
The Impact of Global Financial Crisis on the Mechanism of Economic Growth in Russia

Shinichiro Tabata¹

Abstract: A noted specialist on the Russian economy presents an assessment of the impact of the global financial crisis on the mechanism of the country's economic growth. Focusing on the demand side of the economic ledger, the author explores the question of whether Russia will be able to re-attain the high economic growth rates of the period from 2000 to 2007 after recovering from the crisis. The paper analyzes the sharp drop in production in 2008 and the first quarter of 2009, attributing most of the damage to liquidity problems and declines in the price of oil. Empirical evidence is based primarily on data collected by the author from the Central Bank of Russia and the country's federal bureau of statistics (Rosstat). *Journal of Economic Literature*, Classification Numbers: E010, E200, E660, F210, G010. 11 figures, 3 tables, 29 references. Key words: Russia, global financial crisis, economic growth, GDP, GDI, terms of trade, foreign trade, ruble exchange rate, money supply (M2), currency reserves, current account, FDI, private capital, banking system, oil prices, natural gas.

INTRODUCTION

For nine consecutive years through 2007, Russia enjoyed an economic boom, yielding average annual growth rates of 7 percent, a pace unmatched since the rapid industrialization of the Soviet era. During this nine-year period, Russia was commonly regarded as one of the most prominent emerging economies and lionized as one of the four BRIC countries. Since then, however, the global financial crisis has hit the Russian economy harder than most specialists expected during its onset in September 2008 (Ericson, 2009b, p. 221; Hanson, 2009, pp. 23-25). In 2009, the Russian economy will record a year of negative economic growth, while the other emerging economies, notably China and India, are growing rapidly and will lead the world economy more strongly than before the crisis.

The main question addressed in this paper is whether Russia will be able to return to the high economic growth path of 2000–2007 after recovering from the shock of the global financial crisis. For this purpose I investigate the mechanism supporting its economic growth during that period. My investigation and analysis will be focused on the demand side of the economic ledger, primarily because the supply (or production) side has recently been

¹Professor, Slavic Research Center, Hokkaido University, Kita-9, Nishi-7, Kita-ku, Sapporo, Japan (shin@slav.hokudai.ac.jp). An earlier version of this paper was presented at the 41st Convention of the American Association for the Advancement of Slavic Studies, Boston, MA, November 13, 2009. The author wishes to thank Misha Belkindas, Stefan Hedlund, and David Lane for comments on that draft. Partial research funding was provided by the Ministry of Education and Science of Japan, in the form of a grant-in-aid for scientific research on innovative areas, entitled A Comparative Research on Major Regional Powers in Eurasia.

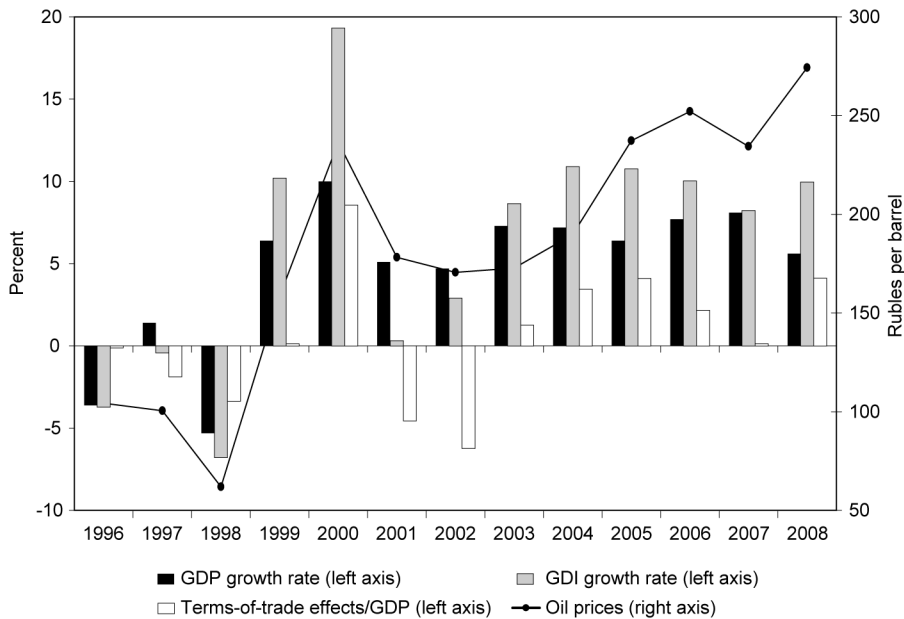


Fig. 1. Terms of trade effects, 1996–2008. The prices of oil represent the world average converted to the ruble at official exchange rates and deflated by CPI. *Sources:* Compiled by the author from CBR (2009b), *IFS* (2009), and Rosstat (2009).

discussed by Hanson (2009) and Kuboniwa (2009, pp. 17–20).² The next step, which follows this probe of the growth mechanism prior to 2007, is my analysis of new factors that have been added to that mechanism after 2006. I will then briefly analyze the causes of the sharp decrease in Russia's economic output during the financial crisis, and explain how and why the former mechanism of economic growth ceased to function. The final section considers the possibility of a more lasting change in the growth mechanism.

THE MECHANISM OF ECONOMIC GROWTH FROM 2000 TO 2007

Let me start by briefly characterizing the mechanism or model for growth during the first seven years of the 21st century. First, growth was fueled by trade gains obtained mainly due to the rising oil prices on the world market.³ As we have repeatedly argued (Tabata, 2006; 2009, p. 82; OECD, 2006, pp. 22–24; Kuboniwa, 2007), GDP indicators in real terms are unable to fully measure these gains, because the price increases are deflated. Figure 1 represents my calculation of terms-of-trade effects and GDI (gross domestic income) indicators (defined as GDP plus terms-of-trade effects) using the domestic demand deflator. This figure shows rather clearly that the terms-of-trade effects have been strongly influenced by oil prices and were substantial during the period from 2003 to 2006, ranging from 1.3 to 4.1 percent of GDP. Accordingly, the growth rates of GDI have been higher than those of GDP since 2003.

²One of the reasons underlying the different approach followed here involves the difficulty of making accurate estimates of the growth of capital stocks, which Kuboniwa and Hanson have attempted to overcome.

³For details on oil price increases and forecasting, see Gaddy and Ickes (2009, pp. 5–9).

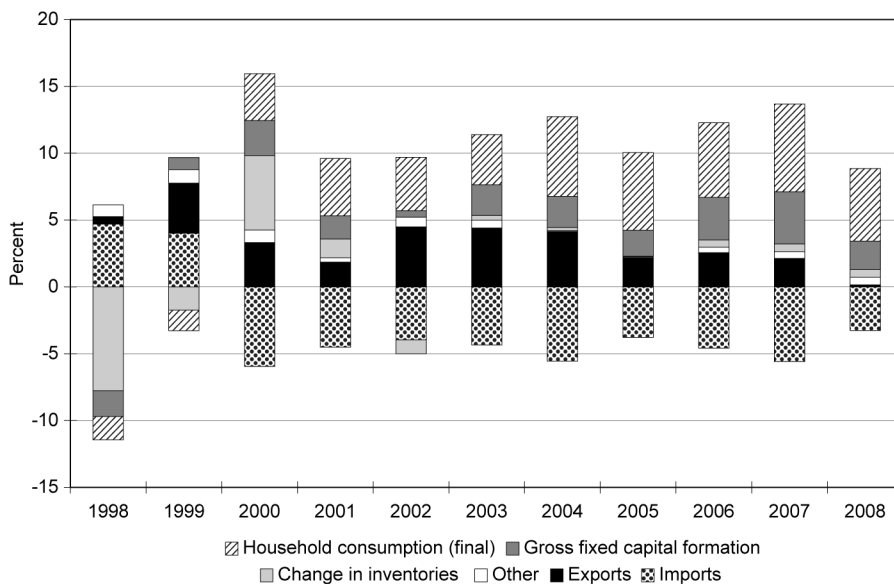


Fig. 2. Contribution to GDP growth by final use, 1998–2008 (percent).

Second, investments were not the driving force that powered this mechanism, for that role has rather been assumed by the final consumption of households.⁴ As shown in Figure 2, calculated on the basis of the most recently available official data (Rosstat, 2009), household consumption has been a dominant factor since 2001, evidencing the peculiarities of the Russian growth model, which differs from the relevant models of other economies experiencing high growth, such as China, India, and Saudi Arabia (Tabata, 2009, pp. 82–85).

Third, one of the major factors suppressing growth can be traced to increasing imports, prompted by the rise of exchange rates (symptoms of Dutch disease). As shown in Figure 2, the negative contribution of imports to GDP growth was substantial, amounting on average to -4.4 percent during the 2001–2005 period. Because the positive contribution of exports during the same period was on average 3.4 percent, that of net exports was negative, except in the years 2002 and 2003.

Given the basic structure of the Russian growth mechanism, the immense increase in imports appears to have been inevitable. Figure 3 demonstrates that Russia's imports have increased due to the rise in exchange rates of the ruble in real terms; the correlation (between import volumes and exchange rates) from 1994 to 2008 is quite high ($r = 0.985$).⁵ The rise in exchange rates, in

⁴The investment rate (ratio of gross fixed capital formation to GDP) for Russia amounted to 18.3 percent during the period 2001–2005, while on average it was as high as 38.9 percent for China in 2001–2007 and 27.6 percent for India in 2000–2008 (*China Statistical Yearbook*, 2008; CSO, 2009; Rosstat, 2009).

⁵Before the ongoing global crisis, it had been argued that Russia's current account would soon turn negative because of the increase in imports. This argument appears to have regarded the elasticity of imports to GDP as rather high in Russia, and to have neglected the fact that the registered import increases mainly reflected the rise in ruble rates. Even in the midst of the crisis, Minister of Finance Aleksey Kudrin (2009, p. 16) predicted that in 2009 Russia's current account balance was expected to equal zero. Yet, as discussed below, the decrease in the current account surplus in 2007 coincided with an unprecedented increase in capital inflows.

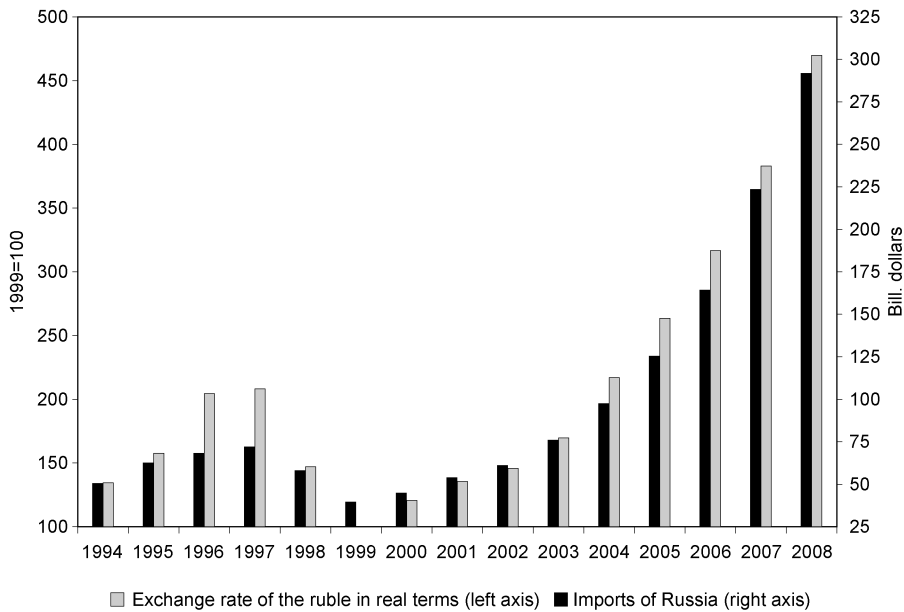


Fig. 3. Imports and the ruble exchange rate against the dollar in real terms, 1994–2008. The exchange rate of the ruble in real terms is calculated from its nominal annual average, deflated by GDP deflator. *Sources:* Compiled by the author from CBR (2009b), *IFS* (2009), and Rosstat (2009).

turn, is explained by the growing current account surplus, which increased rapidly, especially from 2002 through 2005 (Fig. 4). It goes without saying that, theoretically, as imports grow, the current accounts surplus gradually decreases and exchange rates cease to rise. In the Russian model, however, because exports continued to increase due to the rise in oil prices, the current account surplus continued to grow; from 1994 through 2008, the correlation between exports in dollars and oil prices (world averages reported in *IFS*) was $r = 0.996$.

In the 2000s, the Central Bank of Russia (CBR) pursued a policy of keeping nominal exchange rates of the ruble stable. Although First Deputy Chairman of the CBR Aleksey Ulyukayev (2009, p. 17) has indicated that a shift in the bank's priorities from maintaining ruble exchange rates to controlling inflation occurred in 2003, the CBR continued to intervene in exchange markets, as demonstrated in Figure 5, compiled from recent Central Bank data (CBR, 2009b). Since the introduction of the dollar–euro basket in February 2005, the ruble's exchange rate against this basket (in nominal terms) has been the main target of the bank's currency policy, kept stable until 2007 (Fig. 6). The International Monetary Fund (IMF) recognized Russia's de facto exchange rate arrangements as being pegged (IMF, 2008, pp. 1152–1153), although Russian authorities insisted on declaring them (managed) floating.

As a result of interventions in exchange markets by the CBR, Russia's foreign reserves increased dramatically, as did the country's money supply (M2) (Fig. 5), prompting substantial price increases. The strong correlation between international reserves and money supply ($r = 0.995$ from January 2001 through December 2007) signaled a lack of sterilization due to under-

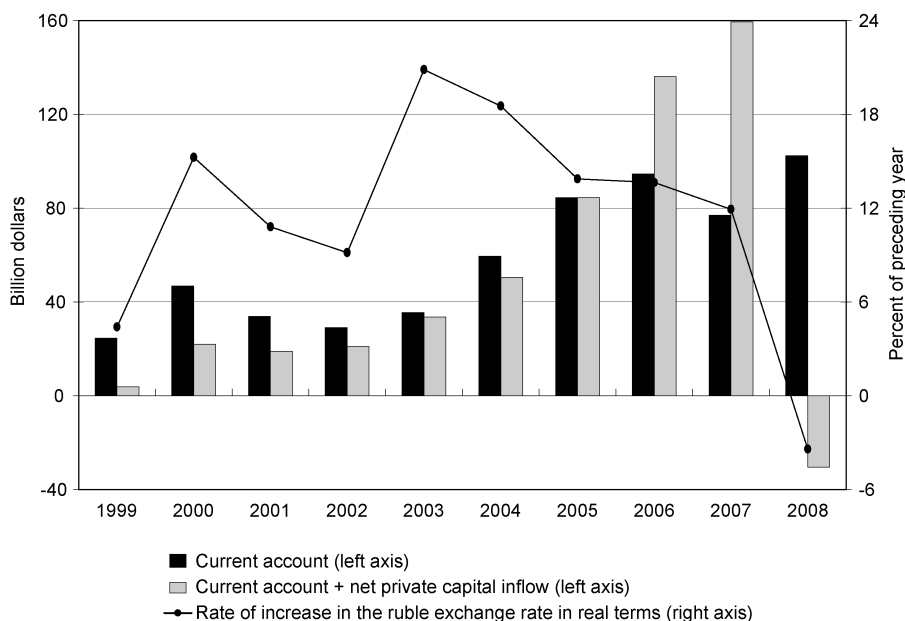


Fig. 4. Exchange rate of the ruble and the inflow of foreign currencies, 1999–2008. The ruble exchange rate is the same as in Figure 6. *Sources:* Compiled by the author from CBR (2009b) and Rosstat (2009).

development of Russia's financial markets (Ulyukayev, 2009, p. 20).⁶ The consumer price index (CPI) rose on average by 13.6 percent annually during the period from 2000 to 2008.⁷ Accordingly, although increases in the nominal exchange rates of the ruble were not especially large, exchange rates in real terms increased by approximately 10 to 20 percent annually from 2000 to 2007 (Fig. 6).⁸ Consequently, Russian policymakers faced a painful dilemma, being forced to choose between restricting ruble appreciation and controlling inflation.

The share of imports in retail goods sales during the period 2000–2008 ranged from 40 to 47 percent (*RSY*, 2008, p. 569; *Rossiia*, 2009, p. 338).⁹ Although it is difficult to precisely identify the industries afflicted most severely by the Dutch disease, the indices of industrial output

⁶From 2004 to 2007, the Stabilization Fund of Russia played an important role in sterilization (Tabata, 2007, pp. 702-704; Ulyukayev, 2009, pp. 20–22, 121–124).

⁷Causes for inflation in Russia, other than increases in money supply, included rising state-regulated prices in the natural monopoly sectors (e.g., natural gas, electricity, and rail transportation), and increases in energy and food prices in the global markets.

⁸In Figure 6, the rate of the ruble's increase in 2005 was obtained by calculating the exchange rate against the basket of currencies at the end of 2004 (in which the weight of the euro was 40 percent). In February 2005 the CBR set the weight of the euro at 10 percent and gradually increased it to 40 percent by December (it had been further increased to 45 percent in February 2007). The exchange rate of the ruble against the dollar decreased by 3.6 percent in nominal terms in 2005, due to the introduction of the basket and the appreciation of the dollar against the euro in that year; in nominal terms, the ruble appreciated 10.6 percent against the euro in 2005.

⁹The relationship between the large positive contribution of household consumption and the large negative contribution of imports to GDP growth requires further examination.

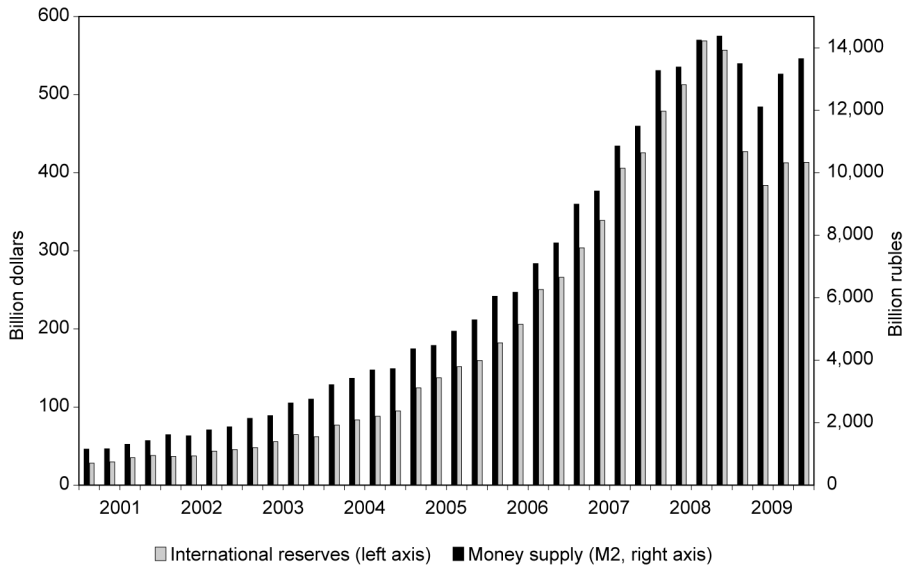


Fig. 5. International reserves and money supply, beginning of quarter, 2001–2009.

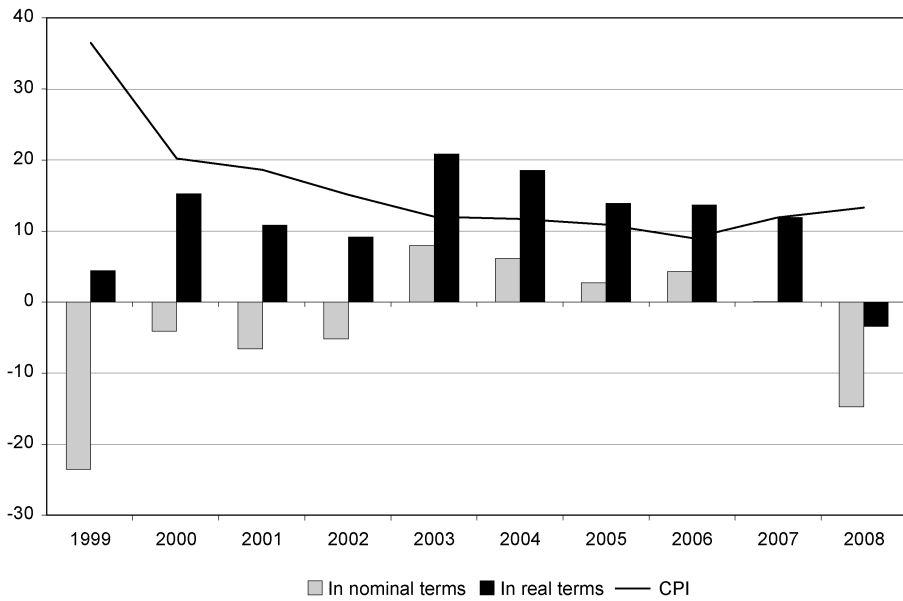


Fig. 6. Increases in ruble exchange rates, 1999–2008 (percent of preceding year). Exchange rates against the dollar prior to 2004, and against the dollar–euro basket after 2005. Increases are calculated from rates at the end of year. Sources: Calculated by the author from CBR (2009b) and Rosstat (2009).

Table 1. Index of Industrial Output in 2008 in Relation to 1991, 2000, and 2005

Industry	1991 = 100	2000 = 100	2005 = 100
Mining and quarrying	103.7	139.6	104.6
Energy-producing materials	116.4	143.9	104.3
Non-energy producing materials	65.7	109.5	105.8
Manufacturing	84.4	165.5	122.3
Food products	86.3	158.3	114.8
Textiles and textile products	26.2	112.0	105.6
Leather and, leather products	27.1	174.8	124.3
Wood and wood products	54.1	144.3	111.3
Pulp, paper, and paper products	127.9	157.5	117.7
Coke and refined petroleum products	79.9	132.9	113.2
Chemicals and manmade fibers	87.3	125.1	106.5
Rubber and plastics	124.3	236.8	167.1
Other non-metallic mineral products	65.2	161.8	126.4
Basic metals and fabricated metal products	98.0	146.7	111.9
Machinery and equipment	61.0	188.9	135.3
Electrical, electronic, and optical equipment	139.3	307.5	119.8
Transport equipment	69.2	130.3	131.3
Other manufacturing products	111.5	184.6	123.3
Electricity, gas, and water supply	101.4	131.9	117.8

shown in Table 1 (calculated from Rosstat data) suggest that domestic production was seriously damaged by imports in such industries as textiles, chemicals, and transport equipment.¹⁰

NEW FACTORS OF ECONOMIC GROWTH SINCE 2006

Since 2006, the mechanism of Russia's economic growth has changed slightly, as a result of the emergence of new factors reflecting excess capital in world financial markets. First, inflows of private capital have supplanted current account surpluses as the major force underlying the rising exchange rate of the ruble. Due to the continuing increase in imports (31 percent in 2006 and 36 percent in 2007), the growth rate of the current account surplus fell to 11.9 percent in 2006 (relative to 2005), and the current account itself declined by 18.7 percent in 2007. This should have weakened the upward pressure on exchange rates, but in fact the ruble appreciated due to the substantial net inflow of private capital. As shown in Figure 7, compiled and calculated from Central Bank data (CBR, 2009b), the outflow of private capital from Russia before 2005 exceeded its inflow, reflecting an enormous tide of capital flight. In 2006, for the first time since the collapse of the Soviet Union, a net inflow of private capital began to materialize, reaching \$41.4 billion for the year and increasing to

¹⁰Kadochnikov's (2006, p. 88) analysis of the 1994–2003 period concluded that the fluctuation of the real exchange rate has had a major effect on the dynamics of growth. The difficulty in investigating the Dutch disease derives from the absence of a quantity index of imports by industry and the lack of data on the shuttle trade, which accounts for almost 30 percent of Russia's imports but whose commodity structure has not been reported in foreign trade statistics.

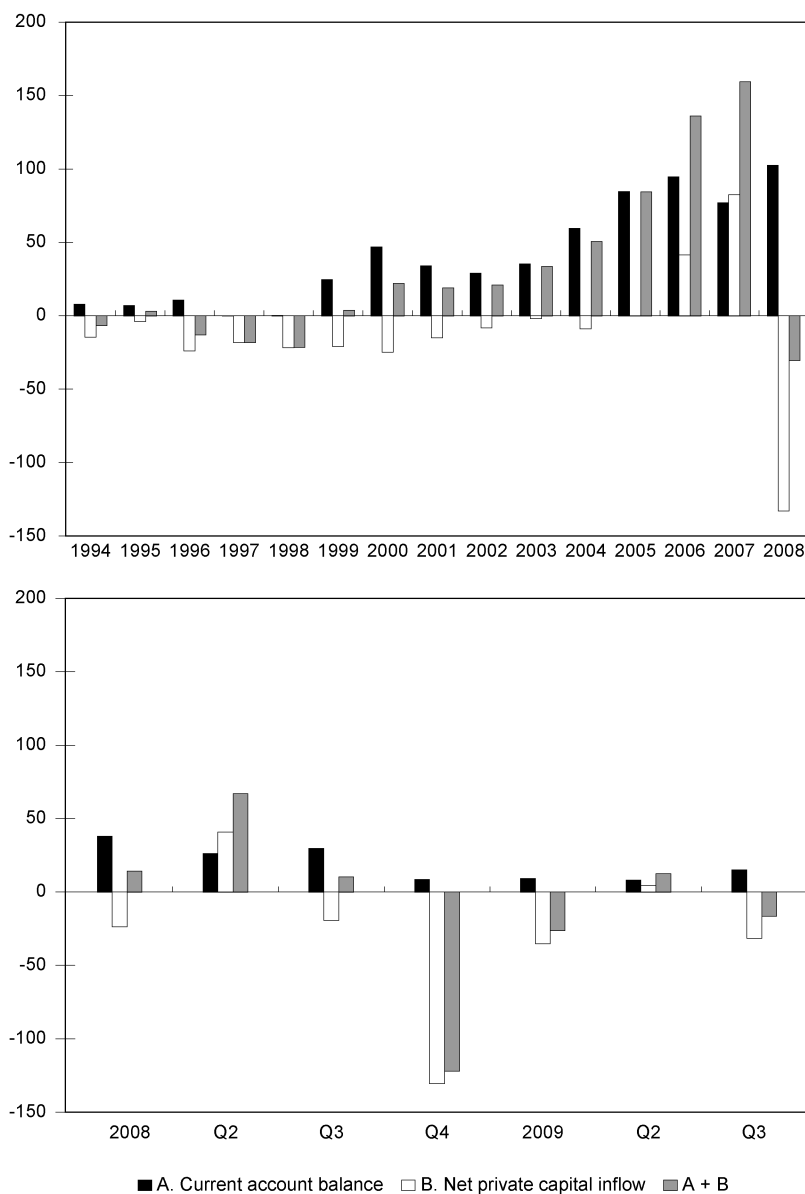


Fig. 7. Current account balance and private capital flows, 1994–2008 (top) and by quarter for 2008 through the first half of 2009 (bottom), in billion dollars.

\$82.4 billion in 2007. The inflow consisted primarily of loans granted to Russian banks and other sectors (mainly enterprises) as well as foreign direct investment (FDI), which increased significantly (Fig. 8, compiled and calculated from CBR, 2009b).¹¹

¹¹The large increase in loans from abroad in 2007 was reported to be due in part to the purchase of Yukos assets (Tabata, 2009, p. 90).

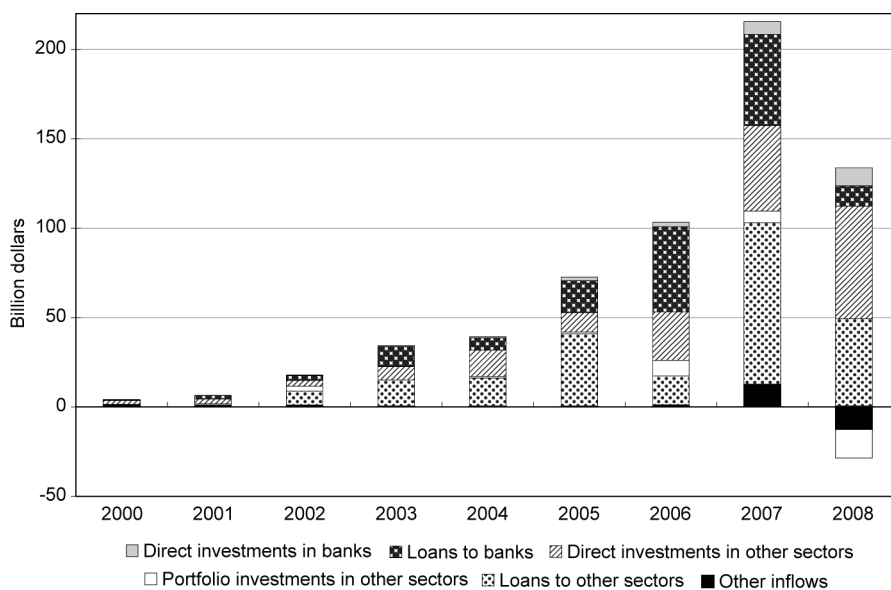


Fig. 8. Inflows of private capital, 2000–2008.

It should be noted that considerable amounts of “foreign” capital arrived from Cyprus and other known tax havens. In terms of foreign direct investments into Russia reported in Rosstat data (explained below), three sources (Cyprus, the Virgin Islands, and Bermuda) accounted for 44.2 percent of the total in 2007 and 56.6 percent in 2008. With respect to loans provided to enterprises, the shares of Cyprus and the Virgin Islands were 25.4 and 29.9 percent in 2007 and 2008, respectively.¹² This might reflect the situation, revealed by Nikita Krichevskiy, in which leading Russian corporations are governed by offshore holding companies registered in tax havens (Hanson, 2009, pp. 27–28).

The growth of foreign capital inflows was promoted by liberalization of capital and currency transactions in Russia in July 2006 (Konno, 2009a, pp. 69-70; Ulyukayev, 2009, p. 20), and inflated by the rise in ruble exchange rates in real terms. Thus, a “vicious” circle was formed between the growth in foreign capital inflows and the appreciation of the ruble.

The enormous volume of incoming foreign currencies (including both the current account surplus and net private capital inflows; see Fig. 4) has heightened substantially interventions by the CBR; thus, net purchases of foreign currencies increased from \$72.2 billion in 2005 to \$117.6 billion in 2006 and \$142.3 billion in 2007 (CBR, 2009b). Consequently, Russia’s international reserves grew rapidly during these years, resulting in a considerable increase in money supply (see Fig. 5). The dilemma between higher inflation and appreciation of the ruble continued unabated.

A second change in the growth mechanism that has occurred since 2006 has been the substantial increase in the contribution of investments to GDP growth. As Figure 2

¹²Based on data derived from “Formation of Foreign Debts of Non-banking Corporations of the Russian Federation,” a compilation available from the CBR (2009b).

Table 2. Foreign Direct Investment, 2000–2008

Year	CBR data			Rosstat data		
	FDI ^a , bill. dollars	In percent of total gross fixed capital formation	In percent of GDP	FDI, bill. dollars	In percent of total gross fixed capital formation	In percent of GDP
2000	2.5	5.7	1.0	4.4	10.1	1.7
2001	2.7	4.6	0.9	4.0	6.9	1.3
2002	3.2	5.1	0.9	4.0	6.5	1.2
2003	7.5	9.4	1.7	6.8	8.6	1.6
2004	17.8	16.3	3.0	9.4	8.7	1.6
2005	10.9	8.0	1.4	13.1	9.6	1.7
2006	27.2	14.8	2.7	13.7	7.5	1.4
2007	47.9	17.5	3.7	27.8	10.2	2.1
2008	62.8	17.1	3.7	27.0	7.4	1.6

^aExcluding FDI to banks.

Sources: Compiled and calculated by author from CBR, 2009b; Rosstat, 2009; and *IFS*, 2009.

demonstrates, the contribution of gross fixed capital formation to GDP growth rose to 3.2 percent in 2006 and 3.9 percent in 2007, representing the largest contribution by investments since the collapse of the Soviet Union. The investment rate amounted to 21.1 percent in 2007, reflecting in part the increase in foreign direct investment in Russia. Trends in FDI can be tracked on the basis of two official sources: (a) balance of payments statistics compiled by the CBR and (b) data on FDI released by Rosstat (Table 2). Both sets of data, especially the former, show a large increase in investments since 2006,¹³ which according to the CBR accounted for 17.5 percent of gross fixed capital formation in 2007.

The increases in investment may reflect in part improvements in the functioning of the banking sector (in general) and increases in working capital and the money supply (in particular). It seems that these improvements were prompted at least in part by the growing influx of foreign private capital. Both bank assets and bank lending as a percentage of GDP have increased sharply, especially, since 2006 (Fig. 9),¹⁴ implying that the role of the banking sector in the economy has recently been expanding. The rising influence of foreign capital on these developments is apparent from the recent increase in loans provided to Russian banks, as discussed above and depicted in Figure 8. The share of non-residents' holdings in the capital of banks, while not as high as in the Central and East European countries, increased from 6.2 percent at the end of 2004 to 25.1 percent at the end of 2007 (Fig. 9). The increase in

¹³Russia is also unusual in that outward foreign direct investment has been large, especially when compared with developing countries such as China and India (Uegaki, 2009).

¹⁴Data on bank lending include credits, deposits, and other funds placed with organizations, individuals, and credit organizations (provided in the monthly *Kratkosrochnyye ekonomicheskiye pokazateli*, available from Rosstat, 2009). They are reported in rubles as well as in foreign currencies, which are separately reported in CBR (2009b) or the monthly *Byulleten' bankovskoy statistiki*.

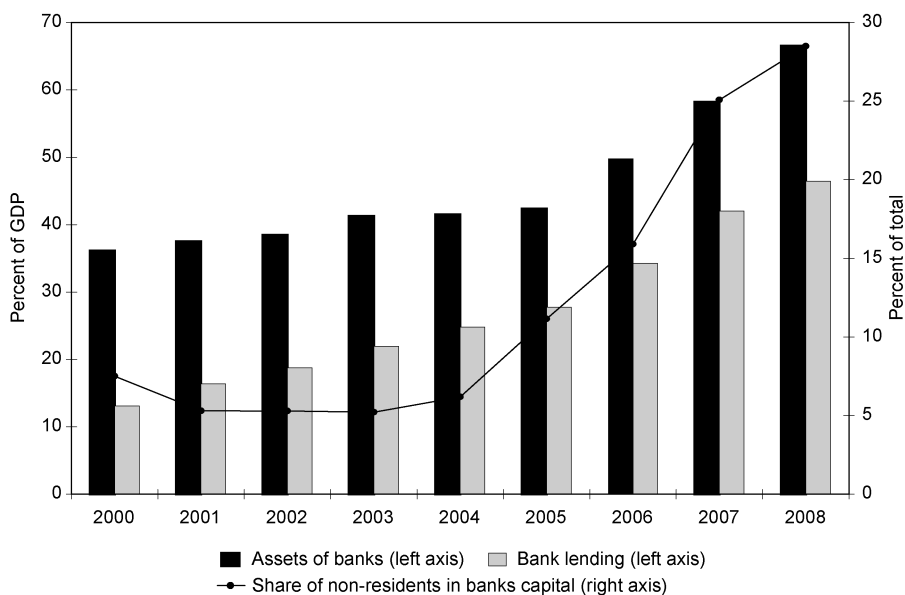


Fig. 9. Development of the banking system, 2000–2008 (at year end). *Sources:* Compiled by the author from CBR (2009b) and Rosstat (2009).

money supply has already been discussed (see Fig. 5); as percentage of GDP, M2 increased from 25.6 percent at the end of 2004 to 40.1 at the end of 2007.

It is fairly well known that the Russian banking sector was weak and played a limited role in financing the economy (OECD, 2009, pp. 97–123), although the situation improved somewhat in 2006 and 2007. As Ericson (2009b, p. 217) has recently observed, finance and the “real economy” (all other sectors) had indeed become much more closely integrated than in the past. It should be emphasized, however, that this outcome resulted from the growing influence of foreign capital that in turn was possible because of the unprecedented excess of financial resources in global markets. In reality, the Russian banking system, dominated by several state-owned banks and characterized by a large number of small banks, is still weak by international standards, as revealed by the current economic crisis.

SHARP DECREASE IN PRODUCTION IN LIGHT OF THE GLOBAL FINANCIAL CRISIS

Since the fourth quarter of 2008, the growth rate of Russia’s GDP has declined significantly. In fact, GDP decreased in absolute terms for the first half of 2009, falling 10.4 percent relative to the corresponding period in 2008. In some branches of manufacturing, such as machine-building, output declined by more than 30 percent in the first half of 2009. The sharp decrease in production was caused mainly by three factors: (a) liquidity problems, (b) an abrupt and pronounced fall in oil prices, and (c) a decline in overall exports in quantitative terms.

Table 3. Contribution to GDP Growth by Final Use, 2008–2009 (quarterly data, in percent)

Contributor	2008					2009		
	Q1	Q2	Q3	Q4	Year	Q1	Q2	H1
GDP	8.7	7.5	6.0	1.2	5.6	-9.8	-10.9	-10.4
Final consumption	6.6	6.9	6.1	4.2	5.9	-1.3	-3.0	-2.2
Household	6.1	6.5	5.7	3.8	5.4	-1.5	-3.3	-2.5
Government	0.5	0.4	0.4	0.4	0.4	0.2	0.3	0.3
NPO	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
Gross capital formation	3.1	4.8	3.8	-0.6	2.7	-11.1	-14.2	-12.8
Gross fixed capital formation	3.4	3.4	2.5	-0.5	2.1	-2.6	-4.6	-3.7
Changes in inventories	-0.3	1.3	1.2	-0.0	0.6	-8.5	-9.6	-9.1
Net exports	-1.0	-3.8	-4.3	-3.5	-3.1	2.1	6.9	3.7
Exports	3.0	0.1	0.6	-2.7	0.2	-4.8	-2.9	–
Imports	-4.4	-4.3	-4.6	-0.2	-3.3	7.0	8.3	–

Liquidity Problems

First, liquidity problems of enterprises have caused an immense drop in inventories, which contributed to 9.1 percent of the decrease in GDP in the first half of 2009 (as shown in Table 3, compiled by the author from Rosstat, 2009). According to unpublished inventory data for the first quarter of 2009 obtained from Rosstat in August 2009, 58.8 percent of the decrease (in nominal terms) in inventories (*izmeneniye zapasov material'nykh oborotnykh aktivov*) was caused by a decline in production inventories (*proizvodstvennyye zapasy*), and 22.2 percent by a decrease in goods for sale (*tovary dlya pereprodazhi*). Thus, the decrease in inventories was mainly caused by the decline in stocks of materials used for production. It should be emphasized that the volumes of inventories in Russia have traditionally been large, because enterprises were inclined to hoard stocks of production inputs in order to protect against production halts caused by shortages (and thereby meet output quotas under the old Soviet system). This probably was one of the reasons why the contribution of inventories has been so large in Russia, as demonstrated both in 1998 and during the ongoing crisis (see Fig. 2).

One can readily imagine that the tremendous decrease in inventories reflected the shortage of working capital in enterprises, brought about by increases in capital flight abroad, decreases in money supply, and the growing preference of banks and enterprises for foreign currencies. The huge outflow of private capital, which erupted in the fourth quarter of 2008 (Fig. 7), implied a complete change from the situation in 2006–2007, when a great amount of foreign capital entered the Russian economy in the form of bank loans and foreign investments, prompting increases in the circulation of the ruble.

Money supply, which had increased by 30 to 50 percent annually in the preceding years, became stagnant and began to decrease in the latter half of 2008 (Fig. 5), due to the intervention of the CBR in exchange markets. More specifically, when the ruble began to depreciate suddenly in September 2008, the CBR defended it by selling its foreign reserves, thus causing a decrease in money supply. From September 2008 through January 2009, the CBR

sold \$209.0 billion worth of dollars and euros, so that Russia's foreign reserves decreased by \$195.3 billion dollars.¹⁵

The Russian government, as governments in other countries, injected considerable amounts of public money into banks in order to promote the financing of the real (non-financial) sector. The banks, however, converted the money into foreign currencies and assets in anticipation of further depreciation of the ruble. According to a study of assets and liabilities on the balance sheets of Russian banks, released by the CBR, while the Russian government injected more than four trillion rubles into the banking sector during the four months from September 2008, foreign assets in that same sector increased by an identical amount (Konno, 2009b, pp. 2–5).

Decline in Oil Prices

A second factor underlying the general decrease in Russia's economic output during the global financial crisis was the sudden decrease in trade gains caused by the sharp decline in oil prices. I calculated the terms-of-trade effects from quarterly data showing trade gains or losses against the average for 2003 (Fig. 10).¹⁶ The results indicate that terms-of-trade effects changed in tandem with oil prices and sharply declined in the fourth quarter of 2008 and the first quarter of 2009. Because I believe that trade gains were the major source of the economic boom that preceded the crisis, their sudden decline has inevitably dealt a major blow to the Russian economy.

Decrease in Export Volume

Third, not only did export values decrease in relative dollar terms, but the quantity of exported goods decreased considerably in physical terms, due mainly to an unprecedented decline in natural gas exports to Europe. According to Table 3, the decrease in exports contributed substantially to the decrease in GDP (accounting for anywhere between 2.7 and 4.8 percent of the decline from the fourth quarter of 2008 through the second quarter of 2009). This partly reflected the reduced demand for Russian commodities in foreign countries due to the recession, but in fact was largely explained by the decrease in the physical quantity of exported natural gas (Fig. 11).

In the fourth quarter of 2008, exports decreased by 8.7 percent in real terms compared with the corresponding period in 2007. Over the same period, exports of natural gas declined by 19.8 percent in physical terms. Because natural gas accounted for 13.3 percent of Russia's total exports in the fourth quarter of 2007, this commodity alone contributed to ca. 2.6 percent of the decrease in total exports (in terms of quantity) in the fourth quarter of 2008. Similarly, in the first quarter of 2009, exports overall declined by 14.5 percent and exports of natural gas by an amazing 58.2 percent. Because the share of natural gas amounted to 16.3

¹⁵The CBR began to release data on its net purchases of dollars and euros in exchange markets in August 2008, in the section entitled "Instruments of Currency–Credit Policy of the CBR" included in its statistical posting (CBR, 2009b). Aleksashenko (2009, p. 12) has indicated that only at the end of November 2008 did the CBR succeed in receiving "political permission" for a more fundamental change in ruble rates (i.e., the decision to change currency policy was discussed with Russia's political leaders), because traditionally the ruble rate was regarded by the authorities as a main indicator of stability and governability.

¹⁶I used the quarterly data expressed in percent of the assumed quarterly average for 2003, published in the GDP section of Rosstat (2009).

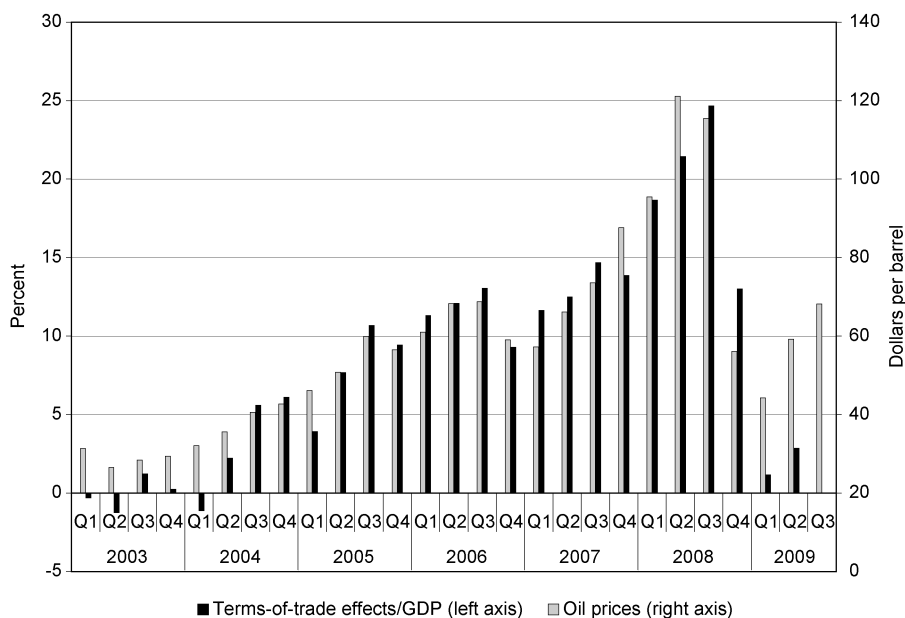


Fig. 10. Terms-of-trade effects for Russia, 2003–2009. Terms-of-trade effects are calculated against the average in 2003, while oil prices represent the world average reported in *IFS*. Sources: Calculated by author from *IFS* (2009) and Rosstat (2009).

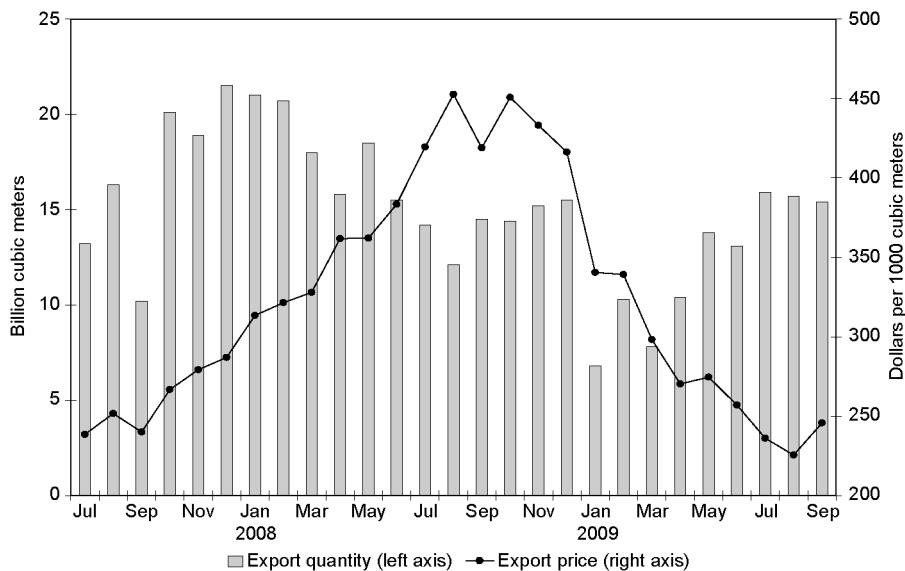


Fig. 11. Exports of natural gas, 2007–2009. Export prices are calculated from customs data, excluding exports to Belarus. Sources: Compiled by author from *SEP* (monthly) and *FTS* (2009).

percent in the first quarter of 2008, the decline in natural gas exports contributed to 9.5 percent of the overall physical decrease in exports during the first quarter of 2009.¹⁷

The decrease in natural gas exports can be explained primarily by the mechanism used to set natural gas prices in Russia. Because the price was set on the basis of the average price of petroleum products during the preceding nine months, it was very high in the fourth quarter of 2008 (Fig. 11). By that time it was reported that European countries had in response begun to import less expensive liquified natural gas from Qatar.¹⁸ Furthermore, the cessation of natural gas flows by pipeline through Ukraine for a period of two weeks in January 2009 also was in part responsible for the decrease in gas exports to Europe.¹⁹

POSSIBLE CHANGES IN RUSSIA'S GROWTH MECHANISM

It is unlikely that the rise in oil prices experienced in 2000–2007 will be repeated in the near future, as these prices may not increase beyond \$90 or \$100 per barrel. It is also unlikely that the immense capital inflows into Russia observed in 2006–2007 will resume in the near future, at least not in their previous form. Much depends on the situation in global financial markets. I would argue that under such conditions, Russia's economic growth going forward will only be possible in the form of import substitution.

I am not referring to import substitution of the type that was realized by the sharp decline in ruble rates following the 1998 financial crisis (a survival strategy when imports become prohibitively expensive), although that episode did show the real potential that exists for import substitution in Russia. At that time, the process lasted for only one or two years, in the aftermath of a truly dramatic devaluation of the ruble (almost by half in real terms). In contrast, the more recent decline in ruble rates against the dollar–euro basket from August 2008 through January 2009 amounts in real terms to only 22.2 percent.

Prime Minister Vladimir Putin reportedly observed that “it makes no sense to make import substitution an end in itself for the Russian economy.”²⁰ But a certain level of import substitution may well emerge as a natural response to conditions that accompany global economic recovery. For example, if the rise in oil prices is moderate, then a moderate increase in ruble exchange rates can be expected as well.²¹ Even if oil prices remain in the range of \$50–\$70 per barrel, domestic demand for consumption will be sufficient to boost import substitution. Furthermore, we can expect Russian enterprises that are financed by foreign capital (and rely—to a degree—on foreign technologies) to increase their production as economic conditions improve going forward. This scenario, of course, is predicated on considerable improvements in the business and investment climate in the country.

¹⁷Data on natural gas and total exports by quarter are available from CBR (2009b).

¹⁸I owe this information to Masumi Motomura, Chief Researcher of Japan Oil, Gas, and Metals National Corporation. See Ericson (2009a) for Russia's efforts to enhance its market power in European natural gas markets in recent years.

¹⁹There are no relevant data to assess the effect of the two-week interruption directly.

²⁰These remarks were reportedly made at the open meeting of the Chamber of Commerce and Industry of the Russian Federation (a nongovernmental, nonprofit organization headed by former Prime Minister Yevgeniy Primakov; *BBC Monitoring*, May 27, 2009), in which Putin contrasted import substitution with the innovation-based development model forming the core of the Concept of Long-Term Socio-economic Development of the Russian Federation in the Period to 2020 (approved by Government decision No. 1662 on November 17, 2008).

²¹The CBR intends to move to inflation targeting within a couple of years (e.g., see CBR, 2009a; OECD, 2009, pp. 84–93; Ulyukayev, 2009, pp. 94–107), but such targeting is only feasible given a moderate rather than sharp increase in oil prices.

REFERENCES

- Aleksashenko, Sergey**, “Obval’ noye padeniye zakonchilos’, krizis prodolzhaetsya (Sharp Decline Finished, Crisis Continues),” *Voprosy ekonomiki*, 5:4–20, 2009.
- CBR (Central Bank of Russia)**, “Osnovnyye napravleniya yedinoy gosudarstvennoy denezhno-kreditnoy politiki na 2010 god i period 2011 i 2012 godov (Basic Guidelines for Currency–Credit Policy for 2010 and the Period 2011–2012),” approved by the Board of Directors of the CBR on September 29, 2009a [http://www.cbr.ru/analytics/standart_system/print.asp?file=policy.html].
- CBR (Central Bank of Russia)**, *Statistika (Statistics)*, 2009b [<http://www.cbr.ru/statistics/>].
- China Statistical Yearbook 2008*. Beijing, China: China Statistics Press, 2008 [<http://www.stats.gov.cn/tjsj/ndsj/2008/indexeh.htm>].
- CSO (Central Statistical Organization, India)**, *National Accounts Statistics*, 2009 [http://www.mospi.gov.in/mospi_cso_rept_pubn.htm].
- Ericson, Richard**, “Eurasian Natural Gas Pipelines: The Political Economy of Network Interdependence,” *Eurasian Geography and Economics*, **50**, 1:28–57, 2009a.
- Ericson, Richard**, “The Russian Economy in 2008: Testing the ‘Market Economy,’” *Post-Soviet Affairs*, **25**, 3:209–231, 2009b.
- FTS (Federal’naya tamozhennaya sluzhba)**, Russian Federation, *Statistika vneshney trgovli (Statistics of Foreign Trade)*. Moscow, Russia: Federal Customs Service, 2009 [<http://www.customs.ru/rus/stats/stats/>].
- Gaddy, Clifford and Barry Ickes**, “Russia’s Declining Oil Production: Managing Price Risk and Rent Addiction,” *Eurasian Geography and Economics*, **50**, 1:1–13, 2009.
- Hanson, Philip**, *Russia to 2010*. Finmeccanica, Occasional Paper, November 2009 [http://www.chathamhouse.org.uk/files/15298_1109hanson.pdf].
- IFS (International Financial Statistics)**, available from a website maintained by the International Monetary Fund [<http://www.imfstatistics.org>].
- IMF (International Monetary Fund)**, *Annual Report on Exchange Arrangements and Exchange Restrictions*. Washington, DC: International Monetary Fund, 2008.
- Kadochnikov, Pavel**, “An Analysis of Import Substitution in Russia after the Crisis of 1998,” *Problems of Economic Transition*, **49**, 6:5–103, 2006.
- Konno, Yugo**, “The Russian Economy under the Financial Crisis,” Mizuho Research Institute, *Mizuho Soken Ronsyu*, 2:61–90, 2009a (in Japanese).
- Konno, Yugo**, “Comparing Russia’s financial Crises of 2008–2009 with 1998: From Balance Sheets of the CBR, Banking Sector, and Enterprises.” Paper presented at the 41st National Convention of the American Association for the Advancement of Slavic Studies, Boston, MA, November 13, 2009b.
- Kuboniwa, Masaaki**, *The Impact of Terms-of-Trade Effects on the Russian Economy*. Tokyo, Japan: Hitotsubashi University, Russian Research Center, RRC Working Paper Series, No. 1, 2007 [<http://www.ier.hit-u.ac.jp/rrc/wp.htm>].
- Kuboniwa, Masaaki**, *Growth and Diversification of the Russian Economy in Light of Input-Output Tables*. Tokyo, Japan: Hitotsubashi University, Russian Research Center, RRC Working Paper Series, No. 18, 2009 [<http://www.ier.hit-u.ac.jp/rrc/wp.htm>].
- Kudrin, Aleksey**, “Mirovoy finansovyy krizis i yego vliyaniye na Rossiyu (The World Financial Crisis and Its Influence on Russia),” *Voprosy ekonomiki*, 1:9–27, 2009.
- OECD (Organisation for Economic Co-operation and Development)**, *OECD Economic Surveys: Russian Federation*. Paris, France: OECD, 2006.
- OECD (Organisation for Economic Co-operation and Development)**, *OECD Economic Surveys: Russian Federation*. Paris, France: OECD, 2009.
- Rossiya v tsifrakh (Russia in Figures)*. Moscow, Russia: Rosstat, 2009.
- Rosstat (Federal’naya sluzhba gosudarstvennoy statistiki)**, main website page, 2009 [<http://www.gks.ru/>].

- RSY**, *Rossiyskiy statisticheskiy yezhegodnik (Russian Statistical Yearbook)*. Moscow, Russia: Rosstat, 2008.
- SEP**, *Sotsial'no-ekonomicheskoye polozheniye Rossii (Socio-economic Situation of Russia)*. Moscow, Russia: Rosstat, monthly.
- Tabata, Shinichiro**, "Observations on the Influence of High Oil Prices on Russia's GDP Growth," *Eurasian Geography and Economics*, **47**, 1:95–111, 2006.
- Tabata, Shinichiro**, "The Russian Stabilization Fund and Its Successor: Implications for Inflation," *Eurasian Geography and Economics*, **48**, 6:699–712, 2007.
- Tabata, Shinichiro**, "The Influence of High Oil Prices on the Russian Economy: A Comparison with Saudi Arabia," *Eurasian Geography and Economics*, **50**, 1:75–92, 2009.
- Uegaki, Akira**, "Balance of Payments from a Comparative Perspective: China, India, and Russia under Globalization," in Akira Uegaki and Shinichiro Tabata, eds., *The Elusive Balance: Regional Powers and the Search for Sustainable Development*. Sapporo, Japan: Slavic Research Center, Hokkaido University, Comparative Studies on Regional Powers, No. 2, 2009 (forthcoming).
- Ulyukayev, Aleksey**, *Sovremennaya denezhno-kreditnaya politika (Contemporary Monetary–Credit Policy)*. Moscow, Russia: Delo, 2009.