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Alexey Kudrin and Evsey Gurvich

A new growth model for  
the Russian economy



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Bank of Finland  
BOFIT – Institute for Economies in Transition  
PO Box 160  
FIN-00101 Helsinki

Phone: +358 10 831 2268

Fax: +358 10 831 2294

Email: [bofit@bof.fi](mailto:bofit@bof.fi)

Website: [www.bof.fi/bofit\\_en](http://www.bof.fi/bofit_en)

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Alexey Kudrin and Evsey Gurvich

## A new growth model for the Russian economy

### Abstract

The slowdown of the Russian economy is due to chronic factors and cannot be cured by simple fixes such as relaxing monetary or fiscal policy. The biggest impediment to growth in Russia's case is the weak market environment, evidenced foremost by the dominance of state-owned enterprises and quasi-government companies. Strong incentives for business and public administration to enhance efficiency are required. The key policy objectives necessary to move Russia away from its current model based on imported growth to a new growth model are laid out in this analysis.

Keywords: growth model, oil and gas revenues, soft budget constraints, incentives for growth.

JEL: E6, H11, O1, O4, P4.

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**Alexei Leonidovich Kudrin**, Candidate of Economic Science, Professor at St. Petersburg State University (St. Petersburg).

**Evsey Tomovich Gurvich**, corresponding author. Candidate of Physics and Mathematical Science, Head of Economic Expert Group (Moscow). Email: [egurvich@eeg.ru](mailto:egurvich@eeg.ru).

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## Introduction

The Russian economy displayed remarkable dynamism between the financial crises of 1998 and 2009. The period from 2000 to 2008 saw an increase of 83 % in real GDP, while labour productivity climbed more than 70 % and fixed capital spending doubled in real terms. In 2000, per capita GDP measured in terms of purchasing power parity (PPP) was just \$9,300, or about 25 % above the world average. By 2008, this indicator had risen to \$21,600, 78 % above the world average. Russia's contribution to the world economy (at the current exchange rate) more than quadrupled in this period (from 0.6 % to 2.7 %). Russia's citizens enjoyed substantial improvements in their economic welfare, with a 340 % gain in real wages and a 280 % increase in real pensions.

This extremely successful episode (at least by formal economic indicators) lasted nearly a decade. From 2000 to 2008, annual GDP growth averaged 6.9 %, while in the post-crisis period (2009–2013) growth slowed to around 1.0 %. Of course, post-crisis growth rates around the world were lower than before the crisis, and even oil-producing countries suffered, but not as much as Russia (see Table 1). Russian growth deteriorated not only in absolute terms, but the country slipped badly in relative terms, too, moving from the second decile of fastest growing economies in the world to the eighth decile.

Table 1 Average annual rates of growth in pre-crisis and post-crisis periods, %

Country group or country	2000–2008	2009–2013
World	4.3	3.2
Developing and emerging market economies	6.5	5.3
China	10.4	8.9
<i>Russia</i>	6.9	1.0
India	6.7	7.0
U.A.E	6.2	2.2
Venezuela	4.4	1.2
South Africa	4.2	1.9
Brazil	3.7	2.7

Source: Calculations based on IMF data (IMF, 2014).

The slowdown caught both the Russian government and analysts off guard. As late as mid–2012, official forecasts still predicted a 13 % increase in GDP during 2013–2015. But the recent IMF projection, produced in October 2014 – i.e. before oil prices dropped by half – predicted growth of just 2% for the period.

One can also specify objective signs of deterioration in the prospects for the Russian economy. Growth in fixed assets fell to less than a tenth from 13 % per year in the pre-crisis period to 1 % post-crisis. The net inflow of private capital recorded on the eve of the crisis was replaced by a steady outflow of capital. Some \$285 billion left the country in 2009–2013.

The government took measures to stimulate growth, but failed to give a clear explanation for why the economy had slowed in the first place. Without an answer, in our view, it is impossible to escape the stagnation on the brink of a recession that our economy is facing following the oil price stabilization. There is no silver bullet to cure every disease; rather the course of treatment prescribed depends on what is ailing the patient. Moreover, measures appropriate in some situations may have the opposite effect in other circumstances. In the following analysis, we attempt to

identify the reasons for the sharp economic slowdown of the Russian economy and what can be done, not just to alleviate the situation, but make qualitative and lasting changes for the better.

## Trends in the Russian economy 2000–2013

What were the drivers of growth in the Russian economy during the pre-crisis period, and why did those drivers stop working after the 2009 crisis? Table 2 presents the growth rates of various demand components of GDP. First of all, we note that in the pre-crisis period, growth in domestic demand for both investment and consumption exceeded GDP growth. The volume of exports grew at about the same rate as GDP overall. Regarding sources of growth, our economy looks strikingly different from, say, China or other rapidly developing countries in Southeast Asia, where exports constitute the main engine of growth.

Table 2 Real growth of aggregate final demand components, %

	Change for the period		Average growth rates	
	2000–2008	2009–2013	2000–2008	2009–2013
GDP	82.5	5.3	6.9	1.0
Domestic demand	134.7	7.8	9.9	1.5
Final consumption expenditure	102.6	16.0	8.2	3.0
Households	145.3	20.9	10.5	3.9
Gross capital formation	343.8	–12.6	18.0	–2.7
Gross fixed capital formation	199.9	5.1	13.0	1.0
Exports of goods and services	93.6	8.0	7.6	1.6
Imports of goods and services	433.4	18.8	20.4	3.5

Source: Calculations based on Rosstat data.

Closer analysis shows that export earnings were also a source of growth for the Russian economy. They were not due to increasing export volumes, but rather to the “happy chance” of rising prices of oil, gas and other commodities on the global market. To assess the magnitude of the windfall for the Russian economy due to higher world prices of hydrocarbons, we calculate excess revenues relative to 1999 (prices in constant dollars) for each year of the export-fuelled boom.

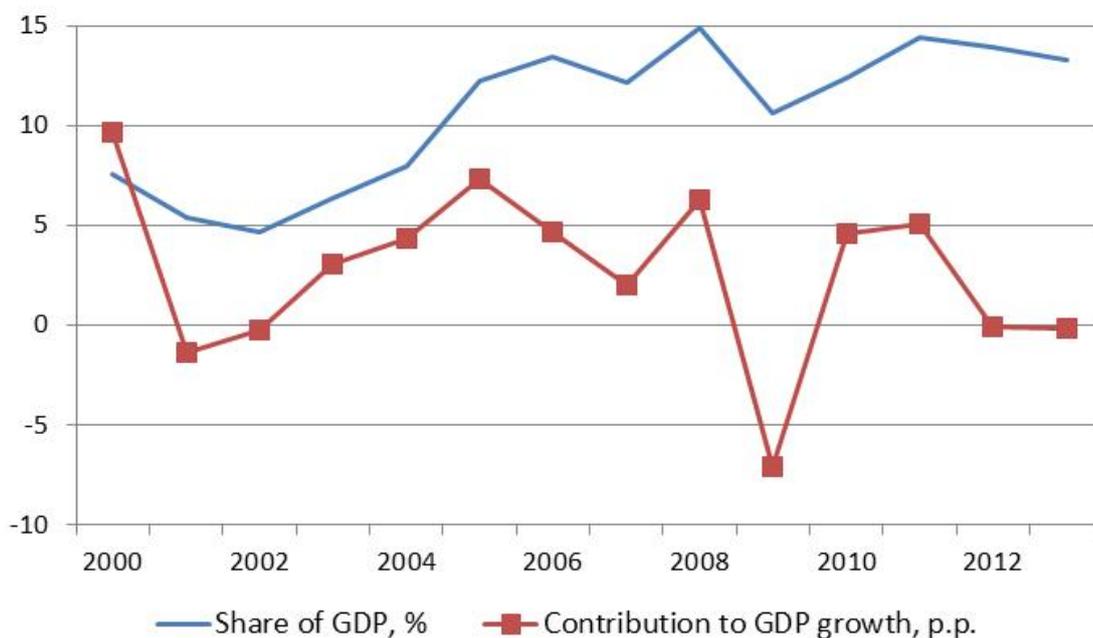
In our base year, 1999, the price of Urals blend crude was \$17.20/bbl, a price typical for the 1990s as a whole. The average price in that decade (in constant 1999 dollars) was \$19.60/bbl. With the increase in the price of hydrocarbons, our country received a revenue surplus in 2000–2008 on the order of 5–15 % of GDP (an average of 9.4 % of GDP a year). In the post-crisis period running through 2013, the windfall ranged from 12.5 % to 14.5 % of GDP. The windfall steadily rose from an equivalent of 4 % of GDP starting in 2003 in the years before the crisis. In 2012–2013, the windfall in nominal terms had stabilized and ceased to grow (Figure 1).

The total value of the oil and gas windfall for the 2000–2013 period amounted to \$2.1 trillion (in 2013 dollars). The windfall was \$0.9 trillion for the nine-year pre-crisis period, and \$1.2 trillion for the five post-crisis years. For illustration, consider that the total windfall for the period equals 7.5 times 1999 GDP.

The rise in export income stimulated economic growth primarily by boosting domestic demand through multiple channels. After the 2002 tax reform, the bulk of revenues from oil and gas extraction (70 %) started to be taken into the budget (Gurvich, 2010). In conjunction with the rise in

hydrocarbon prices, there was a 40-fold nominal increase in oil and gas revenues to the budget (i.e. the natural resource rent collected in the form of extraction fees and various tariffs and taxes) for 2000–2008, or almost eight times in real terms.<sup>1</sup> This flood of revenue allowed the federal government to reduce taxes in non-primary sectors without compromising the budget system. Total revenues nearly doubled in real terms during this period. The increase in revenues was followed by increases in all forms of public spending. By 2008, the budget resources for fixed capital investment had nearly tripled in real terms. Increases in social spending and public sector wages boosted consumer demand, while the increase in government procurements added to demand for capital goods.

Figure 1 Estimated value of oil & gas windfall



Source: Authors' calculations.

Part of the windfall that remained with producers after taxation went to wage increases, not just in the oil, gas and metals branches, but across the entire economy (Table 3). As a result, real wage growth far outstripped growth in labour productivity (measured as the ratio of the volume of production to total number of employed).

The rise in the price of exports also had a certain positive effect on company profits, which constitute the main source of investment. However, this was not the only channel of positive impact that better terms of trade exerted on investment. Rapid growth of production created expectations of future demand for products, which spurred investment demand (under the accelerator model of investment). This effect concerned, in particular, foreign investors, as in the 2000–2008 period, GDP in dollar terms increased over 8.5 times (!) at an average pace of 27 % a year.

<sup>1</sup> To get constant prices, we use the deflator for domestic demand, which, in our view, most accurately reflects the dynamics of domestic prices.

Table 3 Index of real wage growth by sector (2000 = 100)

Sector	2000–2008	2000–2012
Agriculture	315	386
Mining and mineral extraction (includes oil & gas)	205	229
Manufacturing	249	279
Construction	258	265
Transport and communications	236	263
Public administration, national security & defence	289	355
Education	335	413
Health care	359	417

Source: Calculations based on Rosstat data.

Thus, there was a gradual decline in the net outflow of private capital, which in 2006 turned to a net inflow. Gurvich and Prilepskiy (2013) note that, in Russia's case, a 1 % rise in the price of oil in real terms translated to an increase in domestic demand of 0.22 %.

Part of the steady stream of revenue during the oil-fuelled boom of 2000–2008 was set aside to safeguard against overheating of the economy and acceleration of inflation, and also to provide a margin of safety in the event of a slide in oil prices. The accumulated revenues were used to pay off the public debt (which fell from \$161 billion in early 2000 to \$41 billion at the end of 2008) and build up the reserve funds from oil and gas.

In fact, the government pursued countercyclical policies to smooth the effects of fluctuations in the external environment on the Russian economy. It is generally accepted that such policies can significantly reduce the negative impact of macroeconomic volatility on growth (Fatas and Mihov, 2009), and that they can be especially important for oil-producing countries (Kudrin, 2006, 2013; Davis et al., 2003).

This was confirmed by the experience of the crisis period, when much of the Reserve Fund was drained to mitigate the effects of the sharp drop in oil prices. Life-cycle analysis of Russian enterprises shows that, because they face higher macroeconomic volatility than businesses in comparable countries, it impedes diversification of the domestic economy and threatens the survival of young firms (González et al., 2013).

Furthermore, the setting-aside of petrodollars cannot be regarded as a “deduction” from a potential increase in domestic demand. The government, by using oil revenues to reduce external debt and create the Stabilization Fund (later divided into the Reserve Fund and National Welfare Fund), reduced all forms of macroeconomic risk, allowed higher sovereign and corporate credit ratings, and lowered borrowing costs across the board for Russian borrowers, which in turn further stimulated growth.

For 2000–2013 overall, the savings in the form of early repayment of external debt and net savings (after deducting the costs of establishing state corporations, supporting the economy in 2009, etc.) set aside in the oil and gas funds amounted to \$215 billion (2013 US dollars). Thus, *approximately 10 % of the total oil and gas windfall to the economy was set aside, with about 15 % of potential additional revenue withheld from the budget. If the windfall had been completely taken into the general government budget during the period, budget spending would have been about 3.5 % higher.*

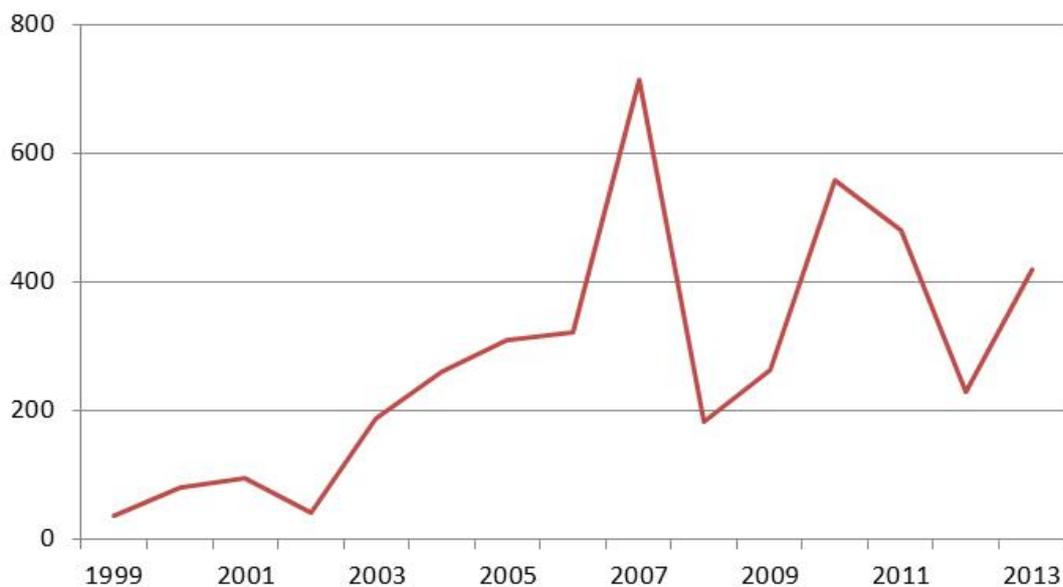
It is hard to agree with the argument that this relatively minor fiscal augmentation would have ensured economic diversification, promoted innovation and created a high level of international competitiveness (especially given that state spending for 2000–2013 doubled in real terms). Rather, had the entire windfall been spent, the more probable outcome would have been deteriorating economic performance due to the sharp increase in sensitivity of the economy to shifts in the external growth environment, increasing macroeconomic risks and rising interest rates.

Several other mechanisms also worked to accelerate growth by increasing the availability of financial resources to Russia. First, in the conditions of low benchmark interest rates in the United States and the Eurozone, as well growing financial leverage, capital flows from the developed world to the developing world increased (Fig. 2). In just eight years (2000–2007), net capital inflows to developing and emerging market economies climbed nearly 20 fold!

Second, the Central Bank of Russia’s exchange rate policy in an environment of constantly rising oil prices shaped expectations of a stable nominal ruble exchange rate. Foreign borrowing, calculated in ruble terms, was extremely profitable. Under these circumstances, the expansion of the domestic market, due to increases in output and ruble appreciation, increased the attractiveness of the Russian economy for foreign investors. Thus, the massive outflow of capital (11 % of GDP in 1999) reversed course to become a massive inflow (7 % of GDP in 2007).

Other factors also played major roles. In 2006, the Russian government and the CBR lifted almost all restrictions on the capital account (thereby reducing the risk exposure of foreign investors). Russia also established a considerable base of “macroeconomic strength.” The budget and current account ran steady surpluses, so there was considerable accumulation of foreign exchange and budgetary reserves, along with a significant reduction in external debt (of course, these achievements were also made possible by high oil prices).

Figure 2 Net capital inflows to developing and emerging market economies (US\$ billion)



Source: IMF, 2014.

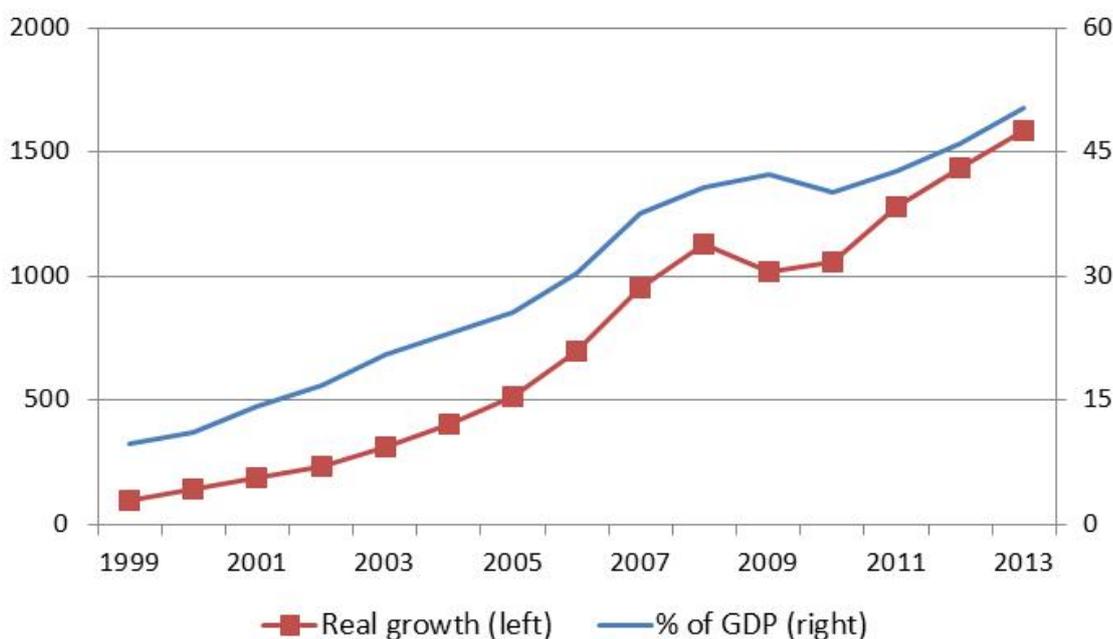
In 2007, when foreign capital inflows to Russia peaked, additional investment resources (in comparison with those in 1999) exceeded \$100 billion. The Economic Expert Group (EEG) calculates that in this period a rise of \$1/bbl in the oil prices translated into a \$1 billion increase in net capital inflows into the country.

The huge reversal in private capital flows fuelled a massive credit expansion. Figure 3 shows the growth of the cumulative value of loans granted to legal entities and natural persons that amount to an 11.3-fold increase in real terms during 2000–2008 (or from 10 % to 41 % of GDP). Of course, part of the growth in some parts of the financial sector was a reflection of the fact that these businesses were created virtually from scratch. Thus, the real value of loans to individuals in the pre-crisis period rose by 46 times, an average of 53 % a year!

Figure 4 shows changes in additional resources entering the Russian economy via the two discussed channels (oil price and capital inflows). Although their nature and conditions of how they enter the economy differ significantly, for illustrative purposes they can be added together as a growth factor. Reaching a peak (over \$300 billion) in 2007, additional financial inflows declined slightly and then stabilized at a post-crisis level of about \$250 billion a year.

In addition to considering the impact of oil prices and capital flows on the economy, we should take into account the shaping of investor expectations. This channel is less often discussed, probably because it is more difficult to measure directly. One way of quantifying the effect of expectations we believe is the analysis of the GDP consumption factor “change in inventories.”<sup>2</sup> Changes in this indicator reflect changes in expectations of producers about future demand for their products.

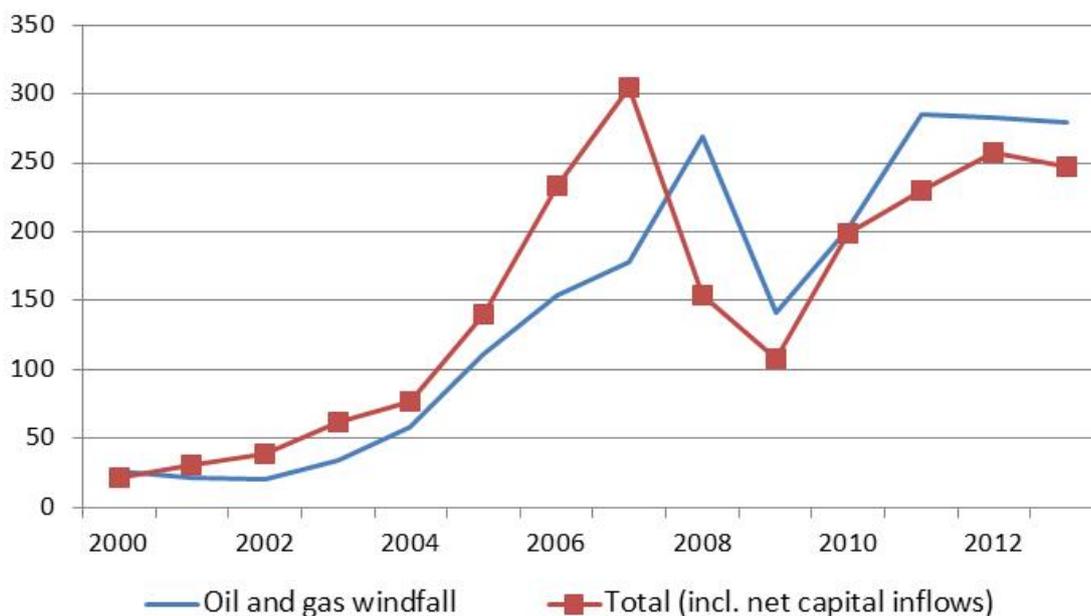
Figure 3 Bank loan stock: real growth (1 January 2000 = 100) and share in GDP, %



Source: Authors' calculations based on CBR data.

<sup>2</sup> The difference between gross capital formation and fixed capital formation.

Figure 4 Additional financial inflows to the Russian economy generated by the windfall in constant 2013 dollars (US\$ billion)



Source: Authors' calculations.

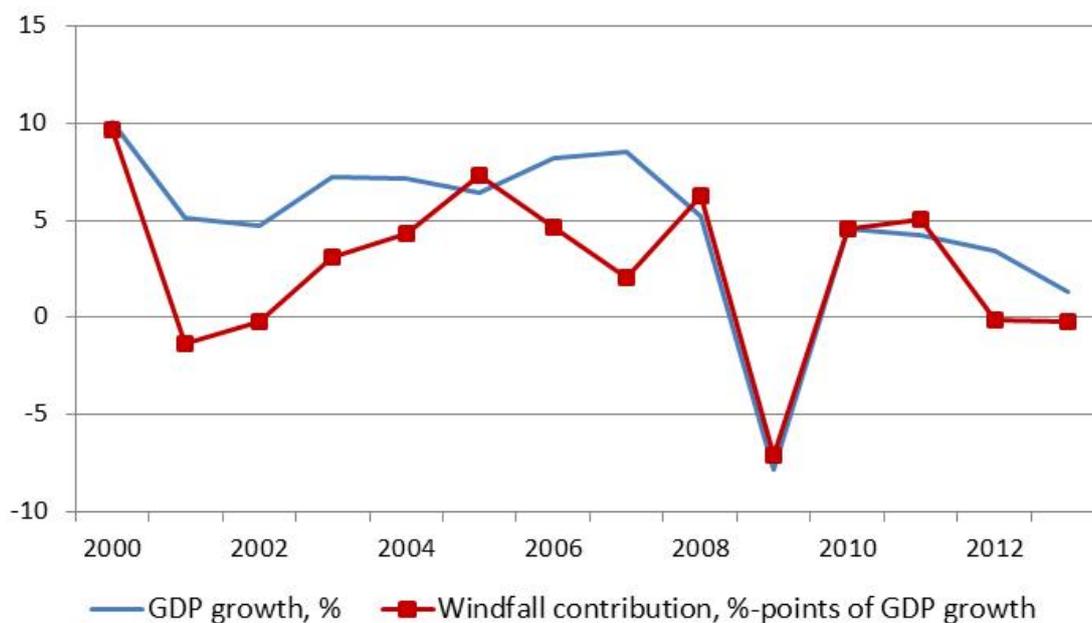
Note that in the pre-crisis period average growth in gross capital formation exceeded growth in fixed capital formation by 5 p.p. In contrast, gross capital formation lagged fixed capital formation in the post-crisis period by almost 4 p.p. This indicates that in the pre-crisis period, working capital tied up in inventories rose on average considerably faster than output, while in the post-crisis period, inventory growth lagged output growth. In the pre-crisis period, we estimate this component of final demand boosted average GDP growth by 1.1 p.p., and reduced it in the post-crisis period by 0.8 p.p. In other words, there was a shift from “optimistic” expectations with manufacturers increasing their inventories to a “pessimistic” outlook with inventories declining that depressed economic growth by almost two percentage points. The impact of the 2009 crisis, when we see a record decline in output (7.8 %), can be almost entirely attributed to the decline in inventories (otherwise, the decline would have been only 0.5 %).

A number of studies quantitatively estimate the overall impact of oil prices on development indicators of the Russian economy. Most of these studies reach relatively similar results for GDP elasticity with respect to oil prices: i.e. 0.15 (Kuboniwa, 2012), 0.2 (Rautava, 2013) and 0.24–0.25 (Ito, 2008; Korhonen and Ledyeva, 2010). Suni further reports that the rise in oil prices in 2001–2006 boosted annual GDP growth by about 2.5 percentage points, which corresponds to an elasticity coefficient of 0.2 (Suni, 2007).

Applying the data from the above assessments to rising oil prices in the pre-crisis period, we estimate that the windfall added 3–3.5 % a year to Russian GDP growth. Thus, from a 6.9 % annual average growth in this period, about half the benefit comes from serendipitous (and steadily improving) conditions in the external environment. Russia’s “own” growth, therefore, was about 3.5–4 % a year, compared to 4.3 % a year growth of the world economy. Economic Expert Group calculations put the contribution of the oil market to Russia’s growth slightly lower (around 2 % a year), but highlight its significant impact on wage growth. The hypothetical total increase in real wages for 2000–2008, while maintaining constant oil prices and stable capital inflows, amounted to only 50 % – nearly five times less than the actual increase (244 %).

The link between the oil and gas windfall and economic growth is apparent in Figure 5. Note that the two trends start to track each other almost perfectly as we approach 2009. While the correlation of windfall gains and GDP growth stands at 0.57 in the pre-crisis period, it rises to 0.93 (!) in the 2009–2013 period.

Figure 5 GDP growth and contribution of oil & gas windfall



Sources: Rosstat, authors' calculations.

Thus, the massive inflow of cash and capital from outside the country served as the main engine of growth of the Russian economy in the pre-crisis period. This allows us to characterize the existing economic mechanism as a “model based on imported growth.” Of course, external resources have not determined all growth in output. Some has come from dynamic trends in the world economy (and a corresponding increase in external demand for Russian production), but most likely, the greater contribution has come from the operation of market forces after the end of the transition period and the 1998 financial crisis.

Since the 2009 crisis, however, other factors almost ceased to have any impact, perhaps because of certain negative conditions. These factors include the increased uncertainty in the macroeconomic environment, particularly the volatility of the exchange rate (Rautava, 2013) and the inconsistency of government action on a range of issues (the most striking example being the multiple, unpredictably shifting, decisions on the fate of the funded pillar of the pension system). According to the World Bank, this has led to the “crisis of confidence” among investors (World Bank, 2014).

As a result, growth appears to have become almost entirely determined by changes in oil and gas revenues.

## Potential and prospects of the current growth model

We attempt to evaluate the potential of the current model of economic growth by answering two questions. First, could we expect any increase in competitiveness with the present growth model in place? Second, should Russia expect to see a return in the foreseeable future of external conditions that allow the ‘imported growth’? To answer the first question, we conduct an additional analysis of the behaviour of government and companies and then consider the achieved results.

As external flows of capital and revenues became the main engine of economic growth, economic policy gradually focused on allocating these resources. In the early 2000s, the reforms were aimed primarily at addressing basic institutional issues (putting into effect new budgetary, tax, labour, and land codes; reforming pension system, electric power sector, and so on) and the creation of an enabling environment for business (implemented through the de-bureaucratization program and reducing the tax burden on the non-primary sector). Thereafter, the trend shifted to increasing government involvement in the economy, with its main lever becoming the distribution of financial resources. Growth came to be supported mainly through creation of state corporations and various development institutions.

This period saw the creation of the Investment Fund to finance major business projects based on public-private partnerships, Agency for Housing Mortgage Lending (AIZhK) to support mortgage lending, and the Russian Venture Company as an element of the national innovation system. The role and scope for activities of Russian Development Bank (VEB) were expanded. In parallel, several state corporations were formed, which in some cases included companies formerly operating (sometimes quite successfully) according to market principles. The large consolidated corporations United Aircraft Corporation (OAK) and United Shipbuilding Corporation (OSK) were formed. At the same time, other decisions were also made (redefining budget powers among various levels of government, monetization of social benefits, etc.), but they did not any longer constitute the main policy line of the government.

The change in the course of economic policy can be illustrated by comparing the two major pension reforms of the 2000s.

The reform of 2002 contained revolutionary institutional changes. It contained a funded pillar, while the insurance component drew on the internationally recognized principle of notional accounts linking the size of the pension to labour contributions of the employee throughout his or her working career, etc. In contrast, the reform of 2010 was almost entirely confined to boosting pensions: a 30 % indexation of base pension, and higher pension entitlements from work during the Soviet period (up to 1991). At the same time, no attempt was made to improve the efficiency of the pension system or provide relevant incentives.

The intention to support development of certain types of economic activities in practice meant providing some form of financial benefit. Broad-based pre-tax relief in 2012 amounted to 2.9 % of GDP.<sup>3</sup> Add to this figure (which only takes into account direct benefits) the many forms of indirect subsidy. Thus, the use of lower export duties on petroleum products in fact reduced the tax burden on oil refiners. But such policies often had the opposite effect, allowing the receiver of the subsidy to survive successfully without modernizing (Gurvich, 2010). It preserved the long-persisting and deep technology gap of domestic refining capacity, which, according to the Institute for Energy Strategy, for 2007–2010 had an average refinery yield of 73 % for Russia compared to 92 % for OPEC countries.

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<sup>3</sup> “The main directions of tax policy of the Russian Federation for 2015 and the 2016 and 2017 planning period.” [www.minfin.ru/common/upload/library/2014/07/main/ONBP\\_2015-2017.pdf](http://www.minfin.ru/common/upload/library/2014/07/main/ONBP_2015-2017.pdf).

The rapid expansion of domestic demand influenced corporate strategies: they tended to focus on increasing production volumes, while efficiency gains were seen as a secondary objective. As shown in Table 4, the percentage share of organizations regarding the expansion of production capacity as a main objective of innovation activity is in Russia on par with other transition economies. At the same time, the share of Russian companies considering significant reductions in labour costs (i.e. productivity gains) as one of the most important results of innovation activity is insignificant. We also note that in other countries, the financial crisis forced companies to dramatically step up their efforts to cut costs, while Russian companies practically did not change their strategies. There are virtually no signs of increased interest among manufacturers to innovate: the share of organizations implementing technological innovations in industry was 10.6 % in 2000, 9.6 % in 2008 and 9.9 % in 2012.<sup>4</sup>

We will now attempt to assess the overall effectiveness of the pre-crisis growth model. Its obvious weakness is that the dynamics of production are highly dependent on external conditions: the renewal in the flow of financial resources encourages growth, while a cut in the flow causes a decrease (as in 2009). But what did Russia get back from the enormous financial resources expended in the 2000s? Did they not just improve the quality of life and increase production, but also provide a solid foundation for long-term development of the economy, i.e. increase our competitiveness?

Table 4 Share of companies regarding either expansion of production capacity or reduction in labour costs as main result of innovation activity, %

Year	Russia	Bulgaria	Poland	Czech Republic
	Expanding production capacity			
2008	21.1	21.7	25.7	26.1
2012	24.1	27.1	31.8	24.2
	Reducing labour costs			
2008	4.5	15.9	13.8	18.2
2012	5.5	25.9	21.8	25.0

Source: Indicators of innovation activity, 2014.

As one criterion, we might use the dynamics of Russian products in global non-primary markets. Table 5 shows the results of our calculations. The proportion of Russian products in high-technology markets from 2002–2008 increased slightly (and remained marginal). Russia's position in markets for non-fuel products was bolstered by higher prices for metals, which are second after hydrocarbons in our exports, while the “machinery & equipment” category remained practically unchanged. Thus, the sharp increase in Russia's share of the global economy was not based on a marked improvement in competitiveness. However, it should be mentioned that our country's share of world markets did not decrease, despite a large increase in wages in dollar terms.

<sup>4</sup> Indicators of innovation activity, 2014.

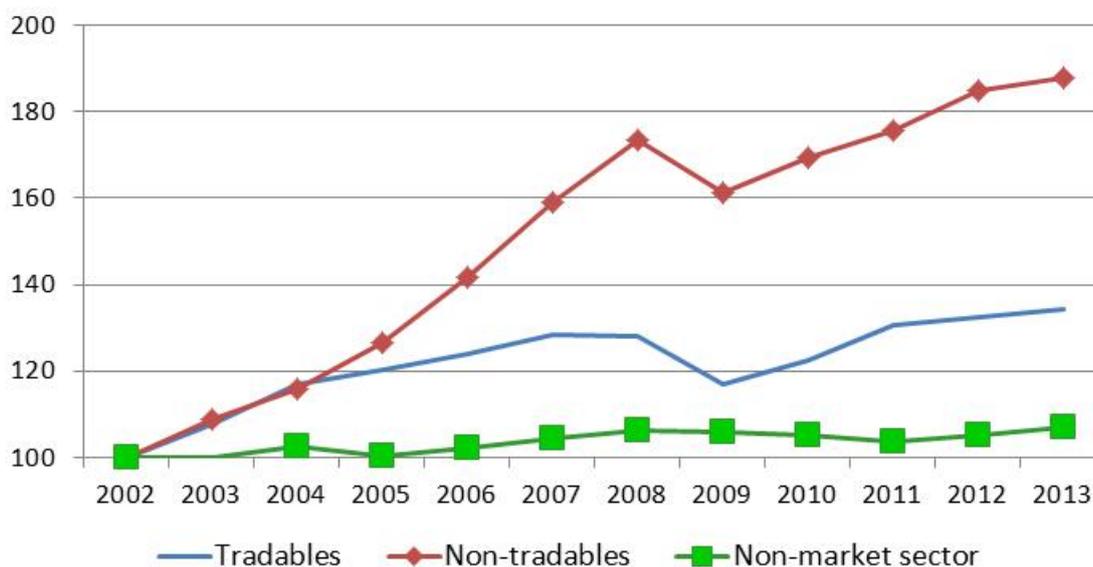
Table 5 Share of Russian products in world markets, %

Sector	2001	2008	2013
Non-fuel	0.88	1.21	1.02
Machinery & equipment	0.28	0.30	0.33
<i>For reference:</i>			
Russia's share of global economy	0.94	2.67	2.81

Source: Authors' calculations based on data from the Federal Customs Service and the International Trade Centre.

We next consider the dynamics in production of tradable products. As shown in Figure 6, the overall increase in output was provided mainly by growth in the non-tradable sector. In 2003–2008, the average rate of growth of tradable industries was 4.2 % (slightly lower than the world economy rate of 4.8 %). At the same time, the non-tradable sector grew at a brisk 9.6 % a year.<sup>5</sup> The champions here were the financial industry (3.5-fold increase), construction and trade (increases of 91 % and 93 %, respectively). The high rate of expansion of production in the non-tradable sectors reflected the dynamic increase in domestic demand. However, in areas where we had to compete with foreign manufacturers, we lagged behind the world economy. Note that also investment was mainly targeted at industries focusing on non-tradable goods and services or the commodity sector (Table 6).

Figure 6 Index of production volume by sector (2002 = 100)



Source: Authors' calculations based on Rosstat data.

<sup>5</sup> Rosstat has only calculated a comparable series of indicators since 2002.

Table 6 Structure of fixed capital investment by economic activity, %

Type of activity	1999	2008	2012
Mining and minerals extraction	14.5	13.4	14.3
Manufacturing	18.1	14.8	13.2
Transport and communications	18.6	23.0	27.5
Real estate transactions	16.6	18.4	15.4
Other	32.2	30.4	29.6

Source: Calculations based on Rosstat data.

The high growth of the non-tradable sector could be seen as a symptom of “Dutch disease.” However, a number of studies have shown that, while the Russian economy has displayed some of the symptoms, in general there is no reason to talk about a substantial manifestation of Dutch disease (Oomes and Kalcheva, 2007; Dobrynskaya and Turkisch, 2010, etc.). For example, the rise in oil prices had a positive impact on the volume of manufacturing output, thus ruling out a main pathology of Dutch disease (Kuboniwa, 2012).

However, we can assume that Russia did not escape the more general impacts of its “resource curse,” whereby resource wealth exerts a negative influence on long-term economic growth due to a decline in the quality of public institutions. This is evidenced for instance by the findings of Beck and Laeven (2006) who demonstrated that the presence of resource dependence and the long legacy of life under socialism hampered the formation of market institutions in transition countries and hurt economic growth. Further, some researchers revealed that the higher the economic contribution of extractive industries for a given Russian region, the lower the quality of regulation (De Rosa and Iooty, 2012).

In summary, a huge windfall received by our country during auspicious conditions in commodity markets substantially accelerated output growth and allowed record increases in incomes (wages for all sectors of the economy, including the public sector, pensions, etc.) and improved macroeconomic stability. However, *significant resources aimed at modernizing the economy (in the form of public investment, the cost of creating development institutions, the introduction of various subsidies, etc.) failed to produce tangible results, as Russia’s international competitiveness has not fundamentally improved. This casts doubt on the possibility that a “resource approach” can foster conditions for long-term economic growth.*

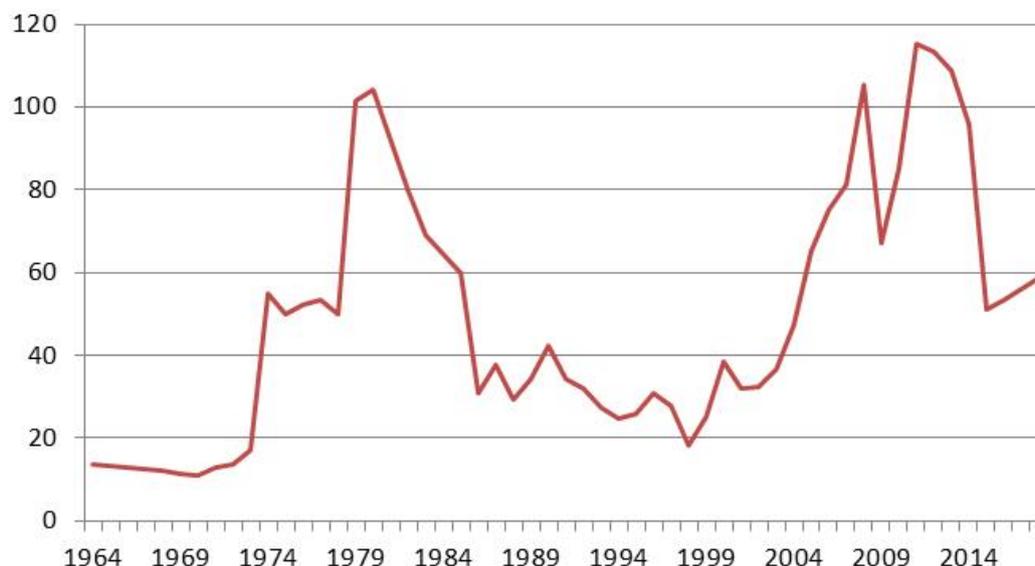
The period 2009–2013 reinforces this conclusion. In 2011, oil prices again hit a historical high and then remained near that level. Capital flows into developing countries, including emerging market economies, fluctuated close to the record levels of 2007, remaining above the preceding years. In this respect, conditions for the Russian economy had not deteriorated. Nevertheless, even their stabilization was sufficient to cause the flow of capital to turn negative. Sustainable growth in capital investment gradually declined and ended in 2013, and GDP growth slowed to 1.3 %, its lowest level in the past 15 years (with the exception of the crisis year 2009).

Turning to the second question: Can we hope for resurgence in the inflow of external financial resources that would restart our old model based on imported growth? To answer this question, consider these external and internal drivers of the Russian economy for the next few years.

**Oil prices.** After reaching a record high in 2011, the price of a barrel of oil has dropped sharply in Q4/2014. Most forecasts now assume crude oil price will remain around \$60/bbl. in coming years. For example, the World Bank forecast from January 2015 predicts that over the next four years, the price of oil in constant dollars will average just half of its level in 2013 (World Bank,

2015) (Fig. 7). The downward trend is due to the expansion of shale oil extraction in the United States and the high likelihood of the return of Iran, Libya and Iraq to the market in a period of slowing demand from both developed and developing countries.<sup>6</sup>

Figure 7 Reported oil prices and IMF forecast, 1964–2020 in constant 2013 US\$ (\$/bbl.)



Source: Authors' calculations based on data from BP (BP, 2014) and World Bank (World Bank, 2015).

Note: Prices for 1965–1983 are based on the price of Arabian Light crude; prices for 1984–2013 are based on the price of Brent crude, while subsequent prices are based World Bank average price forecasts for Brent, WTI and Dubai Fateh grades as of January 2015.

Econometric analysis leads to the conclusion that the long-term development in oil prices can be described as a slowly rising trend on which major cyclical fluctuations are superimposed (Jacks, 2013; Shafiee and Topal, 2010). As shown in Figure 7, the period of oscillation (distance between price peaks) in the last decade was about 30 years. These findings, together with other projections above, suggest we have just passed a peak in oil prices and have entered a period of decline that, based on past experience, could last about 15 years.

**Volume of oil production.** According to the Russian government's forecast, the volume of oil production over the next 15 years would remain virtually unchanged.<sup>7</sup> However, this was before the United States introduced restrictions on technology transfers to Russia of equipment for hard-to-extract oil. Combined with declining world prices for hydrocarbons, this will hurt prospects for production and likely lead to considerable reductions in output.

**Capital flows.** Figure 2 shows that the flow of capital to developing countries including emerging market economies during 2009–2013 fluctuated around \$400 billion a year. However, with the ending of quantitative easing in the United States and gradual increases in interest rates in the advanced economies, we can expect capital to return to the industrialized world. This is reflected, inter alia, in the World Bank's forecast, which sees a decline in net capital inflows to emerging markets.<sup>8</sup>

<sup>6</sup> IEA Medium-Term Oil Market Report (MTOMR), June 2014. [www.iea.org/publications/medium-termreports/](http://www.iea.org/publications/medium-termreports/).

<sup>7</sup> [http://economy.gov.ru/minec/activity/sections/macro/prognoz/doc20131108\\_5](http://economy.gov.ru/minec/activity/sections/macro/prognoz/doc20131108_5).

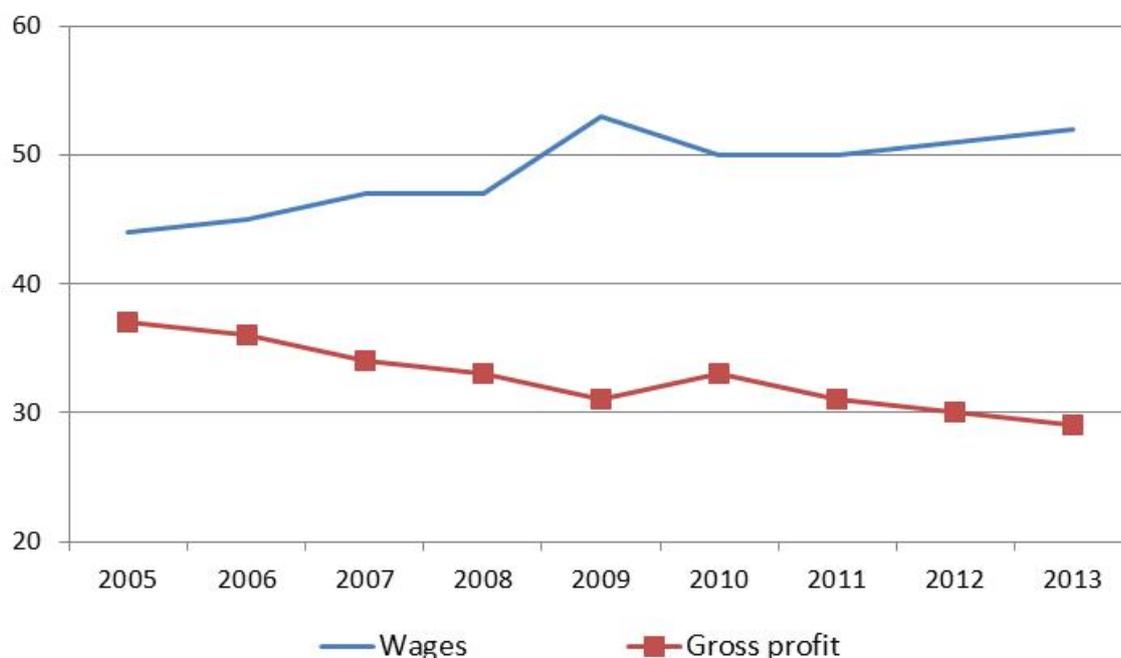
<sup>8</sup> *Global Economic Prospects*, World Bank, June 2014. [www.worldbank.org/en/publication/global-economic-prospects](http://www.worldbank.org/en/publication/global-economic-prospects).

**Demographic outlook.** Rosstat foresees a gradual contraction in the working-age population in coming years.<sup>9</sup> Its base scenario predicts a 7 % decline over 15 years. Under such circumstances, the government should anticipate an 8 % reduction in the labour force by 2030, a trend that could become a serious constraint on growth of the Russian economy.

**Rising wages.** In recent years, the Russian economy has suffered from adverse shifts in the distribution of primary income. During 2006–2013, the wage share increased by 8.0 p.p., while the share of gross profit margins of business fell by 7.3 p.p. (Fig. 8). This means that every year the aggregate supply curve shifts to the left, the attractiveness of investing in Russia decreases, and business investment resources are reduced (which is especially harmful in the current conditions of limited access to financing).

**Tariffs of natural monopolies.** During 2008–2013, domestic gas prices for industrial consumers rose 2.6 times, that is, these prices increased nearly 2.5 times faster than the CPI.

Figure 8 Ratio of wages and gross profit to GDP, %



Source: Rosstat.

Given that gas accounts for approximately 70 % of the electrical power generated in Russia, this means higher rates for heat and electricity. Tariffs for rail freight transport also rose slightly faster than consumer prices. The government imposed a rate freeze on natural monopolies in 2014, but plans to resume steady rate hikes in 2015. This, combined with high wage growth, makes it quite difficult for Russian manufacturers to stay competitive.

**Credit supply.** Credit limits on some fronts, particularly in the retail sector, are already stretched close to exhaustion from standpoint of debt servicing costs to income. Financial sanctions imposed in 2014 against a number of Russian banks and companies have significantly limited their ability to borrow from abroad, limiting also their possibilities to extend credit domestically due to the restricted supply of resources.

We cannot hope that the Russian economy will in coming years again experience the ideal conditions that allowed the “model of imported growth” or the mechanisms on which it was built.

<sup>9</sup> demography/# [www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/statistics/population/](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/).

In contrast, practically all branches will have to operate in challenging, rather than greenhouse, conditions. A serious additional factor complicating the predicament of the Russian economy is the new set of problems generated by events in Crimea and Eastern Ukraine, as well as the subsequent international sanctions. They restrict the inflow of capital to Russia, slowing both the general dynamics of investment and the process of importing advanced technology. Consequently, economic growth will suffer.

The decline in oil prices and increased capital outflows mean the Russian economy will face a prolonged period of reduced inflows of resources from abroad. Under such circumstances, all the mechanisms described above that used to enhance economic growth, will instead restrain it. Given that the stabilization of oil prices led to economic stagnation, their decline (while maintaining our old growth model) can cause a long-lasting recession.

Add to these listed objective factors a significant deterioration in expectations of economic agents that makes it problematic to expand output, and hence investment. The reduction in investment activity, in turn, degrades expectations, and in the end becomes “self-fulfilling.” This may explain the outflow of capital in the post-crisis period – capital was simply not needed given the uncertain prospects facing Russia’s development.

Long-term growth forecasts of the Russian economy reflect the potential of Russia’s current growth model. The OECD estimated that average growth of the Russian economy in the period up to 2030 will amount to 2.8 % and then fall to 1.2 % in the period 2030–2060 (OECD, 2014). Gurvich and Prilepskiy (2013) put long-term average growth of the Russian economy at 2.2 %. After subsequent revisions of medium-term dynamics of the Russian economy and oil price dynamics, both forecasts obviously need to be significantly reduced. The IMF forecast published in October 2014 sees on-year growth of the Russian economy averaging 1.3 % over the next six years (IMF, 2014). In any case, the dynamics of the domestic economy will significantly lag the world economy (the OECD forecasts average growth of 3.7 % from now to 2030 and 2.3 % in 2030–2060), and Russia’s share of world economic output will fall rapidly.

The combination of low growth and cheaper hydrocarbons poses serious problems for our economy. First, it leads to stagnation (if not a decline) in people’s real incomes. Second, troubles arise in the budget sphere. Many of our spending programs assume rapid GDP growth and most of the spending items in these programs do not adjust automatically in the event of an economic slowdown. Countries confronted with such a situation during the recent financial crisis (e.g. Greece) found that costs cannot be reduced fast enough to keep up with falling revenues, and that their ballooning deficits, in turn, make borrowing in such circumstances practically impossible. As a result, all such countries faced painful economic and social readjustments caused by the radical reduction of state obligations, which were made all the more difficult by the fact that they were carried out in haste.

As shown by the above analysis, the problems of the Russian economy are chronic and long-term. *Even if oil prices suddenly recover rapidly (a fairly unrealistic scenario), our current model based on imported growth would still fail to ensure economic growth.* There is no indication that the economy could escape stagnation without the creation of a new growth model.

The government recognizes the seriousness of the problem. The January 2013 document “The basic outline of the functioning of the Government of the Russian Federation in the period up to 2018,”<sup>10</sup> notes that without active economic policy, average GDP growth is likely to slump to 2–3% a year, a level that would prevent us from balancing the economic and social components of national development. Thus, it is absolutely imperative to adopt a new growth model for the Russian economy that works even in a deteriorating external environment.

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<sup>10</sup> <http://government.ru/info/761/>.

## The contours of a new model of economic growth

Economic policy measures should be based on a comprehensive analysis of the problems we face.

In considering possible ways to restore growth in the Russian economy, we apply Rodrik's "growth diagnostics," which are used in several countries (Rodrik, 2010). The first steps in the algorithm require identification of key obstacles to growth and choosing those measures to be adopted within the framework of existing political conditions, administrative resources, etc., that can remove or soften most of the basic restrictions.

The diagnostics have to begin with a definition of the main reasons for our poor growth: either the economy lacks access to adequate financial resources or economic activities in the country fail to provide sufficient return (taking into account explicit and implicit costs and risks). The response we choose defines top problems to be addressed for restoring economic growth. If we believe that the main problem is the lack of financial resources, economic policies must offer additional channels to resources or ways to compensate for their lack (e.g. temporarily making up for the lack of private investment with public investment). Such a "resource approach," in fact, continues the tendencies of the pre-crisis period, when economic policy was oriented mainly to allocation of financial resources.

Despite the popularity of the view that "there is not enough money in the economy," the first response is not supported by objective economic data. In fact, the savings rate in Russia is high by international standards (standing at about 27 % of GDP over the past three years) and constantly exceeds gross capital formation (on average 24 % of GDP). A substantial proportion of private national savings is invested abroad (despite record low interest rates close to zero in developed countries). Over the past three years, the net outflow of private capital was on average 3.3 % of GDP per year, and the total outflow of Russian capital was 7.5 % of GDP. Even if we consider that up to half of the foreign investment actually reflects the repatriation of domestic capital that earlier left the country, the level of financial resources available for investment in the Russian economy exceeds 30 % of GDP. If these resources were fully used, then Russia would once again rank among the leaders in global growth.

What are the key risks and how they can be mitigated? When the causes of the lack of investment attractiveness of the Russian economy are discussed, the poor quality of institutional environment is often mentioned (lack of property rights, flaws in the judicial system, high administrative barriers, corruption, etc.). Recognizing the importance of all these factors, we believe *that the main problem of the domestic economy has an even deeper nature — it is the weakness of market mechanisms*. A mature market system consists of agents (companies, banks, employees), who have strong incentives and compete according to the rules. Unfortunately, in the Russian economy, none of these conditions are adequately met.

State-owned enterprises, quasi-state companies (corporations) or mixed companies (with some state participation) dominate the banking and the non-financial sectors. Such companies tend to have significantly distorted motivations: they are less interested in gaining profits, their commercial activities are in many cases blended with the function of "government agent," and they have less responsibility for the results of their operations, as losses are likely to be covered in one way or another by the government (examples of this have become all the more common recently).

A World Bank survey of 79,000 Russian enterprises for 2003–2008 confirmed that companies in state and municipal ownership showed significantly worse performance than their private counterparts (Bogetić and Olusi, 2013).

Note that quasi-state companies may demonstrate even less market behaviour than fully state-owned enterprises (Vahabi, 2012.) We can assume this holds in full in Russia's case, where state corporations are not commercial organisations even according to the law. In addition, as shown by

many studies (e.g. Sharafutdinova and Kisunko, 2014), our country is characterized by close informal ties between the authorities and business. This puts companies that are not only directly, but also indirectly affiliated with the state in a special position. Of course, there are exceptions to the general pattern. For example, some researchers find that Russian state banks are more efficient than their private counterparts (Karas et al., 2008). However, the reason for this, perhaps, may be the implicit benefits of state status in the eyes of depositors; i.e. the state ensures the high credibility of state-owned banks.

The role of market forces (or lack thereof) can be illustrated by the example of the Soviet economy. A number of studies remark on its extremely low efficiency, which was primarily due to the weakness of the system of incentives, which is characteristic of nationalized economies (see Easterly and Fischer, 1994; Brixiová and Bulíř, 2002). As shown by Hansen (2003), in the 1960s total factor productivity stayed constant, after which it persistently declined. Easterly and Fischer (1994) show that the Soviet economy of 1960–1989 had the worst factor productivity dynamics in the world.

The task of strengthening market mechanisms is considerably broader than simply improving the investment climate. A stunted market environment leads to incorrect assessment of company performance, fails to encourage the best manufacturers and weed out the worst, and does not encourage businesses to seek new and better strategies. As a result, economic resources are not moved to the most productive sectors, there is no demand for innovation and the state feels the need to support its “own” companies, thereby increasing the burden on the budget. The economy lags further and further in development.

The most prominent feature of a non-market environment is the serious weakening of companies’ dependence on their economic performance. Kornai coined the term “soft budget constraint” (SBC) to describe this situation. He showed that SBCs are an inevitable aspect of state-run economies and lead to excessive or unproductive use of all resources (Kornai, 1990). SBCs arise from a willingness of the state to tolerate inefficient work in state companies, compensating for it with various forms of financial support (e.g. direct grants, tax breaks or preferential loans), as well as lax regulation of prices and tariffs, granting of privileges in the allocation of public procurement and licences for the exploitation of mineral deposits, etc. In particular, it is the SBC mechanism (especially the ability to borrow at non-market rates) that weakens incentives for public companies to increase productivity (Bartel and Harrison, 1999). The “weakest links” in this system are state monopolies that have no competitors and operate under soft budget constraints.

The distorted motivations of state-owned enterprises and quasi-state companies not only define their own actions, but impact all participants in the market. Suppliers to the state and state-owned enterprises have no incentive to reduce costs as the costs can relatively easily be integrated into prices (due to the state’s inefficiency in procurement and regulation of pricing of natural monopolies, etc.). Neither do companies producing similar products feel any pressure, which in turn affects the entire supply chain. This phenomenon is dispersed throughout the economy, inevitably decreasing the competitiveness of production.

The standard tools of economic policy may not work in a non-market environment. Robust competition is perhaps the most important impetus for companies to increase their productivity (Ospina and Schiffbauer, 2010). However, the positive effects of competition are evident only in Russia’s more “advanced” companies, while the development of “laggard” companies may suffer from competition (Aghion and Bessonova, 2006). Bessonova (2010) posits that the positive impact of competition on productivity is constrained in Russia’s case by the coexistence of enterprises with high and low productivity, which is the result of institutional barriers to exit of the least efficient enterprises of a given industry. Thus, improved performance not only requires reducing barriers to entry that restrain competition, but also facilitating the movement of factors of production from less

efficient to more efficient industries, i.e. to intensify what Schumpeter calls the process of “creative destruction.”

In other words, in order to create proper motivation it is necessary to radically enhance positive incentives and toughen the performance demands on all financial and non-financial companies operating in the market. This requires improving the market environment, as weak protection of property rights, lack of competition, excessive regulation, and soft budget constraints increase the likelihood that efficient firms will be driven from the market while the inefficient survive (Hallward-Driemeier, 2009).

Still another important consequence of the high risk facing all participants in the Russian economy is a preference for short-term solutions that have quick impact. The behaviour of average citizens under such circumstances was highlighted in a 2010 study (Wang et al., 2010).

Participants in 45 countries (including developed, developing, and emerging market economies) were offered the choice of getting \$3,400 this month or \$3,800 next month. The results showed that in Russia only 39 % of the study participants preferred to wait a month to get the extra \$400. In terms of degree of “patience,” Russia fell into the lowest decile of the sample: study participants of only four countries were less patient than the Russians, while those of 40 other countries were more patient. The more patient nationalities included, among others, Mexico (58 % “patient”), Argentina and Turkey (63 %), and the Czech Republic (80 %).

In business, the “short horizon” can be seen in the dominance of business strategies emphasising expanding production over cutting costs: satisfying existing demand through mechanical increases in capacity yields immediate results, while modernization of production renders results much later. A shift in government preferences for short-term solutions has been particularly evident in recent years in pension policies, where resources were increased to pay current pensions while resources for financing future pensions were reduced. There are also other areas that show an increasingly palpable emphasis on measures that produce immediate results. Apparently, this reflects, on one hand, the on-going critical susceptibility of the Russian economy to unpredictable changes in the external environment, and on the other hand, frequent changes in the formal and informal rules of the game, amplified by excessive government regulation.

The preference for “short-sighted” solutions makes it very difficult to implement reforms, because their positive effect usually does not manifest immediately. Indeed, it is this “short-sightedness,” rather than errors in the conduct of monetary and credit policy, that has limited the availability of “long” money in the country, and accordingly the implementation of private projects with long payback periods. But the most important consequence of the compression of the planning horizon is that it makes both businesses and the authorities to prefer a “fixation of profit” strategy to development strategy. It may be sound at the moment, but has no prospects as a long-term policy. One of the most important tasks of government is to restore the balance between long- and short-term objectives.

The growth boosting measures announced, developed or already implemented by the government recently, despite the diversity of their objectives, can be divided into three groups. The first consists of the widely debated measures involving the use of fiscal and/or monetary stimulus (e.g. lowering the CBR’s key interest rate). The second group includes measures to increase budget spending (i.e. relaxing the budget rule) or additional funding of investment projects out of the National Welfare Fund, the CBR (providing refinancing of loans for investment projects), etc. Finally, the third area consists of measures to improve the economic environment (including improvement of the business climate). We assess how the proposed measures help make the Russian economy more market-oriented and reduce the risks that block its development.

**Stimulus measures.** These are the standard means of conducting countercyclical policy in a short-term recession (as in 1998 or 2008–2009). However, if we have entered a period of sustained decline in oil prices, then the resulting massive domestic demand drop cannot be compensated for

by monetary or fiscal stimulus. Hence, in October–November 2014, in a period of falling oil prices, even raising the CBR’s key rate proved ineffective in stopping the flow of money into the foreign exchange market. Net capital outflows in October are estimated to have reached \$28 billion — more than the total outflow in CBR’s 2014 forecast. Limiting the provision of liquidity to banks was the only way to slow this process. It is clear that easing monetary policy would only have induced higher capital outflows rather than boosted domestic demand. It appears that proposed application of stimulus measures is just an example of the standard recommendations that do not function in the current precarious circumstances.

The second group of *measures relates to increasing budget expenditures and financing of major additional projects*. They aim at replacing external resources by domestic ones and mainly involve the transfer of these resources to state-owned enterprises. Hence, it is more about trying to keep the old model alive than trying to create a new model for growth. In addition, there are serious limitations to implementing measures in this second category. First, the main source of their funding are mostly savings accumulated in the National Welfare Fund (NWF) during the period of sustained high oil prices; in other words, the residual (rather limited) of the windfall received earlier from abroad. Consequently, there could only be a short-term recovery in output that lasts until the reserves are exhausted. Second, as shown by analysis of international experience, infrastructure projects can have a positive effect on economic growth mainly while they are being implemented, but thereafter cannot be relied on to sustain a substantial acceleration in growth (Warner, 2014). Third and finally, public investment can only accelerate growth if there is strict public oversight to assure its efficiency (we have much to do here); low quality and inflated prices reduce its positive impact to zero (Morozumi and Veiga, 2014). Recall that in the last 10–15 years of the USSR, despite a very high rate of capital accumulation (27–30 % of GDP) and despite the implementation of mega-projects (for example, BAM, the Baikal-Amur Mainline railway), growth of the Russian economy persistently decelerated (Ponomarenko, 2002).

In general, we can conclude that the implementation of major projects could extend the life of our current resource-driven model somewhat. However, given that we usually do not get serious about reform until there is an urgent need to do so, the likely outcome of the second group of measures would be to delay the adoption of the new growth model, i.e. a loss of valuable time.

Examples of *measures aimed at improving the investment climate and business environment* are offered by “road maps” within the framework of the National Entrepreneurial Initiative (NPI), which calls for the removal of key obstacles to conducting business. For example, one initiative involves reducing the number of administrative procedures needed to obtain a building permit from 51 in 2012 to 11 by 2018, with the time needed to get the permit falling from 423 days in 2012 to 56 days by 2018. The successful implementation of such measures could make Russia more attractive to investors. However, solving such problems is extremely difficult, because the results are defined not only and not so much by changes in the normative base, but in the practical behaviour of civil servants at all levels of government across the country. For this reason, improvements in the regulatory framework must be accompanied by significant improvements in systems of government administration. Otherwise, these reforms could meet the same fate as the revised version of the Customs Code adopted in 2003. During its development, as well as under current “road maps,” ambitious quantitative objectives were formulated to facilitate customs clearance for import and export. Nevertheless, in 2008, Russia ranked 155<sup>th</sup> in ease of customs procedures out of 178 countries surveyed in the World Bank’s *Doing Business 2008* survey.<sup>11</sup>

In summary, we can say the measures discussed or implemented today do not correspond to the scale of the problems facing the Russian economy. The thrust of the new model of growth must

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<sup>11</sup> Doing Business 2008, World Bank. [www.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB08-FullReport.pdf](http://www.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB08-FullReport.pdf) .

be to instil strong motivation to improve efficiency of both businesses and the system of public administration. The latter should focus as much as possible on creating an enabling environment for economic development and minimizing all forms of economic and institutional risk.

The complexity of the prevailing conditions, in which the task must be solved, may be illustrated by a number of examples.

## Government

1. A higher number of people employed in the public administration sector in a Russian region predicts worse economic performance (Libman, 2012). The feasible explanation to this paradoxical relationship is that the regulatory burden increases with the size of the bureaucracy.
2. Analysis of the factors determining the likelihood of whether a regional governor was reappointed during the period 2005–2010, found that the economic performance of the region mattered quite little (Reisinger and Moraski, 2013). In contrast, Yakovlev (2015) notes that in China promotion and retaining of regional leaders depends above of all on the economic performance of the province or area under their leadership (probably this practice explains to some extent the brilliant growth figures posted in that country).
3. Presidential Decree No. 1199 (21 August 2012) on assessing the effectiveness of operations of executive authorities of the subjects of the Russian Federation makes the unemployment rate a performance criterion for regional authorities. In theory, establishing favourable conditions for business development should mitigate unemployment. In practice, much blunter approaches are often used, such as imposing informal restrictions on firing workers. This is how many projects to modernize production are made unprofitable and in practice blocked.
4. One of the most important incentives for regional and municipal authorities to create a favourable business environment is the interest in increasing the tax base to augment their own budgetary revenues. However, this incentive vanishes if an increase in tax collection reduces transfer payments received from the central government. An econometric analysis of the distribution of transfers among the municipalities does not reject the hypothesis of such redistribution (Alexeev and Kurlyandskaya, 2003). To address this problem of allocating federal transfers between regions, a sufficiently effective objective calculation mechanism was developed for equalizing budget resources. However, in recent years the share of transfers based on this mechanism has declined relative to other “informal” mechanisms, which may reduce incentives for regions.

## Business

1. With respect to protecting property rights, Russia ranks 120<sup>th</sup> of 144 countries surveyed (WEF, 2014). It is clear that the ease of taking someone else’s property reduces incentive for investment or even creates adverse incentives – a successful business owner faces the higher likelihood of losing his or her business or having to pay off others to protect the business.
2. In terms of burdensome business regulation, Russia ranked 111<sup>th</sup> of 144 countries surveyed (WEF, 2014).
3. A joint study of the World Bank and the Higher School of Economics found a labour productivity gap in every branch of Russian industry between the top 20 % of companies and the bottom 20 % of 10–20 times (Golikova et al., 2007). The least competitive enterprises, while accounting for a small share of output, enjoy access to significant material resources and

labour. This confirms the wide existence of soft budget constraints in the Russian economy. The use of a large set of tools to help all enterprises survive can be described as “industrial paternalism.”

4. On the level of innovation activity Russia lags not just behind advanced economies, but the emerging market economies as well (Table 7).<sup>12</sup> This shows that Russian companies have very little incentive to improve efficiency.

Table 7 Innovation indicators in 2012

Country	Share of organizations involved in technological innovation	Aggregate level of innovation activity
Russia	9.1	10.3
Brazil	41.2	76.0
Poland	16.2	28.1
Turkey	35.2	51.4
South Africa	65.4	73.9

Source: Indicators of innovation activity, 2014.

The fundamental nature of the tasks that need to be resolved to build a new model of economic growth (“model for stimulating growth”), implies there must be a profound change in economic policy and public administration, instilling in them strong incentives to improve efficiency. It is impossible to provide detailed proposals on all the problems in one article. Here, we merely point out general lines of action. Listed below are the key tasks required for implementing a model for stimulated growth.

It should be noted that concrete proposals have been prepared for practically all the lines of action, and their implementation could lead to serious progress.<sup>13</sup> Moreover, substantial measures on many key issues have already been identified, some of which were to be performed already 1.5 to 2 years ago.<sup>14</sup> However, the analysis reveals that they either have yet to be implemented, or have only been formally implemented. The need now is not to invent new measures, rather it is more important to understand why previous measures are not enforced or failed to achieve their intended result, and what needs to be done to make the proposed reforms work. Table 8 lists the critical objectives to be achieved in implementing a “model for stimulated growth,” along with already proposed measures (right column).

Of course, one should not assume that the measures listed in the right-hand column of Table 8 are sufficient to achieve the listed objectives, they indicate the direction in which economic policy must be taken. What is important to note here is that most of these problems have been recognized and given priority, and ways to address them are under consideration. Unfortunately, most of these measures have not been implemented, unlike many measures that call for additional government spending or investment. Yet without improving the quality of public administration, implementation of publicly funded projects at best produce results that are limited in both scope and time.

<sup>12</sup> Russia has worse indicators of innovation activity not just in comparison to the countries listed in Table 7, but in comparison to all of about 50 developed and emerging market economies that are included in the source.

<sup>13</sup> Kudrin (2012), Gurvich (2013) and “Strategy 2020” (2013) were used in developing the listed measures.

<sup>14</sup> Presidential Decree No. 596, “On long-term state economic policy” (7 May 2012). Presidential Decree No. 601 “On the main directions of improving the system of public administration” (7 May 2012).

Table 8 Objectives and measures for implementing the “model to stimulate growth”

Objective	Measures
Radical reduction in the size of the non-market sector, including state-owned enterprises and quasi-state companies primarily motivated by non-market objectives.	<ol style="list-style-type: none"> <li>1) Prepare and implement by 1 December 2012 programs to divest non-core assets of companies, where the federal government holds a stake greater than 50 % (Presidential Decree No. 596).</li> <li>2) Provide by 1 March 2013 an effectiveness analysis of the work of “consolidated” state companies (Presidential Decree No. 596).</li> <li>3) Implement the privatization program. (The federal budget act called for privatization sales of 728 billion rubles in 2012–2013, while actual revenues from privatization sales were only 86 billion rubles).</li> <li>4) Complete by 2016 the state exit from companies not in the commodity sector and unrelated to natural monopolies or defence (Presidential Decree No. 596).</li> <li>5) Restrict companies with predominantly state participation from acquisition of shares and interests in businesses (Presidential Decree No. 596).</li> <li>6) Reduce politically or non-commercially motivated government assignments to state companies.</li> </ol>
Motivate heads of government agencies and regions to support economic growth	By 1 September 2012 present a draft presidential decree that provides for the introduction of performance assessments of heads of federal executive bodies and subjects of the Russian Federation on the basis of qualitative and quantitative indicators of improvement in the investment climate (Presidential Decree No. 596).
Prepare a system of feedback when evaluating the activities of regional and local government authorities	<ol style="list-style-type: none"> <li>1) By 1 September 2012, submit to the Duma draft federal legislation on extending the list of elective municipal posts (Presidential Decree No. 601).</li> <li>2) By 1 January 2013 enter changes into federal legislation enabling the preparation of criteria and methods for citizens to assess (also using telecommunication networks and information technology) the management effectiveness of leaders of territorial bodies of federal executive bodies; their structural units; local government agencies (Presidential Decree No. 601).</li> </ol>
Redirect some authority and budgetary resources in favour of regions, while strengthening local self-governance	Dramatically reduce federal influence on activities of subnational authorities: <ul style="list-style-type: none"> <li>– Increase fiscal autonomy at each level of government;</li> <li>– Restore conditions for local government;</li> <li>– Strengthen the role of inter-regional competition as an incentive for economic growth. (Strategy 2020, 2013. Chapter 23).</li> </ul>
Eliminate the disincentive effect of allocation mechanisms in inter-budgetary transfers	<ol style="list-style-type: none"> <li>1) Increase the share of objectively calculated subsidies for equalizing budget resources.</li> <li>2) Gradually move to an objective method of distributing transfers to municipalities.</li> </ol>
Improve protection of property rights	<ol style="list-style-type: none"> <li>1) Submit by 1 October 2012 proposals on implementation of the principle of independence and objectivity in judicial rulings (Presidential Decree No. 596).</li> <li>2) Amend by 1 December 2012 federal legislation to eliminate the possibility of resolving commercial disputes through criminal prosecution (Presidential Decree No. 596).</li> </ol>
Reduce administrative control of business operations	<ol style="list-style-type: none"> <li>1) By 1 January 2013 replace excessive and/or ineffective state administrative and control mechanisms in certain industries with alternative market mechanisms such as insurance responsibilities (Presidential Decree No. 601).</li> <li>2) Introduce the principle of “presumption of innocence” for businesses and move away from control of executive authority to compensatory damage decisions based on civil legislation (Strategy 2020, 2013, Chapter 18).</li> </ol>
Assess the effectiveness of existing development institutes and reform them if needed	Their activities have recently been scattered across a range of fragmental projects, some not directly related with innovation (Presidential address to the Federal Assembly, 2013).

Increase competition in domestic markets	1) Increase the regulatory muscle of the FAS (Federal Antimonopoly Service) by focusing its activities on elimination of barriers to market entry and fighting against large corporate monopolies. 2) Continue with reforms of natural monopolies.
Dismantle the existing system of soft budget constraints (“industrial paternalism”)	End state support of inefficient businesses, eliminate barriers to exit for insolvent companies.
Eliminate the paternalistic social policy	Among others, improve targeting of social support, it must be granted according to needs-based criteria. (Presidential budget address for 2014–2016. *)
Improve economical use of state funds	1) Ensure that from 2013 onwards there are mandatory public technology and price audits of all major public investment projects with government participation (Presidential Decree No. 596). 2) By 1 June 2012 prepare a report on implementation of measures to organize public hearings on federal, regional and municipal purchases of more than 1 billion rubles (Presidential Decree No. 596).
Increase competition for government contracts and public procurements	By December 2012, establish mechanisms to attract foreign entities possessing modern technology to participate in highway construction tenders (Presidential Decree No. 596).
Undertake further reforms of various budgetary sectors	Reforms of education, health care, law enforcement agencies, etc.
Increase the overall effectiveness of budget expenditures	The president’s budget address on fiscal policy for 2014–2016 highlighted several key provisions in optimizing federal spending, notably: – Ensuring the long-term stability of the pension system to allow for a phased reduction in transfers from the federal budget to the Pension Fund; – Optimization of public procurements; – Optimization of the budget framework and the number of civil servants. Such changes should be undertaken only after thorough preparation, and should be seen as part of reforms to boost public sector work efficiency.

\* President’s budget address on fiscal policy for 2014–2016. [www.kremlin.ru/acts/18332](http://www.kremlin.ru/acts/18332).

As an example, here is the proposed reform of the law enforcement system, prepared by the Institute for the Rule of Law (2013) for the Committee of Civil Initiatives.

A diagnostic analysis performed by the Institute for the Rule of Law identified the following sources of the on-going degradation in the quality of Russian law enforcement functions:

- Excessive centralization of law enforcement agencies;
- Predominance of vertical hierarchical coordination;
- Multiple parallel management silos;
- A centralized management arrangement that continues to rely on quantitative indicators in assessing staff performance;
- Lack of external controls, connections to local communities and civil authorities.

The proposed approach to reforming law enforcement agencies focuses on three main areas:

- a) Optimizing the management structures of law enforcement agencies;
- b) Releasing them from non-core functions, thereby reducing their number;
- c) Reforming systems of evaluation and oversight of law enforcement agencies.

A key step of the proposed reform is to establish three tiers of law enforcement: federal, regional and municipal levels, each with their own respective authority, responsibilities and accountability.

The overall concept offers a system of interrelated measures targeting law enforcement personnel to address the identified problems, while maintaining all the necessary functions of law enforcement and performance of its duties.

An example of a task requiring a set of complementary measures might serve halting the falling trend in profitability as a share GDP. This is especially difficult in the face of a shrinking labour force that puts additional upward pressure on wages. First, eliminate excess employment where it exists. Second, if possible, increase the labour supply. Third, try to prevent wage creep that is out of line with productivity gains. Our analysis reveals areas where we might make headway:

- a) The number of people employed in the public sector is clearly excessive (measured in terms of public employees per 1,000 of population, Russia surpasses both developed countries and emerging economies);
- b) Recent years witnessed sharp wage increases in certain branches of the public sector, which then spread to the entire economy; and
- c) The retirement age in Russia is practically the lowest among all comparable countries.

On this basis, we propose the following measures:

- Denial of public sector wage hikes not linked to increased productivity;
- Optimization of the number of public sector employees;
- Transition away from fighting against unemployment (the size of which is unlikely to become significant) to fighting for greater competitiveness;
- Increased mobility and expansion of retraining programs for the labour force;
- Improved regulatory mechanisms for migration to attract workers necessary for labour markets; and
- A gradual increase in the retirement age.

It is necessary to restore investor confidence in macroeconomic stability of the Russian economy and political commitment to institutional change. Overhanging both sets of concerns, among others, are the long-term problems of the pension system. Their severity is determined, first, by the long-discussed changes in the pension system entering into force in 2015 that fail to address the issue of an ageing population, and second, by the two-year freeze of the funded pillar of the system, which has further aggravated long-term imbalances. Investors are well aware that without strong measures to correct pension problems now, they have to be addressed in the future through raising taxes, which will further reduce their incentives to invest in the Russian economy. Concrete approaches for effective pension reforms have been pointed out in numerous publications (see e.g. Strategy 2020, 2013; Kudrin and Gurvich, 2012; Gurvich, 2011).

Building confidence in government actions will lengthen the decision-making horizons of both business and citizens. However, the authorities must avoid inconsistency that arises when announced measures are cancelled or revised on short notice.

It is particularly important to restore investor confidence in the prospects for improving the operating conditions for businesses in Russia. As a general principle, for example, we could declare a long-term moratorium on deterioration of the business environment. If absolutely necessary, we can accept changes that have indirect negative consequences for the business environment, but this should be offset by other measures that provide substantial benefits for business.

It is important to reinforce previously established trends, particularly transfers to Russia of advanced technology. This is recognized as the most effective way to increase productivity for

countries at our level of development. Moreover, we should concede from the start that no country is capable of recreating all technologies on its own and acknowledge that the aggregate spending of the top 10 countries in the world in terms of R&D is 30 times greater than what Russia spends (in PPP terms).

As noted above, establishing a new growth model will require a significant change in the ways both executive authorities and business operate. In the initial stage, however, the government has to take the lead to:

- Create a new system of incentives within the system of public administration;
- Begin formation of a true market environment for business;
- Demonstrate by example how to approach cost-cutting and improve operational efficiency.

The solution of tasks in Table 8 would constitute a major step towards building a new growth model that does not depend on inflows of external resources. Effective incentives create demand for companies to innovate (met in part by importing advanced equipment and in part through internal R&D efforts). Improving the effectiveness of budget expenditures will allow the state to meet its obligations without increasing the tax burden, while reducing production costs will increase both profits and wages, boosting demand and creating opportunities for further technological modernization. The potential for accelerating growth of the Russian economy through the implementation of the proposed plan is very great.

The direct losses from inefficient anti-monopoly policy are no less than 2.5 % of GDP (Russian Presidential Academy of National Economy and Public Administration, 2012). There are also significant gains associated with redistribution of resources to more efficient production by eliminating soft budgetary constraints. It has been estimated that optimization of resource allocation could improve total factor productivity by 30–50 % in China, and 40–60 % in India (Hsieh and Klenow, 2009). The potential benefit should be no less in Russia's case. It has been estimated that the additional growth potential of Russian GDP from successfully implemented structural reforms (regulation of goods markets, labour markets, taxation and the pension system) would amount to 6 % over five years and 13 % over ten years (Bouis, Duval, 2011). There are huge potential budget savings: for example, estimated losses in state procurement amount to 1 trillion rubles a year. Rather than piecemeal implementation of individual measures, such instances require vigorous pursuit of a broad program of coherent and complementary reforms. For example, it is impossible to achieve a positive effect of reforms without adequate protection of property (Christiansen et al., 2009). The worst thing you can do is to cut off all production support, while maintaining pressure on businesses and burdensome government regulation.

Our proposed path to implementation of a new growth model is difficult. It will require great political will, including the carrying through of unpopular reforms. We are convinced, however, that there is no alternative course.

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## Conclusions

1. Russia's economic growth model has been based on transforming oil and gas windfall (that exceeded \$2 trillion in the period 2000–2013) into domestic demand. It allowed rapid growth of output, record increases in wages across all sectors and social transfers, as well as enhanced macroeconomic stability. However, business strategies focused on increasing output, while improving efficiency became a distant afterthought.
2. We should not count for the return anytime soon of the ideal conditions that made possible the emergence of an economic model based on imported growth. In the same vein, it is impossible to escape from economic stagnation without adopting of a new growth model.
3. Our economic problems are chronic in nature and cannot be solved by separate measures such as easing monetary or fiscal policy. The causes of these problems lie in a weak market environment dominated by state-owned enterprises and quasi-state companies with perverse incentives that operate counter to conventional market logic and enjoy “informal” relationships with the state.
4. Measures currently under discussion or being implemented do not correspond to the scale of the problems facing the Russian economy today. Most involve increasing domestic demand in one way or another so as to briefly extend the life of our old growth model. They do not contribute to the formation of the new model.
5. The gist of the new growth model should be to create strong incentives to improve efficiency of business and the system of public administration. This requires a radical easing of the regulatory burden and greater protection of property rights. There should be a firm and equal market responsibility of all companies for the results of their activities regardless of their form of ownership, as well as an abandoning of “industrial paternalism.”
6. A number of essential steps in creating a new growth model have been presented in presidential decrees and other regulatory documents. Unfortunately, most of them are not implemented, or are implemented only nominally, unlike decisions that are taken actively to finance various kinds of public projects.
7. The potential for accelerating growth of the Russian economy through the proposed program is very large, but it requires vigorous, orchestrated implementation of a constellation of reforms, not just a limited set of individual measures.

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