

Exchange Rate Policy of Russia

~ Lessons to learn from Russian experiences ~

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Introduction - Summary and Conclusion -

After winning in its battle with inflation, a strong ruble became an undesirable thing for the Russian economy.

A policy focused on exchange rate stability would be admissible as a necessary evil in order to curb inflation shortly after the transition to market economy. But, such a policy should not be kept for a long time. In the economy based on the market, it is necessary to review exchange rate policy from the standpoint of establishing an environment for corporations to earn profits. An increase in corporate profits is realized through the efforts to produce high-quality products at lower prices and enhance of productivity. Corporate managers in a country of a planned economy lack awareness of this. Or, their awareness is not sufficient. The corporate managers in West Germany made more efforts to pursue profits than their counterparts in East Germany, and this was one of the reasons for the superiority of the West German economy over the East German economy.

Excessively high exchange rates have an adverse impact on economic growth. As Russia forcibly kept the ruble at a high level, its exports of industrial goods slumped and production declined. Meanwhile, the liberalization of trade and the excessively high exchange rate of the ruble increased imports of processed foods and light industry goods, dealing a severe blow to the domestic industries. The fact that the Russian economy began to grow after the plunge of the ruble in 1998 proves that the strong ruble had been hampering the country's economic growth. As the plunge of the ruble made Russian products competitive, corporate managers became highly motivated and industrial production and investment increased. While there is no denying the fact that the recent strong performance of the Russian economy is mainly due to higher oil prices on the international market, the depreciation of the ruble is also a major factor behind the production increase.

Since many of the transition countries are not blessed with resources, it is an extremely important policy issue for them to guide the exchange rate of their currencies so as to lead to the improvement of their trade balance and development of domestic industries.

The second problem of the ruble's excessively high exchange rate is that it slowed down investment. It invited a shortage of investment funds in the following process: The exchange rate cannot go against market forces for very long. As it became difficult to maintain the strong ruble, concerns were raised about a plunge of the ruble and this triggered an outflow of an extraordinary large amount of funds from Russia and

resulted in a sharp plunge of the ruble. Sensing an impasse in its strong ruble policy and in a bid to break the impasse, the Russian government raised interest rates sharply higher (there was no other way to check the outflow of funds from the country). As the official discount rate was also raised sharply higher, interest rates on government bonds went up. Russian banks concentrated their funds on purchases of high-yielding government bonds to secure profits rather than using them for loans to corporations. Therefore, corporations were unable to borrow funds from banks and this resulted in the stagnation of investment. In view of the importance of investment, interest rates should be kept at a reasonable level and, to this end, a reasonable exchange rate is desirable.

With regard to promoting active investment, the foreign direct investment that is being promoted in Hungary and some other countries is drawing attention. Investment is essential for economic development and corporations should be the main investors. In order for budding transition countries to establish economic foundations securely, it is necessary to promote corporate investment. When corporations in a transition country encounter the fundamental aspect that separates them from their counterparts in market economy countries, what counts most is foreign direct investment. Because they are young, corporations in transition countries have lots to learn from foreign management resources. Among such resources are “knowledge and experience of business management, technical and special knowledge, such as patent and marketing know-how, sales and material procurements, fund procurement, trademark or credit, collection of information, and organization for research and development.” (1).

(1) *“International Monetary Economics,”* edited by Hisao Kanamori and Nobuyoshi Araki, Chapter 9 *“International Capital Movement”* (Sueo Sekiguchi) (Seirin Shoin Shinsha, 1976)

Introduction of foreign direct investment also plays a role of financing trade deficits. Poland, Czech and Hungary abandoned the fixed exchange rate system earlier than Russia and have succeeded in putting their economies on a growth path by letting their currencies depreciate at an appropriate pace (depreciating the currencies in line with the inflation rate). This policy is quite reasonable, but it tends to produce a trade deficit. Therefore, introduction of foreign direct investment is important to bring the balance of payments into equilibrium.

Devaluating the currency and introducing foreign direct investment, if excessive, create problems.

It is important to increase corporate productivity through corporations' self-help and government's support and enhance international competitiveness to increase exports rather than to enhance international competitiveness through devaluation of the currency. Good examples of this are Japan and West Germany in the 1950s through the 1960s.

It is hoped that transition countries will not limit their efforts to learning lessons from the Russian experience but take one more step forward and strive to learn from Japan and West Germany.

I. Russia's foreign exchange policy and ruble

1. Ruble and exchange policy in 1992~94

(1) Inflation and the ruble immediately after the transition to market economy

First, I would like to discuss the ruble and the Russian economy immediately after the transition to a market economy.

Russia implemented the transition to a market economy under the leadership of acting Premier and reform economist Yegor Gaydar. The country resolutely carried out the total liberalization of prices in the beginning of 1992 and the ruble began to be traded at current market rates (It was from July 1, 1992 that the ruble's exchange rate came to be announced as the single exchange rate reflecting market forces. It started with 125 rubles to the dollar.).

As soon as the price liberalization began, prices started to rise sharply and consumer prices shot up 25.1 times by the end of 1992.

The purchasing power of the ruble declined sharply. Products you could purchase 25 of with a 100-ruble note at the beginning of 1992 became relatively expensive and you could buy only such product with the same 100-ruble note at the end of 1992. Along with the sharp decline in the ruble's purchasing power, its exchange rate vis-à-vis the dollar (hereinafter, the ruble's exchange rate) declined from 100 rubles to the dollar in January to 415 rubles to the dollar at the end of the year. Still, the depreciation of the ruble is smaller compared with the magnitude of the rise of consumer prices.

(2) Price stability and exchange policy

The reason for the above was that the Russian government adopted a policy of maintaining the ruble's exchange rate at a high level. Its purpose was to contain violent inflation. Since the ruble's depreciation was milder compared with the

magnitude of the rise of prices, foreign goods could be purchased cheap. While prices of Russian products rose 25 times on average in 1992, those of foreign products increased only 4.2 times in the same year.

Cheap foreign products helped ease to a certain extent the life of the people who saw their wage and other income grow slower than the rise of prices. Moreover, as trade liberalization was also carried out and the scope of selection of consumer goods expanded as a result, consumer life became affluent.

The policy of keeping the ruble's exchange rate at a high level also had negative impacts. In the sector that competes with foreign products, sales declined due to an increase of imports. Export industries lost their international competitiveness and saw their exports decline. As both export and import worked to reduce production in Russia, the policy was one of the factors behind the negative growth of the Russian economy.

The government maintained the strong ruble policy in 1993. Since prices rose at an annual rate of 840% that year, the government adopted a stringent monetary policy and tried to maintain the ruble's exchange rate at a high level. As a result, the ruble's depreciation was halted at 200%.

(3) Plunge of the ruble

Although the policy of keeping the ruble's exchange rate at a high level was effective in dampening inflation, the government continued the policy too long.

Since the decline of the ruble's purchasing power was much faster than that of dollar's purchasing power, holding dollars was more advantageous than holding rubles, and this prompted dollar buying.

If selling rubles and buying dollars increases, the exchange rate of the ruble will decline. And a massive dollar buying would trigger a plunge of the ruble. If concerns about a future decline of the ruble increase due to political unrest, etc., it will increase dollar buying, making it difficult to maintain the exchange rate of the ruble. In order to maintain the exchange rate of the ruble, it is necessary for the central bank to purchase rubles on the exchange market with the dollars the bank holds as foreign reserves. If the ruble selling continues and increases, it will raise concerns that the central bank will run out of foreign currency reserves, making it difficult to maintain the exchange rate of the ruble.

A plunge of the ruble actually took place in late September 1993. In those days, the confrontation between President Yeltsin and the Soviet parliament was intensifying, raising concerns about the future course of the ruble. This triggered violent ruble selling and the Russian currency plunged 28% in one week.

About a year later, another plunge of the ruble, much steeper than the previous plunge, took place. After the plunge in September 1993, the Russian government set interest rates at higher levels to attract funds into Russia and the central bank conducted ruble-buying market intervention when the ruble showed signs of declining. Thanks to these moves, the ruble's exchange rate was maintained until autumn.

However, in early autumn of 1994, dollar buying increased and it threatened the ruble's stability. In order to cope with the situation, the central bank sold its dollars to prop up the ruble. Since the bank kept selling dollars, Russia's foreign currency reserves, which stood at \$4.5 billion in 1993, decreased to \$1.8 billion as of Oct. 11, 1994. With only \$1.8 billion left in the foreign reserves, the central bank had to stop its dollar selling.

With dollar-selling support by the central bank coming to a halt, the ruble began to decline sharply. On Oct. 11 (Black Tuesday) of 1994, the ruble plunged 27.5% to 3,929 to the dollar from 3,081 to the dollar the previous day.

The plunges in 1993 and 1994 mean that it is difficult to keep the ruble's value at an unreasonably high level and suggest that, in order to avoid a plunge, it is necessary to switch to a policy of moderately depreciating the ruble's exchange rate.

However, the Russian government continued its exchange stabilization measures. Behind this was the fact that price inflation began to slow down conspicuously. Moreover, the government had to stabilize the ruble as a condition for its receiving loans from the IMF.

In order to stabilize the ruble, the Russian government raised the official discount rate drastically from 130% in October 1994 to 200% in early 1995. Russia's inflation rate was 230% in 1995, but the ruble stood at 4,640 to the dollar at the end of the year, down only 130% from a year earlier. This means, in effect, a 175% appreciation of the ruble.

2. Introduction of a corridor system

(1) Ruble under the corridor system

The corridor system that was introduced on July 6 was instrumental in stabilizing the ruble in and after mid-1995. The Russian government introduced the currency corridor system as the first step in its preparations for fixing the ruble's exchange rate to ensure stability of the currency.

The corridor system is designed to limit the ruble's fluctuations within a narrow range by limiting its upper and lower limits.

The government announced that, under the system, ruble would be allowed to move between 4300-4900 rubles to the dollar during the period from July 6 to Oct. 1 (later changed to Nov. 31) of 1995. The corridor, originally scheduled to expire on Oct. 1, 1995, was subsequently extended until early 1998.

First deputy premier Anatoliy Chubays, who was in charge of economic policy, said, "The main purpose that we want to achieve is the predictability and stability that are necessary for all people." He added that the Russian government and the central bank, backed by foreign reserves of \$10 billion, would guarantee that the target range was maintained. The Russian government apparently aimed to remove the concerns that the kinds of ruble's plunge in September 1993 and October 1994 would occur again.

The New York Times (in its July 6 edition) commented, "If the monthly inflation rate, which stood at 6.7% in June, keeps declining, the Russian government will be able to demand the IMF to disburse \$6 billion in ruble stabilization fund and decide on an experiment to fix the ruble's exchange rate from Oct. 1 onward, or will be able to tolerate the devaluation of the ruble at a very slow pace and narrow the fluctuation band further." In the end, the Russian government took the latter choice.

In October, the ruble remained not fixed and the fluctuation range of 4,300-4,900 rubles to the dollar was extended until Nov. 30.

On Dec. 1, 1995, the government adopted a target range of 4,550-5,150 rubles to the dollar. The government shifted to a range of lower exchange rates in order to bring down the ruble gradually in line with inflation rate.

This method was also adopted when the government decided the fluctuation range for the period from July 1 to Dec. 31, 1996. The range for the period was set at 5,000-5,600 rubles to the dollars.

(2) Advantages and disadvantages of stabilizing exchange rate at a high level

When the corridor system was introduced, reform-minded economist Grigoriy Yavlinskiy, who was also a political party leader, praised the system, saying, "the new target zone has predictability built in it." But he added that the range determined by the Russian government was too high. In fact, the Russian government adopted a policy of stabilizing the ruble's exchange rate at an unreasonably high level.

The policy of stabilizing the ruble's exchange rate at a high level had its largest impact on its main objective of slowing down price inflation. The consumer price increase, which was 840% in 1993, dropped to 215% in 1994 and to 131% in 1995. The inflation rate fell to a two-digit figure of 21.8% in 1996.

The ruble's stable movement at a high level prompted an influx of foreign capital.

When there are concerns about a future decline of the ruble, foreigners will refrain from investing in Russia because it erodes the funds invested in Russia. But when the ruble is stable, foreigners can invest in Russia without worries. Foreign investment in Russia, which was extremely low at \$2 billion in 1995, increased to \$12.3 billion in 1996 and to \$18.2 billion in 1997.

The strong ruble also had negative impacts, restraining production and business investment. The strong ruble dealt a blow to Russian exports and the increased influx of cheap foreign goods that was fueled by the strong ruble forced domestic producers manufacturing goods competing with foreign goods to reduce their production.

Russia's gross domestic product declined 4.1% in 1995 and posted another negative growth in 1996. Although GDP posted a positive growth in 1997, it was only a marginal increase of 0.9%. The sluggish production had adverse impacts on employment. Unemployment stood at 8.8%, rose to 9.3% in 1996 and stayed at the high level of 9.0% in 1997.

What must be noted here is that investment declined during the period when the ruble's exchange rate was forcibly kept at a high level. In order to maintain a strong ruble, interest rates must be raised. High interest rates have adverse effects on corporations' investment. But, the adverse effects are not limited to that. Since coupon rates of government bonds were high, Russian banks concentrated their funds on purchases of high-yielding government bonds to secure profits rather than using them for loans to corporations. Therefore, corporations were unable to borrow funds from banks and this resulted in the stagnation of investment.

High coupon government bonds were also a cause of financial ruin in Russia. Since Russia was continuously plagued with fiscal deficits, the outstanding balance of government bonds increased sharply from 10 trillion rubles at the end of 1994 to 385 trillion rubles at the end of 1997. In terms of its ratio to GDP, it rose from 1.7% to 14.3%. Due to the synergy effect of the huge amount of outstanding government bonds and the extremely high interest rates, the Russian government's debt servicing cost swelled to an enormous amount. The government was pitifully caught in a vicious circle of having to issue new government bonds in order to redeem previously issued government bonds and this, in turn, increasing the outstanding balance of government bonds. If a situation continues this way, the end is financial ruin. And that time came earlier than expected.

(3) Ruble's fixed exchange rate

Financial ruin means that the policy of raising interest rates reached its limit.

However, Russia did not change its exchange policy. On the contrary, it strengthened the policy of stabilizing the ruble's exchange rate at a high level.

In the beginning of 1998, the Russian government adopted a policy to fix the ruble's exchange rate at 6.2 rubles to the dollar. The purpose of this policy was to put price stability firmly in place based on the actual decline in the inflation rate. At the same time, the government implemented redenomination of the currency on Jan. 1, 1998.

Redenomination means renaming (devaluation) of a currency. In the Russian case, the ruble was devalued to one-1,000th. Therefore, 1,000 old rubles has effectively become new 1 ruble.

The exchange rate of the ruble has come to be expressed in one digit. Under the fixed exchange rate system adopted by the government, the ruble is allowed to move 15% up and down from 6.2 rubles to the dollar. The new system is the same as the previous corridor system in that the ruble's fluctuation is limited within a certain range. But, it is more fixed in nature than the corridor system, as the central rate is fixed. The central rate was fixed at 6.2 rubles to the dollar for 1998 and at 6.1 rubles to the dollar from 1999.

The Russian government introduced the fixed-rate system with strong determination. But the situation surrounding the ruble was getting worse.

For one thing, the international prices of crude oil fell from 19.30 dollars per barrel in 1997 to 13.22 dollars per barrel in 1998. This dealt a severe blow to Russia, whose exports depend largely on oil, and the country's trade surplus decreased. The decline in revenues from oil exports worsened the country's fiscal deficits.

For another, the market began to worry about a possible crisis of the ruble after the Asian currency crisis. Asian currencies plunged because they were virtually fixed to the dollar. These currencies had the same characteristic as that of the ruble in that their exchange rates were fixed at excessively high levels. As foreign capital began to flow out of the country, Russian stock and bond prices fell. To cope with the situation, Russia raised the official discount rate from 50% to 150% at a stroke.

II. Russian currency crisis and its impacts

1. Sharp plunge of the ruble

Russia managed to weather the wave of ruble selling in May by drastically raising interest rates. But another wave of ruble selling in August developed into a currency crisis.

On Aug. 17, the Russian government announced a package of measures to cope with the crisis, including a 32.8% devaluation of the ruble's lower end of the exchange range from 7.15 rubles to the dollar to 9.5 rubles to the dollar. But the ruble selling continued at will. So, the Russian monetary authorities coped with the situation by conducting dollar-selling, ruble-buying operations on the exchange market. However, the momentum of the ruble selling was stronger and the government was unable to hold on to the lower end of the exchange rate. On Sept. 9, the government was compelled to abandon the target zone. From that day, the ruble shifted to a floating exchange rate system.

Under the floating rate system, the ruble's exchange rate plunged from 9.5 rubles to the dollar to 20.85 rubles at one stage before rebounding slightly to 16.06 rubles at the end of September. Then, the ruble remained on a downward trend and fell to the 20 level again in 1999. In April of that year, the ruble plunged to the 25 to the dollar level. Although it later rebounded slightly from that level, the ruble again followed a downward trend from late 1999 and fell to at around 28 rubles to the dollar in 2000. At this level, the ruble became stable and remained traded around this level for more than one year (For ruble's exchange rate movement for 1998~2000, see Figure 1).

2. Impacts

(1) Prices

The plunge of the ruble worked to raise prices. Figure 1 shows that the Russian inflation rate (consumer prices) fell sharply in 1995, when the policy to stabilize the ruble at a high level was adopted, and remained at low levels until mid-1998, but rose sharply from the second half of 1998 to the mid-1999.

By year, the inflation rate fell to 11.0% in 1997 but rose sharply to 84.4% in 1998. It rose to 36.5% in 1999. The growth rate of wholesale prices, which stood at 7.5% in 1997, rose to 23.2% in 1998 and went up further to 67.4% in 1999. The rise of import prices caused by the ruble's depreciation gradually raised prices as a whole.

(2) Depreciation of the ruble and import substitution

As the import prices of foreign goods rose sharply as a result of the ruble's steep depreciation, sales of Russian-made goods that were not popular with the Russians began to increase, in particular, in the field of foods and daily necessities. "Russian brand foods, such as Chudo yogurt and Kompomos sausages have begun to be put on store shelves in place of imported foods," said The Financial Times (Sept. 22, 2000

edition) in a story from Russia. The ruble's plunge worked to curb imports. In addition to processed foods, Russian-made clothes and home electric appliances have become price-competitive. In other words, the effect of import substitution became visible.

Seeing that Russian brand foods are expanding their market shares as a result of the depreciation of the ruble, foreign capital increased its direct investment in Russia in the field of processed foods. For transition countries, direct investment by foreign capital is desirable. It is, therefore, noteworthy that foreign investment has increased in Russia, where such investment has been at a low level compared with other transition countries.

(3) Export increase and current account

The main factor that increased Russia's exports was the rise in crude oil prices. Crude oil prices nose-dived in 1998 but turned higher following a cutback decision made at the OPEC general meeting in March 1999 and rose above 30 dollars per barrel in March 2000.

In addition to the rise of crude oil prices, the recovery of international competitiveness brought about by the ruble's depreciation also had something to do with the increase in Russian exports. As Russian products have become competitive with foreign goods, Russian industrialists became highly motivated and boosted production. This can be borne out by the fact that industrial production, which dropped 5.2% in 1998, rose 8.1% in 1999 and rose higher in 2000.

As exports increased while imports were kept low, Russia posted a trade account surplus of \$32.6 billion in 1999 and its current account surplus jumped close to \$25 billion. Figure 3 shows how dramatically Russia's current account surplus increased after the plunge of the ruble in comparison with during the period when the ruble was kept at a high level.

The increase in current account surplus played an important role in boosting Russia's gross domestic product. The ratio of current account surplus to GDP stood at 2.8% in 1996 and stayed at a low level in 1997 and 1998, but jumped to 13.8% in 1999, contributing greatly to the country's economic growth. The ratio remained high in the first half of 2000, standing at 25.0% for the first quarter and 19.7% for the second quarter of the year.

The ruble's plunge, along with the rise of crude oil prices, contributed to increasing the gross domestic product that had kept falling during the period of the strong ruble. The gross domestic product has been on an expansion trend since then (See Figure 4).

However, oil price is an external factor. In order for the Russian economy to achieve

sound development, it is necessary to increase investment. Therefore, establishing an environment to that end is the problem that confronts Russia now.

(4) Exceptional factors in Russia

One of the environments that contributes to an increase in corporate profits is a competitive exchange rate. In the Russian case, the currency crisis that resulted from the failure of the policy of keeping the ruble's exchange rate at an unreasonably high level has unexpectedly brought about a competitive exchange rate.

I want to stress again here that an increase in investment funds is brought about by an increase in corporate profits. Nearly 50% of the sources of fixed investment in Russia in 2000 (January through September) were own funds, or profits (incidentally, funding from the state budget accounted for 25% and loans from banks accounted for only 3.3%). By industry, investment by energy-related industries, which posted sizable profits, accounted for most of the fixed investments, supporting the argument that an increase in profits leads to an increase in investment.

So far, my discussion was on the policies adopted by the Russian Federation. However, Russia is an exceptional county in that it is a big country, blessed with natural resources (energy resources, in particular) and that its economy depends largely on the export of energy. Therefore, some of the policies adopted by the Russian Federation are not necessarily applicable to other countries with different conditions. Besides, not all of the policies adopted by Russia are appropriate policies. Therefore, it is necessary for Russia to learn from successful examples in other countries.

In the next section, I would like to discuss examples adopted by Hungary, the Czech Republic, and Poland, focusing foreign exchange policy and the induction of foreign capital.

III. Foreign exchange and foreign capital policies of three Central European countries

1. Hungary

(1) Foreign exchange policy

The Hungary economy slid into a recession in the early stage of its transition to the market economy (1990-1993). Production began to pick up in the second half of 1993 and industrial production increased 9.5% and gross domestic product posted a 2.9% growth in 1994. Meanwhile, the country suffered a huge current account deficit in 1993,

accounting for minus 9.0% of GNP. The ratio of current account deficits to GNP worsened to minus 9.8% in 1994.

Since fiscal deficits increased along with current account deficits, the Hungarian government began loan negotiations with the IMF and adopted an austere fiscal policy in line with IMF recommendations in return for a new loan.

The new policy, referred to as the Bokros Package, was announced in March 1995. The package calls for reducing fiscal deficits by slashing expenditures and current account deficits by taking the following two measures: introduction of import surcharges and a pre-announced crawling peg exchange rate policy.

Crawling peg refers to frequently devaluating the country's currency by a narrow margin. If exchange rate is devalued in line with the inflation rate, the country will not lose its competitiveness. It can also avoid the kind of currency plunge that took place in Russia. The plunge of the ruble had adverse impacts not only on Russia but also on other countries. Therefore, Hungary's policy change to maintain its exchange rate close to the level reflecting its economic fundamentals was a wise choice.

The Hungarian government adopted policies to cope with a slump in exports and a sharp rise in imports that resulted from the weakening price competitiveness caused by the introduction of the crawling peg system. Against this background was the fact that one of the causes of the deterioration in the country's current account from 1992 to 1994 was a high exchange rate policy adopted by the country. In 1992, Hungarian consumer prices rose 23.0%, but the exchange rate of the Hungarian forint depreciated only 7.1% to 79.0 to the dollar from 74.7 to the dollar in 1991. In 1993, the inflation rate rose 22.5%, but the forint depreciated only 16.3%. In 1994, prices rose 18.8% but the forint's depreciation came to 18.8%. In those days, the depreciation of the currency was not enough to cover the worsening price competitiveness caused by price increases. This was one of the causes of the huge current account deficits in 1993 and 1994.

The country's current account deficits improved in the second half of the 1990s, with their ratio to GDP improving from minus 9.2% for 1993-1994 to minus 3.8% for 1996-1999. An increase in exports and the improvement of the current account helped boost Hungary's production and since 1997 the country has been enjoying a high economic growth rate of more than 4%.

The current account improved partly because the forint depreciated in line with inflation rate, enabling the country to maintain its competitiveness. In 1996, while the inflation rate rose 23.6%, the forint depreciated 21.4%. In 1997, the respective rate was 18.3% and 22.5%. In both years, the depreciation of the forint covered the decline in price competitiveness caused by inflation. In 1998, the inflation rate and the

depreciation rate of the forint were almost at the same level, with the former standing at 14.4% and latter at 14.3%. In 1999, the inflation rate was 10.0% and the forint depreciated 10.6%.

(2) Foreign capital introduction policy

Hungary's economic growth led by exports was helped by the exchange policy. But, the policy of introducing foreign capital played a much more important role.

What is most important is for corporations to produce high-quality, low-priced products. To that end, introduction of foreign capital is an effective means. Since foreign capital is accompanied by new technologies and management know-how, introduction of foreign capital is more meaningful than the increase in investment funds.

Hungary has received direct investments from many countries, not only from big companies in EU (Philips and Siemens) but also from those in the U.S. (IBM) and Japan (Suzuki). In the last few years, direct investments have increased in the high value-added, growth potential IT-related industry. As of the end of 1999, the cumulative amount of foreign direct investment in Hungary stood at 16,452 million ECUs, accounting for a major proportion in the country's production and investment.

2. Czech Republic

Since the Czech Republic was also hit by high inflation shortly after its transition to market economy, the country adopted a stabilization program. The liberalization of prices implemented in 1991 resulted in lowering the inflation rate to 9.1% in 1995.

At the same time, the country devaluated the Czech koruna by 50% to stabilize the exchange rate of the currency and thus to stabilize prices. The koruna was linked to the dollar and mark. While the currencies of many transition countries depreciated against the dollar, the koruna remained stable and rose from 29.2 korun to the dollar in 1993 to 27.1 to the dollar in 1996.

While the stable exchange movement of the koruna helped stabilize prices, it resulted in increasing the country's current account deficits as it weakened the international competitiveness of Czech products and thus dampened exports and increased imports. In 1996, the ratio of current account deficits to GDP rose to 7.4% from 2.6% in the preceding year. The ratio rose further to 12% in 1997 (January-March) and triggered a currency crisis, prompting the Czech government to shift to a floating-rate system in March of the same year.

Under the floating system, the koruna's exchange rate vis-à-vis the dollar plunged from 27.1 korun in 1996 to 31.7 korun in 1997. The koruna continued its decline thereafter and hit 34.6 korun in 1999, a 9.2% depreciation from the level in 1997. However, since consumer prices rose 10.9% during the period, the koruna's depreciation offset the rise of the inflation rate.

The Czech currency crisis has the same characteristic as the Russian currency crisis of 1998 in that both crises were triggered by a widening deviation of their currencies that had been kept fixed for a long time from the country's economic fundamentals and that the currencies plunged after a floating-rate system was adopted. This tells us that it is advisable to adjust the exchange rate of a currency in line with the inflation rate.

Since the government adopted a package of emergency measures, including a spending cut and a freeze on wages of public employees, along with the floating exchange-rate system, the economy posted minus growth for three years starting in 1997. But, current account deficits decreased due to the demand restraining effect of the retrenchment policy and the depreciation of the koruna. The ratio of current account deficits to GDP fell to 2.4% in 1998 and to 2.0% in 1999, a level before the currency crisis. In 2000, the Czech economy began strong growth.

The best road to increasing exports and expanding production is to reinvigorate investment and modernize/streamline equipment to produce high-quality, low-priced goods. As was described earlier, Hungary has adopted a policy to expand production by using advanced technology acquired through the introduction of foreign capital. The Czech Republic also adopted a policy to introduce foreign capital in 1998. Since 2000, the country has exempted import duties on machinery and equipment and has been promoting a policy to modernize and streamline production equipment.

3. Poland

On Jan. 1, 1990, Poland implemented the "Balcerowicz Plan," a drastic program designed to promote the transition to market economy and stabilize prices. Thanks to the plan, the hyper-inflation in the country that stood at 985.8% in 1990 was brought down to 70.3% in 1991. However, the plan had a big side effect. The country's economy contracted 11.6% in 1990 and 7.0% in 1991 and unemployment increased sharply. As the plan dealt a hard blow to the people's livelihood, it drew criticism from the people. Deputy Prime Minister and Minister of Finance Leszek Balcerowicz had to resign in December 1991 and a new growth-oriented economic policy was adopted.

After the policy change, the country's economy expanded gradually, rising 2.6% in

1992, 3.8% in 1993, and 5.2% in 1994. For the last five years of the 1990s, the economy posted an average growth of 5.7%.

The country's foreign exchange policy also underwent a major change. When inflation shot up nearly 1,000% in 1990, the exchange rate of the zloty, the Polish currency, fell to only 0.9500 zloty to the dollar from 0.1439 to the dollar in 1989, or a depreciation to one-eighth the level of 1989. However, when inflation rose only 31.8% in 1993, the zloty lost 33%. This was because the government adopted a crawling peg mechanism to depreciate the zloty gradually in line with the inflation rate. In April 2000, Poland decided to liberalize zloty transactions on the international market and abolished the crawling peg system, adopting a floating exchange-rate system instead.

Poland has been introducing foreign capital aggressively. As of the end of 1999, the outstanding balance of foreign direct investment stood at \$35,171 million. By industry, the financial sector is most active in introducing foreign capital, accounting for 22.4% of the total foreign capital introduced.

Thanks to foreign capital, Poland is one step ahead of other transition countries in financial reforms. As a result, banks are increasing loans to corporations and contributing to an increase in investment funds.

IV. Ruble's fluctuations and the Russian economy

1. Impacts of ruble's depreciation on trade

(1) Devaluation and trade

The plunge of the ruble in 1998 proved once again that fluctuations of exchange rate have major impacts on trade and economy. Russia's current account surplus, which stood at only 0.3% to GDP in 1998, shot up to 13.8% in 1999. The ruble's plunge prompted the Russian economy to pick up and put it on a growth path. While there is no denying the fact that higher oil prices played a major role in revitalizing the Russian economy, the depreciation of the ruble also played a part as it led to more exports and less imports and stimulated production. It is noteworthy that the industrial production index posted a high growth rate of 8.1% in 1999.

Despite the fact that currency stability brings about price stability, many countries choose to lower the exchange rate of their currency because they believe a lower exchange rate will help decrease imports and increase exports. Improvement in the trade account leads to an increase in production and for many countries improving the trade account is a major policy objective.

Thanks to exports of energies, Russia was able to maintain a trade account surplus even during the period from 1993 to 1998, when the exchange rate of the ruble was not competitive. But for many other countries not blessed with resources, balancing their trade accounts is one of their policy objectives. Table 1 shows that the current accounts of Poland, Czech Republic and Hungary, major transition countries, remain in the red.

(2) Deflationary policy or devaluation?

Deflationary policy, centering on interest rate hikes, is one of the policies available to improve the trade account imbalance. Japan adopted deflationary policies several times during the 1950s and 1960s to overcome international balance of payments difficulties. However, a deflationary policy decreases employment. Moreover, a higher interest rate has a side effect of reducing corporate business investment.

For the country that needs to increase investment, decreasing investment is fatal, because a decrease in investment not only reduces production but also slows down productivity.

In order to enhance productivity, it is necessary to make investment to modernize and streamline production operations. Establishing facilities equipped with excellent technologies will contribute to the enhancement of productivity. In other words, an increase in investment directly leads to higher productivity.

A tight monetary policy, as it impedes the enhancement of productivity, makes it difficult to produce internationally competitive high-quality, low-priced products. A typical example of this was the U.K. in the 1950s through 1960s. The country's international competitiveness weakened due to stagnant investment, this resulted in the worsening of its trade accounts and the country had to take another tight monetary policy measure.

Therefore, countries that want economic growth should choose to devalue their currencies. If the country can strengthen its international competitiveness and increase exports by devaluating its currency, the country's production will increase. It will be achieved through the following process.

(3) Effectiveness of devaluation

If a country's currency is devaluated, the prices of the country's products will decline in overseas markets and the prices of imported goods will rise on the domestic market. This will result in increasing exports and decreasing imports.

Take trade between Japan and the U.S., for example. Suppose that the yen's exchange rate against the dollar falls to 200 yen from 100 yen. When \$1 = 100 yen, an

American can buy a Japanese car priced at 1 million yen for \$10,000. But, when the dollar is 200 yen, the American can buy the same car for \$5,000. If the price of the same product becomes cheaper, purchases by Americans (exports from Japan) will increase. Conversely, the price of a Parker fountain pen, which was being sold at 10,000 yen in Japan when the dollar was 100 yen, will become 20,000 yen if the yen's exchange rate falls to 200 to the dollar. Therefore, devaluation leads to an increase in exports and a decrease in imports.

The question is to what extent trade will react to the change in prices caused by the devaluation. The reaction varies from one product to another and from one purchaser to another. For example, if the price of a Japanese-made motorcycle declines 10% as a result of the devaluation of the yen, purchases by Americans may increase 30%, but purchases by Germans, who love using German-made motorcycles, may increase only 1%. Or, Japanese women who adore French dresses will continue to purchase French dresses even their prices are raised as a result of the yen's devaluation.

(4) Marshall-Lerner condition

The degree of reaction to a price change is called price elasticity. The effectiveness of devaluation is determined by the price elasticity of export/import demand.

It can be expressed by the following formula. When price is P, demand is D, and elasticity is η ,

$$\eta = \frac{\frac{\Delta D}{D}}{\frac{\Delta P}{P}} = \frac{P}{D} \cdot \frac{\Delta D}{\Delta P}$$

When the elasticity of export price is minus 1.0, it means the decline rate of export prices and the growth rate of export volume are equal. In other words, when a currency is devaluated 10%, export volume increases 10%, and the elasticity is minus 1.0.

When the price elasticity of export demand is larger than minus 1.0, export value declines. In order for a devaluation to be effective, the price elasticity must be sufficiently small. The same is true of imports. If the price elasticity of import demand does not reflect a rise in import prices and therefore the price increase rate is larger than the growth rate of import volume, imports do not decrease.

In short, in order for a devaluation to be effective, the sum of export price elasticity and import price elasticity must be smaller than minus 1.0. This condition is called the Marshall-Lerner condition.

(5) Resource-deficient countries must enhance international competitiveness

Results of the analysis of trade patterns in many countries show that the price elasticity of resource-deficient countries that mainly export processed goods is high. This means that if they enhance export price competitiveness, they can increase exports. Therefore, it is necessary for resource-deficient countries to strive to enhance productivity and increase exports by producing good-quality, low-priced products. Germany and Japan made such efforts and increased exports.

It is difficult to measure price elasticity precisely. Moreover, results of measurement vary widely. However, as a general rule, the price elasticity of industrial products is high and that of foods and raw material is low. Results of a study that measured U.S. price elasticity shows that the price elasticity of staple foods and raw materials was considerably lower than 1.0, standing at 0.34 and 0.26, respectively (Note 2).

(Note 2): Nobuyoshi Araki, *Yen, Dollar, Gold* (Mainichi Shimbun, 1969)

The price elasticity of industrial goods is high. The higher the degree of processing, the more the product tends to react to changes in prices. While the price elasticity of semi-processed goods is 1.38, that of finished products is 3.50.

Incidentally, in the case of Japan, the import price elasticity of foods, raw materials and mineral fuels are low at 0.8459, 0.1565, and 0.1998, respectively, but that of industrial products is high at 1.5915.

In any case, given the fact that trading volume fluctuates in accordance with changes in price, it can be said that current world trade satisfies the Marshall-Lerner condition. Therefore, a country can improve its trade account balance, if it strengthens its price competitiveness by devaluating its currency or enhancing productivity.

(6) Ruble's plunge and Russian trade

The improvement of the trade account balance through strengthened price competitiveness will be achieved mainly as a result of an increase in exports in the case of resource-scarce countries (processing trade countries) and mainly as a result of a decrease in imports in the case of Russia and other resource-rich countries.

After the ruble took a nose-dive in 1998, Russian imports in 1999 plunged 30.5% to hit a 6 year low of \$41.1 billion.

Meanwhile, exports, which mostly consist of energy, minerals and other primary

products, rose only 0.2% to \$74.3 billion.

Of the export items, petrochemicals, steel and lumber products increased thanks to the ruble's devaluation.

On the other hand, imports, which mostly consist of manufactured goods, decreased due to the ruble's devaluation. However, as described earlier, sales of Russian-made processed foods and light industry products increased in place of imports.

The devaluation of the ruble was a positive factor for the growth of the Russian economy, as the increase in sales of Russian-made products led to an increase in production.

Looking back on what happened after the devaluation of the ruble, we can say that production in Russia kept decreasing from 1995 through 1998 because the exchange rate of the ruble had been maintained at an excessively high level up to 1998.

We should not overlook the fact that the excessively high exchange rate of the ruble impeded not only trade but also the investment that is indispensable to economic development.

2. Adverse effects of strong ruble and high interest rates

(1) High interest rates, fiscal deficits, exchange stabilization

High interest rates had an adverse effect on the Russian economy. But it was also affected by the Russian policy to stabilize the exchange rate of the ruble and fiscal deficits.

The problem started when the fiscal deficits increased sharply. Russia had been suffering from a huge fiscal deficit for a long time. In 1994, the deficits amounted to 4.1% of GDP. Up to that year, the fiscal deficits were financed by central bank credit, with such credit accounting for 66.9% of the deficits in 1994. However, since central bank credit causes inflation, the Russian government decided to finance the deficits by issuing government bonds in and after 1995.

In order to have government bonds purchased, it was necessary to raise interest rates and stabilize the exchange rate of the ruble. Since foreign investors suffer losses if the ruble depreciates, the exchange rate of the ruble had to be kept stable.

When it decided to issue government bonds, the Russian government adopted a policy designed to raise interest rates and stabilize the ruble's exchange rate. As a result, the average annual yield on GKO's (short-term government bonds) rose to 132.4% in 1995, higher than the inflation rate (consumer price increase) in the same year. In 1996, the yield stood at 63%, much higher than the inflation rate of 22%. In

1997, although the inflation rate dropped to 11%, the average annual yield on GKO's remained high at 26%.

That coupon rates of government bonds are much higher than the inflation rate means that government bonds are attractive investment vehicles for foreign investors. Foreign investors purchased \$8.5 billion worth of Russian government bonds in 1996. Since foreign investors purchase ruble-denominated government bonds with foreign currency (mainly dollar), it increases dollar-selling and ruble-buying on the foreign exchange market and works to raise the exchange rate of the ruble. In other words, foreign investors' purchase of Russian government bonds contributes to the stabilization of the ruble. If the ruble is stable, the attractiveness of the high coupon Russian government bonds increase further. For this reason, foreign investors' purchase of Russian government bonds exceeded \$10.9 billion in 1997. As of July 1, 1997, foreign investors held 30.3% of the outstanding balance of Russian government bonds.

(2) High interest rates and shortage of investment funds

Russia achieved price stability and exchange stability, but high interest rates proved to be harmful to economic growth and constituted one of the factors that continued the contraction of the economy.

High interest rates reduced corporations' investment funds and slowed down their production activity. But, the high coupon government bonds were attractive not only to foreign investors but also to Russian banks. For Russian banks, the government bonds are good investment vehicles that promise solid returns, as the coupon rates of the government bonds are much higher than the lending rate to corporations. For this reason, the banks stopped providing funds to corporations through loans and buying government bonds became the banks' main job. Corporations, unable to obtain investment funds, reduced business investment and slowed down production activity.

Since they could make large gains from investment in government bonds, Russian banks, when they ran out of funds, borrowed foreign currency to purchase government bonds. They could make large gains because the exchange rate of the ruble remained stable. I would like to explain in specific terms how the banks could make gain in 1997: Since the yield on GKO's was 63% and the inflation rate was 22% in 1997, the effective interest rate was 41%. And, since the ruble depreciated 20%, the banks incurred a 20% exchange loss when they converted the ruble into the dollar for repayment of the borrowings. Still, there remained 21% interest rate. Since this transaction involves borrowing dollars, buying rubles on the foreign exchange market, and buying

ruble-denominated Russian government bonds, it helped to appreciate the ruble and constituted one of the factors for its stabilization (See Table 2).

(3) Financial burden of high coupon government bonds

High coupon government bonds produce large gains for the purchasers. But, for the issuer, or the Russian government, high interest rates mean a greater interest payment burden. Since payment of interest and principal on short-government bonds come due in a short period of time, it is necessary to issue new government bonds in order to secure funds for the redemption of previously issued bonds. Since Russia increased government bond issuance in 1996 through 1997, outstanding government bonds snowballed from 10 trillion rubles at the end of 1994 to 385 trillion rubles at the end of 1997 and its ratio to GDP soared from 1.7% to 14.3%.

The government bonds that carried excessively high coupon rates put pressure on the government budget and the government had to reduce fiscal expenditures. As a means to lower the coupon rate, the Russian government implemented a policy to promote purchases of government bonds by foreign investors. As the inflation rate was low and the exchange rate of the ruble was stable in 1997, Russian government bonds were attractive investment vehicles for foreign investors and they actually purchased a huge amount of government bonds. As a result, the average annual yield on GKO's fell to 26% in 1997 from 63% in 1996. The effective interest rate that takes inflation into account also fell to 15% from 42%.

(4) Outflow of hot money

The foreign investment-inducement policy, which was successful in lowering the coupon rate of government bonds, ended in failure. The foreign capital that had flowed into Russia in massive amounts flowed out of the country in massive amounts. The outflow of foreign capital deepened the financial crisis in Russia.

The switch from influx to outflow of foreign capital was triggered by deepening suspicion about the ruble's stable exchange movement. For international movement of funds, the most important determining factor is exchange market conditions. This is because investors suffer exchange losses if the ruble depreciates. It was not unusual that exchange losses were much larger than the profits gained from high interest rates.

The ruble's plunge raised concerns that it might cause a huge amount of exchange losses. In 1997, the Asian currency crisis occurred. The ruble had the same latent weakness as Asian currencies in that their exchange rates were fixed at excessively high levels. At first glance, their exchange rates looked stable, and therefore, foreign

capital flowed into the countries without worrying about exchange loss. Unlike direct investments that are less likely to be withdrawn, short-term capital is liquid and often used in speculative currency transactions. Fund that moved from one country to another (often called hot money) was increasing rapidly. The activity of hot money drew attention at the time of the currency crisis.

In the Russian case, GKO's and other short-term government bonds and stocks were the main investment vehicles. This suggested that what happened in Asia would happen in Russia.

And it actually happened in November 1997. Foreign investors began to withdraw funds from the Russian stock market, which threatened the ruble's stability. At this stage, the Russian government should have realized the seriousness of the situation and should have taken measures to bring the ruble's exchange rate to a more realistic level. However, the government stuck to the ruble stabilization policy. On Jan. 1, 1998, the government implemented the redenomination of the ruble and announced that inflation was under control and the ruble was stable.

(5) Sharp plunge of the ruble

However, the ruble moved in a different direction from that intended for it by the Russian government. Concerned about the future course of the ruble, foreign investors began to withdraw funds from Russia and its impact spread gradually to the Russian financial market. On May 27, 1998, stock and bond prices plunged and signs began to emerge of a financial crisis. Faced with the financial crisis, the Russian government raised the official discount rate from 50% to 150% at a stroke. However, the sharp hike of the official discount rate failed to turn the tables.

In August, ruble selling picked up steam and the ruble hit new lows day after day on the foreign exchange market. On Aug. 17, the government lowered the ruble's target zone (corridor) from 5.25-7.15 rubles to the dollar to 6.0-9.5 rubles to the dollar. Moreover, it announced a 90-day moratorium on repayments of foreign debts.

This decided the outcome of the battle over the ruble. On Sept. 2, the target zone that had fixed the ruble's exchange rate at an excessively high level was abolished. Immediately after that, the ruble took a nose-dive to 20 rubles to the dollar. Later, the ruble rebounded slightly, but again fell to 25 to the dollar in September 1999. In one year, the ruble depreciated 300%. In 2000, the ruble fell to 28 to the dollar but thereafter it moved sideways.

As of April 2001, the ruble stood at 29 to the dollar and was 52% undervalued on a purchasing power parity (Big Mac parity) basis, slightly lower than the zloty, forint,

and Czech koruna (See Table 3). However, since Russia's inflation rate is higher than those in the above currency countries, Russia has the same conditions for competition as the three countries.

(6) Lessons from the Russian experience

We can learn three lessons from the Russian experience. First, don't fix the exchange rate at a level higher than the currency warrants. Instead, maintain a competitive exchange range.

Second, the importance of investment to maintain competitiveness. "What was important for success in market economy was competition...In order to defeat rivals, suppliers are always searching for ways to provide new and better goods and services, by presenting lower prices and more efficient and attractive conditions." (Note 3). This is what a corporation under market economy should aim at.

(Note 3) David B. Sicilia, Jeffrey L. Cruikshank, Yoichi Ito (translation), *"The Greenspan Effect: Words That Move the World's Markets"* (Nihon Keizai Shimbun, 2000)

Since supplying investment fund is the prerequisite to activating corporate investment, it is necessary to establish financial institutions and increase fund supply. As was described earlier, a high ruble led to high interest rate and this resulted in reducing investment.

Third, when it comes to investment from abroad, choose long-term direct investment rather than short-term indirect investment. Since direct investment is accompanied by introduction of new technology, it is an effective means to promote efficiency and strengthen competitiveness.

< Figure 1~4 >

Figure 1 “Ruble’s exchange rate (vis-à-vis dollar), 1997- 2000”

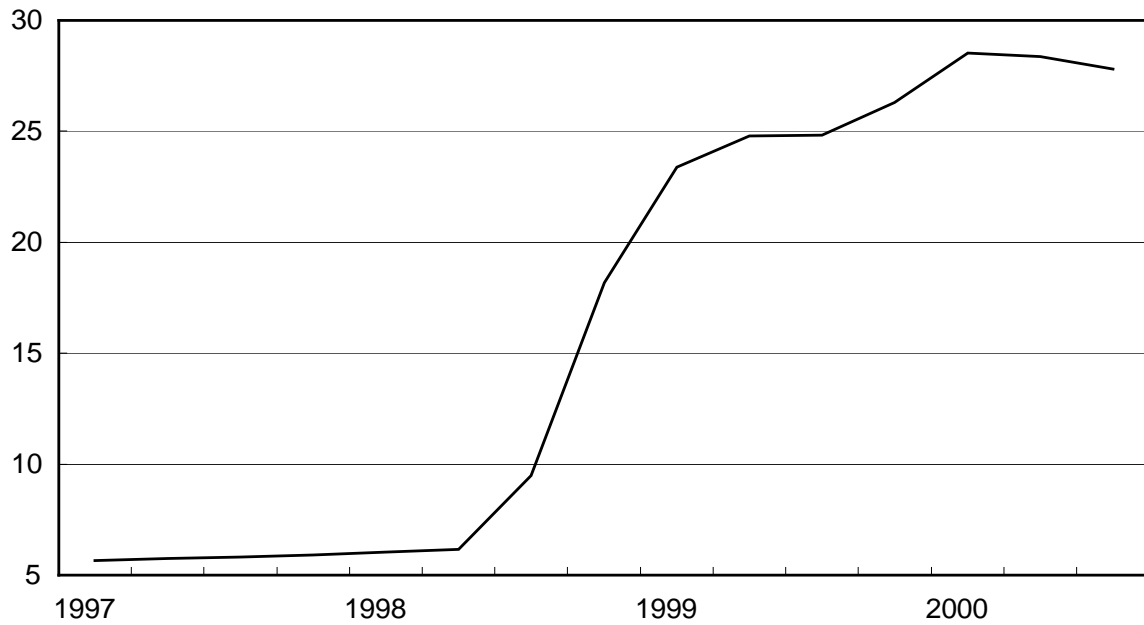


Figure 2 “Russian inflation rate (consumer prices; year-to-year comparison; %)”

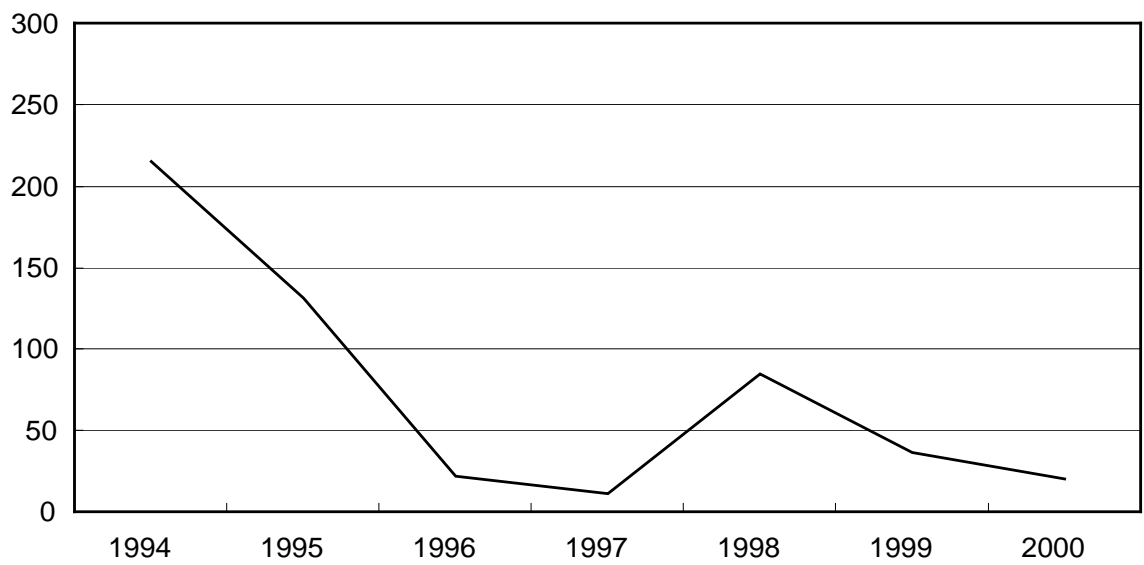


Figure 3 “Changes in Russia’s current account balance (Unit: \$ billion)”

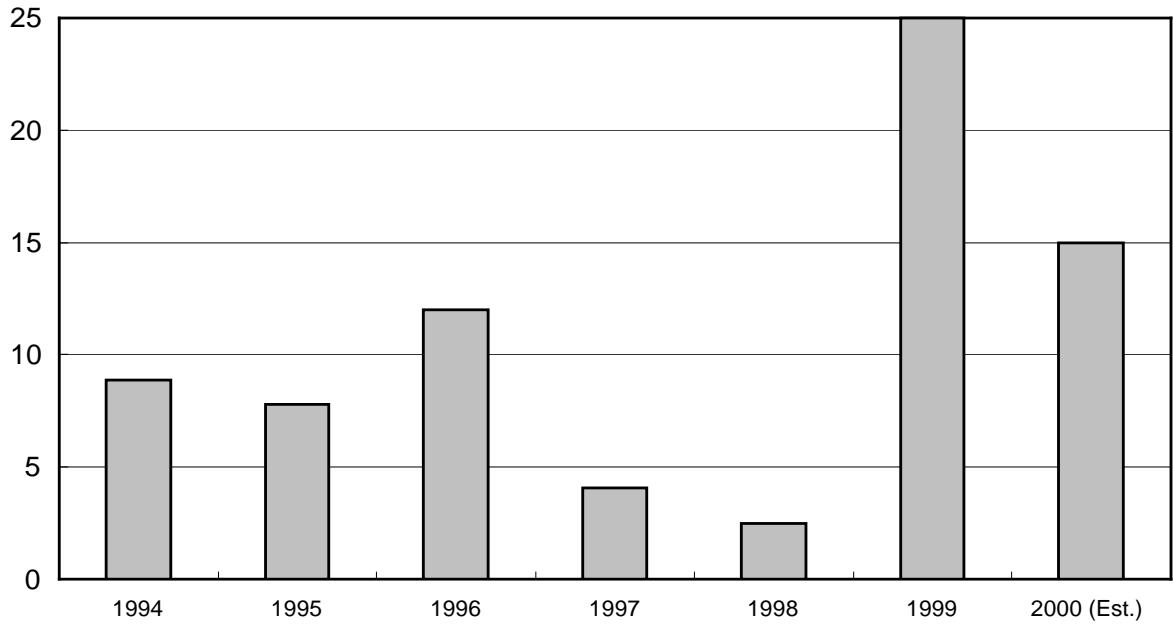


Figure 4 “Russia’s real growth rate (%)”

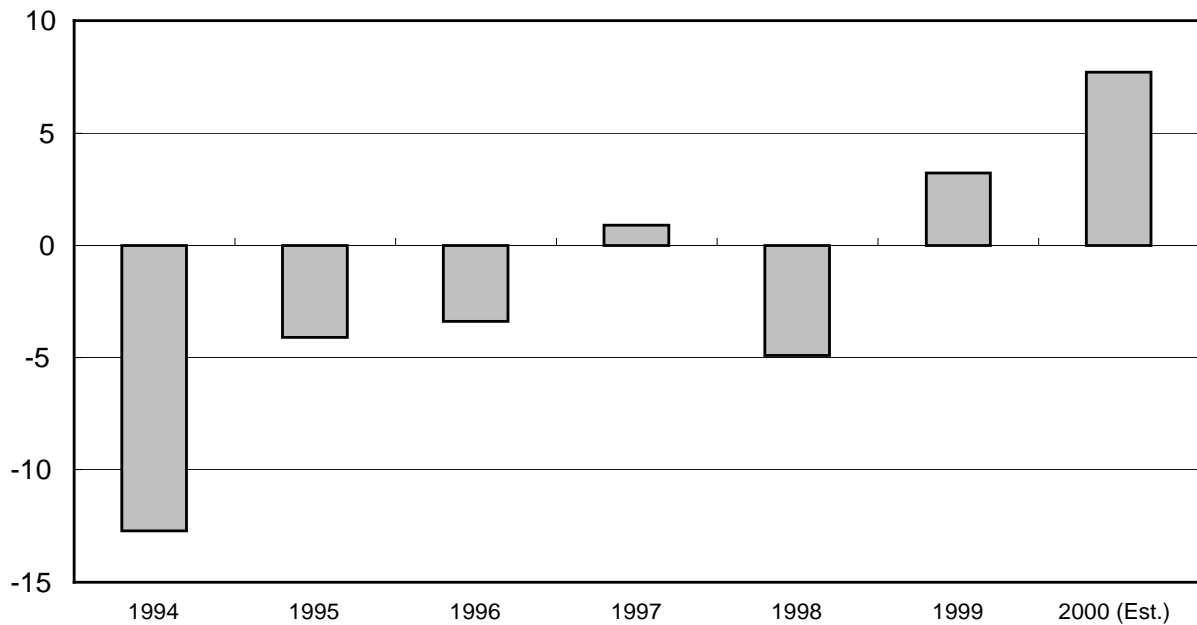


Table 1 Changes of GDP and current account balance

	Russia		Poland		Hungary		Czech Republic	
	GDP	Current account (As a percentage of GDP)	GDP	Current account (As a percentage of GDP)	GDP	Current account (As a percentage of GDP)	GDP	Current account (As a percentage of GDP)
1991	-5.0	-	-7.0	-2.8	-11.9	0.8	-	-
1992	-14.5	-	2.6	-3.7	-3.1	0.8	-	-
1993	-8.7	-	3.8	-3.3	-0.6	-9.0	0.1	1.3
1994	-12.7	3.0	5.2	0.7	2.9	-9.4	2.2	-1.9
1995	-4.1	2.2	7.0	4.2	1.5	-5.6	5.9	-2.6
1996	-3.4	2.8	6.0	-1.0	1.3	-3.8	4.8	-7.4
1997	0.9	0.5	6.8	-3.0	4.6	-2.1	-1.0	-6.0
1998	-4.9	0.3	4.8	-4.4	4.9	-4.8	-2.2	-2.4
1999	3.2	13.8	4.1	-7.4	4.5	-4.3	-0.2	-2.0

(Source) "White Paper on World Economy" (Economic Planning Agency, 2000)

Table 2 Ruble, prices, and interest rate

	1992	1993	1994	1995	1996	1997	1998
Year-to-year decline of ruble	277	200	184.7	30.7	19.8	7.2	246.4
Inflation rate (consumer prices)	2.510	840	215	131	21.8	11	84.5
Average annual yield on short-term government bonds	-	-	-	132.4	63	26	23.3
Central bank rate (year-end)	80	210	180	160	48	28	60

(Source) Azusa Oshima, Kazuo Ogawa, "Introduction to Russian economy"

(Nippon Hyoron-sha, 2000)

Table 3 Big Mac parity

	April 2001 rate	Purchasing parity	Overvaluation (undervaluation) rate
China (yuan)	8.28	3.90	-53
Czech Republic (koruna)	39.0	22.0	-44
Euro bloc (euro)	0.88	0.99	-11
Hungary (forint)	7.80	157	-48
Japan (yen)	124	116	-6
Poland (zloty)	4.03	2.32	-42
Russia (ruble)	28.9	13.8	-52

(Source) The Economist (April 21, 2001)