MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

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MAIN TRENDS AND CONCLUSIONS

Tax reform is one of the most debated issues in the run-up to presidential elections in 2018, after which an economic policy will or may be formulated for at least a few years to come. The so-called “tax manoeuvre” or fiscal devaluation, as defined by economists, has been debated a lot over the last few months.

The case in point is taxation-related changes in order to mimic the stimulating effects of national currency devaluation, namely easing the tax burden on producers (employer-paid insurance contributions or profit tax) while raising final consumption taxes (above all, VAT). Fiscal devaluation policies were implemented mainly in EU member states. The Russian version of fiscal devaluation is assumed – at least until recently – to reduce insurance contributions from 30% to 21–22% in order to cut labour costs (and to facilitate bringing the economy in from the shadow) while increasing the VAT rate from 18% to 21–22% (without damaging the interests of exporters entitled to VAT refund and of investors eligible for a VAT credit for investment goods). It is assumed that this will be conductive to boost up competitiveness and economic growth rates.

Our experts, however, have raised serious doubts as to whether these assumptions are reasonable enough. In particular, considering the overall burden on payroll borne by employees and employers in Russia and other countries, Russia’s tax cut practice for labour taxes, as well as the effect of labour tax cut while increasing VAT on the labour market, the experts have concluded that this type of tax manoeuvre can hardly enhance competiveness of the Russian economy. According to the Gaidar Institute’s estimates, GDP will grow as little as 1% in the long-term perspective in response to the updated tax structure. The major contribution to the growth will fall on the year immediately following the reform implementation (0.7% will be added to GDP growth, annual growth will account for 0.1% of GDP for the ensuing three years). At the same, it is noted that there is little prospect of bringing a considerable portion of wages in from the shadow economy by reducing insurance contributions.

An implication of increasing VAT is short-term growth of consumer prices which, according to the Gaidar Institute’s estimates, may reach 3% when a unified VAT rate of 21% is introduced (products eligible for reduced VAT rates, including foods and medical products, juvenile products, may face the highest price growth). In addition, increasing the VAT rate will drive up manufacturing costs of enterprises eligible for special tax treatment.

The option of reducing profit tax and increasing VAT has been considered worthwhile to undertake. This will result in building up enterprises’ investment resources and reinforcing investment incentives. This will also create an opportunity to centralize a portion of the profit tax rate and to pro-rate the VAT rate among subjects of the Russian Federation in order to compensate for revenue shortfalls, in which case GDP will see a small increase of 1.5% within a period of 15–20 years.

Finally, the experts have suggested not only to assess pros and cons of various fiscal devaluation options but also consider the value of tax stability itself.

Tax manoeuvre in question is generally considered to be a neutral manoeuvre in terms of total fiscal gains and losses for the state. Regarding the current federal budget landscape, the period of January–March 2017 saw accelerated growth of budget revenues (+2.7 p.p. of GDP compared with the earlier year's first quarter), budget deficit reduction (to 1.4% of GDP compared with 3.3% of GDP respectively) and financing through the domestic market used as a source of budget deficit financing while keeping the Reserve Fund intact. Plans for 2017 are to raise about Rb 1.8 trillion (Rb 1 trillion in 2016) through the domestic market and USD 3bn through foreign markets.

Such a relatively balanced fiscal situation is retouching, to a certain degree, the fact that budget expenditures have not yet been cut by 0.4 p.p. of GDP in 2017, as provided for in the federal budget act: instead, non-interest expenditures rose by 0.8 p.p. of GDP (+Rb 357.5bn) in Q1 2017. Therefore fiscal sustainability is still facing risks such as possible deterioration of foreign trade trends.

It is the upward trend of foreign trade spurred by hiking crude oil prices that was responsible for considerable growth of budget revenues in January–March. At the same time, the oil and gas component of budget revenues swelled from 34% in Q1 2016 to 42% in Q1 2017. Note that the rapid and considerable increase in oil and gas revenues indicates that it is too soon to say that the Russian economy has become less reliant on hydrocarbons.

A positive fact is that the increase in budget revenues was also accounted for by growth of revenues from corporate profit tax, which, according to the experts, was due to enhanced financial status of enterprises.

This allows one to expect enterprises to boost their investment activity. Fixed investment continued declining over the past three years (-12.2% in real terms in 2014–2016). However, the decline appeared to be less severe, albeit more protracted, than that recorded during the crisis of 2009 (-13.5%).

At the same time, the structure of investment sources continued to undergo changes due to (1) budget constraints (more specifically, budget and off-budget support to investors was cut by 3.2 p.p. to 16.2% in 2016), (2) a cautious behaviour of Russian banks (the percentage of loans in the composition of investment dropped to 7.6%), (3) less investment support to enterprises by parent companies (parent companies were previously actively involved in financing through external markets), which couldn't be offset via direct foreign loans. As a result, enterprises continued to focus increasingly on self-financing.

Considering their dominant role, the experts have assessed prospects of using this source of financing in terms of (1) availability of such resources (the amount of accrued depreciation and of earned profit after tax) and (2) propensity to self-finance investment projects (the ratio of self-financed fixed investment to corporate investment resources accumulated in the previous year). According to the experts' estimates, the amount of corporate investment resources exceeded Rb 16 trillion in 2016 (at an annual average growth rate of 17% in 2014–2016). By contrast, however, enterprises' propensity to self-finance investment dropped to 41.5% a year earlier (compared with not only a high level of 56% in 2006–2007 but also a stable enough level of 47% in 2009–2014).

While the decline in motivation in 2015 was accounted for by the shocks of 2014, another decline in 2016 was spurred, according to the experts, by a deteriorating investment environment, assuming that all investment improvement policies – clamping down on corruption, transparency of inspections, protection of ownership rights and of investors interests, export promotion, etc. – will be conductive to recover enterprises' propensity to self-finance investment. If this indicator rebounds at least to values seen over the past few years including 2015, this will imply growth of self-financed investment by Rb 1.6–2.0 trillion in 2017. Although some of the material factors such as the effect of inflation on nominal dynamics of investment, repayment of debts, etc. are not covered in full in official statistics, trends still can be traced.

Unlike enterprises ramping up their resources, individuals saw their financial capacities deteriorate due to the decline in real income. Nevertheless, our experts have concluded that housing affordability in the primary and secondary markets, as well as rental affordability, improved during those years, while utility spending underwent meagre changes.

According to a household budget survey, utility costs in 2016 accounted for 9.3% of households' consumer spending (costs of services such as garbage disposal, maintenance and overhaul of residential buildings add 11% to the above figure), thus showing little or no difference from what was seen in more auspicious years and even below the values recorded in 2011. This is in line with the fact that utility bills in arrears (about 6–7%) were at level seen in pre-crisis years (indeed, the figure differs largely from region to region: the level of utility bills in arrears was 2-3 times higher in some of the northern and Cisuralian areas, while the North Caucasus faced even higher levels). According to the experts, concerns about a possible upsurge of utility bills in arrears did not materialize owing to legal restriction on utility rate growth, as well as due to citizens' strong opposition (e.g., in Novosibirsk Region).

Flat rental costs accounted for 12% of individuals' total housing spending. The most recent data for January–March 2017 show that flat rental costs have become more affordable over the last decade. In 2006–2009, the rental cost of a one-room flat (that comprises a room, a kitchen and a bathroom) accounted for 52–58% of the average pay, and then hovered around 48–50% over a few years, sliding to 38% (the all-Russia average) during the recession (crisis). A similar trend faces the housing affordability figure reduced to the secondary market price of a standard one-room flat with an overall area of 35 square meters (the average area for this type of flat). In terms of annual per capita income, it would take 10 years of cash-saving to purchase this type of flat in 2006–2008. The length of the cash-saving period was reduced to less than five years in 2015–2016.

Indeed, figures may differ largely from region to region. An example is the Republic of Dagestan where a one-room flat costs a 4-year income (this is below the all-Russia average), while the sum of the rental cost and the subsistence minimum is beyond the local average pay. Some Siberian and northern regions differ in both the housing affordability and relatively low flat rental costs. The longest cash-saving period for this type flat is in Moscow (as well as in the Republic of Tyva and in Altai), while flat rental costs in Moscow are equal to the all-Russia average.

1. IS THERE A NEED FOR FISCAL DEVALUATION TO SPUR ECONOMIC GROWTH?

I.Sokolov

The idea of reducing insurance contributions from the current 30% to 21–22% while raising the VAT rate from 18% to 21–22% has been debated a lot since late in 2016. It is assumed that such a tax manoeuvre can reduce domestic producers' labour costs, and neither exporters nor investments will be affected by VAT growth because the former are entitled to VAT refund and the latter are eligible for a VAT credit for investment goods. Accordingly, it is expected that financial benefits for businesses may subsequently speed up economic growth rates, as well as have a positive effect on the employment rate and on the balance of trade. The question is whether these expectations are reasonable enough.

International practices of fiscal devaluation

By *fiscal devaluation* economists mean taxation policies aimed at achieving effects similar to those of national currency devaluation[1]. Broadly, this means reducing taxes that influence the manufacturing cost (employer-paid insurance contributions for employees or profit tax) while raising final consumption taxes (mainly VAT).

It's worth pointing out that fiscal devaluation was implemented basically in certain EU member countries. When nominal rates of interest are already close to zero values, there are extremely limited opportunities available to stimulate the economy through a monetary policy. In addition, with the common currency and free trade commitments in place, euro area countries have no opportunities to implement a devaluation policy and to change export and import duty rates in order to stimulate the economy by boosting exports and by cutting imports. Furthermore, EU member countries' economies tend to incur relatively high labour costs. In terms of boosting government spending, fiscal policies have been used up because of the mounting debt burden affecting fiscal sustainability of these countries.

Thus raising outlay taxes in exchange for cutting taxes on production factors has become some kind of ultimately available way of stimulating the economy. A relatively recent (2015) research has shown that corporate taxes and labour taxes may take toll on economic growth[2]. This is due to the fact that labour taxes (personal income taxes and insurance contributions) have an adverse effect on labour supply/demand, thereby impeding growth in the number of employed and thus making investment in human capital less appealing. Entrepreneurial income taxes (mostly profit tax) also affect fundraising costs and therefore discourage private investment.

1 Emmanuel Farhi, Gita Gopinath, and Oleg Itskhoki. Fiscal Devaluations //NBER Working Paper No. 17662 December 2011, Revised June 2013; International Monetary Fund. Fiscal Affairs Dept. Fiscal Monitor: Addressing Fiscal Challenges to Reduce Economic Risks/Appendix 1. "Fiscal Devaluation": What Is It—and Does It Work? // September 2011; http://www.ecb.europa.eu/pub/pdf/other/mb201112_focus12.en.pdf

2 http://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_59.pdf

Over the past 15 years, almost all the EU member states, as well as a few OECD member countries, have raised their VAT base rate by 1–6 p.p.. At the same time, countries that implemented a fiscal devaluation policy differ in choosing a way of “offsetting” the VAT increase. For instance, 30 of the 32 OECD member countries have cut the profit tax rate. However, the Scandinavian countries where the VAT rate is kept intact have decided to reduce the profit tax to avoid tax competition with the rest of EU member states.

As to the dynamics of insurance contribution rates, some OECD member countries have indeed reduced total burden on labour over the past 15 years. However, only nine countries have had the rates reduced considerably (at least by 4 p.p.), namely Australia, Hungary, Israel, The Netherlands, New Zealand, Poland, Slovakia, Sweden, Turkey. This policy was implemented on a temporary basis in five of these countries because they ran into mounting risks of fiscal instability with regard to honouring social security commitments and therefore had to raise the rates. In general, the tax burden on labour increased in 17 of the 32 OECD member countries which basically raised insurance contribution rates in the period between 2010 and 2015.

The tax manoeuvre in OECD member countries was thus implemented by raising the VAT rate while cutting mainly the profit tax and, much less often, the tax burden on labour.

At the same time, a fiscal devaluation policy could hardly pay for itself in full (while experts recognize the short-term nature of the effect on economic growth) amid the OECD current economic growth rates, as well as persisting issues of unemployment, budget deficit and national debt[1].

Implications of cutting insurance contribution rates in Russia

The Russian government members in charge of finance and economics are opting for a fiscal devaluation by lowering insurance contributions instead of profit tax. The rationale is simple enough: Russia ranks among the countries with the highest employer-paid insurance contribution rates. However, Russia ranks way below most of the OECD member countries when it comes to the total burden on payroll borne by the employee and the employer with regard to social security contributions (*Fig. 1*).

Excluding countries with traditionally low total tax burden (such as Mexico, South Korea), Russia can be found among countries with an extremely moderate insurance contribution rate (*Fig. 2*).

The Russian government members in charge of finance and economics believe that the issue of high direct taxes on businesses can be tackled by reducing insurance contributions, that is, by cutting manufacturing costs and by enhancing competitiveness of the Russian economy. However, the practice in some countries shows that lowering social security contributions would not result in lower labour costs. For example, the average payroll tax in Chile was reduced from 30% to 5% in the period between 1979 and 1985 (7%, currently

1 Isabell Koske. Fiscal devaluation – can it help to boost competitiveness? // Economics department working paper No. 1089, OECD http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2013)81&docLanguage=En; Kerstin Bernoth, Patrick Burauel, Philipp Engler. Fiscal Devaluation: Economic Stimulus for Crisis Countries in the Euro Area // DIW Economic Bulletin 10.2014 http://www.diw.de/documents/publikationen/73/diw_01.c.489534.de/diw_econ_bull_2014-10-3.pdf

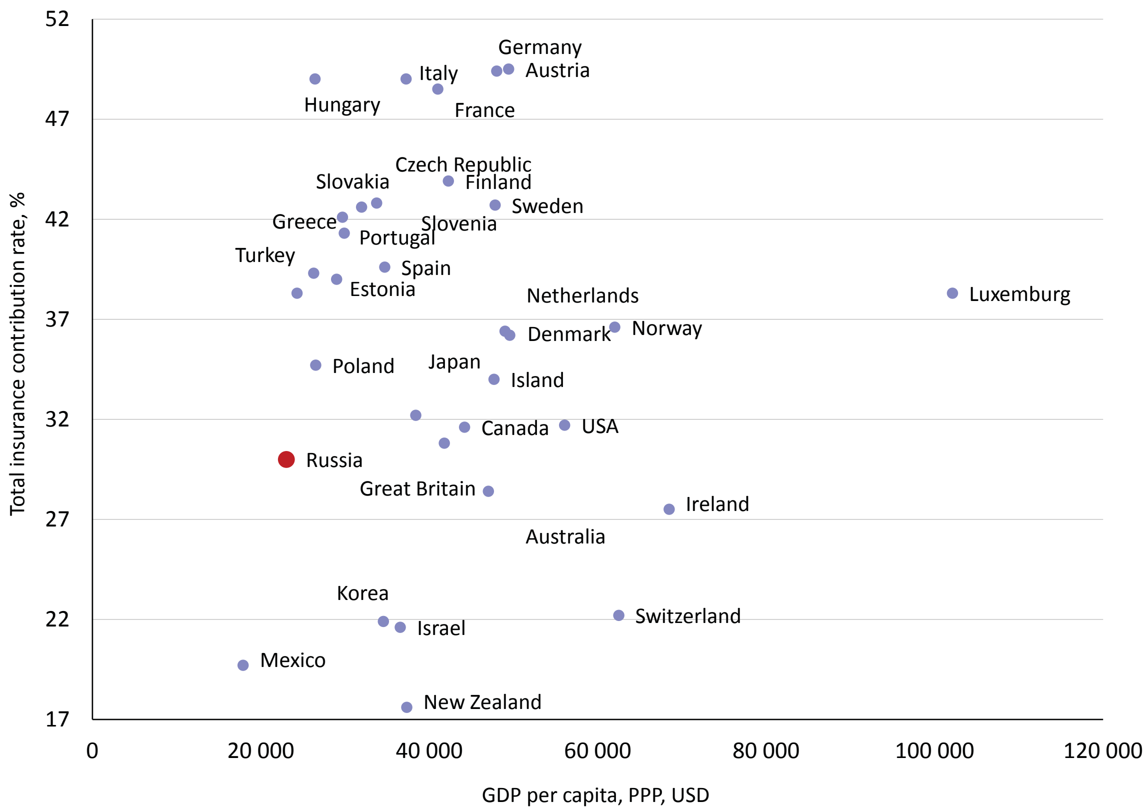


Fig. 1. The ratio of GDP per capita (PPP, USD) to total insurance contribution rate in 2015

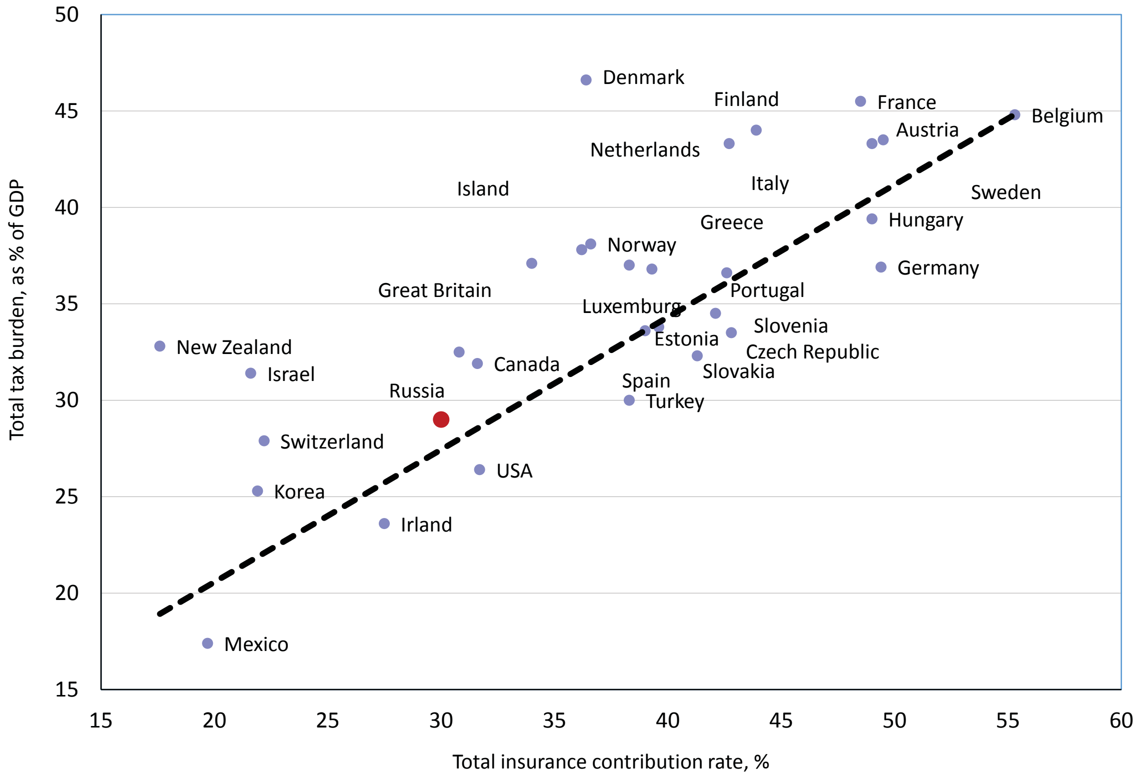


Fig. 2. The ratio of total tax burden (as % of GDP) to total insurance contribution rate in 2015

in force). However, the cut was fully offset by raising wages, and therefore manufacturers' labour costs were not curtailed[1].

The complexity of the problem rests on the fact that two oppositely directed effects come into action in the labour market when labour tax is reduced and VAT is increased. Increasing insurance contributions would boost labour demand by firms, which would in turn be conductive to increase in worked hours and in the pay rate, while increasing VAT would boost the price of consumer goods, thereby being responsible for substituting demand for consumer goods in favour of other good – leisure. This means that demand for leisure ramps up as labour supply goes down regardless of pay levels.

The Gaidar Institute's estimates show that the effect of boosted labour demand by firms will prevail over the effect of decrease in labour supply by households, thereby leading to increase in effective worked hours in economy. Engaging labour force will in turn stimulate capital accumulation until the capital-labour ratio per efficient labour unit is up to a level corresponding to investment financing costs.

Given that the Russian economy is facing the situation in which unemployment is close to its "natural level" and the real pay is highly sensitive to the labour market[2] and the Russian export structure is dominated by hydrocarbons whose production doesn't depend on the real rouble exchange rate, it is reasonable to expect that this tax manoeuvre will not make any major contribution to enhancing competitiveness of the Russian economy. According to the Gaidar Institute's estimates, GDP will grow as little as 1% in the long-term perspective in response to a change in the tax structure. The major contribution to the growth will fall on the year immediately following the reform implementation (0.7% will be added to GDP growth). Annual growth will account for 0.1% of GDP within the ensuing three years.

The Russian government members in charge of finance and economics also expect the labour market to be "whitened" by reducing insurance contributions. Most obviously, a fiscal devaluation makes the shadow economy less appealing in the case of long-term, considerable reduction of labour costs. The point is that businessmen that employ under-the-table salary schemes have to incur increasingly rising costs: officially declared labour costs equal to the minimum pay in a given region, legalization and income cashing, etc. However, given the short-term nature of the effect of reducing contributions on economic competitiveness and a lack of confidence in the pension scheme as it is now, it would be almost impossible to bring a considerable amount of wages out of the shadow economy in the foreseeable future. This conclusion is supported by the absence of visible relationship between the level of tax burden on labour and the percentage of under-the-table payroll schemes in Russia: the period of 2000–2015 saw a combination of two trends, namely the decline in effective labour tax rate (at least until 2011) and sustainable growth of the percentage of under-the-table payroll schemes.

Implications of raising VAT

Increase in consumer prices. Despite the fact that VAT taxpayers are legally deemed to be sellers (legal entities), in practice, however, the tax burden

1 ILO (2001), Social security: Issues, challenges and prospects, International Labour Office

2 Unlike Russia, European countries are characterized by exhibiting pay rigidity towards reduction whose existence is the very argument for cutting it for employers by easing the tax burden on labour. See http://csr.ru/wp-content/uploads/2017/03/Doklad_trud.pdf

growth is shared among sellers and buyers, and some of the growth is anyway applied to the selling price.

In other words, increasing VAT will lead to a short-term acceleration of inflation, therefore reducing the real personal income. Short-term growth of consumer prices may reach 3% when a unified VAT rate of 21% is introduced, according to the Gaidar Institute's estimates.

This implies

- growth of poverty; this is totally unacceptable amid the recent increase in poverty (from 15.4 million persons in 2012 to 19.7 million in 2016) and personal income drop;
- most remarkable growth of prices of products eligible for a reduced VAT rate of 10%: foods and medical products, juvenile products;
- price growth of imported goods.

Tax competition. The VAT rate currently in force in Russia corresponds to the average European tax rate (17.5%) and is close to those in force in far-abroad countries, Russia's principal trade partners. A VAT rate of less than or equal to 12% is now in force in six OECD member countries (Japan, Canada, Switzerland, New Zealand, South Korea, Australia), as well as in Kazakhstan. A considerable increase in the VAT rate may therefore not only deteriorate the doing business environment in border territories but it will also impede imports on which Russia is highly reliant, thereby posing more risks, including the risk of less availability of high-tech equipment and vehicles that know no equals in Russia today.

The deterioration of doing business environment for organizations eligible for special tax treatment. Increasing the VAT rate will raise the manufacturing cost in organizations operating under special tax treatment. Being non-VAT taxpayers, they have to apply input VAT to the price of purchased goods, works, services instead of claiming a input VAT credit. Accordingly, the more material-intensive their activity is, the more significant is the effect of VAT increase for special-treatment enterprises. A possible solution to offset adverse effects is to make it possible for them to get registered as VAT payers on a voluntary basis (this is a common worldwide practice for SMBs).

Fiscal devaluation alternatives

In terms of influencing economic growth, a tax manoeuvre reducing profit tax while increasing VAT appears to be a more reasonable option. First, this will insure that the effect is stable. Second, this will result in building up enterprises' investment resources while reinforcing investment incentives. Replacing profit tax with consumption taxes (first of all, VAT) is the general trend facing developed countries. From the fiscal point of view, however, the expected benefit is related to a possible economic upturn. Third, this will create an opportunity to centralize a portion of the profit tax rate, while the tax will be reduced using strictly the regional component. To compensate for regional revenue shortfalls, it would be reasonable to pro-rate the growth of VAT rate among subjects of the Russian Federation according to the number of permanent residents in their territory. In assessing this option, it's worth pointing out that the capital accumulation process is slow enough, and it will therefore take 15–20 years for GDP to grow at least 1.5%.

However, considering the above mentioned pros and cons of the discussed and possible fiscal devaluation options, it is impossible to tilt firmly toward such a tax manoeuvre in the oil and gas sector. Furthermore, the value of tax stability itself should never be disregarded.

2. FEDERAL BUDGET IN JANUARY–MARCH 2017: DEFICIT REDUCTION

T.Tischenko, E.Fomina

The key parameters of the federal budget showed faster growth of revenues over expenditures at the end of Q1 2017 compared with Q1 2016. Thus revenues increased by 2.7 p.p. of GDP as budget expenditures gained 0.8 p.p. of GDP. As a result, the budget deficit was curtailed to 1.4% of GDP and the Reserve Fund was kept intact.

According to the data released by the Federal Treasury, federal budget revenues increased Rb 721.9bn, or to 18.2% of GDP, in Q1 2017 (*see Table 1*). This was due to the growth of oil and gas revenues by Rb 525.7bn (+2.3 p.p. of GDP) driven up by the spike in Urals crude oil from USD 36.53 per barrel in January–March 2016 to USD 52.04 per barrel in January–March 2015. As a result, the oil and gas component of the budget revenues swelled from 34% in Q1 2016 to 42% in Q1 2017.

In 2017, budget expenditures have not yet been cut by 0.4 p.p. of GDP from the actual figures of 2016, as provided for in the federal budget act: non-interest expenditures rose by 0.8 p.p. of GDP (+Rb 357.5bn) in Q1 2017.

The federal budget ran a deficit of 1.4% of GDP at the end of Q1 2017, compared to 3.3% of GDP during the same period of 2016. However, the non-oil and gas deficit increased 0.4 p.p. of GDP.

Table 1

KEY PARAMETERS OF THE FEDERAL BUDGET IN JANUARY–MARCH 2016–2017

	January–March 2016		January–March 2017		% Change – Year to Year	
	roubles in billions	as % of GDP	roubles in billions	as % of GDP	roubles in billions	p.p. of GDP
Revenues, of which	2,910.7	15.5	3,632.6	18.2	721.9	2.7
– oil and gas revenues	992.2	5.3	1,517.9	7.6	525.7	2.3
– non-oil and gas revenues	1,918.5	10.2	2,114.7	10.6	196.2	0.4
Expenditures, of which	3,549.3	18.8	3,906.8	19.6	357.5	0.8
– interest expenditures	195.1	1.0	192.6	1.0	-2.5	0.0
– non-interest expenditures	3,354.2	17.8	3,714.2	18.6	360.0	0.8
Federal budget surplus/deficit	-638.6	-3.3	-274.2	-1.4	364.4	1.9
Non-oil and gas deficit	-1,630.8	-8.6	-1,792.1	-9.0	-161.3	-0.4
GDP (in current prices, bn Rb)	*18,815.9*		20,019.5*		-	

* *preliminary estimates.*
Sources: Ministry of Finance, Federal Treasury, Rosstat, own calculations.

In January–March 2017, tax revenues (*Table 2*) increased Rb 796.4bn (+3.1 p.p. of GDP) from Q1 2016. Tax revenues of all types saw improvement in nominal terms and as a percentage of GDP, except the VAT on goods imported in the territory of the Russian Federation (revenues of this type decreased by Rb 20.6bn (-0.2 p.p. of GDP) most likely due to the appreciation of the rouble).

Table 2

KEY TAX REVENUES OF THE FEDERAL BUDGET IN JANUARY–MARCH 2016–2017

	roubles in billions		as % of		as % of GDP		Change in Q1'17 from Q1'16	
	Q1 2016	in Q1 2017	actual annual revenues in 2016	forecast annual revenues in 2017	Q1 2016	in Q1 2017	roubles in billions	p.p. of GDP
Total tax revenues, of which	2.594,1	3.390,5	23.1	28.2	13.8	16.9	796.4	3.1
corporate profit tax	101.9	147.8	20.7	24.6	0.5	0.7	45.9	0.2
VAT on goods sold on the territory of the Russian Federation	731.6	854.8	27.5	29.5	3.9	4.3	123.2	0.4
VAT on goods imported in the territory of the Russian Federation	441.9	421.3	23.0	21.1	2.3	2.1	-20.6	-0.2
Excise duties on goods manufactured on the territory of the Russian Federation	177.3	272.9	28.0	33.8	0.9	1.4	95.6	0.4
Excise duties on goods imported in the territory of the Russian Federa-tion	10.0	14.2	16.1	22.4	0.1	0.1	4.2	0.0
Mineral extraction tax	565.3	1 016.4	19.7	30.6	3.0	5.1	451.1	2.1
Revenues from foreign economic activities	538.7	633.9	20.7	27.1	2.9	3.2	95.2	0.3

Sources: Federal Treasury, own calculations.

Mineral extraction tax revenues gained 2.1 p.p. of GDP, making the biggest contribution to the budget revenues in Q1 2017, due to the tax rate increase to Rb 919 per tonne (Rb 857 per tonne in 2016) since 01 January 2017 in the assessment of the tax base for mineral extraction tax. As a result, the average rate of mineral extraction tax on crude oil (with regard for the coefficient representing the dynamics of global crude oil price variations) stood at Rb 7662 per tonne in January–March 2017 versus Rb 4076 per tonne in January–March 2016. In Q1 2017, total federal budget revenues from mineral extraction tax accounted for 30.6% of the forecast annual value compared with 19.7% of the actual annual revenues from mineral extraction tax generated in Q1 2016.

In Q1 2017, federal budget revenues from foreign economic activities increased Rb 95.2bn (+0.3 p.p. of GDP) to 27.1% of the forecast revenues for 2017 due to the positive dynamics of export duties on crude oil and petroleum products. The upward dynamics of crude prices had a positive effect on crude export duty rates (the crude export duty rate averaged USD 86.5 per tonne in January–March 2017 compared with USD 54.9 per tonne in January–March 2016). This took place in parallel with cutting the marginal rate on crude oil exports duty to 30% in 2017, instead of 42% in 2016, amid the completion of the so-called "tax manoeuvre", which in turn resulted in a shortage of federal budget revenues.

Revenues from excise duties on domestically manufactured goods saw a marked growth of 0.4 p.p. of GDP (+Rb 95.6bn) in Q1 2017, thus accounting for 33.8% of the annual value forecast for 2017. The increase was driven up by two factors: (1) the indexation, in effect since 2017, of excise duty rates on alcohol, tobacco, motor gasoline and other excisable products, and (2) the extension of the list of excisable products[1].

Also, revenues from corporate profit tax increased Rb 45.9bn (+0.2 p.p. of GDP) in the period under review due to enhanced financial status of enterprises. According to the data released by Rosstat, in January–February 2017 enterprises increased their net financial result by 53% from the value recorded in January–February 2016[2]. The proportion (as measured as a percentage of total organizations) of loss-making organizations in the economy decreased by 1.4 p.p. to 34.3% as early as the first two months of 2017.

In Q1 2017, revenues from 'inland' VAT also gained 0.4 p.p. of GDP (+Rb 123.2bn), which gives evidence of some positive changes in the real economy sector amid growing profit tax revenues. In Q1 2017, federal budget revenues from profit tax and 'inland' VAT stood at respectively 24.6% and 29.5% of the projected annual values.

The structure of federal budget expenditures underwent changes in January–March 2017, some of which are worth pointing out (*Table 3*):

- the spending on such items as *Social security policy* and *National economy* saw most of the increase by respectively 1.3 and 0.4 p.p. of GDP. The increase of Rb 341bn in social security benefits in Q1 2017 was mostly accounted for by the 5.4% indexation of the insurance pension component in February 2017 and of monthly social security cash benefits to federal beneficiaries. In addition, in January 2017, the Russian government made a one-time payment of 5,000 roubles to retirees in lieu of indexing pensions, according to the government's decision made in H2 2016;
- the spending on such items as *National defence* and *Healthcare* were cut by respectively Rb 99bn (-0.8 p.p. of GDP) and Rb 37bn (-0.4 p.p. of GDP) in Q1 2017.

In Q1 2017, most of the expenditure items remained (as a percentage of GDP) as they were in 2016. The dynamics of cash execution of expenditures stood at 24%, adding two p.p. to the value recorded in Q1 2016. Thus the rate of budget spending in January–March 2017 was getting closer to a uniform manner of annual caps spending, which was in part due to establishing a deadline for certain categories of intergovernmental fiscal transfers.

As at 01 April 2017, federal budget ran a deficit of Rb 274.2bn compared to the earlier year's Rb 638.6bn (with the crude oil price projected at USD 40 per barrel, the target 2017 year-end deficit was set at Rb 2753.2bn, or 3.2% of GDP). Russia's Finance Ministry spent extra oil and gas revenues (generated at above the projected price) on purchasing foreign exchange, thereby increasing de facto the reserves and avoiding excess appreciation of the Russian rouble.

In Q1 2017, the federal budget deficit was covered with Rb 392.2bn raised by the government securities placement in the domestic market, accounting for 20.9% of the planned government securities placement for 2017. Rb 34.5bn were spent on the redemption of government securities at the end of the first quarter. Rb 86.5m of the money raised during the securities placement in foreign markets were spent on budget deficit finan-

1 Excise duties on smoke-free cigarettes and heated tobacco products are imposed since 01 January 2017 by Federal Law No. 402-FZ of 30 November 2016.

2 http://www.gks.ru/bgd/free/b04_03/IssWWW.exe/Stg/d02/81.htm

Table 3

FEDERAL BUDGET EXPENDITURES IN JANUARY–MARCH 2016–2017

	January–March 2016			January–March 2017			Change		
	roubles in billions	as % of GDP	cash execution, %	roubles in billions	as % of GDP	cash execution, %	roubles in billions	p.p. of GDP	cash execution, p.p.
Total expenditures, of which	3.549	18.8	22	3.907	19.6	24	357	0.8	2
Nationwide issues	192	1.0	17	207	1.0	16	15	0.0	-1
National defence	887	4.7	28	788	3.9	28	-99	-0.8	0
National security and Law enforcement	383	2.0	19	379	1.9	20	-4	-0.1	0
National economy	252	1.3	10	342	1.7	15	90	0.4	5
Housing and Utilities	4	0.0	5	17	0.1	20	13	0.1	15
Environmental protection	17	0.1	29	35	0.2	45	17	0.1	16
Education	124	0.7	21	136	0.7	22	12	0.0	1
Culture and Cinematography	12	0.1	13	15	0.1	15	3	0.0	3
Healthcare	98	0.5	18	61	0.3	14	-37	-0.2	-4
Social security policy	1.184	6.3	27	1.525	7.6	30	341	1.3	3
Physical culture and Sports	6	0.0	8	7	0.0	7	1	0.0	-2
Mass Media	13	0.1	16	11	0.1	15	-2	0.0	-1
Public debt servicing	195	1.0	30	193	1.0	26	-3	0.0	-4
Intergovernmental fiscal transfers	183	1.0	27	192	1.0	25	9	0.0	-2

Sources: Federal Treasury, own calculations.

cing. It is apparent that fundraising in the domestic market will remain the principal source of deficit financing amid sanctions against Russia, whereas the Reserve Fund was used as the baseline source for stabilizing budget equilibrium during the previous two years. Plans for 2017 are to raise about Rb 1.8 trillion (Rb 1 trillion in 2016) in the domestic market and USD 3bn in foreign markets.

In order to diversify sources of fundraising, as well as create an alternative financial asset for stimulating saving activity among individuals, throughout the entire Q1 2017 Russia's Finance Ministry took active part in announcing the IPO of government bonds for individuals (OFZ-n, or the so-called "people's bonds") which took place late in April. It is assumed that the OFZ-n placement may raise about Rb 30bn in 2017, and all the raised funds will be spent on financing the federal budget deficit.

In January–March 2017, the internal national debt increased by Rb 304.6bn, from Rb 8003.5bn (9.3% of GDP) to Rb 8308.1bn as at 01 April 2017, including Rb 1840.8bn in sovereign guarantees.

In January–March 2017, the foreign national debt decreased by USD 653.2m, mainly due to the redemption (USD 619.5m) of external bond loans.

In Q1 2017, the rouble equivalent of the Reserve Fund and the National Wealth Fund shrank by Rb 59.2bn and Rb 224.9bn respectively, due to the foreign exchange revaluation of assets. As at 01 April 2017, the total value of the Reserve Fund and the National Wealth Fund stood at Rb 912.9bn and Rb 4134.3bn respectively. No spending of sovereign funds took place in Q1 2017.

All in all, the unfolding situation facing the federal budget execution at the end of Q1 2017 can be characterized as more balanced than that in Q1 2016. However, fiscal sustainability is still facing risks of possible variations of both foreign economic trends and budget expenditure parameters in the pre-election year and amid higher crude oil prices than the budgeted prices.

3. INVESTMENT ACTIVITY: A PROTRACTED PAUSE

O.Berezinskaya

After having peaked in 2012–2013, the volume of investment in fixed assets has been on the decline for three straight years. In real terms, the investment index lost 12.2% over the period 2014–2016. Its plunge turned out to be less deep than in the crisis year 2009 (13.5%), but the length of the investment pause, the significantly reduced business activity, and the toughening constraints on the use of resources are the factors that have aggravated the slowdown in the investment process.

The principal feature that determines the possibilities for and constraints on investment activity is *the composition of fixed-investment resources*.

The changes in the composition of investment financing sources over the period 2014–2016 were triggered by the increased pressure of resource constraints, and their manifestations were as follows:

- the opportunities for rendering support to investment projects *from budgets and extrabudgetary funds* were reduced (this source shrank by Rb 167bn in nominal terms, or by 3.2 pp, to 16.2% of the total composition of investment sources in 2016, which is a historic low since 1999, *Table 1*);
- Russian banks became more cautious when issuing targeted investment loans (the volume of *lending by Russian banks* shrank, in 2016, by Rb 57bn in nominal terms, or by 1.3 pp, to 7.6% of the total composition of investment sources);
- in the situation of reduced availability of lending resources in the world markets, stagnation has also been observed with regard to investment financing from *other non-governmental sources* (their share in the composition of sources for investment in fixed assets shrank by 2.1 pp, to 24.5% in 2016). As a result of economic sanctions and the generally worsening conditions for long-term investment in the Russian economy, the volume of *foreign investment* likewise shrank (by Rb 19bn, or by 0.2 pp, to 0.5% of the total composition of investment sources in 2016). The amount of investment funded by *parent organizations* was dramatically reduced[1], and the companies failed to replace this investment source by direct borrowing from *foreign banks*. The opportunities for attracting extra resources from the domestic market are limited, and this fact is also indirectly confirmed by the movement patterns of the *resources generated by share participation in building construction projects* (an increase by a mere Rb 13bn, while its share in the composition of investment sources remains at 2.8%);

1 These are, in the main, the resources attracted by the core companies of vertically integrated structures in the world financial markets, which are subsequently transferred to their subordinated production entities in order to fund their investment projects; their estimated amount has increased to more than Rb 300bn, or by 3.9 pp to 9.1% in 2016 in the composition of investment sources.

- in face of the toughening resource constraints, *companies' own resources* as a source of financing their investments in fixed assets has continued to gain in importance (an increase by Rb 1.14 trillion, while its share in the composition of investment sources rose by 6.6 pp to 51.8% in 2016).

Of course, such estimates strongly rely on certain assumptions that inevitably translate into somewhat biased results, but the overall trend may, nevertheless, be outlined. The sources of the biases are as follows: no consideration is given to the effects of inflation when the nominal values for different periods are compared; debt redemption expenditures are ignored; understanding of the fact that, although loans are by no means readily available, companies are unable to save their own money for investing over the course of a period longer than one year, and invest only their savings accumulated during the previous years, etc. Regretfully, no more precise calculations can be made on the basis of available official statistics.

Table 1

THE COMPOSITION OF FINANCIAL SOURCES OF INVESTMENT IN FIXED ASSETS IN THE RUSSIAN ECONOMY IN 2005–2016, %

	2005	2008	2009	2013	2016
Total, including	100	100	100	100	100
own resources	44.5	39.5	37.1	45.2	51.8
attracted resources, including	55.5	60.5	62.9	54.8	48.2
Loans issued by russian banks	7.2	8.9	7.1	8.9	7.6
Budget resources and extrabudgetary funds	20.9	21.3	22.2	19.3	16.2
Other non-governmental attracted resources, including	27.4	30.3	33.6	26.6	24.5
Loans issued by foreign banks	1.0	3.0	3.2	1.1	2.9
Resources generated by share participation in building construction projects	3.8	3.5	2.6	2.9	2.8
Foreign investment	no data	no data	no data	0.8	0.5
Other attracted resources	22.7	23.9	27.8	21.8	18.3

Source: Rosstat.

The changing role of self-financing in the composition of the sources of investment financing for companies' investment projects is vividly illustrated by the following movement patterns. During the investment boom period 2006–2008, the increased self-financing, by companies, of their investment projects accounted for 36% (Rb 1.36 trillion) of the total growth of investment in fixed assets over those three years. Over the period of adjustment growth in 2010–2013, this source produced 57% (Rb 2.3 trillion) of the total growth of investment in fixed assets, and during the investment pause period 2014–2016, investment growth resulted almost exclusively from the increased self-financing, by companies, of their investment projects, while the share of borrowed funds as a source of financing was shrinking.

Given the decisive role of *companies' own resources* in the current investment processes in the Russian economy, it would be feasible to assess *the necessary and the sufficient conditions for further growth of investment in fixed assets to be made possible by that investment source.* These conditions (respectively) are the increasing volume of companies' own investment resources and their strengthening motivation for self-financing of their investment.

The volume of companies' own investment resources is the sum of their actually charged amortization and earned profit, less the amount of tax on profits actually paid. Their *willingness for self-financing of their investment* *projects* is understood as the ratio of their investment in fixed assets funded by their own resources to the amount of their own investment resources accumulated over the previous year.

Table 2

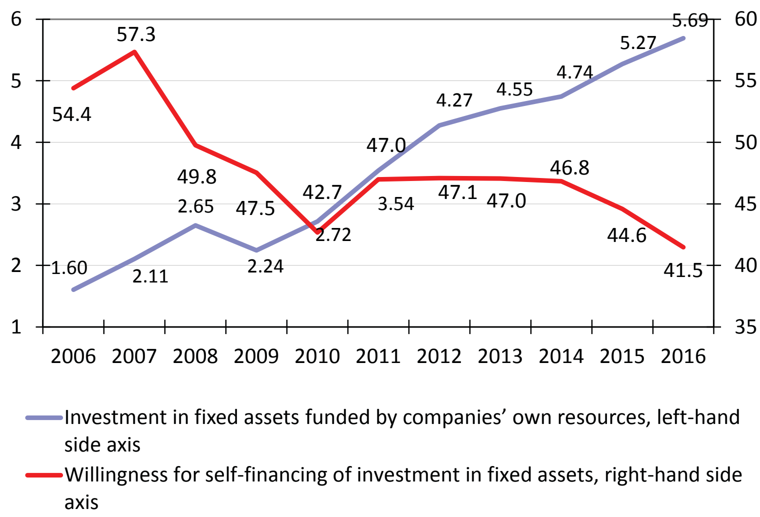
ACCUMULATION BY COMPANIES OF THEIR OWN INVESTMENT RESOURCES IN 2010–2016, TRILLION RB

	2010	2011	2012	2013	2014	2015	2016
Profits	6.9	8.5	8.8	8.4	9.4	11.4	14.0
Tax on profits, actually paid	1.8	2.3	2.4	2.1	2.3	2.4	2.7
Disposable profit	5.1	6.3	6.4	6.4	7.1	8.9	11.3
Amortization	2.4	2.8	3.3	3.7	4.7	4.8	5.0
Companies' own investment resources	7.5	9.1	9.7	10.1	11.8	13.7	16.3

Note. The data on amortization and companies' own investment resources for 2016: own calculations.
Source: Rosstat; Federal Tax Service; own calculations.

The amount of companies' own investment resources in 2016 rose above Rb 16 trillion (*Table 2*). After the slowdown of 2012–2013, the next three years (2014–2016) saw their active growth at a rate of Rb 1.7–2.6 trillion (or approximately 17%) per annum. Thus, during the investment pause period, companies indeed found more ways of self-financing their investment projects.

At the same time, the period 2015–2016 saw a decreasing willingness of companies to self-finance their investment projects: from its high of 56% observed in 2006–2007, this index declined and then stabilized at 47% in 2009–2014, after which it further plunged to 44.6% in 2015 and to 41.5% in 2016 (*Fig. 1*).



Source: Rosstat; Federal Tax Service; own calculations.

Fig. 1. Investment in fixed assets funded by companies' own resources and their willingness for self-financing of their investment projects in 2006–2016.

The willingness for self-financing declined in response to the significant weakening of the national currency and the introduction of economic sanctions against Russia and Russia's retaliatory sanctions. The changes in the system of economic stimuli (more expensive imports and lower competition in the domestic market alongside increasingly attractive exports and significantly increased profitability of supplies of exported goods) urged companies to develop more active investment programs. At the same time, the overall decline of business activity in the Russian economy, uncertain development prospects, the rising costs of investment projects (due to the escalating prices for imported high-quality equipment) undermined companies' motivation to modernize their production.

While in 2015 the weaker motivation for modernization could be regarded as a temporary reaction to the shocks that had occurred in 2014, in 2016 the same factor was evidently a manifestation of the generally worsening economic situation and the investment climate. In view of the persistently tough resource constraints (imposed by the budget and the economic sanctions) and the cautious policy of banks with regard to issuance of long-term targeted loans, the factor of the business climate is becoming increasingly important as the motive that sustains companies' willingness for self-financing. In fact, all the measures designed to boost that willingness – in the form of lowering corruption, increased transparency of the control and check procedures, protection of the rights of property owners and investors, improvement of the competitive environment in the domestic market, support for exports of Russian goods and services, and other non-monetary (institutional) measures – are going to conduce to recovering companies' willingness for self-financing of their investment projects.

Even if the entrepreneurial optimism index of 2006–2007 (when the willingness to self-finance investments in fixed assets was at the level of abouta 56%) is not taken as an achievable short-term target for boosting the investment activity, and estimating instead as a realistic one the goal of achieving its stability at 47% (as it was in 2009–2014), or setting the achievable minimum target at 44.6% (the year-end index of 2015), we can indeed expect that the volume of investment funded by companies' own resources may notably increase.

With due regard for the amount of companies' own investment resources accumulated in the course of 2016, if their willingness for self-financing of their investment projects should increase to the aforesaid levels, it may translate into growth, in 2017, of investment funded by their own resources by Rb 1.6–2.0 trillion. This in itself would be sufficient for growth of investment in fixed assets in nominal terms by 11–13.5%, which will mean an onset of its real growth.

4. HOUSING EXPENDITURES, PURCHASE AND RENTAL OF RESIDENTIAL PROPERTIES IN RUSSIA'S REGIONS

A.Burdyak

Over the past two years, the cost of housing and community amenities has been growing at a moderate rate. Due to financial problems, one in every ten households delayed paying its bills, or paid them only in part. The volume of housing and community amenities payments in arrears remained the same as in the previous years. The monthly rent cost of a one-room apartment, which in 2010–2015 had been equivalent to half of an average wage, in Q1 2017 fell to 40% of an average wage.

Housing expenditure takes up an important share in the budget of a Russian household. Those who live in their own house or apartment have to pay on a monthly basis for community amenities and maintenance, and the better the services supplied[1], the higher the costs of living in a building. At the same time, one in four Russians relies on social benefits when paying his or her housing and amenities bills, while 6% of Russian families receive targeted aid in the form of subsidies to cover the costs of their rent and amenities, which are granted in the event of housing costs amounting to a significant share of their budgets[2].

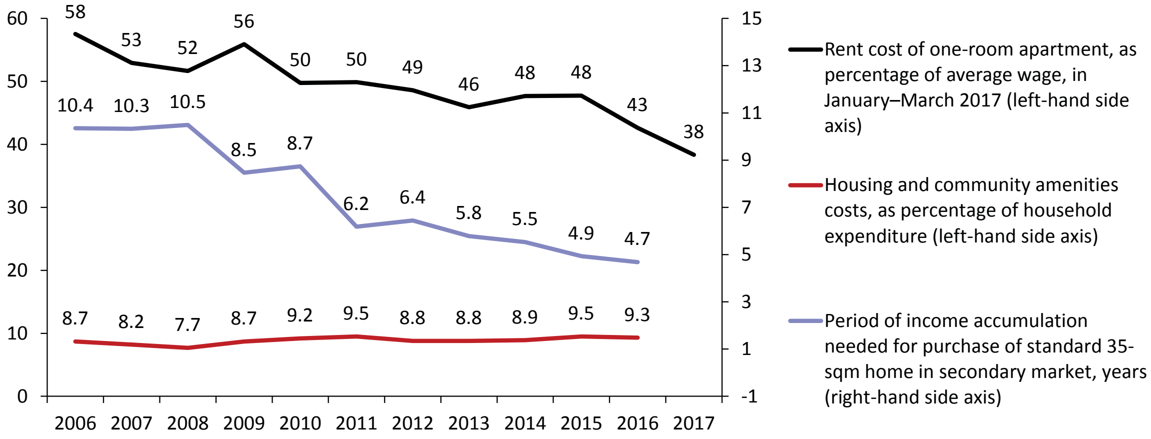
Some households rent their home, and the amount of rent actually paid takes up about 12% of the aggregate housing expenditure of RF households, including 9% paid as rent to private owners of dwellings[3]. Thus, housing expenditure is comprised of the regular payments carried out by most of the families to cover at least their housing and community amenity charges, maintenance charges and their assessed contributions to the capital master plan. Also, there are housing renters, who make up a very small minority of families but at the same time account for a large volume of housing payments and community amenity charges.

Any long-term monitoring of the population's expenditures on housing and community amenities is made difficult by the current reforming that addresses the entire sphere of housing and community amenities and by the recent changes in statistical methodology. The gradual introduction of hot and cold water meters has made it possible to replace the (previously applied) per-capita based system of payment for water use by a new one, based on measuring actual water consumption. Electricity tariffs have become multistage, which now makes it difficult to compare the prices for services rendered in different years. To complicate matters still further, there have emerged new types of payments, for example, contributions to the capital master plan. In the process of adapting Russian statistics to international standards, housing and community amenities were included in the system of national accounts.

1 According to 2015 data, 66% of the total housing floor space in Russia is fitted up with running water, sewerage systems, and gas or electric stoves. The Housing Sector in Russia, 2016: A Statistical Compendium [in Russian]. Moscow: Rosstat, 2016. P. 10.

2 Ibid, p. 12.

3 2015 data: Rosstat. Population. Standard of Living. The level and structure of household expenditures on housing and community amenities. http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/. [In Russian].



Source: Rosstat.

Fig. 1. The share of expenditures on housing and community amenities, the rent to wage ratio, and the period of income accumulation needed for home purchase

Statistical monitoring of the structure of consumption for the purpose of calculating the consumer price index is based on the quarterly surveys of household budgets. Compared to 10 years ago, community amenities, as represented in part of services, have undergone no change. According to preliminary estimates, in 2016, household expenditures on housing and community amenities accounted for 9.3% of household consumption expenditure (*Fig. 1*). In 2015, the share of expenditures on housing and community amenities had risen to 9.5% of the latter due to a notable reduction in the real money income of the population, but by the end of 2016, the aforesaid share had slightly decreased.

In the Classification of individual consumption by purpose (COICOP), the category of housing and community amenities is somewhat broader: it includes both resources (water, gas, etc.) and services (disposal of garbage, maintenance and repair of the dwelling), and the materials and services for the maintenance and repair of the dwelling. According to COICOP, the expenditures on housing and community amenities, water, electricity, gas incurred by households amount to 11% of individual consumption expenditures[1].

Alongside the share of housing expenditure, *Fig. 1* shows the period of average per capita income accumulation needed for the purchase of an average standard home and its rent cost. By way of example, we take the purchase of a 35-sqm one-room apartment (according to statistics, this was the average apartment size[2] in 2015). The statistical data for Russian regions include the rent cost of a one-room apartment, and the most recent data – also that of a two-room apartment. To better illustrate the rent cost burden on a household budget, the rent cost of a one-room apartment[3] in *Fig. 2* is set against the average wage for a given region[4]. Our calculations are based

1 The composition of the population's consumer expenditures to be used for calculating the consumer price index in accordance with the Classification of individual consumption by purpose (COICOP). Rosstat. [In Russian].

2 The main indicators of the population's housing conditions. Rosstat http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/housing/

3 The average consumer prices for individual types of goods and services. The single inter-departmental information and statistics system (SIISS).

4 Information for the purpose of monitoring of the socio-economic situation in the Russian Federation's subjects. Rosstat. [In Russian].

on the latest data obtained for the period of January–March 2017 and the corresponding periods of the previous years. Over the period 2006–2009, the rent cost of a one-room apartment amounted to 52–58% of an average wage; thereafter, it stayed for a long time at 48–50%; over the years of the economic crisis, it shrank to 38%.

The onset of the current economic crisis gave rise to fears of a possible surge of housing payments in arrears. According to estimates for the period 2014–2016[1], the financial situation of 20–24% of families made it difficult for them to purchase clothing and footwear and pay for housing and community amenities. According to data for Q1-Q3 2016, 9–10% of families (including 17% of those in the first quintile) experienced financial problems that prevented them from paying their housing and community amenities bills in due time[2].

The reports of companies serving households have confirmed the fact that in 2015, the population's payments in arrears relating to housing and community amenities indeed increased to 6.4% of the total amount of such payments actually charged[3] (a year earlier, 5.7% of all housing bills remained unpaid). Exactly the same share of unpaid housing bills (6.4%) was observed over the period 2011–2012, while in 2010 this index rose as high as 6.9%. Given the movement pattern of real personal income in 2015, it can be concluded that a critical surge of housing payments in arrears was successfully avoided – due, among other things, to the legislative constrains on the growth of housing tariffs and to the active public protests against the local decisions concerning dramatic raises of tariffs (for example, in Novosibirsk Oblast)[4].

The best payment discipline in the sector of housing and community amenities was observed in the Central Federal District[5] (in 2015, only 4% in arrears), while high indices of housing payments arrears were displayed by the Ural Federal District (9%) and especially the North Caucasus Federal District (20%). In the Republic of Ingushetia (73%), the Republic of Dagestan (44%), the Kabardino-Balkar Republic (27%) and the Chechen Republic (23%), a high percentage of charged housing and amenity payments in arrears have remained unpaid. Among the other regions, critically high indices are noted in Nenets Autonomous Okrug (18%), Perm Krai (16%), Murmansk Oblast and Zabaykalsky Krai (15%).

For the purpose of our study of the by-region affordability of home rent cost for the population (*Fig. 2*), we estimated the subsistence index for the able-bodied population as a percentage of average wage in a given region. The latest subsistence data are available for Q4[6] 2016, and so we present the

1 The income, expenditure and consumption of households in 2014, 2015 and 2016 (by the results of a random survey of household budgets). Rosstat. http://www.gks.ru/bgd/regl/b16_102/Main.htm. [In Russian].

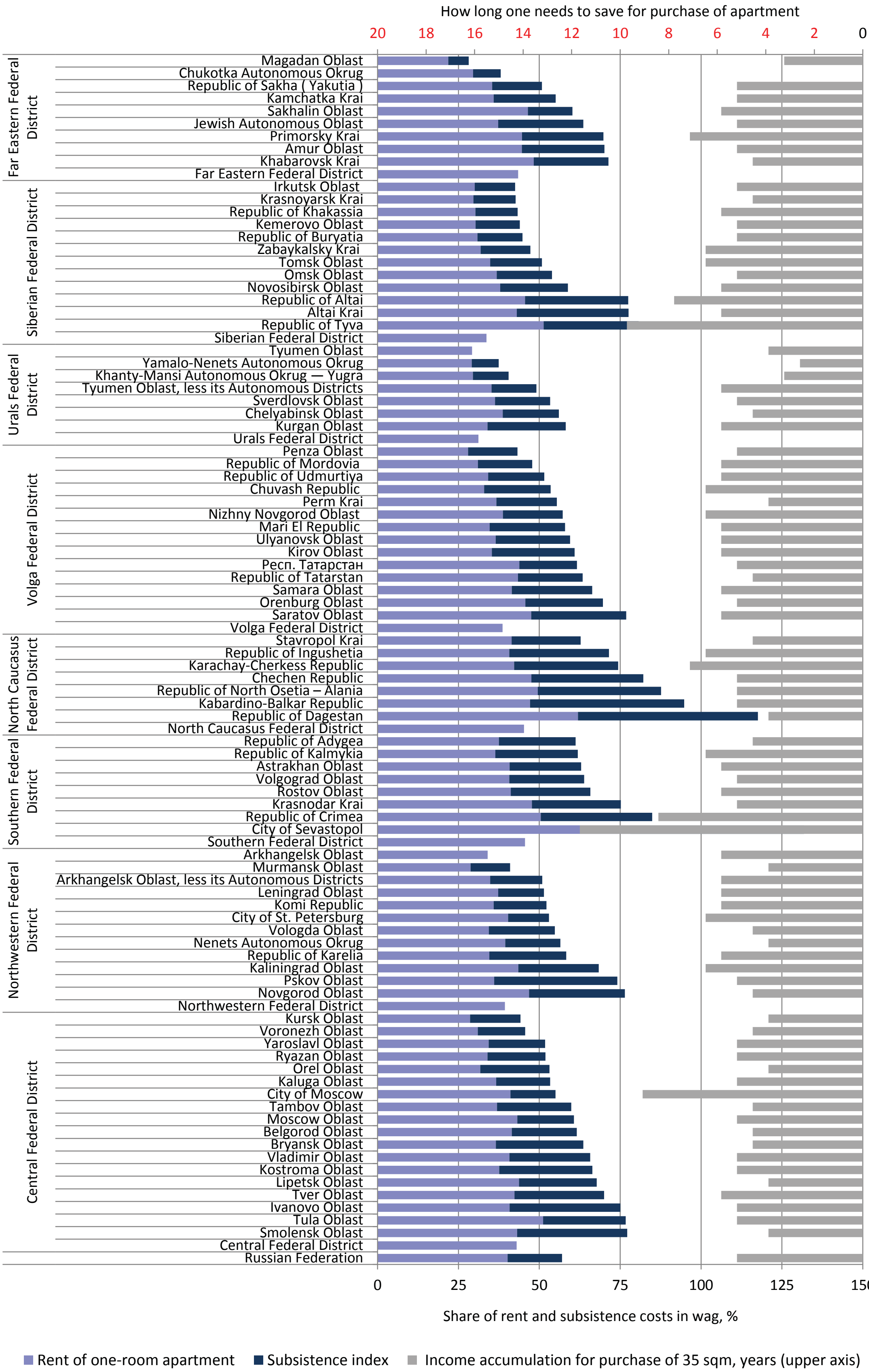
2 This question has been included in the household budget survey questionnaire since 2016.

3 The Housing Sector in Russia, 2016: A Statistical Compendium [in Russian]. Moscow: Rosstat, 2016.

4 The Novosibirsk governor has increased housing and community amenity tariffs by 15%. RBC: http://www.rbc.ru/nsk/freenews/5858a6599a7947039847accc [in Russian]; Gorodetsky: 'The main unresolved problem is the very high level of wear and tear of utility pipelines.' RBC: http://nsk.rbc.ru/nsk/02/05/2017/590846e39a7947b2f7f55224 [Im Russian].

5 The Housing Sector in Russia, 2016: A Statistical Compendium [in Russian]. Moscow: Rosstat, 2016.

6 The Socio-Economic Situation in Russia. January-February 2017. Rosstat. [In Russian].



Source: own calculations based on Rosstat data.

Fig. 2. The ratio of rent cost of a one-room apartment and the subsistence index to the average wage (%) and the period of income accumulation needed for the purchase of a one-room apartment (years)

by-region home rent cost affordability specifically for that period. The right-hand side of *Fig. 2* shows the period of average income accumulation needed for the purchase of a one-room apartment in the secondary housing market. The by-region estimates were derived on the basis of the secondary housing market prices in Q4 2016 and the data on per capita personal income (for November 2016).

While the average rent cost of a one-room apartment across the Russian Federation amounts to 40% of the average wage, in some regions it is as high as 50% of the average wage, or even higher: in Tula Oblast (51%), Novgorod Oblast (47%), Krasnodar Krai, Saratov Oblast and Khabarovsk Krai (48% each), the republics of North Caucasus, and the Republic of Tyva (above 50%).

If we take into consideration both the rent cost and the subsistence index for an able-bodied citizen, the list of regions where these two categories of individual consumption expenditures taken together account for more than 70% of the average wage will be joined, beside the already mentioned RF subjects, by Smolensk Oblast, Ivanovo Oblast, Tver Oblast, Pskov Oblast, Orenburg Oblast, Amur Oblast, the Republic of Altai, Altai Krai, and Primorsky Krai. Obviously, rent is very costly there, and those who rely on an average regional wage, can hardly save money for any other purposes.

Can saving for home purchase become an alternative to paying a high rent in the regions? Yes, it can be – in some cases. Thus, for example, the price of a one-room apartment in the Republic of Dagestan is equivalent to the average citizen's total income over a four-year period (the RF average being 5.2 years), while the sum of rent cost and subsistence index in that region is higher than the average wage. Shorter periods of income accumulation for home purchase are noted in Smolensk Oblast and Nenets Autonomous Okrug (less than 4 years) alongside high rent cost. The other leaders in home affordability (Khanty-Mansi Autonomous Okrug, Yamalo-Nenets Autonomous Okrug, Magadan Oblast, Murmansk Oblast) display both shorter periods of income accumulation for the purchase of a one-room apartment and relatively cheaper rent.

The least affordable housing is in Moscow, where the price of a one-room apartment is equivalent to the total income over a 9-year period, while the rent cost stays at the national average of 40% of the average wage. Long periods of income accumulation for home purchase are noted in Primorsky Krai (7 years), the Karachay-Cherkess Republic (7 years), the Republic of Altai (8 years), and the Republic of Tyva (9.7 years); coupled with the high rent costs there, these indices demonstrate that in these regions both the purchase and rental of a home is not readily available and affordable to the population.

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