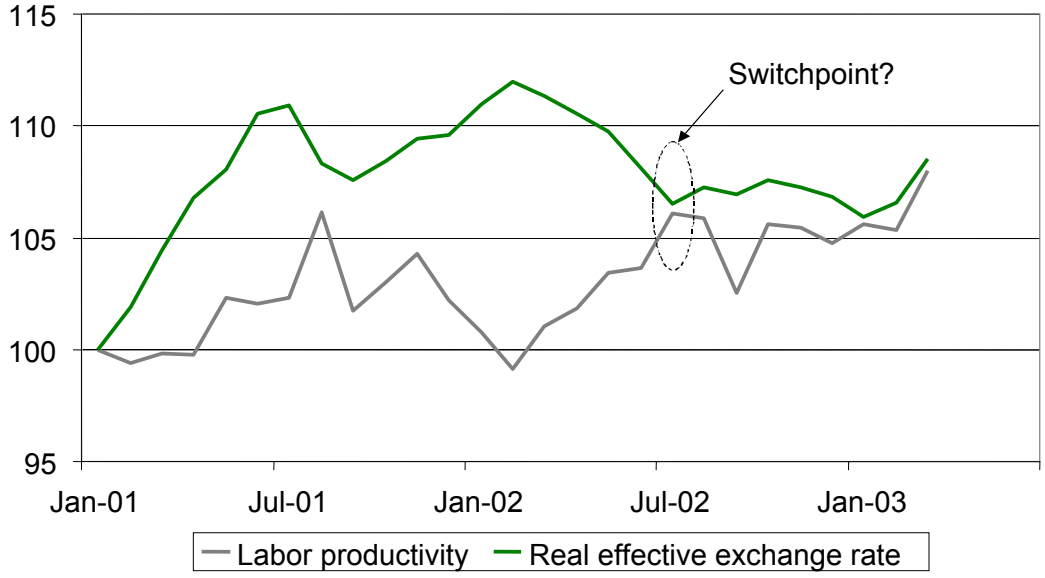
Chart 12: Transformation of growth mechanism has begun in mid 2002



Source: Goskomstat RF

The graph below (chart 13) also demonstrates the change in growth model. After mid 2002, a clear positive correlation emerged between the real effective exchange rate and productivity. Since the growth mechanism based on higher capacity utilization (and respectively higher productivity), which developed after the 1998 crisis, became defunct last year, the only way to grow is now through increased investment. This will in turn increase productivity, not through higher capacity utilization, but rather through modernization. As stated above, a stronger ruble may stimulate investment, but that a stronger ruble (as well as other price signals above) can also thereby stimulate productivity.

Chart 13: Productivity starting to grow on the back of a stronger ruble



Source: Goskomstat RF, Central Bank of Russia

6. Does the Central Bank's monetary policy stimulate restructuring?

"Necessity Delivers Us From the Embarrassment of Choice"
Luc de Clapier de Vauvenargues , French moralist, 1715-1747

Calls to "stop" ruble appreciation, which causes the so-called "Dutch disease", are heard regularly from businessmen and government officials alike. The general view was that "ruble appreciation" over 2001-02 had been a cause of rapid growth in imports and a consequent drop in growth in Russia's own industry. Another commonly held belief is that the Central Bank has changed its exchange rate policy to favor a stronger ruble. In fact, it is most likely that developments on Russia's foreign exchange market have largely been the result of an unprecedented inflow of foreign currency and changes in the dollar/euro exchange rate. This would leave the monetary authorities with only short-term mechanisms for affecting the market, such as buying and selling foreign currency in an attempt to smooth out the fluctuations. In the longer term, the Central Bank has faced the option of

printing rubles to buy up oil windfalls, or if growth in reserves was not a priority simply allowing the ruble to appreciate. We think that in choosing rapid reserve accumulation it has opted for the most natural and reasonable policy.

The fluctuations in ruble/dollar exchange rate are not enough to gauge appreciation or depreciation in the value of the ruble. In fact, Europe accounts for the single largest chunk of Russian trade and the euro, as well as the euro/dollar exchange rate, therefore plays a major role.

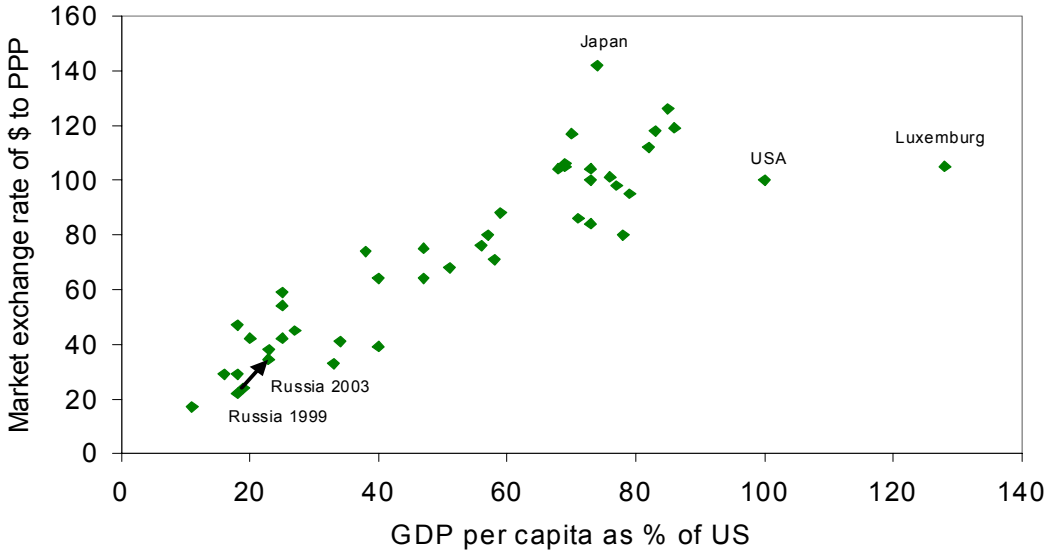
Talk of progressing "Dutch decease" is probably inappropriate for Russia on an aggregate level (although this is valid for certain markets) for a number of reasons. As was discussed in section 1, the deceleration in growth recorded in 2001 and early 2002 came on the back of a relatively stable real effective exchange rate. The ruble has appreciated against the dollar, but depreciated against the euro, especially in 2002 and early 2003. Statistics show that in 2002 in terms of the real effective exchange rate the ruble was 25% below the 1997 level, in contrast to more than 40% in early 1999. However, economic growth accelerated at the end of 2002 and in early 2003, on the back of a stronger ruble.

No one can guarantee that the economy will once again grow as fast as in 2000, even if the ruble should for some reason depreciate back to the level of 1999 or 2000. As was pointed out before, the growth mechanism that emerged after the 1998 crisis and contributed to an economic upturn is largely exhausted. As said, this mechanism was based on increased capacity utilization, but after a number of straight years of growth, most sectors now lack spare capacity. Even a cheaper ruble cannot therefore guarantee a return to the 10% economic growth rate seen in 2000.

Ruble appreciation may indeed be causing problems for the "old" economy, but the other side of the coin is that it also acts as a stimulus for economic restructuring: in 2003 increased costs, attributed to a strengthening ruble, force companies to cut back where they can, an obvious target being excessive labor forces. As a result, productivity has again been growing. At the same time, the need to reduce costs and increase productivity forces companies to invest in production capacities. It therefore looks only natural for investment activity to have increased substantially in 2003, and not only in the oil and gas sector.

With long-term economic growth expected, ruble appreciation is inevitable, even desirable. Russia's ruble is at the market exchange rate still much lower that at the purchasing power parity (PPP) rate. International comparisons show that the higher the per-capita income in a country, the smaller the gap between the PPP exchange rate and the market exchange rate. The chart 14 shows that Russia has already moved some way toward diminishing this gap over the past few years, as its economy has grown. This will continue, as a strong current account and repatriation of export earnings, or capital inflows through the capital account, finance economic growth and push the ruble up at the same time.

Chart 14: Market exchange rate versus PPP: international comparisons (OECED program of international comparisons, 1999)



Source: Goskomstat RF, OECD

7. Government aims at divesification

Men and Nations Behave Wisely Once They Have Exhausted All the Other Alternatives
Abba Eban, Israeli diplomat

Future economic growth is associated with the growth of new businesses, which still have not emerged and expanded as intensively as would be possible. To improve the existing growth mechanism and deliver sustainable growth Russia needs: a) to remove the remaining «red tape»; b) to carry out financial sector reform (banks in the first order). In this case the current account surplus will be compensated not for capital outflows (as occurred largely in the past), but for increased savings recorded in the capital account, thus contributing to growing capitalization of the banks and monetization of the economy. In fact sustainable economic growth requires more active financial inter-mediation, which should contribute to a transformation of the sectoral structure of the economy. Diversification of the economy is seen by the government as one of the top priorities.

As was shown, 2003 may really become some sort of breaking point. On the back of expected overall growth of investment, investment activity is likely to pick up in the non-energy sector as well as money remains cheaper as never before. The most recent government medium term strategy proposes specific measures, which should contribute to more diversified growth: thus there is a good combination of natural factors and government policies.

In the new strategy drafted in early 2003 the government admits to the following limitations on business growth in Russia:

1 **Too frequent interference by the state.** The reallocation of resources, administrative barriers, excessive tax burden and the direct production of market goods and services.

2 **Failure of existing institutional infrastructure to meet business needs.** The fault of incomplete reform of the judiciary and law enforcement bodies.

3 The Russian economy is closed off to foreign trade. Excessive customs and currency regulations.

4 **The mechanism for energy pricing is still inadequate.** The energy/output ratio in Russia is still high compared with other countries and housing is of poor quality.

5 Poor-quality social services as a result of low public sector wages. Hinders human capital development.

6 Excessive dependence of the economy on oil and gas. Threat to stable development.

To solve the above problems in the coming few years the government will concentrate on:

1 Administrative reform: more active de-bureacratization is the main objective.

2 Reducing the share of resources reallocated by the government or with its participation: more aggressive structural reforms.

3 Improving the way in which legal institutions meet demand from business: accomplishing legal reform, strengthening market institutions.

4 Supporting new sectors: stimulate growth in the high-tech sector.

5 Establishing a favorable environment for export diversification and stimulate growth in the non-energy sector: stimulate capital flow from the raw materials sector to the high-tech sector (tax breaks in high-tech sector, intellectual property rights, possibly increasing taxation in the raw materials sector).

6 Increasing transparency of the economy and companies.

7 Developing an energy strategy: liberalize energy prices, stimulate energy saving, increase production efficiency.

8 Increasing the effectiveness of social services.

In addition the government will continue tax reform. The tax reform plan includes abolishing the sales tax as of January 1, 2004, which will hit the regions as the levy brings in around 3% of their budget revenues. There are plans to compensate this by introducing a "new system of property tax", which could mean either increasing property tax or improving tax collection. In 2004, the government is to increase the income tax privilege on the acquisition and construction of residential space. The government will also introduce an investment premium mechanism. This will allow companies to claim 25% of the value of equipment with a service life of over five years against income, which will compensate for the abolition of the investment privilege in 2002. The government also plans to reduce the unified social tax rates later on. The expected decrease in social tax raises the question of reforming the social funds (the pension, social insurance and medical insurance funds) financed by this tax. The government does not want to decrease the average tax burden on oil companies and will actually increase mining taxes. This will increase the relative attractiveness of the non-oil sector and encourage investment in other sectors.

8. Banking sector restructuring and growth

But whanne that schal come that is parfit, that thing that is of parti schal be auoidid "But when that which is perfect is come, then that which is in part shall be done away" 1 Corinthians 13:10, John Wyclif, 14th century

Russia's international reserves reached nearly $65 bln as of mid 2003, up $17 bln from the start of the year. This has already surpassed the increase for the whole of 2001 ($6.6 bln), 2002 ($13.3 bln) and a record high 2000 ($15.4 bln).

Growing reserves and rapid money supply growth not only stimulate economic growth but contribute significantly to increasing monetization of the economy and capitalization of the banking system. This happens because the large foreign currency purchases by the monetary authorities cause the money supply to increase. As Russia's M2 to GDP ratio is still low (around 20%), this growth is rapid and has even accelerated in 2003.

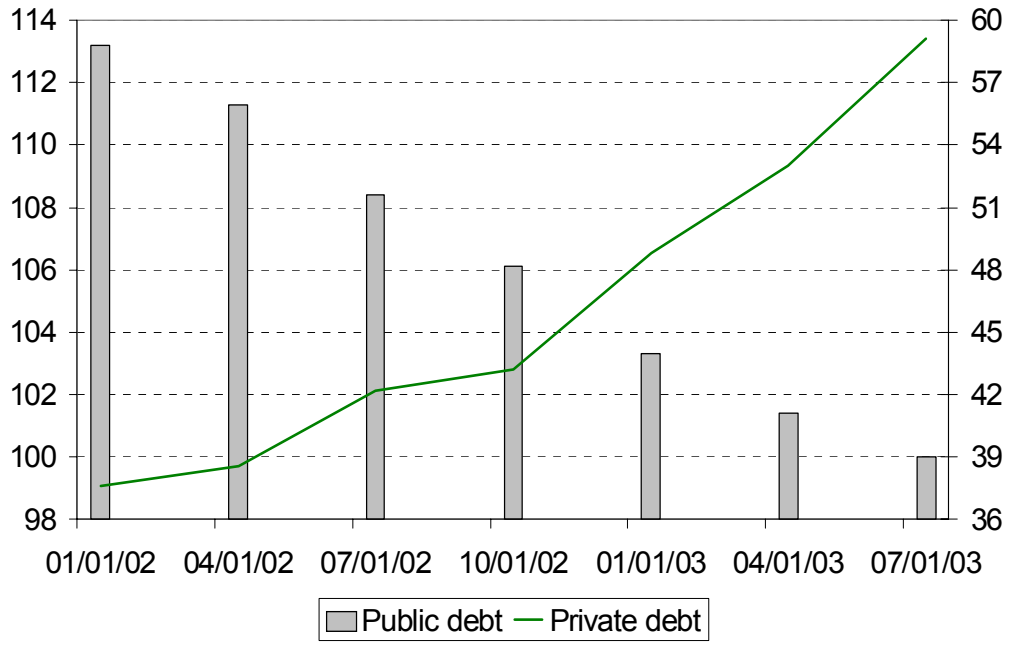
The problem of low monetization in Russia stems from high inflation in the early 1990s and continuous capital flight. In the 1990s, capital flight was one of the major sources of macroeconomic instability and attempts in recent years by the authorities to stem the flow administratively have, unsurprisingly, failed.

However, the situation changed considerably in 2002 and early 2003. According to the Central Bank the Russian economy recorded net capital inflow in the first half of 2003. This was largely due to increased foreign borrowings by Russian banks and the non-financial sector. Also, Russia's improved business climate until the YUKOS affair was attracting more foreign investment, some of which can be treated as repatriated capital.

Besides capital outflows, the authorities are also concerned about capital inflows, of which private foreign debt is undoubtedly one of the riskiest types. But this problem should not be overestimated. According to the Central Bank's deputy chairman, the major threats to the economy are accelerating real ruble appreciation and potential problems with the balance of payments.

As seen from the chart 15 private foreign debt was growing on the back of decreasing public debt, so that the country's total foreign debt remained relatively unchanged. At the same time one should admit that at least part of foreign borrowing will be allocated to productive capacities which will increase productivity and the efficiency of produciton. Borrowing internationally is the only way for big Russian companies to raise funds: a lack of liquidity in the banking system and its structure remain one of the major obstacles for sustainability of growth and economic restructuring.

Chart 15: Private debt grows on the back of decreasing sovereign debt



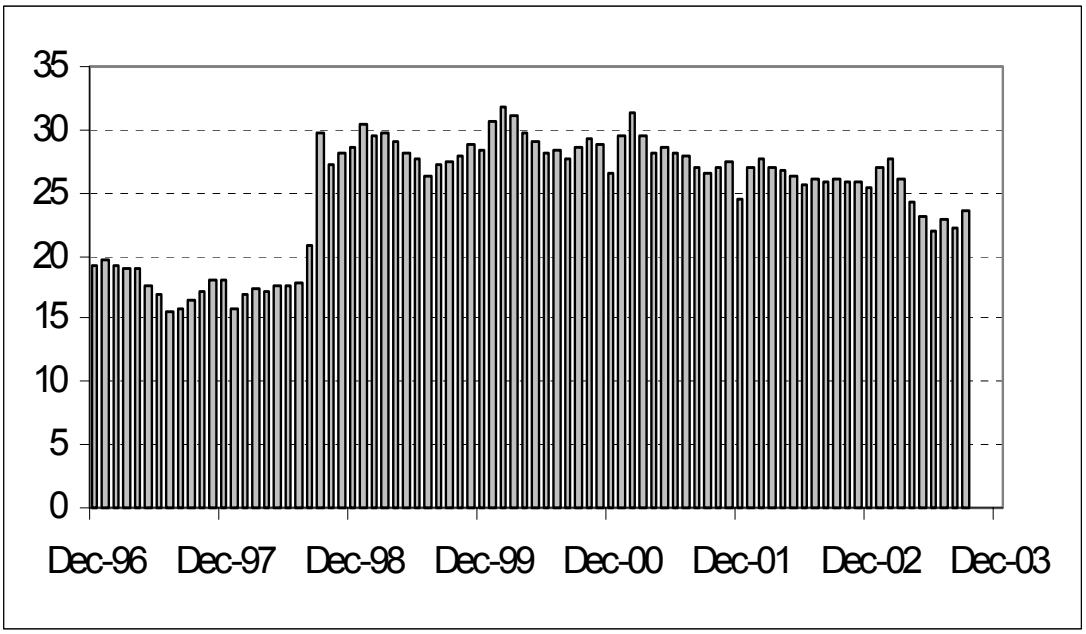
Source: Ministry of Finance RF

At present, the Central bank lacks the instruments to limit foreign capital inflows and its sterilization policies are quite weak. Therefore, as was the case with capital outflows, the government and monetary authorities want to introduce more administrative restrictions on capital inflows. The new "Law on Foreign Currency Regulation and Control", which has passed the first reading in the Duma, should provide the legislative groundwork needed to limit foreign exchange inflows via additional indirect taxation. However, while both outflows and inflows are obviously a problem for the Central Bank, administrative methods may again not be the right way to solve the issue.

In reality, it is impossible to ensure the efficient administrative regulation of capital inflows. A sound macroeconomic policy and stronger market institutions can do this much more effectively, as large amounts of speculative money will not flow in if the necessary instruments are not there (as was the case on the GKO market in 1996-98). Moreover, in Russia today, using foreign exchange inflows to build up reserves seems the only macroeconomically safe way to increase the liquidity of the banking system, monetization of the economy and accumulate capital. In this regard, administrative restrictions aimed at limiting capital inflows may restrict economic growth.

The threat to stability of the balance of payments also seems overestimated. As the decline in public foreign debt offsets the growth in private foreign debt, the overall figure for the country remains stable. Besides, the money that comes into Russia is more or less "long", making the situation on the currency market predictable. All in all, at this stage we consider foreign debt growth to be a positive, as those who borrow do so to increase production. Moreover, given Russia's underdeveloped banking sector and small financial market, external borrowing seems the only way for major domestic companies to raise funds. What is also important, increased foreign borrowing, economic growth and gradual long-term ruble appreciation in the post-crisis period have contributed to the gradual de-dollarization of the economy: the proportion of deposits in foreign currency has been falling (see chart 16).

Chart 16: The share of dollar deposits is falling



Source: Goskomstat RF, Central Bank of Russia

Due to low liquidity within the banking system, Sberbank and Vneshtorgbank alone are able to extend large loans to the corporate sector. This forces major Russian companies to borrow abroad. Preceding mid 2002, lending to the private sector was growing faster than banking assets or monetization of the economy, i.e. private sector lending as a percentage of assets was increasing. Since mid 2002, the ratio has stabilized at around 50% and is unlikely to grow as before.

As the balance of payments shows, the corporate sector borrowed around $12 bln on the global market in 2002 and, as mentioned above, this borrowing continued in early 2003. Together with high oil prices, which have kept the monthly trade surplus at around $5 bln, this puts pressure on the ruble. Nevertheless, in early 2003, euro appreciation against the dollar caused the real effective ruble exchange rate to appreciate slightly (2.6%), despite slight y-o-y depreciation. A relatively stable ruble therefore makes foreign borrowing quite attractive.

Smaller companies that are unable to borrow on global markets issue domestic corporate bonds, which allow them to attract capital from small creditors. Table 5 provides a fair overview of Russia's banking sector, despite containing only the top 15 banks.

Table 5: Assets of the largest banks

		01.07.03		01.01.03	
		Assets, $ mln	Assets, % of total	Assets, $ mln	Assets, % of total
1	Sberbank	42,2	29,4	35,1	29,7
2	Vneshtorgbank	6,8	4,8	6,0	5,1
3	Gazprombank	5,8	4,0	4,7	4,0
4	Alfa-bank	5,6	3,9	5,0	4,2
5	International Industrial Bank	4,2	2,9	3,8	3,2
6	Bank of Moscow	3,6	2,5	2,9	2,5
7	MDM-bank	3,1	2,2	2,8	2,4
8	Rosbank	2,6	1,8	2,1	1,8
9	Moscow International Bank	2,5	1,7	2,4	2,0
10	Uralsib	2,1	1,4	1,4	1,2
	Top 10	78,5	54,7	66,2	56,1
11	Promstroybank	1,9	1,4	1,5	1,3
12	Raiffeisen	1,8	1,2	1,4	1,2
13	Citibank	1,7	1,2	1,9	1,6
14	Menatep (St. Petersburg)	1,5	1,0	1,3	1,1
15	Petrocommerce	1,2	0,9	1,0	0,8
	Top 15	86,6	60,3	73,3	62,1
	Total	143,6	100,0	118,0	100,0

Source: Central Bank of Russia, Expert

As table 5 shows, the top 15 banks control over 60% of total assets, while the others (over 1,300) control the remaining 40%. Also, the market share of the top 10 or 15 banks grew over 2002, a trend that is likely to continue. Consolidation in the sector looks inevitable, although it will probably take place gradually as there is no clear restructuring plan yet. The two state-controlled banks, which have certain privileges, clearly dominate the market and to some extent distort it. Until the government decides how to restructure them, they will continue to affect the money markets more than the other banks.

As well as remaining a major government creditor, the table shows that Sberbank is the only bank that can extend large loans to major companies such as YUKOS, Gazprom and LUKoil, which require amounts of $0.5 bln or more. However, for very large sums, companies need to turn to global markets. Reforming the financial system should be also considered as a key element of the government's policy of economic diversification in order to secure high growth rates in the long run.

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