

# **MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:**

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

**No. 22(60) December 2017**

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## MAIN TRENDS AND CONCLUSIONS

Hi-tech and IT products are keeping rather low profile amidst all the other, more relevant phenomena of Russia's economic reality. As before, that reality is being shaped, quite logically, by one dominant vector: relevant developments occur where money, projects, support and attention are concentrated. The natural gas market is one of the few areas where the concentration of all these factors, acting simultaneously, is highest.

For Russia – should that particular market disappear – it would be difficult to replace this important export product. Besides, out of all fossil fuels, only natural gas still has relatively favorable long-term prospects. However, in contrast to the situation of 10–20 years ago, demand can no longer be taken for granted – instead, any natural gas supplier is now faced with guaranteed competition, while any significant development in the natural gas sector becomes a focus of close attention.

The resonant force majeure event at a natural gas hub in Austria – an explosion followed by fire – most likely slashed by up to one-third the volume of Russia's future natural gas supplies to Europe (albeit temporarily), and triggered a state of emergency in Italy. In this particular case, Russia is not blamed for anything, but she may still suffer from certain multi-vector political effects. These can vary from Brussels starting to promote the consumption of liquefied gas as a more flexible source compared with pipeline gas flows, to an increased possibility of the actual implementation of Gazprom's two new pipeline projects (both Nord Stream 2 and TurkStream) as sources capable of stabilizing natural gas supplies to Europe in case of market or man-made shocks.

A certain ramification of consequences can also be expected as a result of the well-publicized launch of the Yamal LNG megaproject, which will enable Russia to seize a sizable chunk of the world market for liquefied gas. But it is not the potential competition between NOVATEK and Gazprom that truly matters in this situation, because for the time being (and at least in the European market) an acute confrontation of their respective products can safely be avoided. However, the unprecedented privileges granted to Yamal LNG have certainly given rise to some questions. Although this huge and complicated project is being implemented within its established timelines and budget (which, in fact, runs remarkably contrary to Russia's 'worst practices', and in this respect it differs positively from a number of similar LNG projects implemented by major producers in the West European countries and elsewhere), the announced plans for its future development and expansion have not been followed by any coherent explanations of the expected tax exemptions and budget funding. Consequently, there is no proper understanding as to how far and how long it will be worthwhile to allocate budget funding in order to promote Russia's performance on world raw-materials markets (by way of exempting from tax an increasingly impressive portion of future crude oil production supplies) – given that the funding allocated to hi-tech exports (unrelated to raw materials) is very modest. If the producers who are considered to be the donors in the Russian economy are to be funded by the

government at an ever-increasing rate, then their role will gradually be lost, not to be replaced by anything better.

Naturally, significant tax exemptions may indeed attract major investors (as it has already happened with the aforesaid project), although this is much more difficult to do in face of the economic sanctions imposed on Russia. Our experts, in their comments on the foreign direct investment (FDI) statistics released by the RF Central Bank, note that the plunge in FDI inflows into Russia that occurred in 2014–2015 gave way, in 2016, to growth (produced in the main by investments in the oil and gas sector) that continued throughout H1 2017. At the same time, the investment inflow volume still amounts to only half of its index observed prior to the introduction of economic sanctions – above \$ 69bn in.

An opposite trend is demonstrated by Russian FDI. The volume of Russia's direct investment abroad was on decline over the period 2015–2016 and throughout H1 2017. As before, the main investment recipients among the CIS member states were Ukraine and Kazakhstan. Elsewhere, China accounted for only 0.1% of Russian direct investment abroad, while the European countries took up more than half of its total volume. As for Russia's direct investment in offshore jurisdictions, the corresponding index, after its plunge by more than half in 2014, somewhat increased in 2016 (to \$ 15.5bn), Russia meanwhile joining the top five investors in offshore zones. As in the previous years, the biggest investment recipient is Cyprus, accounting for approximately 30% of Russia's direct investment abroad. The movement in the opposite direction – an increase in the inflow of foreign direct investment from offshore zones into Russia – is achieved thanks to the Bahamas and Bermuda.

On the whole, as noted by experts, in spite of the somewhat increased FDI inflow into the RF, the key issues faced by foreign and domestic investors alike have remained the same: investment climate; uncertainty caused by economic sanctions; and the risks associated with the persistently low rate of economic growth.

The stagnation effect is also noted by the experts who analyzed the January–October 2017 data indicative of the movement of income, wages, pensions, and retail credits. When set against the corresponding data for the same period of last year, it becomes evident that real disposable income has shrunk by 1.3%, while charged wage in real terms has gained 3.0%, and real pension – 3.9%. Comparing the relative movement of these indices, experts note the fact that wages and pensions account for no more than 60% of total personal money income (Rosstat data for 2016). However, the amount of real income derived from business activity and property ownership, earnings (including shadow earnings), and other incomes (including those received through tax evasion schemes) demonstrated a general decline over the last three quarters. Moreover, total earnings, including hidden wages, have been on decline for three straight years already. The average per capita income likewise declined relative to the subsistence level – from 309% a year earlier to 305% in Q3 2017; it is noteworthy that in 61 regions this index plunged, and only in 22 regions it demonstrated some growth.

According to experts, a revival in retail lending did not compensate for the worsening of living standards. Over the first three quarters of 2017, retail loans were issued to the total value of Rb 6.4 trillion, which in nominal terms corresponds to their pre-crisis level. However, if we disregard housing mortgage loans (which are taken primarily by families with high income) and adjust the result for inflation, the retail lending plunge will amount to 32%.

Wage stagnation has also been pointed out by the experts who analyzed the movement of school teachers' earnings. By way of implementing the May 2012 Presidential Executive Orders, the average salary of school teachers has been increasing since 2012. By the end of that year, it was to be raised so as to match the average wage level in each given region. However, this has not actually happened so far. It should be noted in this connection that, with due regard for the increased burden on the regional budgets, the method of calculating a region's average wage was changed from 2015 onwards, its index now being derived on the basis of the amount of average charged wages of the hired personnel of organizations and those hired by individual entrepreneurs and privately by individuals. When analyzed relative to that level, the earnings of school teachers would appear to demonstrate growth. Nevertheless, for other purposes the RF subject's average wage index is still being estimated on the basis of the previously applied methodology, and the latter is still above the average salary index of school teachers. If we take the public education system as a whole, the relative salary indices have remained practically unchanged: today, the average salary of a school teacher is at the same level as it was back in 2011 relative to the average wage in manufacturing industries (76% and 75% respectively).

No doubt, the correct estimation of real wages and incomes, including their hidden part, has remained a complicated issue that allows a certain freedom of judgment and statistical interpretation. On a more general plane, this is also true of GDP and GDP forecasting.

Experts have made note of the fact that the importance of quality forecasts – especially short-term ones – has dramatically increased during the crisis period 2014–2016. They have come to the conclusion that short-term GDP forecasts that rely on the so-called dynamic factor models – applied, for example, by the central banks of several countries – make it possible to take into account the movement not only of quarterly indices, but also of monthly indices. The inclusion in the model of 'high-frequency' information results in more accurate forecasts by comparison with those derived on the basis of classical models. When setting the results yielded by this model against the known forecasts released over the period 2014–2016, the experts note their consistency with the current situation of high uncertainty. ●

# 1. FOREIGN DIRECT INVESTMENTS: RENEWED GROWTH AMID SANCTIONS

Yu.Zaitsev, A.Knobel

The statistics on foreign direct investments (FDI) in Q1 and Q2 2017 published by the Central Bank of Russia shows that growth in incoming FDI in Russia started in 2016 is keeping up. This trend is related to Russia's renewed GDP growth, higher global prices of energy commodities and reduced macroeconomic and country risks of the Russian economy. However, fundamental problems which create barriers for the FDI influx still remain unsolved.

## FDI in the Russian Federation

The period after the 2008 crisis saw a sustainable growth in incoming FDI volumes (Fig. 1). A drop in the value of this index took place in 2014 due to introduction of external limitations on trade and investment activities, higher macroeconomic risks and uncertainties about future foreign economic restrictions. Note that during the entire pre-sanction period and the period of sanctions (except for 2012 and 2016) Russia was a net FDI exporter.

As compared to 2015 and 2016, the FDI volume in Russia increased more than four times over up to \$32.98bn. However, FDI flows still amount only to 50% of the index of 2013 (\$69.22bn), which can be explained by trade restrictions imposed by partners-countries and the Russian authorities against each other since 2014. In 2016, the positive FDI influx was underpinned by growth in reinvested profit (\$17.24bn) and sale of 19.5% of equities of the Rosneft, a state-owned oil company to a consortium led by the Glencore company (Switzerland) and the Quarter Sovereign Fund<sup>1</sup>. The portfolio of merger and acquisition deals in the oil and gas sector was supplemented by the acquisition of 23.9% and 11% of the equities of the AO Vankorneft owned by Rosneft, an oil company by a consortium of Indian companies (the Oil India Limited, the Indian Oil Corporation Limited and the Bharat PetroResources Limited) and the ONGC Videsh Ltd, respectively<sup>2,3</sup>.

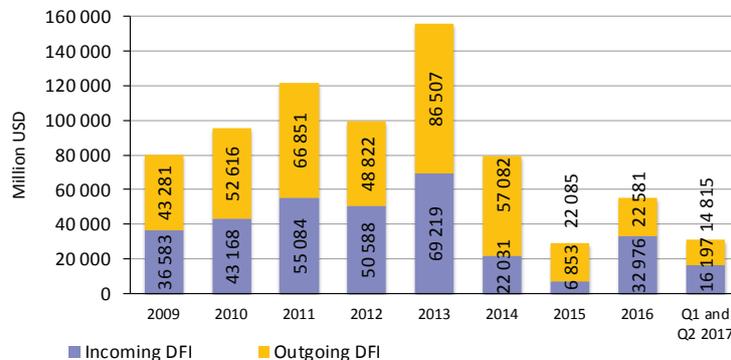


Fig. 1. Dynamics of FDI in the Russian Federation in 2009–2016 and Q1–Q2 2017, million Rb  
Source: The Central Bank of the Russian Federation, 2017.

1 The Rosneft made public the details of the deal on sale of 19.5% of equities // RBK. 10.12.2016. URL: <http://www.rbc.ru/economics/10/12/2016/584c58e89a7947ec70b5e46f>

2 The Rosneft closed successfully the deal on sale of 11% of the AO Vankorneft to the ONGC Videsh Limited // NK PAO Rosneft. 28.10.2016. URL: <https://www.rosneft.ru/press/releases/item/184363/>

3 The Rosneft was allowed to sell 23.9% of equities of the Vankorneft to the Indian consortium // Interfax. 23.09.2016. URL: <http://www.interfax.ru/business/529676>

The western sanctions which caused a decrease in FDI affected, in particular, the oil and gas sector. Due to that, in 2015 the ConocoPhillips, the US 3<sup>rd</sup> largest oil producer quitted Russia after 25 years of work there<sup>1</sup>. Technological limitations related to a ban on purchasing of high-tech equipment from US and European manufacturers to produce hydrocarbon fuels led to a suspension of projects carried out by the Rosneft and the ExxonMobil on the Arctic shelf and the Black Sea.

At present, the situation with foreign investments in the energy sector has stabilized. Numerous companies have adapted to sanctions, having focused their attention on higher efficiency and development of their key assets in Russia. Positive dynamics of incoming FDI growth rates in the oil and gas sector may be underpinned as well by foreign investors' plans to implement the existing projects and start new ones in Russia. So, according to the statement by David Campbell, President of the British Petroleum in Russia, the company will keep making investments in Russia, including gas projects<sup>2</sup>.

The positive dynamics of the FDI influx are proved by the data as of the beginning of 2017. So, Q1 and Q2 2017 saw growth in incoming DFI (\$16.19bn) of 41.8% and 39.8% as compared to the relevant period of 2015 and 2016, respectively. The FDI inflow growth in that period is related to such deals as the sale of 10% of equities of Sibur, a Russian-based petrochemical holding to the Chinese-based Silk Road Fund<sup>3</sup>, launching by the Daimler<sup>4</sup>, a German-based company of the construction of the Mercedes-Benz motor plant at the Esipovo industrial park and other projects. Note that Esipovo has become the most large-scale project carried out by western companies in Russia after the sanctions were introduced.

### Russian Capital Investments Abroad

As regards the outgoing FDI, in 2015–2016 the volumes of Russian investments abroad decreased more than twice since 2014 when the sanctions were imposed. Q1 and Q2 2017 saw a drop of 5.8% and 14.5% in volumes of the outgoing FDI as compared to the relevant periods of 2015 and 2016, respectively. The primary sector is still the key sector where Russian foreign investments are concentrated. According to the estimates of the UNCTAD, by the end of 2016 the accumulated value of Russian companies' projects in the oil and gas sector worldwide exceeded \$6bn<sup>5</sup>.

The Russian investments in the CIS amounted to nearly 2.5% of the total volume of the outgoing foreign direct investments. Note that the main recipi-

1 The ConocoPhillips left Russia after 25 years of work there. The Vedomosti daily. 22.12.2015. URL: <https://www.vedomosti.ru/business/articles/2015/12/22/622091-conocophillips-ushla-rossii>

2 David Campbell. BP President in Russia said that the company which owned 19.75% of equities of the Rosneft would keep investing in Russia despite the sanctions. The Vedomosti Daily. 30.03.2017. URL: <https://www.vedomosti.ru/business/news/2017/03/30/683385-bp-rossiyu-sanktsii>

3 The deal was closed on a sale of 10% of the equities of Sibur to the Chinese-based Silk Road Fund. The Vedomosti Daily. 25.01.2017. URL: <https://www.vedomosti.ru/business/news/2017/01/25/674825-sdelka>

4 Daimler has launched construction of a motor plant in the Moscow Region. The Vedomosti daily. URL: <http://www.vedomosti.ru/auto/galleries/2017/06/20/695254-daimler-nachal-zavod>

5 The World Investment Report, 2017. Investment and Digital Economy. URL: [http://unctad.org/en/PublicationsLibrary/wir2017\\_en.pdf](http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf)

ents are still Ukraine and Kazakhstan. According to the data of the Gosstat of Ukraine, in 2016 Russia became the largest foreign investor in the country as regards the volume of the accumulated FDI (\$1.67bn)<sup>1</sup>. It is noteworthy that during the period of sanctions Ukraine was among the top ten largest recipients of Russian investments (after offshore states, Switzerland and Turkey). In Kazakhstan, the Polymetal, a Russian-based company bought for \$180m a Kazakh-based operator of the Orion Minerals mine<sup>2</sup>. Late in 2017, the Russian government invested about Rb 100bn in Kirgizia to develop the gas-transmission and gas-distributing network<sup>3</sup>.

Despite the Russian authorities' efforts to promote the foreign economic cooperation with China, the latter accounts for the mere 0.1% of the total volume of the outgoing FDI from Russia. As regards other non-western far abroad countries, at present the Russian companies are expecting to carry out two large building projects in Pakistan and Indonesia: the Rostekh is going to build the Karachi-Lahore gas pipeline (Pakistan) worth \$2bn<sup>4</sup>, while the RZhD company, a railway for coal transportation worth \$2.5bn on the Kalimantan island (Indonesia)<sup>5</sup>.

During the entire period the sanctions were in force, the European countries accounted for a large share of Russian foreign investments: 59.31% (\$33.86bn) in 2014, 45% in 2015 and 53.23% 2016. In the past few years, among Russia's prominent investment projects in the EU was a \$177m worth acquisition by the Lenta retail trade network of the K-Ruoka retailers in Finland in 2016<sup>6</sup>.

#### Investments in Offshore Jurisdictions

According to the 2014 results, the volumes of Russian FDI made in offshore jurisdictions fell more than twice as compared to 2013 and amounted to \$30.24bn. In subsequent years, that index kept falling to \$9.28bn and \$15.51bn in 2015 and 2016, respectively. Despite that, as seen from the 2016 results Russia was among the top five largest offshore investor-countries<sup>7</sup>. In the first two quarters of 2017, the volumes of outgoing DFI in offshore jurisdictions exceeded \$11bn (*Fig. 2*).

From among the offshore countries, Cyprus was a key recipient of Russian foreign direct investments in the pre-crisis period. Note that during the sanctions Cyprus remained the major destination of Russia's FDI. In 2007–2016 Cyprus accounted for nearly 30% of the entire volume of Russian foreign direct investments.

1 Russia was Ukraine's largest foreign investor last year // The Vedomosti daily. 01.03.2017. URL: <https://www.vedomosti.ru/economics/news/2017/03/01/679497-rossiya-ukraini>

2 Polymetal Int is going to buy the Orion Minerals. 04.04.2016. URL: <https://www.kursiv.kz/news/industry-issues/polymetal-int-pokupaet-orion-minerals/>

3 Russia is making Rb 100bn worth of investments in Kirizia's gas industry // The Vedomosti daily. 27.11.2017. URL: <https://www.vedomosti.ru/business/news/2017/11/27/743276-rossiya-investiruet>

4 The Rostekh and the Pakistani-based ISGS will build a gas pipeline in Pakistan // The Vedomosti daily. 18.10.2015. URL: <https://www.vedomosti.ru/business/articles/2015/10/19/613293-rosteh-pakistanskaya-isgs-postroyat-gazoprovod-pakistane>

5 Within five years the RZhD company is going to build and equip a railway in Indonesia // RIA Novosti. 08.01.2016. URL: <https://ria.ru/economy/20160108/1356580270.html>

6 Lenta bought the Finnish-based K-Ruola retailers // The Vedomosti daily. 07.12.2016. URL: <https://www.vedomosti.ru/business/articles/2016/12/07/668582-lenta-otkrilas-k-ruoka>

7 World Investment Report, 2017. Investment and Digital Economy. URL: [http://unctad.org/en/PublicationsLibrary/wir2017\\_en.pdf](http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf)

From 1 January 2015, a tougher regulation of offshore entities was accompanied by a growing FDI influx from such offshore jurisdictions as the Bahamas Islands and the Bermudas: in 2016 growth in the incoming FDI in Russia from those two offshore jurisdictions amounted to 37.29% and 26.4%, respectively, as compared to 2014. Those investments in the Russian economy are related to repatriation of the Russian capital<sup>1</sup>. This trend is in harmony with the idea that the Russian business may exit offshore jurisdictions due to appreciation of offshore servicing and introduction of mandatory reporting on controlled foreign companies (CFC) in 2015<sup>2</sup>.

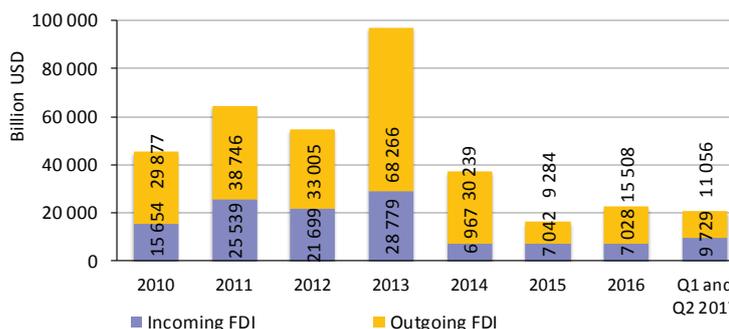


Fig. 2. Incoming and outgoing Russian FDI in offshore jurisdictions, million USD

**Note.** The sample included such countries as the Bahamas Islands, the Bermudas, the Virgin Islands, Cyprus, the Netherlands and Luxemburg.

Source: The Central Bank of the Russian Federation, 2017.

\* \* \*

Despite the above-mentioned activities on the FDI market in the Russian Federation in 2014–2017, the major problems both for foreign and domestic investors remain unsolved. So, for Russian companies making foreign investments the main problems consist not only in getting an access to funding, but also in a search for new stimuli to expand and diversify investment activities. As regards foreign investors, the main barriers are the investment climate of the Russian economy, risks of low economic growth rates in the near future and uncertainties about foreign economic limitations because of the show-down of sanctions<sup>3</sup>.

<sup>1</sup> World Investment Report 2013: Global Value Chains: Investment and Trade for Development. UNCTAD, 2013. P.16, P.65.

<sup>2</sup> Reporting on CFC was introduced by Federal Law No.376-FZ of 24 November 2014 on Amendment of Part 1 and Part 2 of the Tax Code of the Russian Federation (As Regards Taxation of Profit of Controlled Foreign Companies and Revenues of Foreign Entities).

<sup>3</sup> See Yu. K. Zaitsev. The Diagnostics of Foreign Direct Investments in Russia: From Theory to Practice. M.: Finansy I Kredit, Issue No.19 (418), 2015. – p. 18. URL: <https://elibrary.ru/item.asp?id=23504374>

## 2. THE STANDARD OF LIVING: INCOMES, WAGES AND LENDING IN REGIONS

A.Burdyak, E.Grishina

In January–October 2017, households' real disposable cash income fell by 1.3% as compared to the relevant period of 2016. It is noteworthy that real accrued wages rose by 3.0%, while the real size of assigned pensions, by 3.9%. During the first three quarters of 2017, Rb 6.4 trillion worth of loans was granted to households; in nominal terms this value is equal to the level of 2013–2014. However, with the inflation rate taken into account a downturn in lending (except mortgages) amounted to about 32%, so lending could not make up for a decrease in the standard of living.

In January–October 2017, households' real disposable cash income fell by 1.3% as compared to the same period of the previous year, while real wages and the real size of assigned pensions increased by 3.0% and 3.9%, respectively (Fig. 1). Generally, in the past four years households' incomes, wages and pensions decreased in real terms by 9.1%, 4.0% and 2.5%, respectively, as compared to pre-crisis January–October 2013.

Why did growth in wages and pensions fail to facilitate growth in households' real cash

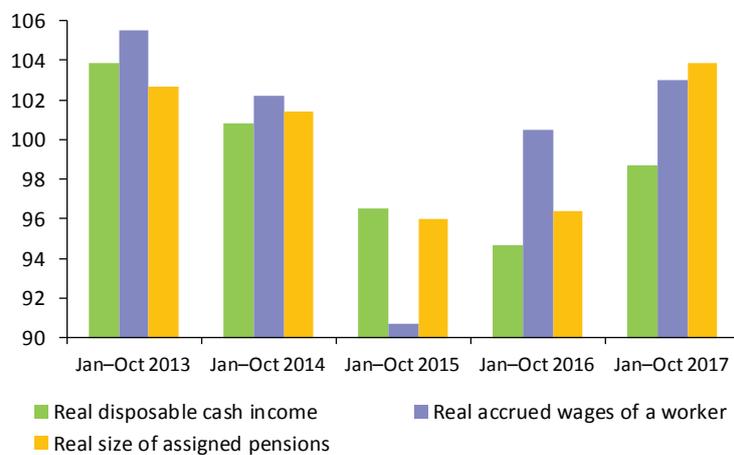


Fig. 1. Dynamics of households' real disposable cash income, real accrued wages and real size of assigned pensions in January–October 2013–2017, % change compared with the corresponding period of the previous year  
Source: Russia's Social and Economic Situation / the Rosstat. A series of reports for 2010–2017.

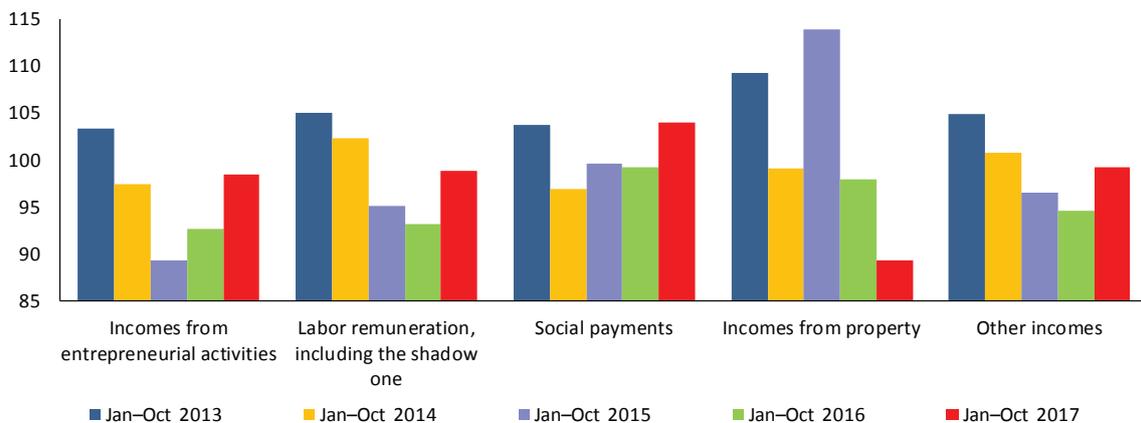


Fig. 2. Dynamics of components of the total volume of households' cash income in real terms in January–September 2013–2017, % change compared with the corresponding period of the previous year  
Source: calculations based on the Rosstat's data.

income? This phenomenon can be explained, in particular, by downward dynamics of other income components. According to the Rosstat's data for 2016, the wages and pensions under review account maximum for 60% of the total volume of households' cash income. At the same time, within three quarters of 2017 real incomes from entrepreneurial activities, labor remuneration (including shadow labor remuneration), incomes from property and "other" incomes, including those hidden from taxation decreased as compared to January–September of the previous year (*Fig. 2*). Despite growth in a worker's wages (*Fig. 1*), the total volume of labor remuneration, including shadow wages (*Fig. 2*) has been falling for three years running.

A drop in households' real incomes resulted in a decrease in the standard of living: the average per capita income fell nationwide from 309% of the minimum subsistence level (MSL) in Q3 2017 to 305% of MSL a year before (*Fig. 3*). In the above period, in 61 regions average per capita incomes fell against the minimum subsistence level, while in 22 regions the index of the standard of living increased within the past year.

It is worth paying attention to substantial regional differences of the income decline which continues for four years running. If in Russia in general in January–September 2017 households' real cash incomes fell by 9.6% as compared to the same period of 2013, in the Urals Federal District they decreased by 17.3%, while in the Southern Federal District, the North Caucasian Federal District and the Far Eastern Federal District, by less than 5%. In the period under review, incomes shrank in most regions (71 regions). Note that in ten regions (the Republic of Udmurtia, the Republic of Adygeya, the Republic of Kalmykia, the Republic of Dagestan, the Chechen Republic, the Republic of Kabardino-Balkaria, the Voronezh Region, the Leningrad Region, the Kostroma Region and the Maritime Territory) in January–September 2017 real cash incomes even increased (within the range of 1–5%) as compared to the same period of 2013.

It is noteworthy that a substantial drop (20% and more) in real cash incomes in the past four years was observed both in regions with a fairly high standard of living (for example, Moscow and the Yamalo-Nenets Autonomous Region) and those with a low one (for example, the Republic of Tyva and the Jewish Autonomous Region).

Was a decrease in real incomes compensated by means of bank lending? In 2015, it was certainly not. In that year, loan interest rates soared, while the aggregate volumes of lending to individuals in the first three quarters decreased by one-third on the relevant period of the previous year: households preferred not to compensate the deficit of cash funds by means of loans, but to reduce consumption and adapt themselves to the economic situation. In 2017, the volume of loans to households in roubles and foreign currency amounted to Rb 6.4 trillion in January–September and that value is almost equal in nominal terms to the level observed in 2013–2014. However, in real terms (with a 1.4 times growth in consumer prices in January–September 2017 on the relevant period of 2013 taken into account) there is a drop in lending to individuals.

To analyze the correlation between consumer lending in Russian regions and the dynamics of households' real incomes, one should compare January–September 2017 with January–September 2013. To exclude from the calculation investments, including purchasing of housing, let us review the volumes of lending to individuals in roubles and foreign currency, except for home loans. So, the differentiation of housing prices and substantial regional differences in housing price dynamics are left beyond this analysis. In addi-

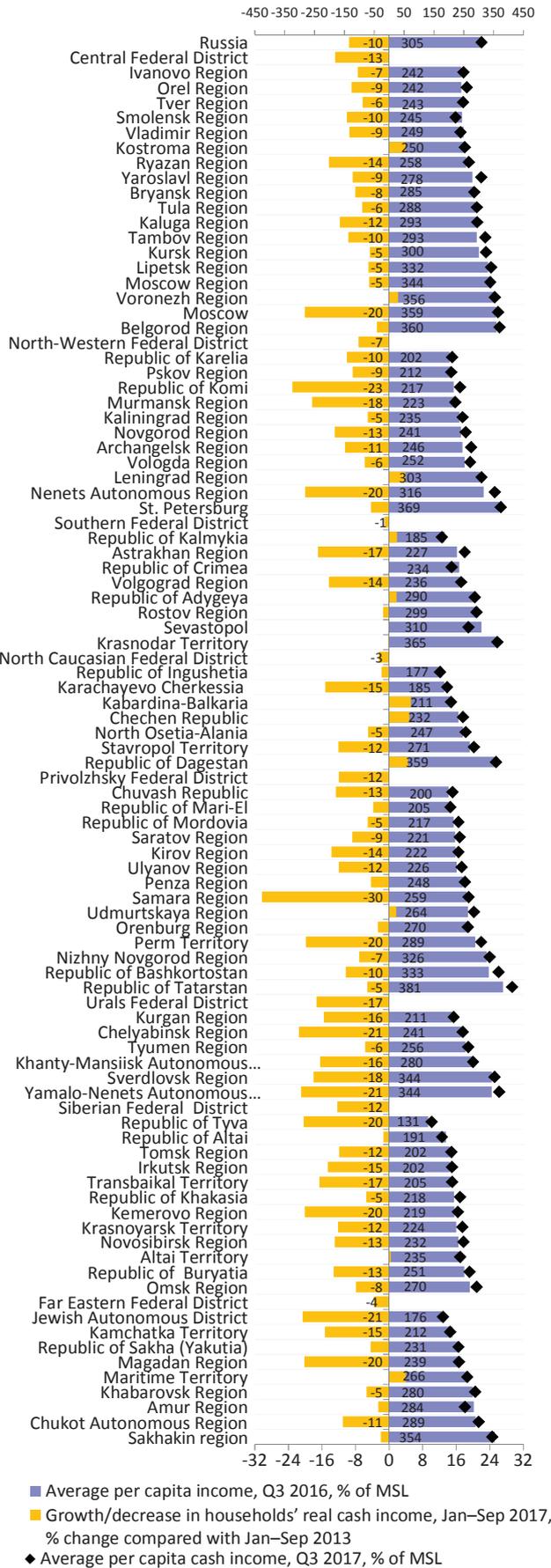


Fig. 3. Change in real cash income in January–September 2017 as compared to the values of 2013 and the correlation of average per capita cash income with the value of MSL in Q3 2016–2017, %

Note. Households' average weighted cash income and MSL for the population in general are taken for Q3 of the relevant year, except for the Kaluga Region, the Moscow Region, the Kirov Region, the Omsk Region, the Altai Territory, the Republic of Karachaevo-Cherkessia, the Chechen Republic, the Republic of Udmurtia, the Republic of Bashkortostan, the Republic of Tyva and the Republic of Sakha (Yakutia) in respect of which in 2017 the minimum subsistence level for Q2 was applied. The value of the minimum subsistence level in Russia for Q3 2017 is taken from the draft resolution of the Government of the Russian Federation on Establishment of the Value of the Minimum Subsistence Level Per Capita and by the Main Social and Demographic Groups of the Population in General in the Russian Federation in Q3 2017.

## 2. THE STANDARD OF LIVING: INCOMES, WAGES AND LENDING IN REGIONS

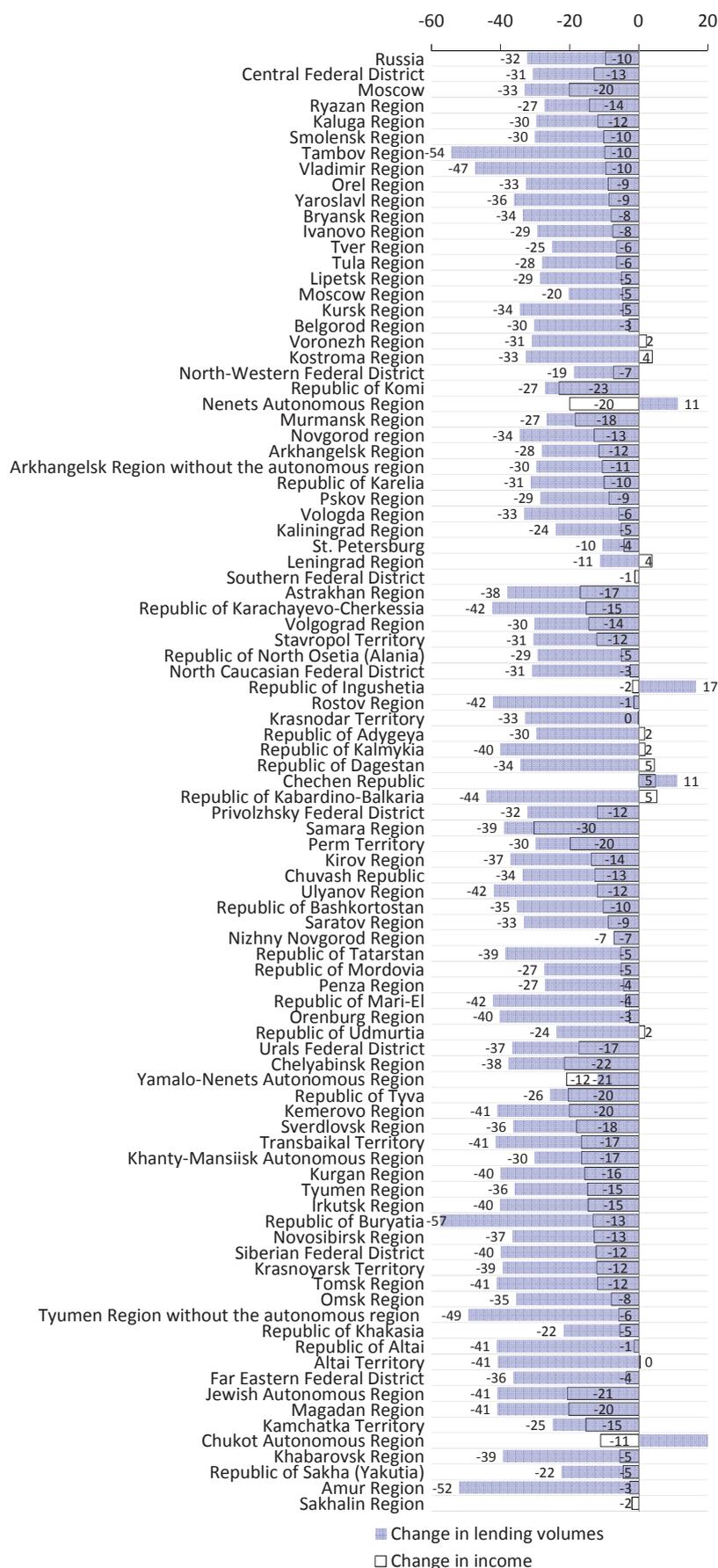


Fig. 4. Change (growth/decrease) in real cash income and the real volume of non-housing loans extended to households in January–September 2017, % change on January–September 2013 across regions  
Source: calculations based on the data of the Central Bank of Russia and the Rosstat.

tion, in analyzing the standard of living across regions, average income provision indicators are taken into account, while purchasing of housing is common to high-income households.

With price changes in the Russian Federation in general taken into account, in the first three quarters of 2017 the volume of the extended consumer loans was 32% less in real terms than in 2013 (with home loans not accounted for). The shrinking of lending was the weakest in the North-Western Federal District (-19%), while it was the most dramatic in the Urals Federal District (36%), the Far Eastern Federal District (36%) and the Siberian Federal District (40%). Note that in 2017 households in the North-Western Federal District, the Central Federal District, the Urals Federal District and the Far Eastern Federal District demonstrate a high lending activity: the share of loans received by households in these federal districts is 1.2–1.3 times higher than the share of the population.

Dynamics of incomes and consumer lending on average across Russian regions is unidirectional: the greater households' real incomes fell, the higher consumer lending shrank.

The detailed pattern across the regions is presented in *Fig. 4*. Nearly all the constituent entities of the Russian Federation which differed from most regions by income growth went through a recession in consumer lending. The only exception is the Chechen Republic where incomes rose in real terms and households took more loans than in 2013, however a detailed interpretation of the dynamics of the standard of living in this republic appears quite complicated. Interestingly, amid falling real incomes lending activities increased only in two small regions: the Nenets Autonomous Region and the Chukot Autonomous Region. However, in general, consumer lending failed to play a compensating role in the dynamics of incomes. ●

### 3. TEACHERS' SALARIES: STAGNATION AND DISSATISFACTION

T.Klyachko, G.Tokareva

Since 2012, the average salary of school teachers has been increasing. In accordance with Presidential Executive Order No. 597 of 7 May 2012, by the end of that year it was to be raised so as to match the average wage level in each given region. However, 5 years later this still has not actually happened. In 2017, almost 60% of school teachers have been dissatisfied with the level of their earnings.

Throughout recent years, the main focus of attention within Russia's education system has been the issue of implementing the provisions put forth in Presidential Executive Order No. 597, which stipulates that the education worker salary, and primarily secondary school teacher salary, should be raised. As early as 2012, the average salary of school teachers was to be raised so as to match the average wage level in each given region. So far, this has never actually been achieved (Fig. 1).

Fig. 1 clearly shows that in 2013 and 2014, the average teacher salary was below the average wage level in the Russian Federation, while since the year 2015 the former has been increasingly surpassing the latter. This phenomenon can be explained by the fact that in order to 'remove' the excessive load imposed on the regional budgets, regional financial authorities, in their calculations, began to treat the average salary as 'the average monthly charged salary of hired workers employed by organizations, individual entrepreneurs and physical persons'. But for all the other purposes, the old methodology for calculating the average salary in the Russian Federation's subjects was still being applied; and when calculated in accordance with that methodology, the average salary in the regions continued to exceed the average salary of a teacher.

As a result, school teachers have remained dissatisfied with their salaries. While in 2013–2015, according to data obtained through the RANEPA's Monitoring the Efficiency of School Education carried out by the Center for Continuing Education Economics, approximately 50% of teachers were dissatisfied with their salaries; in 2016, the relative share of such opinions rose to 65.3%. In 2017, the situation somewhat improved: the percentage of respondents dissatisfied with their salaries declined to 59.1%. Nevertheless, the situation in this sphere remains rather tense.

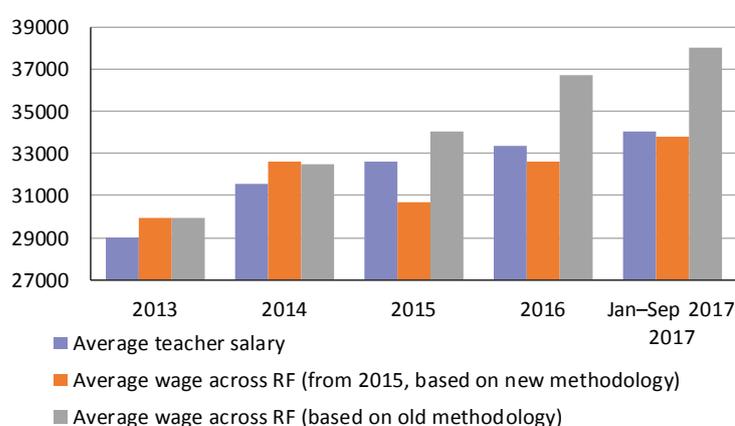


Fig. 1. The average salary of school teachers and average wage level across the Russian Federation in 2013 – January–September 2017

Source: [http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/statistics/wages/](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/); Reports Russia's Socioeconomic Situation for the period from 2013 through January–October 2017 [http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/statistics/publications/catalog/doc\\_1140086922125](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1140086922125)

However, it is also possible that in the pre-election year school administrators began to more diligently trace the moods of their teachers, while the latter deemed it prudent to be cautious in their answers. At the same time it is obvious that serious efforts were undertaken in the regions to somehow improve the situation, and some results were apparently achieved.

Meanwhile, from the very beginning, the rise in teacher salaries was considered, on the one hand, to be a tool for improving the quality of school education; and to be a tool for attracting young specialists to schools, on the other.

It should be admitted that none of these two objectives has actually been achieved over the course of the past 5 years. Neither the secondary school teachers nor the parents of their pupils associate the size of teacher salary with education quality. The teachers believe that they are being compensated for the past insufficiency of their remuneration, while the parents predominantly hold the view that education quality depends on the qualification of veteran school teachers rather than on the size of their salaries.

As far as the inflow of young teachers into schools is concerned, the education workers believe that salary size is by no means the decisive factor that can draw young people into the education sector (Fig. 2).

Almost a quarter of the secondary school teachers surveyed believe that their work has nothing to attract graduates of pedagogical higher educational establishments, and they are not going to take up this career. The rest of the teachers believe that as far as young people are concerned, the most attractive element of school teaching is the specific work schedule (in 2017 and 2016, such an answer was given by 37% and 35% of the respondents, respectively) and the stability of employment (in 2017 and 2016, such an answer was given by 32.1% and 36.5% of the respondents, respectively).

Although many teachers consider their work schedule to be a major factor determining the attractiveness of school teaching, more than 60% of the respondents work more than full-time, which represents a 5% rise on the previous year, and means that the teacher workload has again increased over the course of 2017 (Fig. 3).

The growth of the secondary school teacher workload means that the teacher, now as in the past, simply does not have enough time to master new educational technologies and to increase his or her professional qualification. Apart from workload growth, the majority of secondary school teachers pointed to a rise in bureaucratic

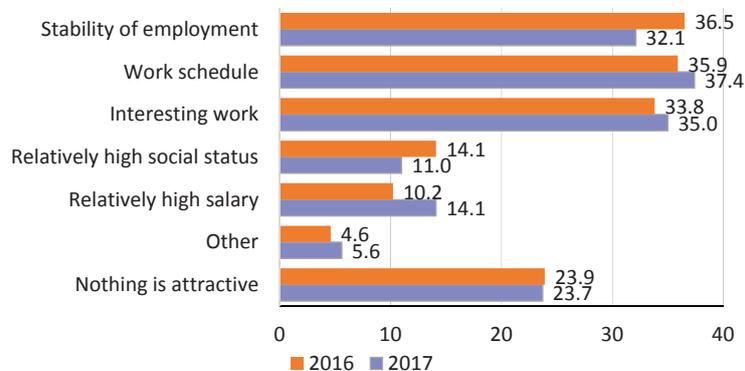


Fig. 2. Factors Determining the Attractiveness of Secondary School Teaching in the Eyes of Young Teachers, % (More Than One Poll Answer Was Allowed)

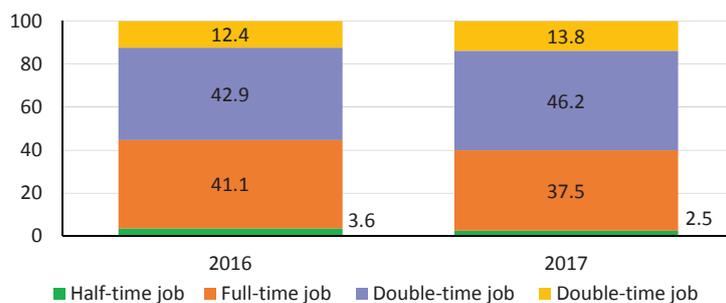


Fig. 3. Secondary School Teacher Workload, %

### 3. TEACHERS' SALARIES: STAGNATION AND DISSATISFACTION

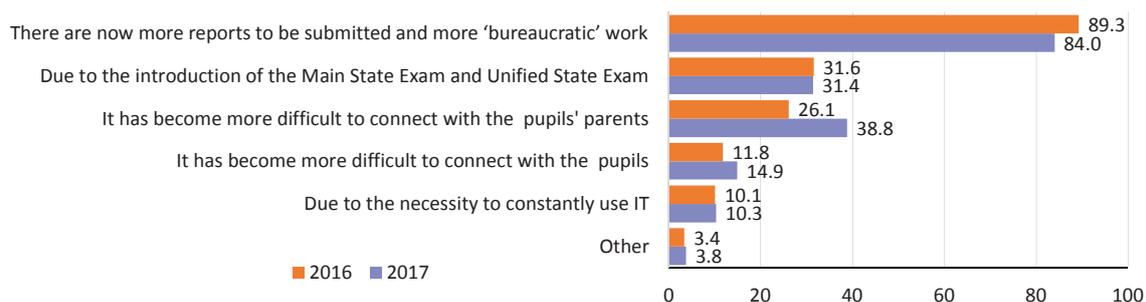


Fig. 4. Teacher opinions regarding the causes of the growing difficulty of their work, %  
(More than one poll answer was allowed)

pressure (Fig. 4). The introduction of the independent system of assessing the quality of pupil academic achievements, including the state certification of pupil academic achievement is also singled out as one of the causes of increased difficulties associated with secondary school teachers' professional activity. According to the teachers, third on the list of their difficulties comes the issue of complicated relations with the parents of their pupils (according to the previous survey, this cause of difficulties was less acute).

On the whole, as far as changes in the secondary education system are concerned, it should be noted that in recent years, teachers have become more or less adapted to the new circumstances. At the same time, the social mood of Russia's teacher corps overall has not improved; on the contrary, the number of negative assessments is definitely on the increase.

As regards the public education system as a whole, it should be pointed out that in 2011, the average charged monthly salary of a secondary school teacher amounted to 75% of that registered in manufacturing industries, while in January–September 2017 it rose to 76% of the latter (after having amounted to 78% thereof in January–September 2016). Therefore the 'battle' to raise salaries in the education sector will apparently be continued. ●

## 4. SHORT-TERM GDP FORECASTING: HOW CAN ITS QUALITY BE IMPROVED?

Yu.Pleskachev, Yu.Ponomarev

*The issue of short-term GDP forecasts and their quality became especially important during the crisis period 2014–2016. The quality of forecasts can be improved by making use of high-frequency information and incorporating it (instead of the published quarterly statistics) into the dynamic factor models applied in preparing GDP forecasts.*

The increasing uncertainty across the Russian economy that was characteristic of the crisis period 2014–2016 emphasized the importance of models employed in preparing short-term GDP forecasts, because it was essential to promptly assess all the changes occurring in the national economy in response to current economic policy measures. One of the major problems arising in this connection was a significant delay in the publication of official GDP statistics, which was released only after the end of each quarter, and was then revised at a later date. So, the ongoing changes in the economy could be assessed, if one relied on official statistics alone, only with a certain time lag. Another issue has to do with the relative shortness of the period under consideration, which is limited to the time of crisis or to the structural changes in the economy, and so the available observations are too few to ensure truly reliable forecasts.

Short-term GDP forecasts based on dynamic factor models<sup>1</sup>, which are used rather extensively (for example, by the central banks of the Czech Republic, Latvia, Canada and Germany), allow real-time assessment of both quarterly and monthly GDP growth rates. Thus, midway through Q4, it becomes possible to apply not only the statistics available as of the end of the previous quarter, but also the data for the next one-and-a-half months. The model incorporates large sets of real-time indicators potentially capable of influencing economic growth. The inclusion in the model of high-frequency information results in more accurate forecasts by comparison with those derived on the basis of classical models. The errors in the short-term GDP forecasts based on dynamic factor models were less significant than those typically associated with the use of alternative models.

A comparison of our forecasts<sup>2</sup> based on a dynamic factor model with the forecasts released by NRU HSE<sup>3</sup>, the CMASF<sup>4</sup>, and the RF MED<sup>5</sup> over the period 2014–2016 (*Table 1*) demonstrates that the model adequately responds to changes in external parameters and yields timely and accurate forecasts of economic growth indices.

1 Dynamic factor models typically represent a system of simultaneous equations in matrix form where datasets of observable factors are described by using modelled sets of non-observable variables, sets of higher-frequency observable factors, and sets of random shocks.

2 Since these sources do not provide retrospective quarterly forecasts, we compared available data for each full year of the period under consideration. In addition, if an alternative mid-year forecast was available, we created a quarterly forecast based on a dynamic factor model only for H2, assuming that the data for H1 were already known.

3 HSE Center of Development Institute.

4 Center for Macroeconomic Analysis and Short-term Forecasting.

5 RF Ministry of Economic Development.

Table 1

## COMPARISON OF ANNUAL REAL GDP GROWTH FORECASTS IN 2014–2016, %

source / year	2014	forecast release period	2015	forecast release period	2016	forecast release period
dynamic factor model	0.4	forecast August 2014	-3.8	forecast August 2015	-1.1	forecast August 2016
	0.4	forecast November 2014	-3.0	forecast November 2015	-0.4	forecast November 2016
NRU HSE	0.5	Assessment as of 27 November 2014	-4.8	forecast as of 25 June 2015	-0.8	forecast as of 30 March 2016
CMASF	1.0	forecast April 2014	-3.2	forecast as of 30 April 2015	-2.2	forecast as of 6 April 2016
	0.5	forecast May 2014	-3.3	forecast as of 20 July 2015	-1.2	forecast as of 26 July 2016
	0.5	forecast as of 19 October 2014			-0.7	forecast as of 3 November 2016
RF MED	0.5	forecast as of 26.09.2014	-3.0	forecast as of 16 February 2015	-0.2	forecast as of 6 May 2016
			-3.9	forecast as of 26 October 2015	-0.6	forecast as of 24 November 2016
Actual growth rate (Rosstat)	0.7		-2.8		-0.2	

Source: own calculations; NRU HSE; CMASF; RF MED; Federal State Statistics Service (Rosstat).

In 2014 (Q3 and Q4), based on year-end data, the RF MED, the CMASF and NRU HSE predicted a slight growth of real GDP at approximately 0.5%. A retrospective analysis shows that the GDP forecasts based on a dynamic factor model would have yielded the same results. The actual year-end GDP growth rate was slightly higher – about 0.7%.

Based on the year-end results of 2015, Rosstat predicted a plunge of GDP by 3.6%, while the alternative forecasts offered somewhat lower indices. However, later on Rosstat adjusted its estimates first to (-3%), and then to (-2.8%). The year-beginning forecasts of GDP decline in 2015 released by the RF MED and NRU HSE were even more pessimistic, which can largely be explained by the expected movement of oil prices (Table 2). At the same time, the actual average annual price of oil was \$ 54 per barrel, and the GDP decline rate turned out to be twice as low as the forecasted value. Based on the adjusted GDP decline forecasts for 2015, we may conclude that the assumed strong correlation between oil prices and Russia's economic growth in reality was less obvious.

Table 2

## YEAR-BEGINNING FORECASTS OF REAL GDP GROWTH RATE RELATIVE TO PRICE OF OIL FOR 2015

Source	GDP growth rate, %	Average annual price of oil, USD per barrel
EBRD*	-4.8	58
HSE Center of Development Institute	-6% – -7	50
Gaidar Institute	-6.4	55
Actual index	-2.8	54

Source: Interfax; EBRD; NRU HSE; Gaidar Institute; Rosstat.

\* European Bank for Reconstruction and Development.

It is noteworthy that even the forecasts released by the RF Ministry of Economic Development and NRU HSE closer to the end of the calendar year predicted a deeper growth rate plunge, which probably indicates that the

improving economic indices over the course of that year were not fully taken into consideration whilst these forecasts were being prepared. At the same time, the GDP forecast based on the dynamic factor model was upwardly adjusted with due regard for the period-end results of Q3 following the release of new data on industrial production and other economic indicators characterizing the state of the Russian economy.

The data presented in *Table 1* demonstrate how the annual growth rate forecasts were adjusted over the year 2016. Based on the period-end data for Q2, the decline rate was predicted to be about 1%, and then based on the period-end data for Q3, the forecasted decline index yielded by our dynamic factor model was slightly adjusted – to 0.4%. This adjustment can be partly accounted for by the upward movement of oil prices over the same period, which also contributed to stabilization across the Russian economy. Thanks to the oil price growth, the ruble somewhat strengthened and triggered growth of non-raw-materials exports and shrinkage of imports.

In 2017, Russia's economy began to recover its positive growth rate indices, which was reflected in the majority of available forecasts (*Table 3*).

*Table 3*

FORECAST OF GDP REAL GROWTH RATE BASED  
ON YEAR-END DATA FOR 2017, %

source / year	2017	forecast release period
Dynamic factor model	1.6	forecast as of 11 August 2017
	1.9	forecast as of 13 November 2017
CMASF	0.8	forecast as of 20 March 2017
	1.8	forecast as of 10 October 2017
RF MED	2.0	forecast as of 6 April 2017
	2.1	forecast as of 27 October 2017
Scenario-based macroeconomic forecast by Gaidar Institute	1.3	forecast as of 27 July 2017
Bank of Russia	2.0	forecast as of October 2017

Source: own calculations; NRU HSE; CMASF; RF MED; Federal State Statistics Service (Rosstat).

Meanwhile, in Q4, the GDP growth rate forecasted for 2017 based on our dynamic factor model was improved to 1.9% (vs. 1.6% in the similar forecast based on the results of two quarters), and this result corresponds to the indices offered in the alternative forecasts. As far as the inputs of various factors into GDP dynamics are concerned, we may note the recovery of consumer demand (whose input in the GDP growth rate as demonstrated by the period-end data for H1 2017 amounted to 1.4 pp.); growth of investments in fixed assets; and growth of materials in stock held by enterprises. Thus, while the year-beginning expectations of GDP growth were quite modest, towards the year's end most forecasts agree that its year-end growth rate for 2017 will amount to approximately 2%. ●

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