



**Tauno Tiusanen**

**DEVELOPMENT OF THE RUSSIAN ROUBLE -  
THE CRISIS OF 1998 AND ITS AFTERMATH**



LAPPEENRANTA  
UNIVERSITY OF TECHNOLOGY



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**Northern Dimension Research Centre**  
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## Foreword

The Northern Dimension Research Centre (NORDI) is a research institute run by Lappeenranta University of Technology (LUT). NORDI was established in the spring of 2003 in order to co-ordinate research into Russia.

NORDI's mission is to conduct research into Russia and issues related to Russia's relations with the EU with the aim of providing up-to-date information on different fields of technology and economics. NORDI's core research areas are Russian business and economy, energy and environment, the forest cluster, the ICT sector, as well as logistics and transport infrastructure. The most outstanding characteristic of NORDI's research activities is the way in which it integrates technology and economics.

LUT has a long tradition in making research and educating students in the field of communist and post-communist economies. From the point of view of these studies, LUT is ideally located in the Eastern part of Finland near the border between EU and Russia.

This volume focuses on the development of the Russian rouble after the rouble crisis in 1998. The study includes analysis of economic growth and economic stability in Russia as well as development of living standard in transitional economies and problems of measuring welfare.

I want to express my gratitude to the EU's Interreg IIIA programme and the cities of Lappeenranta, Imatra and Joutseno for their financial support towards NORDI. I also give my sincere thanks to Mrs Riitta Salminen from the Department of Industrial Engineering and Management in LUT, who has edited and finalised the book.

Lappeenranta, December 2003

Professor, Ph.D. Tauno Tiusanen  
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## 1. Introduction

The majority of European transitional economies are relatively small with rather limited resource base. In this respect, Russia is a remarkable exception: it has rather high “autarky endowment” which means that her natural riches and big population allow relative isolation from the outside world. However, also in Russian case it is economically advantageous to participate in international division of labour in order to profit from technology development.

In the communist period, the Soviet Union was relatively isolated from the global economy. The communist trading bloc, The Council for Mutual Economic Assistance (CMEA), which was established in the late 1940s, was a political scheme. Stalin saw the CMEA system as the means to create a planned socialist economy on a grand scale in which country-wise specialization rules were set to eliminate duplication. Foreign trade in every planned economy was a state monopoly, which carried out bilateral exchange between the members of the CMEA. In this trading system, production quotas were fixed in beforehand, in bilateral trade protocols. Not surprisingly, this trading system had increasingly adverse implication for product quality. Foreign trade price patterns were “borrowed” from the world market, which meant that values within CMEA did not necessarily reflect local scarcities: relative prices in CMEA framework were badly distorted.

In the communist era, trade between centrally planned economies and capitalist countries took place to a certain limited extent. CMEA countries sold their goods in the East-West trade mainly with low price (naturally, primary products, like oil, had a world market price-tag). This trade had a limited scope only.

Therefore, systemic change in the East caused a strong shock in the external economy. The CMEA system with delivery quotas collapsed with communism. The former system of state monopoly of foreign trade with its protectionist character withered away alongside with the demise of the planned system. Obviously, the reorientation of the external economy was a big part of the transition shock, which caused a deep recession in all transitional economies (TEs) in the early period of systemic change. Suddenly, the rather secure market of the CMEA bloc (which was not a “real” market) disappeared as did state monopolies of foreign trade. TEs had to find niches in the free global market in which the client is the king.

This part of transition – restructuring economies on the basis of external signals – has been far from easy. In the present-day global economy, traditional means of protection (customs tariffs, import quotas) are in decline. Using them may cause retaliation from trading partners.

There is one method of protection principally open to emerging markets: it is called “exchange rate protection”. In the TE-region, it is assumed that after price and trade liberalization, relative price ratios approach world levels rather rapidly. In this context, the invisible hand of the market is supposed to do a perfect job.

This scenery has also a social angle. In the early period of transition, it was natural that there was plenty of demand for Western consumer goods, which had not been available in the communist era and were qualitatively superior in comparison to local alternatives. This shift in demand caused difficulties in many firms in TEs, which started making workers redundant. Thus, there was an obvious danger in the early period of transition that local governments were reluctant to accept the economic contraction needed to carry out restructuring. Economic slump was fought via money expansion. This method caused in many TEs serious stagflation (a combination of recession and high price hikes). Therefore, stabilization has become a priority topic in transitional economies in the second half of the 1990s.

In very general terms it can be said that all TEs have used undervaluation of currency as a weapon against the original shock of transition, which in other words is exchange rate (ER) protectionism. This term must be explained in detail.

In the communist era, ERs in every centrally planned economy were fixed basically forever. The official ER in every Eastern bloc country became totally alienated from the economic reality. Thus, various exchange rates came into being, the black market one among others. The official ER and the black market one deviated from each others strongly. Under those circumstances, it was self-evident that communist currencies were non-convertible.

In the liberal scheme of transition, TE currencies started to become convertible. In this context, it was essential to estimate what is the external value of each TE currency. In the early period of transition it soon became clear that TEs needed official exchange rates, which give price competitiveness to “newcomers” (TEs) in the global market. With ER undervaluation, TEs have so to speak exercised exchange rate protectionism. It is assumed that this protection is of temporary nature only: when time passes by, domestic and international competition will bring TE exchange rates to “equilibrium” levels.

Exchange rate protectionism can be observed in emerging markets, TEs included. Living standard differentials in the global economy are tightly linked with productivity development. The higher the productivity, the higher is the living standard measured in terms of per capita income. Developing countries have the tendency to improve their competitive position in the global economy with undervaluation of currency exchange rate: low level of ER gives price competitiveness to exportables and makes importables expensive. Thus, with undervaluation of ER, balance of payments on current account (CA) can be kept in relative equilibrium.

One of the most serious topics in the discussion on global economy is the gulf between rich and poor nations. In this discussion on global economy, no universally accepted concept measuring living standard differentials have come into being.

The crude way to make such comparisons is to take figures of gross domestic product (GDP) per head in terms of the national currency and convert them into dollars or euros at the going ER. The result of this procedure is to grossly exaggerate the differences in real income between rich and poor countries. This standard method is still widely used also in research involving TEs. It neglects the fact that price levels in various countries differ considerably from each others.

Thus, international living-standard comparisons of real income presently contain purchasing power parity adjustment (PPP) – that rate of exchange between currencies, which gives equal purchasing power over commodities. In principle, PPPs can be calculated for every good and service, as well as an average PPP for the economy as a whole.

It is easy to calculate a PPP for Big Macs, for example. The hamburger made by McDonald's looks, tastes and really is the same everywhere in the world. However, the price of this homogenous item is not the same in every corner of the globe. The price of Big Mac reflects the local purchasing power: a higher price is demanded in a rich country than in a poor one.

Let us assume that you can buy a Big Mac in Frankfurt for € 2, and the same product for € 1 in Budapest. The official exchange rate is about € 1 = HUF (Hungarian Forint) 250. This means that you pay HUF 500 (€ 2) for Big Mac in Frankfurt or double price in comparison to Budapest. In the light of this simple example involving a very standardized product, there is a clear difference between the current exchange rate and the PPP adjusted one (factor 2).

Unfortunately, it is not necessarily easy to compare and evaluate the quality and value standards of all food and clothing products, vehicles, housing, transport services, health care

etc. in the same Big Mac manner. However, several organizations, including World Bank, publish annual PPP adjusted GDP per capita figures, which are presently widely used for international comparisons of real living standard. Obviously, all these PPP estimates are based on “consumer baskets” which ought to reflect average consumption items and their values. PPP adjusted figures indicate that there is still a gulf between rich and poor countries in the world, but this gulf is not as deep as in the crude statistics (without PPP adjustments) show.

The method of using the crude method presupposes that markets are perfect. If in a country A prices are higher than in a country B, goods arbitrage takes care of the problem: exports from B to A will intensify and even out price differentials. Thus, PPP and official ER will soon be the same. According to this theory, official exchange rates have the tendency to be in equilibrium reflecting purchasing power correctly.

This theory, however, is obviously flawed, being designed for a simple world of Big Mac-like standardized products, with competitive prices undistorted by the regulation of commerce by government and market power of internationally active corporations. Unfortunately, markets are never perfect.

It was assumed above that there is a positive correlation between wealth and productivity: the more efficient (productive) the nation is, the higher is the income per head. However, the real world is more complicated than the ideal case of perfect competition, in which international division of labour is affecting all branches equally.

In practice, services are traded less than goods. It is commonly assumed that international productivity differences are less pronounced in service sectors than in production industries. A doctor, a teacher or a lawyer in a low-income country will perform something relatively close to the level of service in a high-income country than a worker in manufacturing or catering. Possibly these services are paid relatively meagrely, since service sector wages there are held down by the low income level prevailing in the industries producing traded goods. In a rich country, train tickets, haircuts and restaurant meals become relative expensive to TV-sets, washing-machines and cars because they present much less opportunity for raising productivity.

Price indices (consumer price indices) reflect general price level, which consists of the prices of both traded and nontraded goods. Obviously, free trade with arbitrage will equalize the price of traded goods on the long run, but the general price index (expressed in a common currency, e.g., in dollar or euro) may still tend to be higher in a more developed country. As a

result, relative GDP per capita in emerging markets may be understated by factor two or three when measured using official exchange rates, rather than PPP-based measures. At the same time, there are national economies in the globe, in which GDP per capita figures measured using official ER are overstated (e.g. Switzerland, Norway). These countries normally have a special source of wealth as a background factor (high oil production per capita in Norway, tradition in profitable banking in Switzerland, etc.)

In the post-communist era, there has been a tendency that exchange rates in transitional economies show clear undervaluation, which helps to balance export income with import expenditure. The decisive indicator in this respect is the balance of payments on current account (CA). Undervaluation of a currency is also called ER protectionism: export prices are made competitive and import prices expensive. Obviously, TEs have an urgent need to use this method to keep CA in relative equilibrium.

One way measuring the relative under- or overvaluation of a currency is to compare GDP figures per capita (calculated in dollars or euros) with those same figures PPP adjusted. In TEs, PPP adjusted GDP figures have always been higher than the original ones, the “raw figures” indicating that price level in TE-region is relatively low: official exchange rates do not reflect local prices perfectly well. Thus, TEs have exchange rate deviations hinting to undervaluation of currencies. This deviation is calculated by dividing PPP adjusted GDP figures by the original ones: exchange rate deviation index (ERDI) measures the level of ER bias.

The basic idea of PPP adjustment is to take an average “basket” of goods and services and measure what the content of this basket costs in different countries. Obviously, the physical content of this consumer basket is supposed to be the same in every country involved in international comparisons.

It is not the aim of this study to discuss technical details of PPP measuring. Statistical data – PPP adjusted GDP figures and ERDI values – used here originate from WIIW (The Vienna Institute for International Economic Studies), which is the best possible source covering TE-region’s economic development. This Institute uses in many contexts ECU values. It is European Currency Unit, or the “basket” currency of EU in the pre-euro period. ECU/euro values give time-series, which offer an alternative of USD comparisons.

Russia is a special case among TEs, firstly because it is with 145 million inhabitants far the most populous and secondly because it has far the richest resource base within TE-region.

Therefore, it is less depended on the outside world than her TE-neighbours in Central Eastern Europe and in the Baltic region.

In Estonia, the smallest TE, import of goods is about 70% of the local GDP. The equivalent figure in transitional Russia is clearly less than 20%. All other TEs are somewhere between these two extremes.

The point here is that Russia is relatively self-sufficient and rather thinly integrated into the global economy in the turn of the century. Therefore, Russia has less competition (from external sources) than other TEs. Hence, it can be assumed that market distortions and biases are higher in Russia than in smaller post-communist economies. At the same time, world market of energy bearers, especially oil, has large influence on Russian economy. Oil price fluctuations affect Russian economy in a rather decisive manner because oil is the most important export item of Russia.

This short report concentrates on post-Soviet development in the Russian economy, which suffered a very severe currency crisis in August 1998. An attempt is made to clarify reasons of this event and describe the aftermath of it. Exchange rate deviation index (ERDI), PPP-adjustment, and current account (CA) are necessary tools in explaining the rouble development in the post-Soviet era.

## 2. Some main features of the early transition

The first five post-Soviet years in the Russian economy can be called the era of stagflation. The overall economic activity measured by gross domestic product (GDP) declined by some 40%. This slump was even deeper than the Great Depression in the USA in the 1930s. Amid economic decline there was a very strong inflationary wave.

Presumably the output decline gives clear evidence of economic deterioration. However, in post-Soviet studies some features of the previous system must be taken into consideration including an overproduction of many input goods, a prevalence of worthless output, the non-existence of some claimed output, and waste of output that was produced. Several Western studies maintain that much of Soviet industry actually destroyed value rather than created it. This value-destroying process takes place when the value of a final product on the world market is less than the value of the raw material that it uses up in the production. Given the very uneconomic nature of this structure with value-destroying activities, systemic change was basically reasonable.

In the very early period of the systemic change, public sector subsidies to industry were cut dramatically which forced many firms to cut production. Facing a steep slump, the officials started pumping money into the economy accelerating the inflation. Solid investment decisions became hard to make since accurate forecasting of economic conditions was virtually impossible. At the same time, a golden era of capital flight was established.

In the early period of systematic change, Russia greatly liberalized the system of foreign trade and simultaneously introduced trade in foreign currencies at market-determinate rates. If the rouble convertibility at a fixed exchange rate had been established, there would have been pressure not to inflate the domestic currency more quickly than in the rest of the world. It is of utmost importance that this option of anti-inflationary pressure via fixing the rouble ER was not used in the early years of Russian transition.

The rouble ER declined dramatically since the onset of the reform, from RUB 22 to USD 1 in 1991 to an average of about RUB 2.200 to USD 1 in 1994. In April 1995 the rouble broke through at 5.000 RUB to one dollar. After that, Russia started experimenting with the exchange rate system of “managed floating”. RUB was allowed to fluctuate within a preterminated band. This policy was modified in the second half of 1996, with the adoption of a “crawling peg”, in which rouble was devalued permanently consistent with the expected

inflation rate. This system was applied also in 1997. Abating inflation and the end of economic decline were characteristic features of the Russian development in that year. The difficult period of post-Soviet stagflation seemed to be over.

### **2.1. The new currency regime and the rouble crisis of 1998**

The first years of Russian transition were extremely difficult: in the early 1990s, the Russian economy suffered from stagflation (a combination of economic decline and strong inflation). In the mid-1990s, Russia achieved a certain degree of macroeconomic stability, but no end of recession.

In 1997, it was obviously assumed that the relative stability allowed the use of semi-fixed exchange rate policy, and thus, a managed floating regime was introduced at the beginning of 1998. In this system the central rate of rouble was fixed at RUB 6.2 = USD 1. Fluctuations of 15% were permitted in that system ( $\pm 15\%$  around the fixed central rate) to allow market flexibility.

This system of managed floating collapsed in August 1998. Obviously, it is important to estimate whether a similar currency crisis can hit Russian economy in the foreseeable future.

In the rouble crisis 1998 there were some special factors at work. In 1997–1998 falling prices for Russia's major exportable (oil) and growing investor doubts about all emerging markets in the wake of the Asian crisis combined delivered a powerful external shock to the Russian economy. In the internal economy, budget deficits were virtually out of control making up roughly 7–8% of the local GDP. The reckless borrowing of the public sector caused interest rates to skyrocket: treasury bills (government bonds) had a real interest rate of 40–50%. As the maximum devaluation risk under the rules of the managed floating was only 15%, the risk taken by foreign investors looked pretty moderate.

The 1998 collapse of the rouble exchange rate can be analysed in the light of some main macro-economic trends, which helps to understand the nature of the “bubble”. The chosen indicators cover the pre-crisis period (from 1992 – the first post-Soviet year – to 1997).

**Table 1. Main economic indicators (annual change, %)**

	1992	1993	1994	1995	1996	1997
GDP	-14,5	-8,7	-12,7	-4,1	-3,5	0,8
Inflation	1.527	874	307	198	48	15
Gross fixed investment	-40	-12	-24	-10	-18	-5
Labour productivity in industry	-17,6	-8,8	-14,4	5,4	2,9	8,6

Source: WIIW.

In the period under review, Russian economy declined by some 40%, while consumer prices increased by factor 200. Decline in investment in fixed assets was even deeper than in overall demand (GDP). Labour productivity (in industry) decreased rapidly in 1992–1994, but in this sphere a recovery started in 1995.

Amid these staglatory tendencies, average monthly gross wages measured in hard currency (ECU, European currency unit) showed an amazing boom. This development was entirely out of those lines described in the previous table.

**Table 2. Average monthly gross wages, in ECU (calculated at official ER)**

	1992	1993	1994	1995	1996	1997
	18	53	93	90	119	145
Growth, p.a. %		194	75	-3	32	22

Source: WIIW.

These ECU-based earning figures show that the average monthly pay increased between 1992 and 1997 no less than eight-fold in a period, during which labour productivity clearly declined. It can be concluded that in the period under review the real ER of rouble appreciated extremely strongly, which means that Russian strong inflation was not reflected in nominal depreciation of the extremal value (ER) of rouble.

In 1995 inflation was still very strong (200% a year), but this rapid increase of the internal price level was only to a small degree compensated for by the nominal depreciation of the ER. Thus, the real effective ER appreciated by almost 70% in 1995. After that, the real rouble ER remained at a rather high level before the 1998 crisis.

In the hindsight it is easy to maintain that the central rate in the managed floating ER regime was set on a too “strong” level (new roubles 6,2 – the equivalent of 6.200 old roubles per dollar). The new semi-fixed ER with  $\pm 15\%$  fluctuation boundaries was launched January 1<sup>st</sup>,

1998. The system collapsed in August of that year. The market lost confidence in the correctness of the central rate and the RCB (Russian Central Bank) was unable to defend the set 15% depreciation limit that was in absolute terms about RUB 7 per dollar. Panic took over on the exchange market bringing RUB rate in a couple of months to 20 to a dollar, or about three times more than the original central rate of RUB 6,2 to a dollar.

In fixed and semi-fixed exchange rate regimes officials actually commit to maintain relative stability: they tie their hands not to inflate the domestic currency more quickly than world inflation. The fixed (or semi-fixed) ER serves as a nominal anchor for the domestic price level by restricting officials' ability to run inflationary policy. The main aim is to "stabilize expectations": monetary policy makers attempt to convince people that they are committed to a non-inflationary policy.

This background thinking was obvious in the RUB reform in January 1998. New banknotes with less zeros (one new RUB = thousand old ones) symbolized the end of the inflationary period. The new semi-fixed ER of about RUB 6–7 per dollar was estimated to be correct from the market point of view.

In the ER system of 1998, the officials actually promised that they are willing to give one dollar in exchange for RUB 6, or in the worst case RUB 7. In the managed floating (with 15% borderlines) the government ensured that the "market value" of RUB 7 is not less than USD 1. In every system of fixed and semi-fixed ERs, this sort of promise must be kept; otherwise there will be a "run" on the market, as people start doubting their chances to convert RUB 7 for a dollar. If there is a feeling that the right relationship is RUB 10, 15 or 20 to a dollar, the "run" continues: people start to sell their roubles in increasing quantities.

In this situation, monetary authorities can interfere by feeding the market with new dollars, in order to hinder the breaking of the set limit (RUB 7 or 15% down from the central rate). In this context it is important to realize that Russian Central Bank (RCB) can print roubles, but not dollars. RCB can defend the ER borderline as long as it has hard currency reserve for intervention. If the reserve is exhausted – for one reason or the other – ER defence must be discontinued. If the market still demands more dollars, its price (ER) will increase obviously sooner or later breaking the fixed borderline.

The rouble crisis of August 1998 took place because RCB was not able to defend the set borderline with massive interventions. The run against the domestic currency (RUB) was so

vigorous that it increased the price of dollar three-fold within couple of months. Similar currency crises took place in other countries in the 1990s.

After the strong depreciation of RUB's value (ER) in the autumn 1998, Russian officials did not set a new semi-fixed exchange rate (with certain borderlines for fluctuations). The solution was to move to a floating exchange rate.

Amid the rouble crisis of 1998, Russian government defaulted on its internal debt and gave notice of her need to restructure its external debt. In the year 2000, Russia and its London Club creditors (the association of private creditors) reached a deal offering Russia a combination of forgiveness and restructuring of Russia's debt.

In the second half of the 1990s, there was plenty of turbulence in international financial markets. A long and strong boom period in South-East Asia came to an end. Many countries of the region had disequilibria in their current accounts (CA). A series of devaluations took place in 1997–1998, not only in South-East Asia, but also in Latin America.

There is one oddity in the Russian RUB-crisis of 1998. Normally, currency devaluation is closely linked with a deficit in current account (CA). If a country cannot pay its import bill with her export earnings, a deficit in CA is a result. Considerable and long-lasting deficits cannot be financed forever. In that case, devaluation is normally a tool to restore relative equilibrium in the bookkeeping of the external economy. In the Russian case, CA has permanently been in surplus, even in the crisis year of 1998. This peculiar feature has a simple explanation: Russia's resource base is unusually rich, and thus, export of various commodities, especially energy bearers, guarantees a rather high level of export earnings. Under these circumstances, the capacity of export-oriented segments of the economy to benefit from the devaluation has proven limited.

In this context, it is easily forgotten that depreciation of RUB improves incentives for import-substituting activities: devaluation makes locally produced goods price-competitive in comparison to imported alternatives. This statement is especially true in activities, in which the production is based on local materials (with little import content). Thus, theoretically, for example, food-processing industry could profit considerably from the devaluation effect.

In the aftermath of the crisis there was a clear turnaround in the investment activity. Real investment started to grow at the first time in the transitional period in 1999 and the growth

accelerated remarkably in 2000. It can realistically be assumed that one important background factor in this new tendency was the depreciation of the real RUB value.

With the revival of the investment activity, a new term appeared in the economic discussion of Russia: the Dutch disease. In the period of the first oil crisis, in the early 1970s, the Netherlands started producing natural gas (from off-shore sources). This new export item combined with high energy prices improved Dutch CA considerably and increased the exchange rate of the Dutch currency (gulden). The relative overvaluation of gulden was said to harm traditional Dutch export segments by making their prices relatively high (calculated in other currencies). This harmful effect of the “strong” currency to the overall economy has ever since been called the “Dutch disease”. It is often maintained that Norway (with high oil earnings) suffers from the “Dutch disease”.

In 2000, oil price was on an unusually high level, which affected Russian exports remarkably: export earnings increased strongly. At the same time, CA surplus increased. Therefore, it is only natural that Russia was in danger (in 2000) to catch the Dutch disease. The real exchange rate of RUB appreciated strongly in 2000–2001 (see chapter 4).

The depreciation of RUB in 1998–1999 was a decisive turning point in the Russian economy in transition. The new external value of rouble gave a clear boost for economic growth. Post-crisis development is analysed in the next chapter.

### 3. Development trends in the post-crisis (1998) period

#### 3.1. Economic growth

As pointed out in the previous chapter, the first years of Russian transition were characterized by declining economic volume (GDP). In 1997, GDP grew by 0,9% signalling the end of a long and deep recession. However, the rouble crisis of 1998 played havoc to positive expectations. The immediate aftermath of the currency crunch turned around some embryonic positive trends in Russian economy.

**Table 3. Main economic indicators, 1997–2003  
(real growth p.a. in per centages)**

	1997	1998	1999	2000	2001	2002
GDP	0,9	-4,9	5,4	9,0	5,1	4,3
Gross fixed capital formation	-5,0	-12,0	5,3	17,7	8,7	2,6
Productivity in industry	8,6	0,8	11,8	10,1	4,6	
Retail trade turnover	4,7	-3,5	-6,3	8,8	10,6	9,1
Export	8,3	-13,3	6,5	60,5	-0,2	-0,2
Import	18,2	-18,4	-28,5	30,0	23,6	6,7

Source: WIIW.

In the year of the rouble crisis (1998), GDP declined in real terms almost by 5%. Gross fixed capital formation (investment) continued its decreasing trend with a real annual drop of 12%. Labour productivity in manufacturing industry, which started growing in 1995, had a minor improvement (+0,8%). Retail trade diminished by 3,5% in real terms. Exports of goods dropped by 13,3%. Import suffered a reduction of almost 20%.

A clear turnaround took place in 1999, when GDP grew in real terms by 5,4%. It is of utmost importance that in 1999 the permanent decline of investment in physical capital stopped: in this sphere an increase of 5,3% was recorded, the first real growth figure in the transitional period. Productivity improvement was with almost 12% remarkable. Retail trade (-6,3%) and import (-28,5%) suffered clear setbacks, obviously as a result of the strong devaluation of the rouble.

A real economic miracle took place in 2000: Russian GDP expanded by no less than 9% in real terms. The most important background factor of this unusually high growth rate can easily be found in the above table: export grew with phenomenal figure of over 60% amid global boom of oil prices. Also import grew considerably (by 30%) after two years of deep decline.

Investment growth of almost 18% in 2000 is also impressive. Productivity in 2000 increased over 10%, a second essential hike in a row. Retail trade recovered from the two-year slump showing a 9% increase in 2000.

One year later (2001), export value was virtually on the same high level of the previous year. Investment grew by almost 9% in 2001. Retail trade and import showed rapidly increasing tendency with 10,6% and 23,6% growth rates, respectively.

In 2002, GDP growth was 4,3%, while export again virtually stagnated. Investment activity growth decelerated strongly, but was still on the growth path (+2,6%). Retail trade increased still strongly by 9,1%. Import increase was relatively moderate (6,7%) which is higher than the overall GDP-growth in 2002.

The above table can be summarized as follows: there was a very fast recovery in the immediate aftermath of the devaluation crisis with a historical turnaround in the Russian investment scene. Real investment grew at the first time in 1999 and this growth accelerated strongly in 2000. Obviously, the new ER of rouble gave an entirely new basis for profitable activities in Russian “import-substituting” branches. The remarkable acceleration of economic growth in 2000 is closely linked with oil price hike on the world market: oil price increased roughly three-fold in 1999–2000 helping Russian export value to skyrocket by no less than 60%. Export value remained on a high level also in 2001–2002, because oil (and at the same time natural gas) price on the global market was rather expensive.

It is obvious that the described recovery of the post-crisis economy in Russia is closely linked with oil price development. Long-term sustainable economic growth presupposes high level of investment. In the period covered in the above table, investment showed vigorous growth in 2000.

However, investment in the Russian economy in transition has been on a very low level. In the meantime, the capital stock has qualitatively deteriorated, which can be observed in buildings and in the machine park. The latter is estimated to have an average age of over 30 years. This means that machines in Russian industry are badly outdated technologically and presently also physically. A lengthy renewal process is absolutely necessary.

Investment quota is the part of GDP, which is used for investment purposes (to construct new buildings and to acquire new machinery and equipment). In the communist era investment quota used to be on a permanently high level of 30–35% of GDP. In the Soviet era the quality,

i.e. technology level, of physical capital was not a decisive aspect of communist investment activity. The main target of economic planning was to extend the overall capital stock, which as such cannot guarantee optimal development of the society.

Investment quota in the post-Soviet Russia has experienced a considerable decline (measured as gross fixed capital formation, that is, investment in physical capital without changes in inventories). This can be illustrated by some simple figures.

**Table 4. Gross fixed capital formation (% of GDP)**

	1990	1995	1998	1999	2000	2001
	28,7	21,3	17,7	14,3	15,7	17,8

Source: WIIW

Russian investment quota in the early 21<sup>st</sup> century was on a very low level, less than 20% and roughly ten per cent lower than in 1990. The present level is obviously not high enough to move the Russian economy to West European development stage in the near future. Increasing investment quota and growing SME-sector is needed to overcome structural weaknesses of the Russian economy.

Investment dynamism in transitional economies of Central Eastern Europe has been much higher than in Russia. There are essential differences in this respect within the TE-group of countries.

**Table 5. Gross fixed capital formation (Index 1990 = 100)**

	2002
Czech Republic	132,3
Hungary	157,6
Poland	197,6
Slovak Republic	101,9
Slovenia	186,6
Bulgaria	108,9
Romania	123,2
Russia	29,2

Source: WIIW.

Country-wise differences in the above table are striking. Investment in physical capital has almost doubled in Poland during the transitional period. Slovenia is not far away from the Polish achievement. In Russia, investment has decreased by some 70% since 1990. Therefore,

the investment boom, which started in the aftermath of the 1998 crisis, ought to strengthen and to last for several years to come.

There are several structural weaknesses in the Russian economy. In the communist period, resources were wasted in massive scale. One of the important background factors in that waste was the irrational price system with clear incentive to cause high costs. In energy consumption there seems to be still plenty of space for rationalization in the post-Soviet Russia.

**Table 6. Use of oil per production unit - Oil intensity of GDP**

	<b>Barrels per \$ 1 million of GDP at PPP</b>	<b>Barrels per \$ 1 million of GDP at official ER</b>
Czech Republic	423	1.166
Hungary	425	1.136
Poland	438	1.024
Slovak Republic	391	1.209
Slovenia	599	1.111
Bulgaria	582	2.673
Romania	554	1.935
Russia	954	3.524
Austria	438	508
Germany	476	543
USA	730	730

Source: WIIW.

These somewhat odd figures tell us how many barrels of oil are needed in order to produce one million dollars worth of production, which is called the oil intensity of GDP. The first column delivers the oil intensity of GDP at purchasing power parity. The second one gives the same at official exchange rate. Obviously, the first column (with PPP adjustment) gives a more realistic comparison than the second one with ER calculations.

In the light of the first column figures, Russia uses roughly more than double amount of oil per every unit of production in comparison to other countries of the table (USA excluded). In average, one million dollars worth of GDP (PPP adjusted) can be produced with 480 barrels of oil (excluding Russia and USA).

The second column shows that the oil intensity of Russia is some seven times higher than in Austria. Transitional economies (TEs) in the table have clearly more disadvantageous figures than Western countries (Austria, Germany but in the second column also USA).

Both columns contain a very clear message: Russia could easily achieve remarkable welfare gains by investing in energy-saving methods and technologies. These investments would easily “pay themselves back” rapidly: saved amounts of oil could be exported to the global market with very low marginal costs.

### 3.2. Some aspects of economic stability

In the early period of transition, inflation was really very much out of control in Russia. In the pre-crisis period, there were some signs of abating price hikes. This tendency obviously encouraged Russian officials to establish the semi-fixed ER system (managed floating) in January 1998. Inflationary expectations were supposed to decline with the monetary reform (cutting three zeros of rouble notes or 1.000 old roubles equalling one new one). In the hindsight, this expectation was illusionary.

**Table 7. Consumer price inflation (change in % against preceding year)**

	1997	1998	1999	2000	2001	2002
	14,8	27,6	85,7	20,8	21,6	16,0

Source: WIIW.

Consumer price index (CPI) has always and everywhere the tendency to increase in a post-devaluation period. The system of managed floating of rouble exchange rate broke down in August-September 1998. Thus, devaluation effect did not affect the CPI strongly in 1998 yet. However, there was a steep acceleration of inflation in 1999, when CPI increased by some 86%.

Import has a rather limited importance in Russian economy with extensive resource base, and thus high autarky endowment. The share of import is only some 20% of Russian GDP. In the light of the low import dependency of Russian economy, the acceleration of inflation in 1999 looks excessive. It can be assumed that prices were increased in many cases, even if increased import prices did not affect costs. “Devaluation effect” in many price hikes was obviously more psychological than real.

CP-index increased rather strongly in 2000–2001 (in both years over 20%). The 2002 figure with 16% is higher than the pre-crisis equivalent (14,8% in 1997). Thus, price stability was still rather far away in the early years of the 21<sup>st</sup> century.

It is interesting to observe that relatively high inflation figures since 1998 have not hindered a positive turnaround in investment activity. Obviously a big part of this investment boom has taken place in extractive sector, especially in oil industry.

In the economic growth process, there is something, which is called current account constraint. In many emerging markets economic growth is linked with strong inflation, which hampers exports and favours imports.

In this process, export earnings cannot pay the import bill. The balance of payments on current account (CA) becomes strongly negative. Increasing deficits in CA cannot be financed by capital imports forever. In this context, it is said that the economy is “overheated”. Excess steam must be eliminated from the economic scene, often by devaluation. Economic growth may slow down or cease altogether. This is called a CA constraint of economic growth.

The Czech Republic experienced a classical crisis in 1997. This country applied a fixed ER system, during which serious disequilibria of CA developed. As a result, a devaluation crisis combined with a slump took place. Current account had a yearly deficit, which was roughly 8% of the local GDP.

Russian economy is not easily facing a similar situation because of her extensive resource base. It is noteworthy that Russian CA was not in the red ink even in the crisis year of 1998.

**Table 8. Current account in % of GDP**

	1996	1997	1998	1999	2000	2001	2002
	2,6	0,0	0,1	12,7	18,0	11,2	9,1

Source: WIIW.

In the three-year period, 1996–1998, Russian CA was in relative equilibrium, in 1997–1998 even exactly so. In the first post-crisis year, 1999, CA showed a healthy surplus of about 13% of GDP. A staggering 18% surplus can be found in the bookkeeping of the year 2000, when oil price went strongly up. Very healthy surpluses were also booked in 2001 CA (11%) and in 2002 (9%).

In the industrialized countries of the West it is an established habit to finance eventual deficits in the public sector bookkeeping by selling securities (treasury bills, government bonds) on

the market. Those individuals, enterprises or organizations, which have savings, can invest their surpluses – or parts of them – in these “instruments”.

This market economy rule was far from clear in Russian society of early transition. Obviously, many decision-makers thought that the state can print more money when there is a need to balance the public sector books. This “bank note financing” was used in the early 1990s to cover state deficits in Russia. The result was a strong inflationary wave described above. This topic is interesting for historians with socio-economic background.

In the second half of the 1990s, more and more attention was paid to the inflation problem. Budget deficits were not eliminated immediately but “bank-note financing” was limited.

**Table 9. Central government budget (Deficit ( - ) surplus ( + ), % of GDP)**

	1996	1997	1998	1999	2000	2001	2002
	-3,5	-3,8	-5,3	-1,1	1,4	2,9	2,1

Source: WIIW.

In the two-year period 1996–1997 there were deficits in the state budget of over 3% of GDP. This figure exceeded 5% in 1998 when the economy collapsed and the state defaulted the internal debt. After that it became necessary to create relative balance in state finances.

A remarkable turnaround took place also in this sphere of economic activity: the budget showed a surplus of 1,4% of GDP in 2000. Also in the next two years the budget had more revenue than expenditure.

This balancing act of the state bookkeeping was brought about by increasing oil income: energy bearers make up more than 50% of exports and these main exportables are taxed heavily. Thus, also in state finances an external factor, high world market price of oil, has lately been the most decisive factor.

In sum, the balancing act of the post-crisis Russia has been highly successful. This positive development is visible in overall living standard figures.

## 4. Living standard developments

### 4.1. Problems of measuring welfare

In the early period of Russian transition all indicators of economic development pointed to difficulties, except personal income figures measured in hard currency on the basis of official exchange rates. Thus, it became crystal clear that there was something wrong with the data of earnings converted into hard currency (euro or dollar). Official ER obviously did not reflect reality in a correct manner.

It is, therefore, absolutely essential that purchasing power parity corrections are taken into consideration when living standard measurements are done. Local price level is an important factor in assessing real material living conditions.

In emerging markets price level has the tendency to be lower than in the rich part of the world. Official exchange rates in TEs have in the whole transitional period been undervalued which means that ER does not correctly reflect local living costs. It is said that emerging markets exercise “exchange rate protectionism”: ER deviates from “equilibrium rate” which makes imports expensive (calculated in local money) and exports price-competitive.

Exchange rate deviation index (ERDI) is a tool with which relative under- and overvaluation of various currencies is measured. ERDI figures are derived from GDP calculations with a simple method: purchasing power parity (PPP) adjusted GDP figures per capita are divided by GDP per capita calculated at official exchange rate. In this study euro-based ERDI figures calculated by the WIIW are used to measure how rouble ER biases have developed in the transitional period.

This issue of ER bias can be explained via a theoretical example. Let us assume that the official ER is RUB 30 = € 1, but the PPP adjusted ER is RUB 10 = €. If under these circumstances a tourist from the euro-area visits Russia, he/she receives RUB 30 for every exchanged euro. This means in actual fact that this Western visitor receives “an undervaluation bonus” of RUB 20 per euro, because the PPP adjusted ER is ten RUB (not 30 RUB) per euro.

If a Russian visitor goes to the euro-area, he/she pays an “undervaluation penalty” of RUB 20 per euro: he/she pays according to official ER RUB 30 for every euro, even if the PPP adjusted rate presupposes an essentially cheaper price (RUB 10 per euro).

When these details are taken into consideration, it can be concluded that it is advantageous for Western tourists to visit Russia (in this theoretical example, ERDI value of 3 gives the advantage). At the same time, it is disadvantageous for Russian tourists to go to the West.

It is useful to bear in mind in this context that few Russians pay rent or mortgages, because the big bulk of the population inherited their flats and houses from the communist state. Housing costs in the West take a big part of an average family budget. Thus, there are essential differences in discretionary income (gross income minus necessities) in the TEs and the market economies of the West.

These simple points demonstrate that living standard comparisons between different societies are far from simple. No exact figures to measure all details of real life can be produced. Also PPP adjusted figures can only provide an incomplete picture of international living standard differentials.

As pointed out above, average gross wage increased rapidly in the pre-crisis years (measured in euro that is in “hard currency”), while there was a general decline in the overall economy (measured in GDP). Undoubtedly, the described situation was paradoxical.

Devaluation of a currency always lowers the income of local people calculated in a foreign currency. Therefore, it is natural that the average gross wage decreased in 1998 calculated in euros.

**Table 10. Average monthly gross wage**

	1997	1998	1999	2000	2001	2002
A: Euro (ER) Nominal	145	95	58	85	124	149
B: ERDI (euro based)	2,01	2,97	4,35	3,15	2,74	2,75
C: Euro (PPP adjusted) Real (A x B = C)	292	282	252	269	340	411

Source: WIIW.

The average monthly gross wage calculated in euro according to official exchange rate (A) declined by one-third in 1998 and even more than that in 1999. In this comparison, average wage collapsed nominally from € 145 a month in 1997 to a mere € 58 in 1999.

At the same time, however, ERDI value increased rapidly, from about 2 in 1997 to almost three in 1998 and further to about 4,4 in 1999. Thus, “real” monthly pay in euro with PPP adjustment had relatively modest drop amid RUB devaluations: figures marked in C column (nominal wage multiplied by ERDI) went down from € 292 in 1997 to € 252 in 1999 (a decline of some 14%). The equivalent figure (A x B) in 2001 was with € 340 already over the 1997 level. In 2002, the “real” wage was no less than € 411 or some 40% more than in the pre-crisis year of 1997. ERDI value was with 2,75 in 2002 much higher than in 1997 (2,01).

In the light of above figures, the real average monthly gross wage experienced an amazing recovery in 2000–2002. The real wage (C figure) in 2002 was about 63% higher than 1999.

The Russian living standard (GDP figures per capita with PPP adjustment) can be compared with four other TEs in the Baltic Sea region (Estonia, Latvia, Lithuania and Poland), as well as with Greece (the lowest living standard within EU) and the EU average (15 countries).

**Table 11. GDP per capita, PPP adjusted (euro-based)**

	<b>1999</b>	<b>2002</b>	<b>Growth (%) 1999-2002</b>
Russia	5.399	7.000	29,7
Estonia	8.203	10.380	26,5
Latvia	6.070	7.987	31,6
Lithuania	7.318	9.121	24,6
Poland	8.269	9.805	18,6
Greece	14.548	16.555	13,8
EU-average (15)	21.391	23.582	10,3

Source: WIIW.

The Russian economy grew by almost 30% between 1999 and 2002. Latvia, which like Russia is a former Soviet republic (as well as Estonia and Lithuania), had in the same period even higher growth (31,6%). Estonia (26,5%) and Lithuania (24,6%) show also strong economic growth, while Poland’s growth remained below 20% Greece and EU average (15 countries) show clearly more modest growth rates (13,8% and 10,3% respectively).

**Table 12. GDP per capita, PPP adjusted (euro-based)  
EU average (15) = 100**

	1999	2002
Russia	25	30
Estonia	38	44
Latvia	28	34
Lithuania	34	39
Poland	39	42
Greece	68	70
EU average (15)	100	100

Source: WIIW.

Between 1999 and 2002, Russia has been catching up with the EU-average increasing her figure from 25% to 30%. Thus, measured in GDP per capita, PPP adjusted, the living standard in EU (15 countries) was some 70% higher than in Russia, whose TE-neighbours in the Baltic Sea region are better off than Russia. All TEs in the table have been able to narrow the gap existing between Western Europe and the TE-region.

## 5. Post-crisis development of the rouble exchange rate

As mentioned above in the last pre-crisis year (1997) and in the year of the currency crunch, Russian CA was in complete equilibrium. In 1999, current account had a strong surplus of almost 13% (of GDP), which grew to no less than 18% in 2000. In average, CA has shown 10% surpluses in 2001–2002.

The main component of CA, the balance of (visible) trade, is permanently in surplus. Export development has high price sensitivity.

**Table 13. Export and import (billion euro)**

	1997	1998	1999	2000	2001	2002
Export	76,6	66,5	70,8	113,7	113,4	113,2
Growth (%) p.a.	8,3	- 13,3	6,5	60,5	- 0,2	- 0,2
Import	63,5	51,8	37,1	48,6	60,0	64,1
Growth (%) p.a.	18,2	- 18,4	- 28,5	31,0	23,6	6,7

Source: WIIW.

There are deep fluctuations in the export and import figures. In the crisis year, export performance suffered of low oil price, which brought overall value of export down by more than 13% in 1998. In the following year, export value recovered somewhat (+6,5%) and experienced a very strong boost by over 60% in 2000 when the world market price of oil increased strongly. According to the Economist Intelligence Unit (EIU), oil price (Brent crude) was 12,8 dollars per barrel in 1998, USD 17,9 in 1999 and USD 28,5/barrel in 2000. In the next two years, this decisive price remained on a rather high level, USD 24,5 in 2001 and USD 25,0 in 2002. The total value of Russian export was on the same level in 2000–2002.

The Russian import market experienced a severe blow in 1998 with a decline of almost 20% and in 1999 with an even more severe cut of about 30%. Amid the oil export boom on the export side, import recovered by over 30% in 2000 and by some 24% in 2001. In 2002 the total value of import was on the pre-crisis level of 1997.

Russian overall import figure of € 64 billion in 2002 is still amazingly low. In that same year, five Central Eastern European countries (CEECs = Hungary, the Czech Republic, Poland, Slovakia, Slovenia) imported together in total value € 170 billion. In this region, the import figure per capita (with 66 million people) is about € 2600, while the equivalent figure in Russia (with 144 million inhabitants) is roughly € 440 or one sixth of the CEEC figure.

One important background factor in this striking difference is the autarky endowment of Russia, who is not forced to import raw materials (e.g. energy bearers) in massive scale. Another factor is the low investment quota in Russia: machines are not imported extensively. Finally, the low average income and uneven distribution of wealth help to keep importing on a rather modest level. If oil prices remain on a rather high level, or even increase, Russia can increase her imports considerably without facing critical imbalances in her current account. Thus, from the point of view of the Russian CA, no depreciation crisis of RUB can be predicted in several years to come.

As pointed out above, the Russian foreign exchange market lost confidence on the correctness of the managed floating system of RUB in August 1998. The central rate of the system (RUB 6,2 = USD 1) and the set borderline of  $\pm 15\%$  ( $\sim$  RUB 7 = USD 1) were regarded as unrealistic. Missing confidence caused a snowball effect, which depreciated the nominal ER of RUB very rapidly. This development can be described in the light of some simple figures.

**Table 14. Average exchange rates of RUB**

	1997	1998	1999
RUB/\$	5,74	9,71	24,62
RUB/€	6,54	11,06	26,24

Source: WIIW.

The nominal price of a US-dollar increased by more than factor four between 1997 and 1999. In this context, it is important to clarify the difference between nominal (official) and real exchange rate. The official RUB rates against dollar and euro are given every day and market forces form them. It is assumed that the Central Bank (of Russia) interferes in the market to keep the ERs relatively stable. Thus, in the post 1998 time, RUB's ERs (against dollar and euro) have been rather stable with moderate depreciation.

In Russia with still relatively strong inflation, there seems to be a tendency of RUB to appreciate in real terms. If, for example, RUB depreciates nominally by 5% (in one year), while the annual inflation rate is 15%, there is an appreciation of the real ER (RER), because the high inflation is only partially compensated by the decline of the nominal ER. Thus, RER appreciates.

Normally, the consumer price index (CPI) is used to calculate the real exchange rate. In the crisis year of 1998 RUB lost about 50% of its real value. In the aftermath of the crisis, the real

value of RUB has recovered clearly. The most important background factor in this development has been the described recovery of the oil price on the global market.

**Table 15. Real effective RUB ER (CPI-based)  
1997 = 100, January, each year**

	1999	2000	2001	2002	2003
	51,9	54,2	64,7	72,2	72,6

Source: EIU.

The figures above show that the real effective ER of RUB decreased by almost 50% between 1997 and 1999. In 2000, the RER of RUB recovered moderately and in 2001–2002 clearly. In 2003, the real ER was only slightly above the value of the previous year.

On the basis of these figures, it can be maintained that in post-crisis Russia there has been some “Dutch disease”; the real value of rouble has recovered in the wake of the oil price hike. However, there was still something left of the devaluation effect in 2003: the index value of RER was about 27% below the pre-devaluation level (of 1997).

Russian currency reserves have increased considerably in the first years of the 21<sup>st</sup> century. According to EIU, the reserves (excluding gold) were USD 32, 5 billion in the 4<sup>th</sup> quarter of 2001, while the equivalent figure in the second quarter of 2003 was USD 60, 7 billion, almost double of the former figure. The same database shows a remarkable decline in the total external debt from USD 178, 3 billion in 1998 to USD 150,7 billion in 2002.

It is a well-known fact that euro has strengthened against dollar since 2002, which is hampering the euro-area price competitiveness on the global marketplace. This development of euro-dollar ratio is naturally also effecting competition on the Russian market.

Theoretically, this difference between dollar and euro values gives an incentive for European companies (euro-area) to enhance foreign direct investment (FDI) in Russia to overcome the handicap in price competition. However, there is a multitude of factors affecting the FDI-scene in Russia. Overall risks in Russia are still regarded as relatively high by foreign investors.

Consumer price inflation shows rather favourable tendency in the early 21<sup>st</sup> century.

**Table 16. Consumer price inflation (year end)**

	2001	2002	2003
	18,8	15,1	13,7

Source: EIU, 2003 estimate.

Even if inflation is abating, there are still double-digit figures in the table. Thus it is unlikely that Russia will change the exchange rate regime in the near future: fixed or even semi-fixed (managed floating according to 1998 model) are unlikely options with still rather high inflationary expectations.

With rather high hard currency reserves Russia can relatively easily manipulate the external value of RUB. It is assumed that the Russian Central Bank aims at relatively stable real ER of RUB.

This chapter on rouble ER development allows some concluding remarks. Since early 1990's there have been a series of currency crises in different parts of the world. Thus, in that respect there is nothing unique in the Russian case. However, in one detail the Russian event of 1998 is exceptional: Russia had no disequilibria in her current account. Still, rouble experienced an almost total collapse. In the hindsight it meant that the central rate (of the managed floating) was not on a realistic level. The set borderlines for fluctuations ( $\pm 15\%$ ) were too tight. Central Bank had not enough reserves (in hard currency) to support the managed floating system. Hence, the snowball effect (panic) took over with very strong depreciation of the nominal ER.

The recovery of post-crisis Russia has been almost miraculous. No external aid package was put together to overcome the crisis. Some rescheduling of Russian external debt with crossing over part of it took place helping to stabilize the situation. After that, Russia has obviously been able to fulfil her external debt obligations.

The most important background factor in the post-devaluation period was the strong increase of the oil price on the global market. This change is very visible in the export value growth of no less than 60% in 2000. Total export value remained on a new high level also in 2001 and 2002. This development was not necessarily predictable in the late 1990s.

Depreciated RUB exchange rate in the post 1998 era improved investment climate essentially, especially in import-substituting branches. An investment boom was brought about. Obviously, there was the danger that the country will catch the “Dutch disease”. Even if the real ER of RUB has recovered somewhat in the post 1998 period, the pace of that increase has not been explosive. Obviously, the danger of Dutch effect is exaggerated. Import is still on an amazingly low level and CA remains in healthy surplus.

Inflation seems to be a permanent problem with double-digit figures. Because of that it is highly unlikely that Russia will have a new fixed or semi-fixed ER regime in the near future.

There is considerable sensitivity in the Russian economy with primary product export dependency: one dollar change in oil barrel price means about one billion change in GDP. Increase of one dollar brings in extra billion; decrease with the same amount takes off one billion dollars in an economy of USD 350 billion (in 2002 GDP). Therefore, predictability of the Russian economic future is exceptionally low.

Because of the importance of that external factor – global market oil price – on Russian economy, it is understandable that possibly Russia could catch the “Dutch disease”. However, RUB exchange rate is permanently undervalued, not overvalued.

**Table 17. Exchange rates, RUB/euro (average)**

	1999	2000	2001	2002
RUB/euro (nominal)	26,24	26,03	26,13	29,65
PPP ER – RUB/euro	6,04	8,26	9,53	10,76

Source: WIIW.

In the immediate post-crisis year (1999), the difference between the official ER and PPP adjusted one (RUB/euro) was extremely high (with ERDI value of 4,34). In 2002, the difference was still rather high, even if ERDI has dropped to 2,76. Thus, part of the “devaluation advantage” has eroded but the Dutch effect has been relatively moderate leaving the rouble strongly undervalued in 2002.

Thus, it can be concluded that a dramatic currency crisis comparable to that in 1998 cannot take place in near future. The ER regime is different from the managed floating of 1998. Strong undervaluation of RUB ER keeps CA in surplus, obviously even with strengthening of rouble’s real ER. Only some dramatic events, like serious collapse of the oil price, can bring this scenario upside down.

Certain financial institutions assess the creditworthiness of various countries. One of the most important rating companies is Standard and Poors (SP). Assessments of this company concerning Russia give an interesting overview of the 1998 crisis and its aftermath.

**Table 18. Standard and Poors ratings for Russia**

	<b>Foreign currency rating</b>
	<b>Long term/outlook/short term</b>
19.12.1997	BB-/Negative/B
09.06.1998	B+/Stable/B
17.08.1998	CCC/Negative/C
16.09.1998	CCC-/Negative/C
27.01.1999	SD/Not Meaningful/SD
08.12.2000	B-/Stable/C
27.06.2001	B/Stable/B
04.10.2001	B/Positive/B
19.12.2001	B+/Stable/B
22.02.2002	B+/Positive/B
05.12.2002	BB/Stable/BB

Source: Standard&Poors.

These credit ratings mean in actual fact that Russia lost her international creditworthiness amid the devaluation crisis. Russia's ratings started to improve in December 2000 whereafter the assessment marks have become more positive indicating that the economy is recovering. Other rating agencies have a very similar view.

In the post 1998 period, Russia has obviously serviced her external debt according to schedule (after the re-scheduling arrangement mentioned above). The precondition for this positive development has been rapid recovery of the Russian economy.

One of the most serious economic problems in the Russian transition has been extensive capital flight. With the improving Russian economy, some of the flight capital has come back in the early years of the 21<sup>st</sup> century. However, in 2002 there was a net capital outflow of USD 8 billion in Russia.

In the first quarter of 2003, capital in- and outflow were more or less in balance, while in the second quarter of the same year a considerable net inflow of almost USD 4 billion took place. In the next period (3<sup>rd</sup> quarter of 2003) a net outflow of about USD 8 billion was recorded. Thus, no clear trend of returning capital is visible: the situation in capital movements is very volatile.

In the sphere of FDI (foreign direct investment) several “qualitative” details are taken into consideration. One of them is corruption in FDI host countries. This factor is regularly measured in an international study published annually. The Corruption Perception Index reflects the degree to which corruption is perceived to exist among public officials and politicians.

The Corruption Perception Index is published every year by a non-profit organization, “Transparency International” (TI), which comments its latest publication as follows:

“The Corruption Perception Index 2003, published in October, is a poll of polls, reflecting the perception of business people, academics and risks analysts, both resident and non-resident. First launched in 1995, this year’s Corruption Perception Index draws on 17 surveys from 13 independent institutions. A rolling survey of polls provided to TI between 2001 and 2003, the Corruption Perception Index 2003 includes only those countries that feature in at least three surveys. It is important to emphasise that the Corruption Perception Index, even with 133 countries, is only a snapshot. There is not sufficient data on other countries, many of which are likely to be very corrupt”.

**Table 19. Transparency International: Corruption Perception Index 2003**

Country rank	Country	CPI 2003 Score
1	Finland	9,7
2	Iceland	9,6
3	Denmark	9,5
	New Zealand	9,5
5	Singapore	9,4
6	Sweden	9,3
7	Netherlands	8,9
8	Australia	8,8
	Norway	8,8
	Switzerland	8,8
11	Canada	8,7
	Luxembourg	8,7
	United Kingdom	8,7
29	Slovenia	5,9
33	Estonia	5,5
40	Hungary	4,8
41	Lithuania	4,7
53	Belarus	4,2
54	Bulgaria	3,9
	The Czech Republic	3,9
57	Latvia	3,8
59	Slovakia	3,7
64	Poland	3,6
85	Romania	2,8
86	Russia	2,7

Source: Standard&Poors.

In this annually published index, countries with a score of higher than 9 (with very low levels of perceived corruption) are rich countries. Seven out of ten countries score less than 5 out of a clean score of 10 in the Corruption Perception Index 2003. Five out of ten developing countries score less than 3 out of 10, indicating a high level of corruption.

Only two TEs, Slovenia and Estonia, have a score over five (5,9 and 5,5 respectively). Russia has a score of 2,7 and it is on the 86<sup>th</sup> rank (together with Mozambique) in the list of 133 countries. Some oil-rich post-Soviet countries, like Kazakhstan and Azerbaijan, are even lower in the ranking than Russia.

Eastern Europe as a whole remains one of the hardest places in the world to do business in, according to the Economist Intelligence Unit's business environment rankings. But things are improving rapidly, and there is a lot of variation within the region; some of the most reformist countries now have very respectable business environments, while many of the CIS states remain very difficult.

The EIU's model reflects international companies' key criteria when formulating global business strategies and investment location decisions. It uses quantitative data, business surveys and expert assessments to measure the attractiveness of a country's business environment. The overall scores (on a scale of one to ten) and rankings are based on scores for 70 indicators, grouped into ten categories of the business environment.

Uniquely, the rankings are produced for a five-year forecast period as well as for the previous five years. The results for 2003–2007 are based on the EIU's forecasts of key economic variables, as well as on a quantification of expected policies in various categories of the business environment.

The rankings show that fast-reforming Estonia will continue to have the best business environment in the region over the next five years, followed by fellow EU accession countries like the Czech Republic and Hungary. These economies will become even more business friendly by 2007, although a significant gap with Western Europe will remain.

Nevertheless, reform is gathering momentum across the whole region and can be expected to stick. Democracy, confirmed to be crucial to the business environment, has taken root, too, at least outside the CIS, and state institutions are slowly becoming more efficient.

**Table 20. Business environment scores and ranks**

	2003 - 2007		1998 - 2002	
	Total score	Regional rank	Total score	Regional rank
Estonia	7,57	1	6,89	1
Czech Republic	7,33	2	6,57	3
Hungary	7,19	3	6,75	2
Slovenia	7,19	4	6,30	5
Poland	7,18	5	6,37	4
Lithuania	7,14	6	6,27	6
Latvia	7,03	7	6,16	7
Slovakia	6,53	8	5,81	8
Croatia	6,50	9	5,31	10
Bulgaria	6,19	10	5,44	9
Russia	5,86	11	4,61	15
Romania	5,71	12	4,65	14
Kazakhstan	5,50	13	4,92	12
Serbia and Montenegro	5,49	14	3,22	25
Armenia	5,45	15	4,93	11

Source: Business Eastern Europe, September 29<sup>th</sup> 2003.

Russia is the best-scoring CIS-country in the table, which contains altogether 27 TEs. In the latest assessment for 2003–2007, Russia's regional rank is 11, while the previous rank (1998–2002) was 15. The score has increased rather clearly, by 1,25 points indicating improvement in the business environment. However, Russia is still rather far away from the top of the regional list (Estonia with 7,57 points).

In the light of quantitative, but also in the light of EIU's composite index, Russia's economy has recovered remarkably in the post-crisis (after 1998) years. One very important factor in this recovery has been the depreciation of RUB, which in the first years of the 21<sup>st</sup> century has had an exchange rate favoring local investment, especially in the import substituting sectors.

Rather high oil price is a background factor of utmost importance in the Russian economic boom: in 2000, the steep price increase of the main Russian exportable, petroleum, helped to find an economic growth path. In 1999, the average world market price of oil sank close to USD 10 per barrel and increased roughly threefold in 2000–2001.

A couple of years ago, OPEC (Organization of Petroleum Exporting Countries), in which Russia is not a member, decided to stabilize the world market price of oil in a new manner: no exact price target was set, but limits for oil price fluctuations. The aim of OPEC is to have the barrel price moving between USD 22–28. It was pointed out that this "managed floating" of oil price is advantageous for both suppliers and clients.

It is naturally impossible to predict whether the world market price of oil can be kept within these set limits. However, the new system as such is rational, because it is attempting to create relative stability in the rather volatile oil business.

If the lower limit (USD 22 per barrel) of the new OPEC price system is not broken, Russian economic growth becomes more predictable. In the autumn 2003, there seems to be very little evidence of a clear collapse of the oil price. Thus, a new severe RUB crisis looks unlikely in the foreseeable future.

In the quantitative analyses, two basic factors were underlined here: Russian ERDI and her CA. Rouble was still in 2002 very strongly "undervalued" (with an exchange rate deviation index close to three), which provides a high level of "exchange rate protectionism". Russian current account has shown strong surpluses lately, which may become more moderate in the next couple of years (measured as a percentage of GDP), but not turn into deficits. Therefore, no strong and sudden depreciation of rouble exchange rate can be predicted.

## 6. Foreign direct investments in Russia

Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy in an enterprise resident in an economy other than that of the foreign direct investor. FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other country.

FDI is part of risk capital movement. If the investor is not able to run the object of the FDI, the invested capital is lost via bankruptcy. The second category of risk capital movement is called portfolio equity investment, in the framework of which individuals or business entities of one country buy shares in stock exchange of another country. FDI is called “active investment”, because the investor aims at influencing the management of the company with FDI money. Portfolio equity investment is called “passive investment”, because the foreign investor is not involved in managing firms in which he/she has a stake. “Passive investors” hope that shares they have acquired increase in value and that they receive dividends from their shareholdings. So called “institutional investors” (pension funds, mutual funds etc.) move presently huge sums across borders buying and selling shares in various stock exchange places. This activity (portfolio investment) is not discussed here in detail.

FDI takes place in two different forms through acquisition or through building from scratch a so-called greenfield unit. Occasionally, acquisition is called “brownfield” investment. FDI in TEs comprise both “brownfield” and “greenfield” cases.

In all FDI-cases (greenfield and brownfield) investors have three basic motives for their FDI action: to obtain raw materials, to source products at a lower cost, and to penetrate local markets. In the first case, extractive investors use FDI to exploit natural resources abroad. Oil extraction is a typical case of this activity. In the second group, sourcing investors use FDI to manufacture products that are entirely or mainly exported to the home country or third countries. The purpose of sourcing investment is to obtain low-cost supplies of components, parts or finished goods by taking advantage of cheap labour, energy or other inputs in a foreign country. In the third category, market investors use FDI with the objective to penetrate a new target market from a production base located inside the target country. This group includes plenty of service sector enterprises: retail trade has experienced a huge internationalization boom lately; fast-food restaurants expand in global scale; telecom

operators use FDI extensively; financial intermediation (banking) is an important player in the FDI game. All these service activities use FDI as a means to penetrate new markets.

There is a rather general perception that the big bulk of FDIs in TEs belong to the second group and thus FDI in post-communist world is mainly in manufacturing using cheap TE-labour. Certainly, many sourcing investors are around in TEs. However, more than half of FDIs in TE-region are active in service sector. Retailers, restaurant businesses, telecom operators and banks have moved to TEs to penetrate the market. Many market seeking FDIs can be observed also in manufacturing, especially in food processing, beverages and tobacco. In this sphere, international companies are present in many TEs.

Sourcing investors look for cheap costs, especially in labour intensive activities. Sourcing can be done without investment. It is fashionable to speak about out-sourcing in modern business life. This term means that big companies use contract manufacturing or sub-contracting to receive cheap manufacturing products of their own design from contractees, who have their own capacities. This mode is widely used in the present-day global economy: contract manufacturing takes place in TEs in large scale.

Market-seeking investors are not looking for cheap environment but for paying local clients. Thus, this category of FDI seeks locations with reasonable purchasing power. The higher the purchasing power in Moscow and Budapest, the more attractive is the investment climate for McDonald's, IKEA or Tesco.

FDI-operations, which take place only for sourcing purposes, are called off-shore outlets. Ford produces car engines in Hungary: all end-products are shipped to Ford factories outside of Hungary. Thus, off-shore "label" can be used in this case.

Skoda-VW sells about 15% of its products on the local market (the Czech Republic). The rest is exported, which means that this operation is export-oriented (mainly a sourcing FDI using cheap local inputs). However, penetration of the local market is an important part of the game. Thus, sourcing motive and market-seeking motive may overlap in FDI-activities.

With its size and natural resources, the Russian Federation has the potential to attract resource-seeking FDI. However, FDI activity in transitional Russia has been very modest so far in this sphere (in extractive or mining investment).

UNCTAD (United Nations Conference on Trade and Development) publishes every year a study on FDI. Statistical information below comes from World Investment Report, 2003. UN publishes this report in New York and Geneva.

**Table 21. FDI stock, 2002 (billion USD)**

	<b>Inward</b>	<b>Outward</b>	<b>Balance</b>
Russia	22,6	18,0	4,6
Estonia	4,2	0,7	3,5
Latvia	2,7	0,1	2,6
Lithuania	4,0	0,1	43,9
Poland	45,2	1,3	43,9
Czech Republic	38,5	1,5	37,0

Source: UNCTAD.

According to statistical data by UNCTAD, inward FDI stock in 2002 was in transitional Russia only USD 4,6 billion bigger than outward FDI stock. Thus, net FDI inflow in Russian transition has been extremely thin.

Russian companies have invested a cumulative total of USD 18 billion in FDI-form. This capital stock abroad is mainly in the hands of big Russian oil companies, which have acquired plenty of assets in chemical industries (mainly in oil refining sector) in other TEs. Post-Soviet Russia has attracted FDI in rather modest scale, a total of only USD 22,6 billion.

In the above table, some other TEs are taken for comparison. The Baltic States, Estonia, Latvia and Lithuania are ex-Soviet republics, all with rather modest population and resource base. Thus, these three countries have not been in a position to invest abroad in FDI form in large scale: outward FDI in these three states combined is less than one billion dollars. Poland, which is in the Baltic Sea region, has a rather big population of almost 40 million; her outward FDI stock of USD 1,3 billion is also very modest. The Czech Republic, which is the most successful TE in attracting FDI, has an outward direct investment stock of USD 1,5 billion.

When the “net FDI stock” (inward FDI stock minus outward FDI stock) is calculated per capita in TEs included in the above table, huge differences become visible. In the Czech Republic, about 3.700 dollars have been invested directly per every local citizen. The equivalent figure in Estonia is about USD 2.500 and over USD 1.000 in Latvia, Lithuania and Poland. The comparable figure in Russia is only somewhat over 30 dollars, an extremely modest result indeed.

The Czech Republic has become an important location of automotive industry in her transitional period. In the early period of post-communism, Skoda car-manufacturing firm was sold to Volkswagen (Germany). This deal caused so-called coat-tale operations: many car part suppliers chose the Czech Republic as a FDI target. Toyota together with PSA (France) established a car production unit not far away from Skoda Plant.

Estonia has become an extremely important tourist destination in Northern Europe. A big bulk of FDI is directly or indirectly linked with tourism (hotel, restaurant, retailing etc.). FDI has played an important role in Estonian transitional success. Alongside with the Czech Republic and Estonia, Hungary and Slovenia have been very successful in attracting FDI within TE-group of countries.

The strong depreciation of RUB in 1998 gave a clear monetary incentive for inward FDI in Russia. In the wake of the RUB devaluation, many Western exportables became uncompetitive in the Russian market. Moving production to the Russian side of the border seemed to be a reasonable option in many cases. This is what economic theory presupposes.

Inward FDI flow in Russia in 1999 was about USD 3,3 billion (according to UNCTAD) while outward FDI was lower, USD 2,2 billion. In 2000, the equivalent figures were USD 2,7 billion and USD 3,2: Russian companies invested more abroad than foreign companies did in Russia. Both figures in 2001 were on the same level (USD 2,5 billion). Outward FDI figure of USD 3,3 billion in 2002 was higher than the inward one of USD 2,4 billion. In sum, inward FDI in 1999 – 2002 was almost exactly the same as the outward FDI (both figures about USD 11 billion).

Thus, there is no empirical evidence that the strong RUB devaluation had had any clear impact on the FDI inflow. In the four-year period (1999–2002) inward FDI activity was rather modest. Outward and inward FDI flows equaled each others.

This scene is surprising. It can be assumed that the strong oil price hike in 2000 is an important factor in this FDI picture. Russian oil companies obviously invested a big part of their bumper profits in direct form abroad. Rapid recovery of average earnings (calculated in dollars or euros) caused a strong import boom. Direct export from the West to Russia became a viable alternative to FDI in the calculations of Western companies. Production was not in large scale moved to the Russian side of the border in the early 21<sup>st</sup> century.

It is a well-known fact that the external value of a monetary unit is only one factor in FDI calculations. Investment climate in Russia and in every other country is a complex issue. The very deep depreciation of RUB's ER in 1998 did not cause a strong FDI inflow.

WIIW gives details on FDI inward stocks in TEs by country of origin. There is a footnote saying that Russian data is given by State Committee of Russia.

**Table 22. FDI inward stock by country of origin (%)**

	<b>2002</b>
USA	20,7
Cyprus	19,3
Netherlands	11,8
UK	10,8
Germany	8,4
Switzerland	1,8
France	1,5
Italy	1,0
Total, USD million	20.351

Source: WIIW, Handbook of Statistics, 2003.

The highest share, over 20% of Russian inward FDI stock, originates from the USA. On the second place is Cyprus with almost one fifth of the FDI stock.

This result may look rather odd, but there is an explanation behind it. Cyprus was one of the most important destinations of Russian flight capital in the early period of transition. Part of this flight capital is repatriated in the FDI-form. This repatriated capital has a total value of about USD 4 billion, which is slightly less than what American companies have invested in direct form in transitional Russia.

In the Netherlands there are many overseas companies active in the EU with their European headquarters. This location offers logistic and tax advantages. Thus, it is difficult to figure out how many of those Dutch companies investing in Russia are really from the Netherlands. The same is true in Switzerland: many international companies are registered in that country. The Netherlands is in the third place in the table (with a score of about 12%), and Switzerland in the sixth place (about 2%).

Germany has a share of 8,4% of FDIs located in Russia. This figure tells us that German companies have together invested very little in direct form in transitional Russia: in absolute

sum only some USD 2 billion. German FDIs are in a predominant position in CEECs (Central Eastern European Countries).

Sourcing investors obviously calculate cost factors very carefully when they choose new locations for their production units. It was pointed out above that average nominal wages are very low in Russia. Rather low productivity is an important background factor in nominal wage statistics. It is important to estimate what can be achieved with a low nominal gross wage in a new production base. In investment calculations multinational companies compare unit labour costs (ULC) in various locations. This indicator is more important than nominal wage. Naturally, ULC may play a decisive role when labour-intensive activities are relocated.

WIIW publishes ULC figures, PPP adjusted in index form, in which Austria equals 100. Using this data, ULC development in TEs under review can be analyzed.

**Table 23. Unit labour costs (PPP adjusted), Austria = 100**

	1995	2002	Growth % 1995 - 2002
Russia	16,5	24,7	49,3
Czech Republic	20,9	40,9	95,7
Hungary	21,3	38,1	78,9
Poland	27,9	58,6	110,0
Slovakia	18,6	25,5	37,1
Slovenia	49,7	59,9	20,5
Bulgaria	11,8	17,1	44,9
Romania	18,9	29,7	57,1
Estonia	23,7	38,7	63,3
Latvia	23,2	38,5	66,0
Lithuania	15,0	33,4	122,7

Source: WIIW.

Unit labour costs in TEs were in Western comparison generally very low in the mid-1990s. Thus, labour-intensive activities were obviously attracted to the TE-region. From the investors' point of view, the scene has changed rather rapidly during last years: ULC in TEs show steep increase (compared with the Austrian level).

The fastest ULC growth is registered in the above table in Lithuania, where costs of labour per production unit grew by no less than 123% from 1995 to 2002. After this huge increase, Lithuanian ULC level was, however, only one third of Western (Austrian) level.

In the same table Poland also shows more than doubling of her ULC figure (110% growth). In 2002, Poland had roughly the same ULC level as the richest TE under review, Slovenia: these two countries offer unit labour costs, which are only 40% below the Austrian level. In the Czech Republic ULC relative figure almost doubled between 1995 and 2002, while Hungary had an 80% increase in the same period. Estonia and Latvia belong virtually to the same category with the Czech Republic and Hungary: in all four countries the ULC advantage in Austrian comparison is about 60%. In Estonia and Latvia the ULC growth rates 1995–2002 have been somewhat more moderate than in Hungary.

Russian ULC level in 2002 was very low, only roughly one quarter of the Austrian equivalent. However, it is not the lowest in the list: Bulgaria has a marking of just over 17% which means that about 6 Bulgarians can be employed with the wage of one Austrian (using ULC as a basis of calculation). In Romania the equivalent figure is a bit more than 3.

Slovakia shows amazingly low ULC level, which is with 25,5% only marginally higher than ULC level in Russia. The growth rate (1995–2000) of ULC is somewhat higher in Russia (49,3%) than in Slovakia (37,1%). Slovakia is part of the enlarged (2004) EU, while the “cheapest” ULC-countries in the list, Bulgaria and Russia, are not.

Price level in the EU-area is higher than in TEs. In the table below, the average price level in the EU (15 countries) is marked with 100. Data is from the year 2001.

**Table 24. Price level comparisons in 2001 (EU = 100)**

Czech Republic	44,1
Hungary	47,4
Poland	55,9
Slovakia	37,2
Slovenia	61,7
Bulgaria	31,5
Romania	30,5
Estonia	47,9
Latvia	50,8
Lithuania	52,9
Russia	30,4

Source: WIIW.

Slovenia, the most prosperous TE, has the highest figure in the above table with 62. Poland is the second with 56, and Lithuania the third with 53. Also Latvia has a figure over 50%. All these four countries have thus a price level, which is about half (or more) of EU's equivalent.

The lowest figure of the table can be found in Russia with 30,4. Romania is virtually on the same level (30,5) and Bulgaria has a slightly higher marking (31,5). These three TEs have thus extremely convenient prices, which are in average less than one third of the West-European level. This is certainly important information for companies, which are looking for cost savings in their FDI-operations.

In extractive activities Russia offers potentially more opportunities than any other country in the world. However, in the first decade of Russian transition there were hardly any FDI in this sphere, even if international companies showed interest in cooperation, especially in oil production.

In the 1990s, Russian privatization process brought up a rather thin group of tycoons called "oligarchs" who were able to accumulate huge amounts of wealth in the shortest possible time. This description is used when leaders of basic industries in Russia are discussed. The best-known oligarchs can be found in the extracting sphere, especially in oil production.

In this context it is of utmost importance to note that oil firms are privately owned in Russia, while the state has the monopoly of oil pipelines under Transneft. Every private investment in pipeline construction needs government permission. Obviously, such a permit was given in summer 2003 concerning a new pipeline from Western Siberia to Murmansk. This scheme is obviously closely linked with the export-orientation of Russian oil industry.

It is self-evident that the overall development of the oil sector in Russia calls for extensive investments in the medium term. External capital, which has come into this sector in portfolio equity form, is potentially important.

A remarkable brake-through took place in FDI-activity in the summer 2003. British Petroleum (BP) finalized an 8 billion dollars deal with Russian oil producer Tyumen Oil (TNK), one of the Russian energy giants created in the wake of the Soviet collapse. This multibillion dollar deal, which took two years of negotiations, was celebrated in the Western financial press as a gate-opener to massive FDI-flow into Russian oil business. It is mentioned that the Russian partner in the BP-TNK deal is Mikhail Fridman, the chairman of the Alfa

Group conglomerate and one of the most powerful of Russian oligarchs (Business Week, October 27<sup>th</sup>, 2003).

In the autumn 2003 the investment climate in Russia changed radically. Mikhail Khodorkovsky, Russia's richest businessman, the CEO and the biggest shareholder of Yukos Oil company, was arrested on charges of fraud and tax evasion. His stake in Yukos, the biggest oil company in Russia, estimated to be some USD 8 billion, was frozen.

This sensational event was naturally extensively covered in the Western financial press, which reminded that President Putin promised, when he was elected in 2000, to limit the power of oligarchs, all of whom became rich during the flawed privatization of the 1990s. At the same time, it was pointed out that the oligarchs benefited obscenely from deals in the early period of transition. Arresting one of them and leaving the others untouched is puzzling for observers, many of whom assume that Mr. Khodorkovsky was getting involved in Russian politics.

Before the spectacular arrest of the most powerful Russian tycoon there were merger discussions between Yukos and Exxon Mobil. Many observers assume that too extensive involvement of Western companies in the Russian extractive industries was not necessarily acceptable for Russian political elite.

There were estimates that about USD 20–25 billion investment was discussed in the Yukos-Exxon deal. Had this transaction taken place, one big deal in the oil sector would have had approximately the same value as the entire FDI stock in Russia cumulated between 1992 and 2002.

Market-seeking FDI in Russia has grown very clearly in the early period of the 21<sup>st</sup> century. This is understandable, because the post-crisis Russia has delivered economic growth and relative stability in the wake of the oil price boom. Many Western retailers, like IKEA (Sweden) and Stockman (Finland), have carried out expansion schemes in Russia, where purchasing power has recovered remarkably since 1998. Obviously, FDI in this sphere cannot easily reach the same monetary magnitude as big deals in energy-related activities.

After the “Yukos affair”; the investment climate in Russia is paradoxical. It can be assumed that natural resource companies in Russia are reluctant to clinch deals with Western partners. The political leadership in Russia has given the signal that it has no intention of

renationalizing property in massive scale. FDI in general is still welcome to Russia: that is the message of Mr. Putin and his crew.

In this context, it is important to pay attention to income and wealth distribution in post-Soviet Russia. Privatization of communist-time assets was supposed to distribute wealth and also income relatively evenly by allocating privatization coupons for everybody. However, this scheme was very badly mismanaged: the existence of oligarchs with an enormous concentration of wealth provides evidence of the miscarriage of the original plan.

Thus, it is understandable that people with average or below-average income are not satisfied with the Russian wealth and income distribution. Attacks on oligarchs are not necessarily unpopular. Transferring assets linked with natural resources into foreign ownerships is widely regarded as unjust. Thus, big FDI-deals in oil sector are not causing applause in the Russian audience. Attitudes toward FDI (foreign capital combined with decision-making power) are an important aspect of investment climate. It can be assumed that the majority of Russians have a hostile attitude toward local oligarchs owning natural resource enterprises. Foreign investors in the same sphere are perceived critically.

In those TEs, which have received plenty of FDI (the Czech Republic, Estonia, Hungary, Slovenia), there are spillover effects as foreign-owned companies integrate with local suppliers and downstream enterprises. Thus, FDIs have a cumulative effect: one foreign investor may cause virtuous circle in overall investment development. Extractive FDIs in Russia could potentially give a strong boost for other forms of investment.

In the autumn 2003, the Russian investment climate deteriorated fundamentally in the extractive sphere as a result of the “Yukos affair”, which obviously will limit FDI-inflow in extractive sphere to a minimum.

In this context it is important to note that investment quota in Russia is very low, while the national economy calls for extensive renewal and modernization of the capital stock. There is the obvious danger that Russia will suffer of capital scarcity in the long run. The arrest of the most important local oligarch may cause capital flight. If at the same time capital inflow is moderate, economic dynamism may be suboptimal on the long run.

## 7. Some conclusions

Russian economic transition in the 1990s can be called a ride on a stony road. There was a long and deep economic slump combined with high inflation rates. This economic environment created favourable preconditions for capital flight, while investment of local economy was not regarded as attractive. Investment quota decreased dramatically.

In the difficult period of the early transition state-owned assets were privatized rapidly in an extremely uneven manner. This procedure caused plenty of social tension. Wealth and income differentials became extremely deep.

In the colourful years of the early transition there was one really amazing phenomenon: average income calculated in hard currency (in dollars or other Western monetary units) increased rapidly in spite of declining economy. This paradoxical development created favourable preconditions for imports from the outside world.

Traditional rules of economic policy-making were disregarded in the early period of Russian transition. In the wake of a strong inflationary wave caused by price liberalization, more zeros were added to banknotes. The external value of RUB was determined by supply and demand of the newly created market. The real value of the rouble appreciated strongly.

A new system of managed floating was created at the beginning of 1998 with a fixed central ER of RUB. At the same time, a monetary reform cut three zeros from rouble banknotes; one new rouble was the equivalent of thousand old ones.

The currency exchange rate regime based on managed floating with predetermined borderlines collapsed in August 1998. The monetary authority (The Central Bank) was unable to feed the market with enough dollars when the set limit of the RUB depreciation was tested by market forces. RUB experienced a strong devaluation which affected average living-standard (measured in hard currency) negatively. Import figures decreased rapidly.

The rouble crisis of 1998 had one very peculiar feature: it was not caused by a structural deficit in current account, which is normally present in devaluations. Russian CA was not in the red ink.

Russian economy recovered from the 1998 ER crisis extremely rapidly. The reason for this positive turnaround is rather simple: the oil price moved dramatically upwards in 2000 causing an export boom in Russia. In the wake of this external shock, investment activity experienced a remarkable revival. At the same time, RUB exchange rate appreciated rather strongly in real terms. These positive developments were rapidly reflected on average living standard.

In the immediate aftermath of the rouble crisis, the exchange rate deviation index (ERDI) reached a very high value of about 4,4 (in 1999): it meant that RUB was undervalued in an extreme manner. After that, the real ER of RUB recovered clearly. However, ERDI value was almost 3 in 2002. Thus, in the early years of the 21<sup>st</sup> century, RUB has still been strongly undervalued.

In her transitional period, Russia has been able to attract FDI in an extremely modest scale, even if it offers rather convenient unit labour costs in TE-comparison. Obviously, Russian post-communist society has continuously been assessed as a risky location by foreign direct investors. Russian companies have carried out FDI, which are mainly enacted in neighbouring countries: inward FDI is only some USD 4 billion higher than outward FDI. Capital net inflow in the sphere of direct investment is thus minimal.

Obviously, there is plenty of potential in the extractive investment sphere in the Russian market. However, natural resource exploitation by foreign companies seems to be sensitive issue in Russia. In the opinion of many Western observers, Russia is rather reluctant to allow large-scale FDI in extracting activities.

Market-seeking investors have increasing opportunities amid Russian economic boom, which is heavily dependent on world market price of oil and other minerals. Investors in this category are mainly interested in increasing purchasing power and political as well as social stability on the Russian market. In many market-seeking activities, cost advantages can be harvested by FDI-path (in comparison to exports from the West).

Thus, it can be concluded that the Russian market in the second decade of transition cannot provide a simple picture from the point of view of foreign businesses.

The total value of Russian import is amazingly low, but increasing with overall economic growth. Investment climate in the light of quantitative and qualitative indicators is far from optimal. Extractive investors face plenty of opportunities but hardly ideal political atmosphere

in Russia. Sourcing investors can find rather favourable unit labour costs and probably also low energy supplies, but not necessarily the best possible infrastructure for their activities. Market investors are satisfied because of increasing purchasing power. This positive trend is closely linked with the world market oil price.

In 2004, the Russian economy is fundamentally different from that in 1998. Presently, the external value of RUB is determined by market forces, which are more experienced than in 1998. Russia has three times higher currency reserve than in 1998. Russia has been able to re-establish her creditworthiness after the 1998 crisis servicing her external debt on schedule (after the rescheduling in 2000). Thus, fundamental aspects of the Russian economy are in essentially better shape than in 1998.



## **Development of the Russian Rouble - The Crisis of 1998 and its Aftermath**

This volume focuses on the development of the Russian rouble after the rouble crisis in 1998. The study includes analysis of economic growth and economic stability in Russia as well as development of living standard in transitional economies and problems of measuring welfare.

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The Northern Dimension Research Centre (NORDI) is a research institute run by LUT. NORDI was established in the spring of 2003 in order to co-ordinate research into Russia. The most outstanding characteristic of NORDI's research activities is the way in which it integrates technology and economics. NORDI's core research areas are:

- Russian business and economy
- Energy and environment
- The forest cluster
- The ICT sector
- Logistics and transport infrastructure.