The Influence of Oil and Gas Revenues on Russia's Monetary and Credit Policy[1]

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ABSTRACT

This article examines the problems of implementing monetary and credit policy when there is significant flow of currency revenues from the export of raw materials. It argues that, given a strong balance of payments, the Central Bank has to accept either a strengthening of the rouble or inflation. Only the RF Government has the power to prevent an appreciation of the currency whilst at the same time controlling inflation. This dual task can be achieved by saving, when external economic conditions are favourable, a share of the revenues from oil and gas in reserve funds. Such a policy can create the foundations for macroeconomic stability and a favourable investment climate.

Key words: monetary and credit policy, oil and gas dependency "Dutch disease", reserve fund, inflation.

JEL: E52, E58, E61.

Any discussion of the prospects for the Russian economy and ways of reducing its dependence on oil and gas must begin with a clear analysis and adequate understanding of how this dependence came about. There is an abundant literature, both in Russia and abroad, on the dependence of Russia on oil and gas, on the exporters of oil and other natural resources (See for example, Humphries et al; World Bank 2006; Gaidar 2006[2]). The author of this article has dealt with the topic on a number of occasions. [3]

The Russian Government and the RF Central Bank have devised a policy for reducing the dependence of the economy and of the budgetary system on oil and gas revenues. The time has come to analyse the results of this policy and reach some provisional conclusions, with a view to deciding on methods for reducing dependence in the years that lie ahead.

A policy for reducing dependence on the oil and gas sector must be aimed at, in the final analysis, a diversification of the economy. However, this will require a variety of inter-related measures: the maintenance of macro-economic stability, which must involve low inflation and transparent rules for changing the exchange rate of the rouble; encouraging competition; the development of the financial market and the emergence of "long money"; the creation by the state of the necessary infrastructure; fostering sectors with high added value; support for centres of innovation; and the lowering of administrative barriers. Such a policy will bring about a change in the structure of the economy, not by allowing the state to expand

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[2] See also: http://siteresources.worldbank.org/INTOGMC/Resources/Vulnerability_to_higher_oil_prices_for_web_posting.pdf; www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/01/22/000020439_20070122164239/Rendered/PDF/ESM3210Experiences1Oil1Fund01PUBLIC1.pdf.

[3] www.akudrin.ru/science/stabilizatsionnyy-fond-zarubezhnyy-i-rossiyskiy-opyt-.html; www.akudrin.ru/science/mekhanizmy-formirovaniya-neneftegazovogo-balansa-byudzheta-rossii.html; www.akudrin.ru/science/realnyy-effektivnyy-kurs-rublya-problemy-rosta.html.

into particular sectors of the economy but by an evolutionary process of opening up of the market potential of new sectors.

In this article we examine the impact of oil and gas revenues on the principal parameters of monetary and credit policy and the budgetary system that are important for macroeconomic stability. We also consider the measures that have been take in this sphere by the Government and the Central Bank. Of course, the influence on the economy of the oil and gas sectors and of revenues from exports extends beyond this sphere.

The impact of oil and gas exports: principal conclusions

During the 2000s, the world experienced a surge in the prices for oil and gas and Russia began to obtain huge revenues from the export of these raw materials. Resisting the temptation to spend these revenues was difficult: after all, between 1992 and 1998 Russian GDP had shrunk by 39.5%. The funding of all sectors of the national economy, including the public sector (which includes health care, education, science and infrastructure) was inadequate.

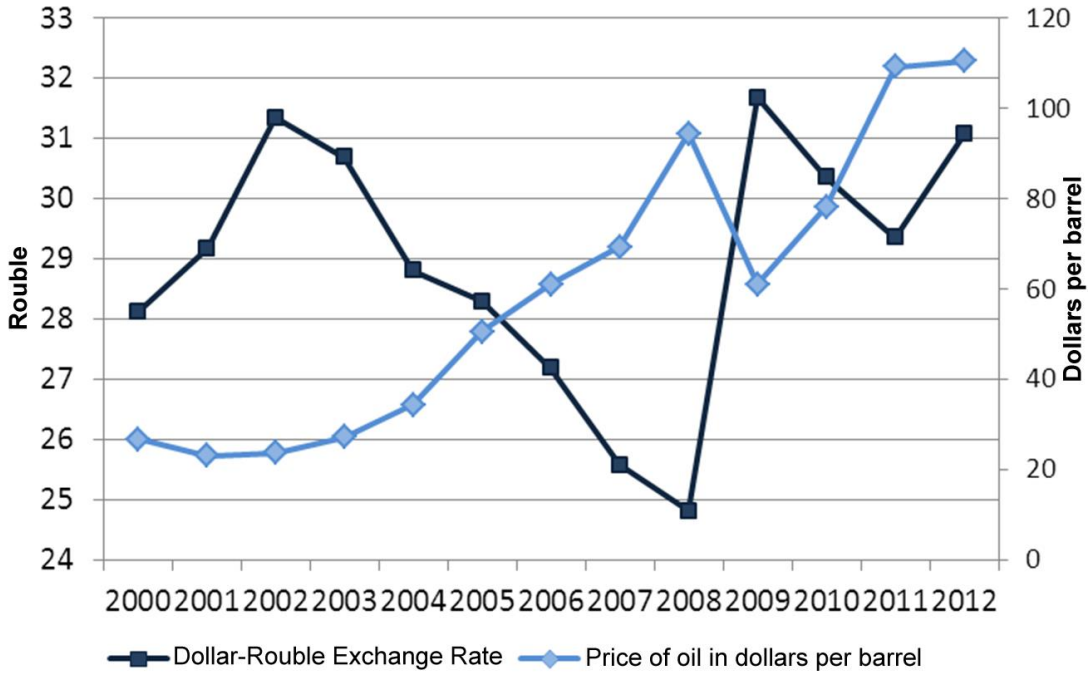
The Government, in the aftermath of the difficult 1990s, was guided by the need to improve the standard of living of citizens by extending social support, increasing investments in infrastructure and encouraging the development of business. The increase in world prices for oil and gas provided the means for implementing these policies. Per capita GDP between 2000 and 2012 increased from 1,800 to 14,000 USD, average monthly wages from $79 in 2000 to $835 in 2012. However, the positive effect of the oil and gas sector on the economy has now begun to decline and over the entire period the risk of dependence on the fuel and energy complex (TEK) has increased.

The principal way in which revenues from the export of hydrocarbons impact upon the Russian economy is by way of the exchange rate for the rouble, through fluctuations in its value according to the quantity of foreign currency in the market. The exchange rate is also influenced by economic forecasts, and by the relationship between supply and demand for currency or roubles. There is a very clear correlation with the dynamics of the balance of payments: when there is a positive balance of payments, the rouble appreciates. In countries that export natural resources, the balance of payments is subject to more rapid changes than in developed countries that do not depend upon the export of mineral resources. An increase in the inflow of currency from the sale of raw materials at high prices in world markets can be followed by a decrease in these revenues; the supply of currency in the domestic market then falls and the exchange rate can also rapidly fall. Given that oil and gas constitute 65.5% of Russian exports, the exchange rate is particularly sensitive to price fluctuations for oil and gas and although the exchange rate is also influence by other factors – the dynamics of GDP, improvements in the investment climate and so forth, the main risk has always been the dependence upon oil and gas. This means that the exchange rate has, as a rule, varied according to oil and gas prices (see Figure 1). The indicators of rapid growth of per capita GDP and average wages expressed in dollars also reflect movements in the rouble exchange rate.

We need to remember that conditions of persistent inflation and strengthening of the rouble engender a speculative flow of foreign "short-term" investments in the stock market. This results in a temporary further appreciation of the rouble but when the price of oil falls the rouble exchange rate falls more steeply.

Figure 1

Rouble-USD exchange rate relative to oil price



Source: Bank of Russia; Ministry of Economic Development

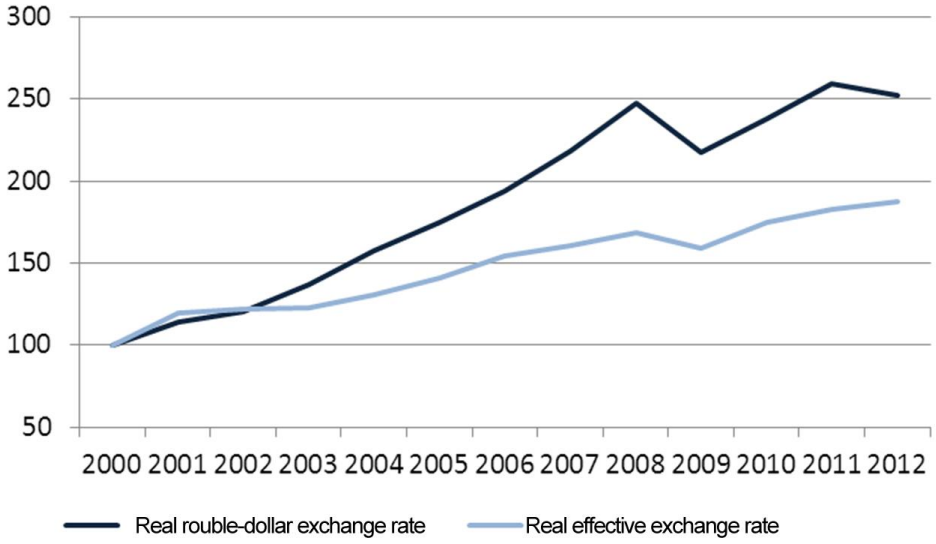
During the last decade, the influx of currency in the form of revenues from the exports of oil and gas exceeded corresponding revenues for the 1990s. This significantly affected the dynamic of the real exchange rate. The export of oil, oil products and gas during the period 1992-1999 in value terms amounted to between 23 and 31 billion dollars per annum and total revenues for this period from these exports amounted to 200.6 billion dollars. As of 2000, as prices for these commodities increased, the value of exports exceeded 50 billion dollars per annum and increased to 218 billion dollars in 2007. The total value of these exports for the period 2000-2007 was 893.5 billion dollars. If we compare the two consecutive eight-year periods, then the amount of currency entering the country from the export of these products exceeded the value of the first period 4.5 times. Following a decline to 190.7 billion dollars in 2009, the exports increased in 2010, and in 2012 the total reached a record level of 347.0 billion dollars. The value of total revenues from oil and gas exports for 2000-2012 amounted to 2.3 trillion dollars.

During this period the value of the rouble increased steadily (see Figure 2). Yielding to the pressure of the huge influx of currency into the Russian market, the RF Central Bank was obliged to reduce is participation in determining the exchange

rate and acquiesce in a real increase in the value of the rouble during the 2000s. The average effective exchange rate during the period 2000-2007 increased by 77.2% and the average annual rouble-dollar exchange rate by 123%. After the devaluation of 2009 the appreciation of the rouble resumed. As a result, for the period 2000-2012, despite the devaluation of 2009, the average effective exchange rate increased by 90.1% and the average annual rouble-dollar exchange rate increased by 142.6%.

Figure 2

Real exchange rate of the rouble (2000=100)

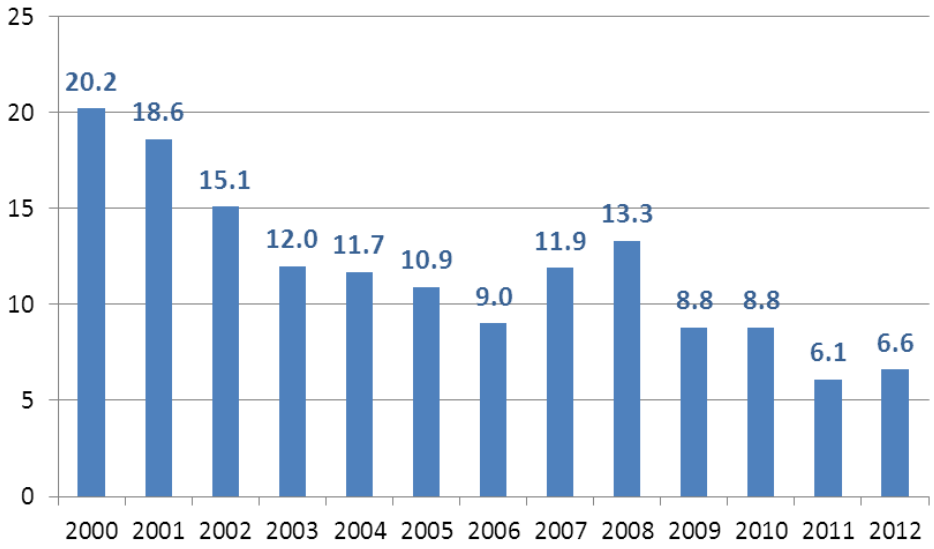


Source: **Author's calculations based on Bank of Russia data**

However, steps taken by the Central Bank and the Government to contain the appreciation of the rouble by buying currency in the market did not succeed in reducing inflation. Inflation fell to 9% in 2006 but subsequently increased and was fairly high and volatile during the years 2010-2012 (see Figure 3).

Figure 3

Course of inflation *(Growth of Consumer Price Index, December to December, %)*



Source: Rosstat

Policy of the Central Bank

Thanks to the influx of foreign currency into the current and capital accounts of balance of payments transactions, reflecting export trading operations, the sale of services and inflow of investments, the currency revenues of economic subjects increased. With the exception of payments made by economic subjects in foreign currency in order to meet external obligations, these revenues were directed towards the market for the purchase of necessary roubles. It was primarily the revenues from oil and gas that contributed to the growth of supply of currency in the domestic market (see Table 1).

Table 1

Some current account indicators *(Billion dollars)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Balance of Current Account	46.8	33.9	29.1	35.4	59.5	84.6	94.7	77.8	103.7	49.4	71.1	98.8	81.3
Commodity Exports	105.0	101.9	107.3	135.9	183.2	243.8	303.6	354.4	471.6	303.4	400.6	522.0	530.7
Oil and Gas Exports	52.8	52.2	56.3	73.7	100.2	148.9	190.8	218.6	310.1	190.7	254.0	341.8	347.0

Source: Bank of Russia

A strong balance of payments enables the Central Bank can to choose between three strategies: a) not to intervene in the market for the supply of currency; 2) to intervene by both buying and selling currency; 3) Currency board, this is hardly ever employed, an emission of roubles limited by the volume of currency purchased. The RF Central Bank must choose either the first or the second strategy. Each of these has its positive and negative features.

Under the first strategy, the exchange rate will fully reflect the correlation between supply and demand for currency and the quantity of roubles. In the period 2000-2008 an increased inflow of currency, at a time when the external economic conjuncture was favourable, in the absence of any intervention by the RF Central

Bank would have resulted in an even greater strengthening of the rouble. This would have meant that all of the currency offered in the currency market would have been acquired by economic subjects for the execution of foreign payments. It would then have left the country in the form of payments for current imports, services and the outflow of investments and all transactions for the inflow and outflow of currency would have been balanced.

The principal negative consequence of such a policy is that imports become cheaper and the volume of imports increases.[4] Foreign imports become more accessible to the Russian consumer and begin to present serious competition to domestic goods, since domestic producers are unable rapidly to reduce their costs and lower their prices. Conversely, it becomes more difficult for exporters to sell their goods. The so-called "Dutch disease" manifests itself. This is the principal danger of this strategy. A number of branches of the processing sector and of agriculture were already experiencing difficulties owing to an influx of imported goods. The lowering of barriers to imported goods by approximately 50% was brought about by the increase in the real effective exchange rate, the effect of which significantly exceeded that of Russia's joining the World Trade Organization. It is for this reason that a number of countries currently consider management of their exchange rates to be a more effective means of enhancing the competitiveness of their domestic economies than the setting of protectionist barriers (this state of affairs has become known as the waging of "currency wars").

However, this strategy has one important advantage – the Central Bank does not make a rouble emission since it is not purchasing currency. In other words the principal source of monetary inflation in conditions of a strong balance of payments does not come into play. This was the strategy recommended to Russia during the period 2000-2008 by experts of the IMF. At a meeting of Finance Ministers and

[4] For example, the seller of a good who wishes to receive 100 US dollars for it at an exchange rate of 30 roubles to the dollar, will sell this good in Russia for 3,000 roubles. If the rouble appreciates to, say, 24 to the dollar, he will sell it for 2,400 roubles.

Central Bank Governors of the G20 in Moscow on 16 February 2003 it was announced that "We reiterate our commitments to move more rapidly toward more market-determined exchange rate systems and exchange rate flexibility to reflect underlying fundamentals, and avoid persistent exchange rate misalignments …We will refrain from competitive devaluation. …".[5] The RF Central bank is going over to this policy: [6] Henceforth, it must practically refrain from purchasing of currency and accumulating gold and currency reserves. However, if the Central Bank is not going to intervene in the formation of exchange rates in order to meet inflation targets, the Government will have to conduct a more rigorous financial policy.

If it is going to hold back the appreciation of the rouble in conditions of a strong balance of payments, the Central Bank must adhere to the second strategy and this is the strategy that was implemented in Russia during the last 12 years. This meant that there was a significant supplementary monetary emission in the domestic market and it was possible to control monetary inflation (Table 3). It was as a consequence of the purchases of currency by the Central Bank that the present gold and currency reserves were acquired. Of course, the rouble appreciated to a lesser degree than it would have if the Bank of Russia had refrained from the purchase of currency in the market.

On 1 January 2000, the gold and currency reserves of the RF stood at 12.5 billion dollars. However, as oil and gas exports increased, the value of gold and currency reserves increased to 124.5 billion dollars, in the period up to 1 January;

[5] Communiqué of G-20 Finance Ministers and Central Bank Governors, Moscow, 15–16 February2013. www1.minfin.ru/common/img/uploaded/library/2013/02/Kommunike_Vstrechi_Minstrov_finansov_i_Upravlyaushchikh_TSentralnykh_bankov_15-16fevralya2013_(russ.versiya)1.pdf.

[6] "The principal tasks of exchange rate policy for 2013 and for the period 2014-1015 will entail a reduction of direct intervention by the Bank of Russia in the formation of exchange rates and the creation of conditions for transition to a régime of floating exchange rates by 2015." *Principal objectives of a unified state monetary and credit policy for 2013 and for the period 2014-2015* (Bank of Russia, 2012)

2005 and to 478.8 billion dollars by 1 January 2008. This means that the Central Bank expanded the quantity of money in the economy at the exchange rate that obtained during period in question. When the expansion of money in the economy became excessive, the risk of inflation also increased and the Bank was obliged to strengthen the rouble, which meant reducing emissions for the purchase of currency. Given this policy, the Central Bank was unable to reduce inflation to the targeted level, but it did enable the Bank to slow down inflation hold it at a given level, with the exception of 2007 when, monetary and non-monetary factors inflation once again forced inflation significantly upwards. The RF Central Bank was criticised by experts for being unable to steer a course between inflation and the value of the exchange rate.

To obtain a precise idea of the possibilities for a real participation of the Central Bank in the purchase of currency and the formation of gold and currency reserves we have to separate out that proportion of the gold and currency reserves that is formed for the purposes of accumulation of a reserve by the Government and which is managed by the Central Bank. Taking into account the fact that the gold and currency reserves of the Central Bank on 1 February 2008 amounted to 488.4 billion dollars, and that the combined balances of the Reserve Fund and National Welfare Fund on 31 February 2008 amounted to 157.4 billion dollars, and that these were held in accounts in the Central Bank, we can conclude that the gold and currency reserves of the Central Bank alone amounted to 331 billion dollars. This is the amount that the Central Bank had purchased on the currency market since the beginning of the 2000s. On 1 January 2013, the gold and currency reserves stood at 37.6 billion dollars and the balances of the Government's funds amounted to 150.7 billion dollars. This means that the Central Bank's own gold and currency reserves amounted to 286.9 billion dollars. This is the value of gold and currency reserves available to the Central Bank as an instrument of policy. If the need arises for additional resources for a more substantial intervention in currency policy it will have to purchase currency reserves from the Government.

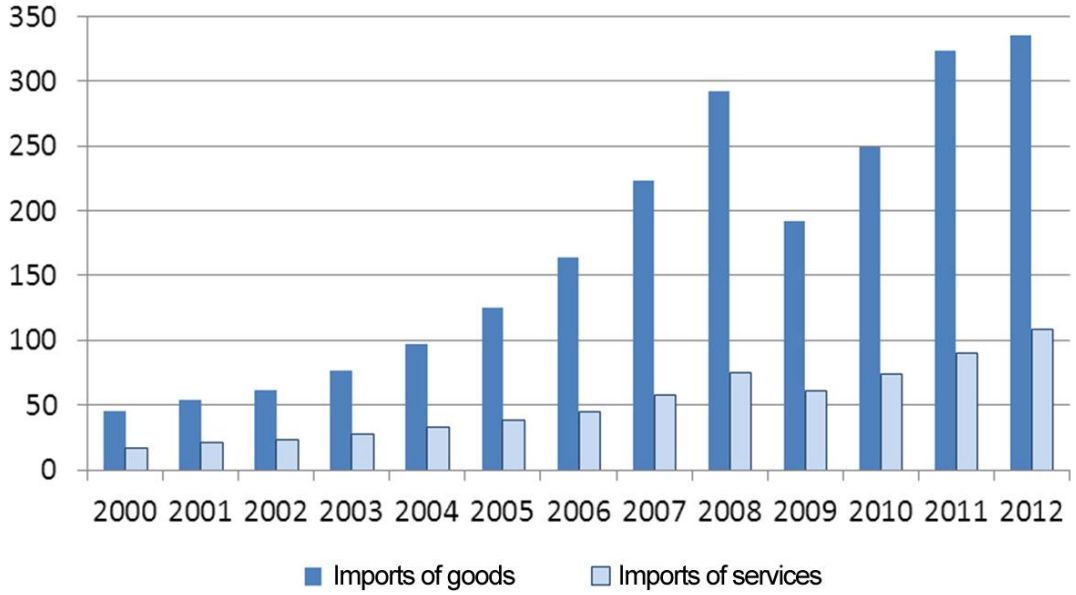
Given a significant increase in revenues from exports and the appearance in the domestic market of substantial amounts of currency, the Central Bank is obliged to buy up foreign currency and make emissions of roubles. This significantly expands the role of currency operations in augmenting the money supply and restricts the use of other methods, such as the refinancing of the banking system by use of the interest rate.

The steps taken by the Central Bank in part mitigated the principal consequence of the strengthening of the currency – the relentless growth of imports. In Russia the value of imports of goods and services increased from 61 billion dollars in 2000 to 367 billion dollars in 2008 and according to a provisional estimate will reach 443 billion dollars in 2012 (see Figure 4).

The rates of growth of imports significantly exceeded the growth of GDP and reflected the movement of appreciation of the rouble. Statistics indicate that the use of oil and gas revenues for investment in the economy facilitates the purchase of currency by importers and makes for an increase in imports. At the same time, the number of importers increases. The Russian economy is displaying the symptoms of "Dutch disease" and these symptoms are manifesting themselves primarily in a decline in the competitiveness of Russian business.

Figure 4

Imports of goods and services *(billion dollars)*



Source: Bank of Russia

Government Policy

In conditions of dependence upon oil and a strong balance of payments, the Government must take account of the associated risks and not act in such a way as to strengthen the rouble or contribute to inflation. Here, too, three strategies are possible: the first entails a full utilization of the revenues from oil and gas; the second presupposes observance of a kind of "budgetary rule" that clearly defines the share of oil and gas revenues that can be spent; and the third involves the saving of all of the current revenues from oil. [7] At present, applications can be found of all three strategies: Venezuela employs the first, Russia the second and Norway the third. The budget deficits of these countries in 2012 provide a useful illustration of the difference in approaches: according to IMF data, Venezuela anticipates a budget deficit of around 7% of GDP; in Russia the budget is almost in balance; and in Norway it is assumed that there will be a budget surplus of 13% of GDP. Most countries adhere to the second strategy: a strict budgetary rule is not always observed

[7] For more details, see Kudrin (2006).

- sometimes the limits set on the utilization of revenues from natural resources are more flexible.

In Russia the budgetary rule was introduced into legislation in 2004, after the guideline cut-off price at which revenues could be directed towards expenditure and savings in the Stabilization Fund had been included in the Budget Code of the Russian Federation. At that time limits were imposed only on revenues from export tariffs and the NDPI tax on oil extraction. Initially the cut-off price was 20 dollars per barrel; from 2006 it was 27 dollars per barrel. In 2008 an "oil and gas transfer" rule was adopted at a level of 3.7% of GDP which was implemented in 2011 and in the long term set a limit on expenditures although there was to be a transition period. In 2008 the value of expenditures from oil and gas revenues was 6.1% of GDP. Budget revenues from oil and gas comprised revenues from the NDPI tax relating to oil and gas and export tariffs on oil and gas and oil products. Following the introduction of the "oil and gas transfer", an oil price of 50 dollars per barrel became the accounting guideline price. This rule was abolished in 2009 because of the financial crisis.

A new rule was introduced in 2013. It set a "base price for oil" which is defined as the rolling average price for the last five years with an annual extension of the accounting period by 1 year until a ten year period has been reached. By contrast with previous variants of the budget rule, in the new variant the normative size of the Reserve Fund is reduced from 10% to 7% of GDP. Moreover, once this level has been reached, subsequent oil and gas revenues are not paid into the Reserve Fund (FNB) in full, but are allocated as follows: 50% to the Reserve Fund; 50% to the budget for infrastructural development.

According to forecasts of the RF Ministry of Finance, the balance of the Reserve Fund will attain the normative ceiling of 7% of GDP in 2018. In 2013, budget planning set the base price for oil at 91 dollars per barrel. If the budget rule had envisaged a transition to a base price from 2013 on the basis of the rolling

average for the last 10 years, then the base price from 2013 would have been 70 dollars per barrel. The predicted values of the base price for oil are given in Table 2.

Table 2

Forecast of socio-economic development: basic indicators used in setting the parameters of the RF budget system

Indicator	2013	2014	2015	2016	2017	2018	2019	2020
Oil price (dollars/barrel)	97	101	104	108	112	113	114	116
Base price for oil (dollars/barrel) under the existing budget rule	91	92	93	94	96	97	99	105
Base price for oil (10- year average (dollars/barrel)	70	77	84	89	94	98	100	105
Base price for oil at 80 dollars/barrel (in constant prices)	80	81.4	82.9	84.6	86.3	88.1	89.8	91.6

Sources: RF Ministry of Finance; author's calculations.

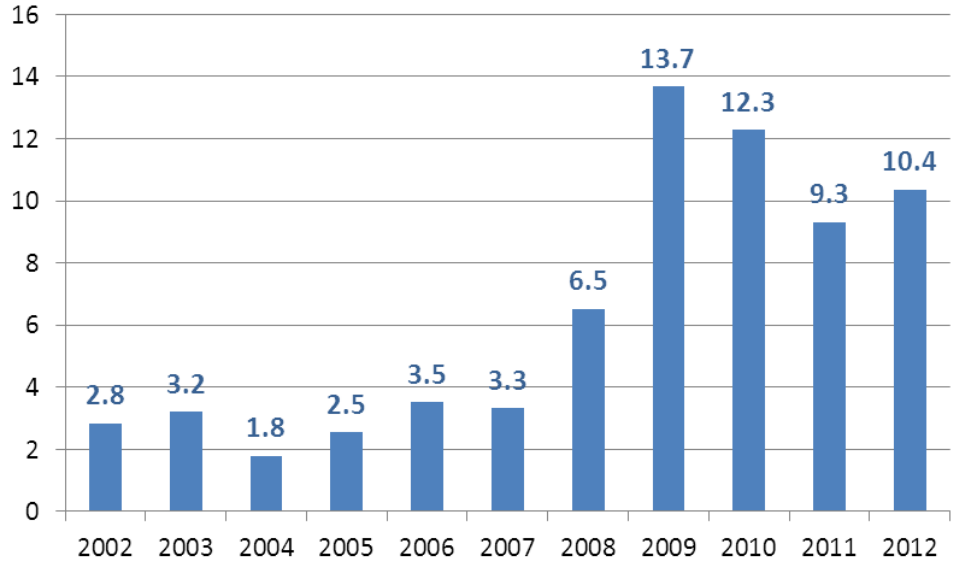
In fixing the base price it is also necessary to take into account the risks to a balanced budget in the event of the oil price falling to 80 and 60 dollars/barrel (in 2009 the oil price was 61 dollars per barrel). In the event of the price falling to 80 dollars per barrel, the deficit of the Federal budget will increase to over 3% of GDP and Russia will be obliged to enter the borrowing market. For this reason, the base price for oil should be set at 80 dollars per barrel. This will provide a necessary stability reserve if there is an increase in the budget deficit owing to price shocks in world oil markets. Then the base price would increase only by the extent of inflation in the USA (see Table 2).

As we have seen, during the 2000s, different rules were applied to allocate the rapidly growing oil and gas revenues towards expenditure and accumulation in the reserve funds. Despite some improvements to these rules and their increasingly precise definition, the rules became less and less strict and this, in essence, marked a retreat in the face of increasing revenues and the Government's need to fund budget

expenditures. The introduction into the Budget Code of the Russian Federation of the indicator "non-oil and gas deficit", that is the deficit that is covered by oil and gas revenues and by borrowing, is a good illustration of the growing dependence of the budget upon raw materials revenues and of the softening of budget rules. The size of this deficit increased from 1.8% of GDP in 2004 and to 13.7% of GDP in 2009 and it now stands at 10.4% of GDP (see Figure 5).

Figure 5

Non-oil and gas deficit *(% of GDP)*

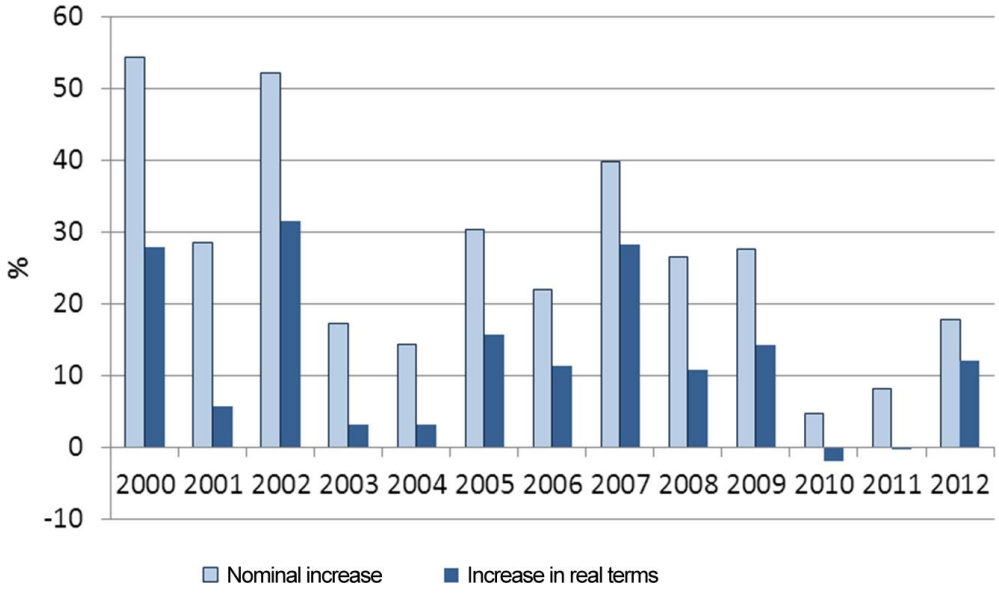


Source: Data of the RF Ministry of Finance; author's calculations.

Despite efforts to restrict the growth of state expenditures in conditions of increasing oil and gas revenues, the Government has increased its expenditures. Measured against the expenditures of the developed countries and even against those of the BRIC countries (Brazil, Russia, India, China), they have increased at unprecedented rates: between 2000 and 2012 Federal Government spending increased 12.5 times in nominal terms and 3.6 times in real terms (see Figure 6).

Figure 6

Increase in Federal Budget expenditures



Sources: Data of the RF Ministry of Finance; author's calculations

The annual growth in Federal budget expenditure between 2005 and 2009 of over 20% (and even over 40% in 2007) was a consequence of the significant increase in Government revenues from oil and gas. Nevertheless, the Government did implement a policy of savings in the Reserve fund and in the National Welfare, by sterilizing the excess money supply.

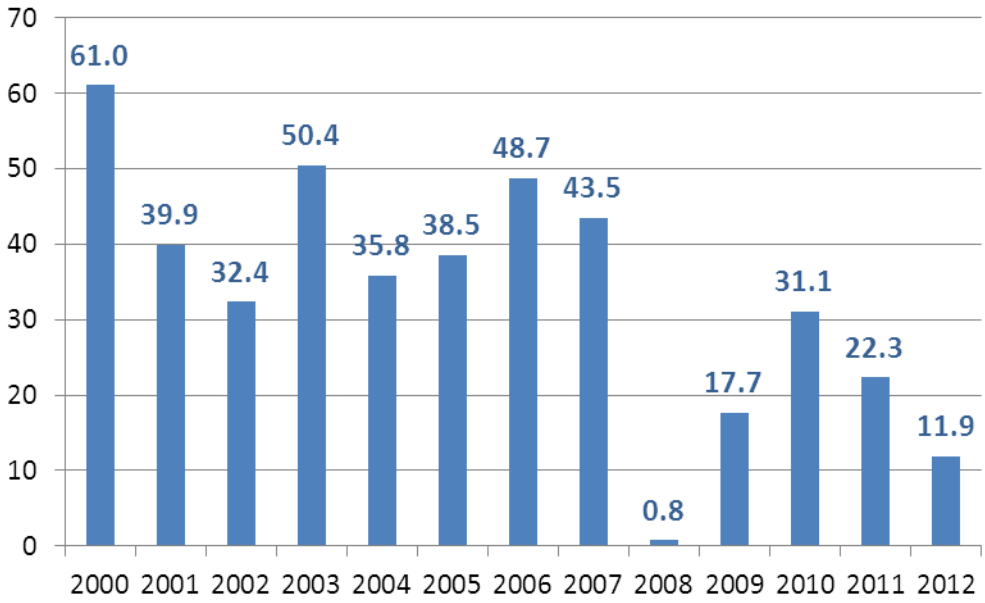
A record growth of expenditures of this kind not only presents a threat to the financial system by way of a marked increase in the rate of inflation; it also becomes an independent factor for the potential destabilization of the Russian economy in the event of a fall in the oil price. In such an eventuality, the government would not be able to maintain its previous levels of social support, finance key budgetary sectors and subsidize the economy. The actions of the government would have a pro-cyclical character, that is, the government would be increasing state demand at a time of increasing oil prices and reducing demand at a time of falling oil prices, when state support is particularly necessary. The Reserve Funds could serve as a temporary source of support; but the balances available might be inadequate and capable only of

helping the budgetary system to adjust to changed circumstances. They would not be sufficient to support economic activity.

Retaining a share of revenues in the reserve funds has a stabilizing effect upon macro-economic indicators and upon the budgetary system. These funds are held in three currencies in the accounts of the Central Bank, at an agreed rate of interest. Roubles destined for the reserve funds are converted in the Bank of Russia into various currencies in an agreed structure. In this way, the rouble mass that is received by taxpayers in exchange for currency derived from exports returns to the Central Bank. But despite this, the growth of money in the economy has been excessive and has served as an additional source of inflation (see Figure 7).

Figure 7

Rates of growth of the monetary aggregate M2 %



Source: Bank of Russia

The growth of the quantity of money in the economy has somewhat exceeded the volume that the economy can absorb. Over the entire period 2000-2012, despite the formation of the reserve funds, the quantity of money in the economy never decreased, that is, the claim that money was taken out of the economy is incorrect.

During the 2000s the money aggregate increased annually by over 30% and in 2006-2007 by over 40%.

After the two years of crisis, when growth of the money aggregate was 0.8% and 17.7% (that is, even during these years the quantity of money in the economy was not reduced, owing to expenditures out of the Reserve Fund), in 2010 growth again exceeded 30% and in 2011-2012 was in the range 12-22%. This is significantly above the rates of growth of GDP and even if the economy had grown at an annual rate of 6-7%, the growth of the quantity of money would still have been excessive.

One important conclusion we arrive at is that, given a strong balance of payments, the Central Bank must either strengthen the rouble or acquiesce in inflation. Only the Russian government possesses an instrument capable of holding back the appreciation of the national currency whilst the same time controlling inflation: the formation of reserve funds becomes the key to preserving the stability of macroeconomic indicators and ensuring the investment appeal of the Russian economy.

When the Russian Government converted currency drawn from the Stabilization Fund into roubles and increased its expenditures, the risks of inflation increased. This is the reason why targets for reducing inflation year on year were never achieved. In the modern world, the state is able to manage inflation over a period of 3-5 years, in so far as inflation depends almost entirely upon measures of regulation that are within the power of central banks and governments. In Russia, under the pressure of political expediency and the need fully to finance particular sectors of the economy, the Government relaxed its control over monetary and credit policy. Whereas at the beginning of the 2000s the cut-off price above which oil revenues (more precisely, the rouble equivalent of dollars sold by the Central Bank) could not be spent was 20 dollars per barrel; it then rose to 27 dollars per barrel. In

2008 it was around 65 dollars per barrel and in 2012 it was around 110 dollars per barrel.

During this time only an insignificant proportion of the revenues from oil and gas exports was saved in the reserve funds. In 2008 budget expenditures were the equivalent of 94.7 billion dollars and savings were 82.2 billion. In 2012 expenditure amounted to 184.4 billion dollars and savings were 22.8 billion. During the years 2009-2010 the stability of both the budget system and the financial system as a whole were secured by expenditures by the Government out of the reserve funds (see Table 3).

Table 3

Savings of oil and gas revenues, *billion dollars*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Oil and gas revenues to the Federal Budget	7.7	11.2	15.9	21.2	35.9	76.4	108.3	113.3	176.9	94.2	126.2	192.2	207.2
Estimated savings of oil and gas revenues	1.5	1.2	2.2	0.7	23.3	51.7	74.1	70.3	82.2	–74.9	–31.9	37.0	22.8

Source: Author's calculations based on data of the RF Ministry of Finance

Government and central bank policies in countries with strong balances of payments

Problems associated with a strong balance of payments are to be found in other countries of the BRIC group. However the People's Republic of China implements a stricter monetary policy aimed at restraining appreciation of the national currency in order to preserve the competitiveness of its exporters and limit imports. This, of course, has for a long time been a bone of contention between China and the USA.

In order to restrain the exchange rate of the *renminbi*, the Chinese National Bank also buys up currency, thereby increasing its gold and currency reserves. Since

January 2008 until the end of 2012, these reserves more than doubled in value, from 1.5 trillion to 3.3 trillion dollars. In September 2012 China for the first time made public the structure of its gold and currency reserves: 65% were invested in dollar denominated assets. Chinese economists are in no doubt that if the exchange rate is to be controlled there has to be an aggressive policy for the transfer of a significant proportion of revenues from exports into reserves.

The other side of this policy of accumulation of reserves is emission by the Chinese central bank when buying up currency. In order to avoid an excessive growth of the quantity of money in the economy and retain a low level of inflation, the National Bank of China sterilizes the money supply. In some years the amount sterilized reached 15% of GDP. The principal instrument of sterilization consisted of issuing bonds of the People's Bank of China at a low rate of interest. In this way China controlled the supply of money in the economy. In the BRIC countries, China, India and Brazil, the money supply grows annually by 12-18% but not by more than 20%.

For example, in China, where GDP grew during the years 2000-2007 within the range of 8% to 14%, the growth of the money aggregate (M2) did not exceed 20% and the average rate of inflation was 2%. In India over the same period, with an annual growth of GDP of 7.1%, the money aggregate increased on average by 16% and average annual inflation was 4.7%. In Brazil, the average growth of GDP during this period was 3.5% and the growth of the money aggregate was around 14%, while the rate of inflation was 7%.

The fact that inflation in the BRIC countries in some years reached 7% indicates that their monetary and credit policies were not sufficiently strict. China has had more success in controlling inflation than the other BRIC countries, despite taking higher risks. Between 2000 and 2012 Brazil increased its gold and currency reserves from 33 billion to 378 billion dollars; India from 40 billion to 297 billion

dollars. This means that these countries have implemented a similar policy for reducing the impact of a positive balance of payments on the exchange rate, by purchasing currency reserves while relaxing their monetary and credit policy.

Conserving gold and currency reserves and Government reserves

If the Central Bank does not intervene to purchase currency then its increased supply in the domestic market makes for a strengthening of the rouble, which facilitates the purchase of currency by enterprises for external transactions.

If the Central Bank does not intervene to purchase currency then its increased supply in the domestic market makes for a strengthening of the rouble, which facilitates the purchase of currency by enterprises for external operations. Foreign currency does not circulate internally in Russia – it is used exclusively in external transactions. When the Central Bank intervenes to purchase currency, an additional quantity of roubles enters the domestic market and the currency acquired by the Central Bank is held in currency-denominated assets in the world market. When the Government places funds acquired in the form of oil and gas revenues in the currency accounts of the Central Bank it makes a purchase of currency. The money that has entered the market through the sale by oil and gas enterprises of their export revenues, is transferred to one of the purchasers of these funds, that is, to the Government and by this means the pressure of currency resources on the rouble exchange rate is reduced. In the past, the flow of currency was so great that such purchases only partially eased this pressure and, simultaneously, the growth of the rouble money aggregate, but the growth of the rouble money aggregate nevertheless remained excessive.

The RF Central Bank or the Government as represented by the Ministry of Finance can only utilize foreign currency in external transactions or place it in foreign assets. The RF Central Bank places dollars abroad in currency accounts. Under the

Federal Reserve System only US banks and a number of international financial institutions are able to open dollar accounts. For Russian citizens and entrepreneurs to be able to open currency accounts with say, the bank for Foreign Trade (VTB) or with Sberbank, these banks must open correspondent accounts in American banks or in others that have accounts in these banks (to simplify, the dollars circulate through dollar accounts within the dollar system). By analogy, if enterprises, for example, countries of the SNG, wish to have accounts in roubles, they must have rouble accounts in banks that have correspondent relations with Russian banks, which, in their turn, have an account with the RF Central Bank. So that its dollars should not lie dormant, the RF Central Bank places them in interest bearing accounts or purchases reliable, liquid securities denominated in dollars or some other currency.

If the Government decided not to hold its currency in accounts in the Central Bank, but exchange this currency for roubles, the dollars would nevertheless remain with the Central Bank and the government would acquire an equivalent sum in roubles. Irrespective of whether the RF Ministry of Finance places its currency in currency accounts with the Central Bank or sells its currency to the Central Bank, the currency reserves are placed in currency markets. Even if the government were to create its own agency for the management of reserves the arrangement would be similar.

In other words, all of the currency earned by Russian businesses, minus what goes on charges, the repayment of loans or is placed in investments outside of Russia, is placed by enterprises, the RF Central Bank, and the Government in the foreign currency zone. The ability of the Central Bank to retain part of the funds that have entered the country in the form of gold and currency reserves invested in foreign assets makes possible the functioning of the entire financial system and makes possible the access to foreign currency of every Russian citizen and enterprise. This is what makes feasible the acquisition of foreign technology and the importation of

goods. This is what makes it possible to attract foreign loans and invest funds in projects abroad.

The rules governing the investment by central banks of their reserves and the reliability of the assets in which they are invested are decided by all countries. The assets in which gold and foreign currency reserves are invested must be very safe and very liquid. Any departure from these strictly agreed criteria will produce a situation in which part of the foreign currency assets will be deemed not to be part of a country's gold and currency reserves and investors will take the view that, say, Russia's international funds are to that extent less secured. It is precisely these rules and the rules for setting the exchange rate that determine the predictability of the exchange rate policy of a country and, correspondingly, its investment appeal. This is the how other countries manage their affairs. For example, China, having acquired huge currency reserves from exports, saves a significant proportion of these by investing them in foreign assets. Therefore, the widespread opinion that currency acquired from the export of oil and gas should be invested in the domestic market, or that the funds acquired by the government from the oil and gas sector should be spent in full, is a delusion and the most widespread myth concerning the Russian economy in the period of rapid growth of oil and gas prices.

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Let us briefly summarize our conclusions.

Between 2000 and 2012 Russia experienced a significant strengthening of its balance of payments thanks to an increase in the prices for oil and gas (oil, oil products and gas). This had an impact upon basic trends within the economy. As a result the real effective exchange rate for the rouble increased by 90.1%.

The RF Central Bank opted for a policy of partially holding back the appreciation of the rouble, by increasing gold and currency reserves through interventions in the currency market and the relaxation of monetary and credit policy. The main consequence of this approach was a persistent growth of imports and a weakening of the competitiveness of the Russian economy.

The principal instrument for controlling the negative effect of a strong balance of payments was a Government policy for saving a proportion of the oil and gas revenues in the Reserve Fund and the Fund for National Welfare and investing these funds in foreign assets. The level of savings for the past period has been insufficient, owing to a repeated revision and relaxation of the criteria for creating the reserve funds. An additional consequence of the relaxation of monetary and credit policy by the RF Central Bank and the government has been an excessive growth of the money supply, which has prevented inflation targets being achieved and market interest rates being lowered.

The policy of the RF Central Bank is justifiably now moving towards inflation targeting and reducing interventions in the currency market.

The government in conditions of a strong balance of payments must provide the volume of savings from oil and gas revenues that is necessary to ensure the stability of macroeconomic indicators. The base price for oil in the formation of the budgetary rule should be set at 80 dollars per barrel in constant prices.

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