

MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

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MAIN TRENDS AND CONCLUSIONS

The predictable outcome of the recent OPEC+ meeting in Vienna – an extension to the current output cut agreement until 2018 year-end – has preserved (for an uncertain period) the well-known risks such as possible increase in output by non-OPEC oil producers and the issue of agreement exit mechanism that has been left aside.

The oil market trend can be viewed as a relatively favourable trend for Russia amid the ongoing political cycle, not only an electoral but also a sanctional cycle. While the trend can hardly be fully responsible for highly volatile official projections for a 2017 budget deficit (initially, they were “a tad higher than 2%” of GDP, then increased to 2.5%, and now they are merely 1.7–1.8%), this still has an anaesthetic effect ahead of expectations of new sanctions against Russia coming early in 2018.

Those are the expectations that Russia’s Finance Ministry relies on, particularly when it comes to giving reasons for the need to reduce intensively the deficit. Its logic is clear enough: today’s deficit can be covered relatively easily through fundraising in the market, but terms of lending may become onerous, while the reserves accumulated in sovereign wealth funds are limited for spending. We will be treated with respect as long as we have reserves, but once we run out of reserves, we would enter an absolute risk zone, said recently the head of Russia’s Accounts Chamber.

Things, indeed, may look bigger in the eyes of risk. According to Russia’s central bank, potential U.S. sanctions prohibiting U.S. investors to buy Russian sovereign (OFZ) bonds would not affect seriously the bond placement terms. Neither are there financing issues facing state-owned Gazprom. The company placed eurobonds in November on the most favourable terms in its history (Gazprom is the only Russian company that ever managed to borrow in the international market at an interest of 2.25%) and, on top of that, obtained a five-year loan from a consortium of Japanese and U.S. banks. Both creditors and buyers of securities appear to be less in fear of worse-case scenario that they are inspired by record-high figures of gas exports and by a low debt burden on the issuer.

Meanwhile, some Russian companies are striving to reduce their debt burden when it comes to a debt denominated in a foreign currency. Our experts’ analysis of corporate loan market reveals that non-financial companies have reduced their foreign-currency debt by 7%, to \$112bn YTD (last year they already reduced their foreign-currency debt to banks to \$120bn from \$133bn or by 10%). The dynamics is somewhat surprising, particularly given the upsurge in foreign-currency loans in the first three quarters of 2017, when companies obtained \$46.1bn in bank loans (an increase of 38.7% from the same period of 2016). However, the reduction of total foreign-currency debt was most likely due to active redemption of a considerable volume of foreign-currency loans that were issued in late 2014/early 2015 to a few big companies so that they could refinance their external liabilities.

Anyway, it is rouble-denominated loans (about 90% of total new loans) that are playing the main part in the Russian corporate loan market which

has recently been showing signs of buoyancy after a three-year downturn. In Q3 2017, banks issued rouble loans worth Rb 8.7 trillion, up by 9.4% from the previous year, with a total of Rb 24.9 trillion YTD (an increase of 12.3% from the previous year). There is a negative factor though – the recovered growth in the ratio of loan loss provisions to total credit outstanding – which is most likely associated with a considerable amount of “bad” loans that were discovered during the resolution of a few Russian big banks. Overall, the quality of corporate credit portfolio has stabilized: as at 1 January 2017, overdue loans accounted for 6.1% of the total volume of outstanding corporate bank loans, similar to the values seen earlier in the year.

According to Gaidar Institute's business sentiment surveys of the Russian corporate sector (particularly the industrial sector), it is not only in 2017 but also in 2015–2016 that Russian industrial enterprises self-assessed their status as much more positive than a common view. For instance, the dynamics for the Industrial Optimism Index estimated by the Gaidar Institute for 1992–2014 was in line with the commonly held view of the Russian industrial sector. The Index shows, however, that enterprises were more optimistic during the past two years than they were supposed to amid crisis. The Russian industrial sector has managed to adapt easily to the recent years' economic environment because of the sluggish nature of the crisis, as evidenced by the Industry Adaptability Index (describing the proportion of “normal” self-assessments).

The dynamics for the Industry Adaptability Index previously was also in line with the commonly held views of the Russian industry, falling to 29–33% by the time of the crisis of 1998, down to 54% during the crisis of 2008–2009 (from 71% in 2007). However, over the recent two years the Index has been high within a range of 71–73%. In 2017, 77% of enterprises self-assessed their status as normal, hitting an all-time high in the entire 24-year Index history. The same is true with all the index components (enterprises' self-assessment of their inventories, production capacity, financial standing, labour supply). For example, the product demand component has recently doubled the 28% slump that happened during the previous crisis (the lowest level on record (8%) was reached in 1996), with 60% of enterprises satisfied with their product demand in 2017. Our experts have noted that the foregoing figures and developments disagree with the commonly held beliefs based on official statistical data.

Serious, and even drastic, variances between official statistical data, as well as huge “blind spots” in official statistics have been discovered by our experts while analyzing the provisional results of the 2016 All-Russia Census of Agriculture. In particular, the 2016 Census discovered huge areas that are registered as arable land, according to the official statistics released by Rosreestr (Russia's Federal Service for State Registration, Cadastre and Cartography), but they have long been out of cultivation and therefore have turned into fallow land. According to the 2016 Census, farmers utilized 43.3 million ha, while Rosreestr reports 28.8 million ha; conversely, 77.3 million ha were registered to household subsidiary farms, according to Rosreestr, whereas the 2016 Census discovered only 14.3 million ha (it appears that some individuals are unaware that they are holding the title to the land of agricultural enterprises that have ceased to operate).

Our experts have concluded that Russia in 2016 had 97.2 million ha (44% of country's total agricultural lands) of total area of unused agricultural lands,

although abandoned agricultural lands are commonly estimated to represent merely 40 million ha. The 2016 census failed to identify the landowners and land users of 50 million ha that are officially registered to agricultural producers, according to Rosreestr. The experts have noted that household kitchen gardens (HKGs) have a much smaller actual acreage of crop land than what Rosstat's data show, with nearly 90% of HKGs having no pigs, goats, sheep, cattle. According to the experts, lawmakers have made a serious mistake by classifying all HKGs as agricultural producers because such out-of-date views have come to be at variance with reality, and the experts propose, in particular, that Rosstat must update its agricultural census methodology.

Our experts have analysed the recent sector-specific wage dynamics using Rosstat's data on wages of corporate employees. Overall, the wages saw a deeper fall (a 9% decline in average wages) than the decline in output (2.8% of GDP) during the economic downturn of 2015–2016. The decline gave way to a slow increase since 2016: if the ongoing trend for real wages continues, it would take another three years for compensation of employees to return to the pre-crisis level.

The deepest decline was seen in state-financed sectors such as public administration, education and healthcare as well as construction, whereas there was a minor decline in the real sector – agriculture, extraction of minerals and manufacturing. The wage cuts were responsible for the increase in the share of workers paid below the subsistence level (the share increased from 9.6% in 2013 to 12.4% in 2015, and then contracted to 9.2% in 2017). However, it's not quite correct to say that this group of persons are "working poor" because, first, this requires that household overall income be considered instead of each household member's income; second, poverty is best identified through expenses rather than income. Updated statistics are not suitable enough for making adequate comparisons that also include the number of low-paid persons.

The experts also have paid attention to the fact that since 2015 Rosstat has started estimating average wages of all employees across the economy, not only corporate ones. Average wages of all employees (including a big share of informal economy employees) have turned out to be 11–13% smaller than corporate employees' wages. The bottom line is, in particular, that 2016 saw a considerable decline in compensation of informal economy employees. ●

1. CORPORATE LENDING IN 2017: GROWTH WITHOUT QUALITY IMPROVEMENTS

M.Khromov

Corporate lending in Russia is exhibiting signs of buoyancy in 2017. New corporate bank loans have reached higher nominal volumes than prior to the crisis. Most importantly, the ratio of lending to economic activity volumes has also increased, albeit not higher than pre-crisis values. The quality of credit portfolios has stabilized; however, no visible improvements have been seen yet.

The Russian corporate bank loan market has been experiencing some buoyancy over the last few months. In Q3 2017, banks issued new corporate loans worth Rb 9.6 trillion, up by 11.1% from the previous year. In January–September 2017, the corporate bank loan market volume totalled Rb 27.6 trillion, adding 13.0% to the value recorded in the same period of 2016. An important point to note is that in 2017 the loan market has coped with the recent three-year downturn in market volume. The volume of loans in the first three quarters of 2017 turned out to be 1.4% above the record-high level of 2014.

The rise in the lending market has been generally triggered by the increase in both rouble and foreign currency loans. For instance, in Q3 2017 banks issued rouble loans worth Rb 8.7 trillion, up by 9.4% from the previous year, with a total of Rb 24.9 trillion YTD (an increase of 12.3% from the previous year). The increase in foreign currency loans was more impressive than in rouble loans. In Q3 2017, banks increased foreign currency corporate loans by 40.6% relative to 2016 (\$16.4bn vs. \$11.7bn). Foreign currency loans have increased over the recent months of 2017 by a total of 38.7% from the same period of 2016 (\$46.1bn vs. \$33.2bn).

However, considering that rouble loans represent some 90% of total new loans, the foreign currency loan dynamics has not had a strong influence on overall growth rates in the loan market. Furthermore, while the 2017 volumes of rouble loans and overall market loans have exceeded pre-crisis levels, the foreign currency segment of the loan market still remains at a lower level than prior to the crisis – the outstanding credit volume in the first three quarters of 2017 was less than 50% from the level seen in the same period of 2014.

The loan market recovery has been seen not only in nominal terms but, most importantly, also in the size of economic activity. In Q3 2017, the volume of corporate bank loans reached 24.8% of companies' turnover, and in January–September 2017 it stood at 25.3% of companies' turnover of the same period. In 2016, lending accounted for merely 23.4% and 23.7% of companies' turnover, respectively. However, the today's ratio of lending to economic activity in the lending market is far behind the ratios seen in previous periods. The ratio reached 28.9% in 2014 (Fig. 1).

The upsurge in new loans has naturally led to a recovery in outstanding corporate bank loans, beginning with a growth of 4.1% YTD, with allowance for the revaluation of foreign currency loans, whereas outstanding loans in 2016 dropped overall by 0.1%. As at 1 November 2017, total outstanding

bank loans to enterprises and organizations reached Rb 29.1 trillion, or 32.8% of GDP.

The dynamics for the foreign-currency component has the same features as for the new loan market. The entire growth has been led by the increase in rouble corporate loans, with outstanding foreign currency loans continuing to decline, down by 7% to \$112bn YTD, which is still in line with the previous years' trend (in 2016, the volume of outstanding corporate bank loans denominated in foreign currency dropped by 10%, from \$133bn to \$120bn).

In 2017, outstanding foreign currency loans have been on the slide despite the increase in new loans, which is most likely due to the redemption of a considerable volume of foreign currency loans that were issued in late 2014/early 2015 to a few big companies so that they could refinance their external liabilities.

The quality of corporate credit portfolio has stabilized in many ways in 2017. As at 1 January 2017, overdue loans accounted for 6.1% of the total volume of outstanding corporate bank loans, similar to the values seen earlier in the year. Moreover, foreign-currency components of overdue loans exhibited mixed dynamics. The share of overdue rouble loans in total outstanding rouble loans dropped to 7.3% from 7.6% YTD, whereas the quality of foreign currency loans deteriorated in 2017. Overdue foreign currency loans increased from 1.7 to 2.0%. This is due to the overall decline in outstanding foreign currency loans, in front of which the proportion of "bad" foreign currency loans becomes bigger.

A negative factor is the recovered growth in the ratio of loan

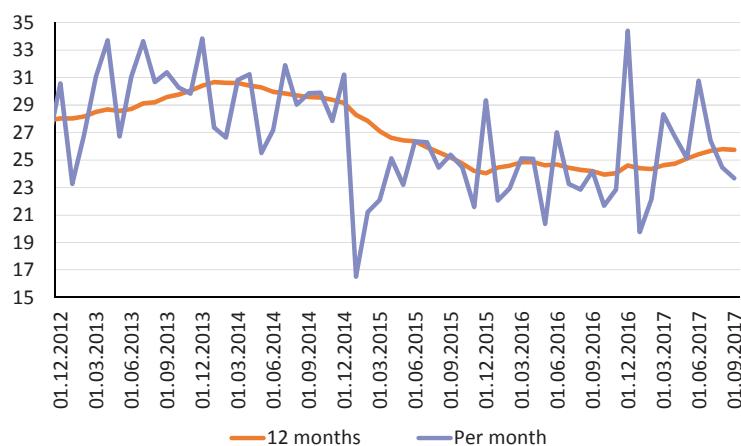


Fig 1. Ratio of corporate bank loans to companies' turnover, %
Sources: Bank of Russia, Federal State Statistics Service, Gaidar Institute's estimates.

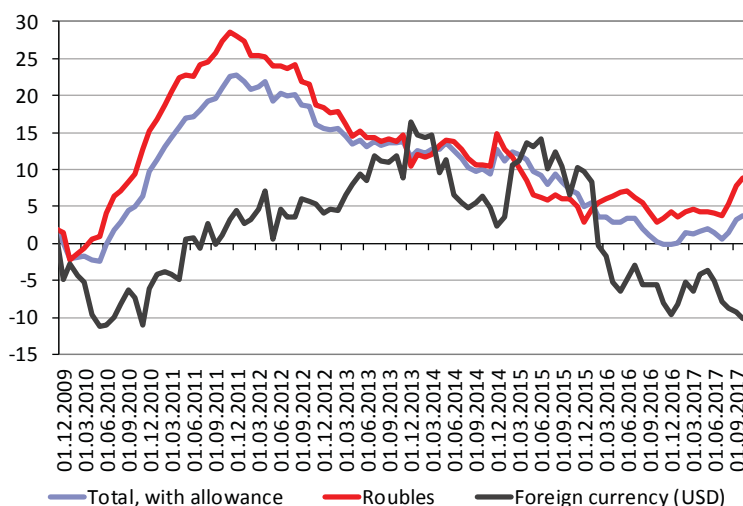


Fig. 2. Dynamics of outstanding corporate bank loans
Sources: Bank of Russia, Gaidar Institute's estimates.

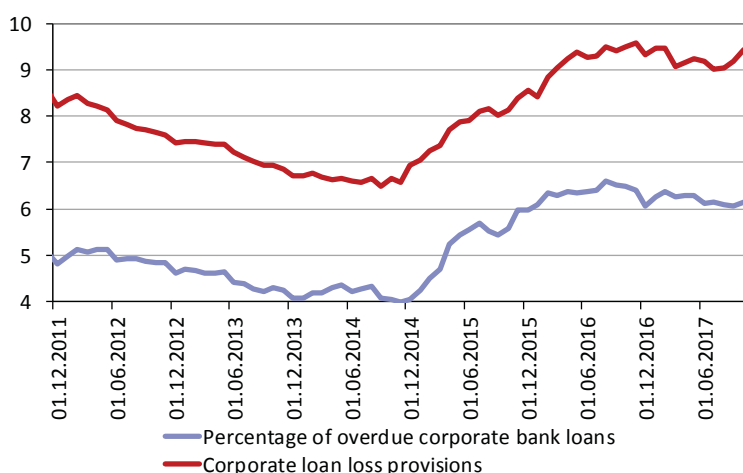


Fig. 3. Values of quality of bank corporate credit portfolio
Sources: Bank of Russia, Gaidar Institute's estimates.

loss provisions to total credit outstanding. The recent months' trend has been likely due to the detection of considerable "bad" loans during the resolution of a few Russian big banks, particularly Otkritie FC and Binbank. This process is yet more proof that there is a variance between the true quality of bank loans and the official data. And that's what can be a major headwind to further growth in bank lending.●

2. RUSSIAN INDUSTRY IN 2015–2017: BUSINESS SURVEYS

S.Tsukhlo

2017 has been marked as a year of slow recovery from the crisis of 2015–2016 in the Russian industry. The years of crisis were distinguished by three characteristics. First, there was no plunge in demand for industrial products and in output. Second, a moderate decline in these indicators was combined with a considerably long period of downturn. Third, enterprises were prepared for the crisis.

With these factors in place, which are unusual if compared with the crisis of 2008–2009, the Russian industrial sector managed to encounter and walk in a relatively smooth manner through the crisis of 2015–2016 and to start recovering in the same manner from the crisis in 2017. This description of the recent years' events in the Russian industry has been backed up by the findings of IEP's (the Gaidar Institute for Economic Policy) monthly business surveys of 1992–2017. We now consider the findings on a yearly rather than monthly basis (the latter is most common) to be able to view the crisis of 2015–2016 and the recovery in 2017 within the context of our long enough history of surveys.

Composite indicators that derive from some of the business survey questions provide the first impression and a general view of the Russian economy. One of traditional indicators is **The IEP Industrial Optimism Index**. Similar surveys of other institutions most commonly rely on similar indicators that are reviewed on a monthly basis, which is more useful for online monitoring than for making a generalized analysis of the industry. Therefore, this indicator and the indicators described in this paper are estimated on a yearly basis for the entire period of IEP's surveys with a view to evaluating the crisis of 2015–2016 and the post-crisis period of 2017 (Fig. 1).

The dynamics for the Industrial Optimism Index clearly demonstrates the Russian industry's salient features in recent years.

The industrial sector exhibited a minor recovery in optimism in 2010–2011 following the crisis of 2008–2009. The Index climbed to positive, albeit not pre-crisis, values in 2010 and then slid again in 2012, reaching modestly positive, and most importantly, stable values in 2012–2016, including in the crisis of 2015–2016. For the accuracy's sake there is a point to note that in 2015 the Index averaged annually 3 p.p. below the pre-crisis value of 2014. In particular, the Index lost 15 points during the crisis of 2008 and another 20 points during the crisis of 2009, making a total loss of 35 points during the crisis of 2008–2009. The dynamics for the Industrial Optimism Index for 1992–2014 was in line

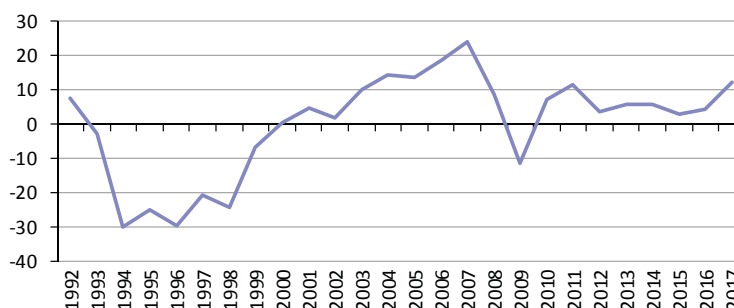


Fig. 1. IEP Industrial Optimism Index, 1992–2017, percentage points

with the commonly held view of the Russian industrial sector. In 2015–2016, however, variations in the indicator started to disagree with the commonly-held views of analysts and government officials that the industrial sector was faced with a crisis. In other words, industrial enterprises did not view the events of 2015 as crisis-induced events.

As to the signs of crisis developments over the past few

years in the Russian industrial sector, they started to emerge, according to industrial enterprises, in 2012, when the Industrial Optimism Index lost 8 points, varying steadily within a range of +3...+6 points throughout the period of 2012–2015. Thus, even such a broad treatment of the crisis facing the Russian industry is an indication of unusual nature of the crisis: a minor fall (posing no threat of crisis whatsoever) of key indicators and a long enough duration of these developments; at least, if one relies on the opinion of industrial enterprises, excluding the data released by Rosstat (Russia's Federal State Statistics Service).

Our most recent data on the Russian industrial sector show a recovery following the period of 2012–2016. The Optimism Index rose to the level of 2011, marking 2011 as the best year for the industry since the crisis of 2008–2009.

The Russian industrial sector has managed to adapt easily to the recent years' economic environment because of the sluggish nature of the crisis. These processes are well depicted by another composite indicator – **The Russian Industry Adaptability ('Normality') Index** – that is based on a list of questions as part of another IEP's business survey (Fig. 2). The index is built using only evaluative questions – enterprises are offered to self-assess their key performance indicators using grades such as “above normal”, “normal”, “below normal”. Therefore, the average proportion of “normal” answers indicates that enterprises self-assess their performance, i.e., adaptability to the ongoing economic environment, as “normal”.

The dynamics for the Industry Adaptability Index in 1994–2014 was also in line with the commonly held views of the Russian industry. The industry was faced with an extreme hardship prior to the Russian default of 1998, with an average annual level of adaptability ranging within 29–33%. After the default, the Russian industry saw things start turning for the better, with “normal” self-assessments reaching 71% by 2007. “Normal” self-assessments dropped to 54% because of the crisis of 2008–2009, but they recovered since 2011 to the pre-crisis level of 71%. The sluggish economic dynamics in 2012–2014 halted the growth in the Adaptability Index, even cutting it back to 69% in 2013. In 2014, the industrial sector was 70% adapted to fit the prevailing economic environment.

However, the 2015–2016 and even the 2017 values of the indicator was not in line with the commonly held beliefs based on official statistical data. During the initial and the second years of crisis, 71% and 73% of enterprises, respectively, said their key indicators (product demand, inventories, labour

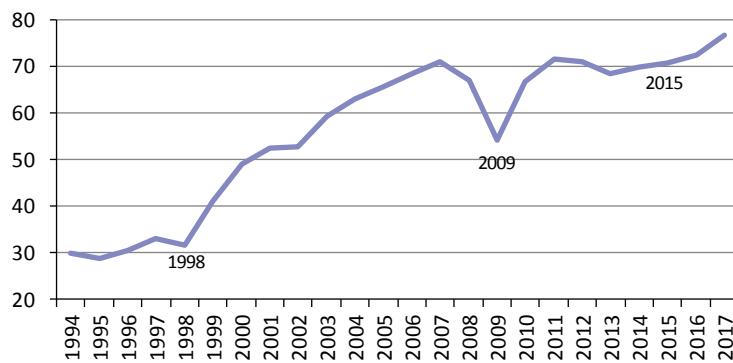


Fig. 2. Russian Industry Adaptability ('Normality') index, 1994–2017, %

supply, production capacity, financial standing) were “normal”. Thus, not only did industrial enterprises see no crisis-induced threat during the crisis of 2015–2016, but they also said their adaptability to the ongoing economic environment was better than to the pre-crisis periods. And 77% of Russian industrial enterprises were adapted to difficult conditions of recovery from the crisis in 2017, with the indicator hitting an all-time high in the entire 24-year period of monitoring.

We now consider business self-assessments of some key indicators.

The dynamics for product demand self-assessments was relatively stable in 2010–2017, when “normal” product demand answers varied within a range of 50-60%, with the industry experiencing neither crisis-induced downturn nor any decline in satisfaction with demand in 2015–2016. In 2012–2015, 50–53% of industrial enterprises said they were satisfied with their product demand. For comparison, during the crisis of 2008–2009 this indicator plummeted to a historical low of 28% from the all-time high of 69%. The lowest level on record was reached in 1996, when only 8% of Russian industrial enterprises said their product demand was “normal”. However, satisfaction with product demand stood near all-time high throughout the four years preceding the default, increasing to a local high of 60% after the crisis, in 2017.

Enterprise inventory self-assessments (finished goods inventory, raw materials and supplies inventory) give a better picture of the Russian industrial sector in 2015–2016.

None of the **enterprise inventory** types exhibited typical crisis-induced dynamics during that period (*Fig. 3*). The balance of finished goods inventory self-assessments (the difference between the proportion of “above normal” and “below normal” answers) during the initial year of the latest crisis turned out to be hit less (with less overstock) than before the crisis (in 2104). Furthermore, the balance turned out to be negative in the first month of the crisis, that is, enterprises were in need of big finished product stockpiles to be able to meet the expected new demand during the coming crisis.

Such an onset is highly exceptional for crisis. Producers are supposed to experience a shock in the first month of crisis, leading to a rapid increase in the overstock of finished goods. In 2015, however, the Russian industrial sector swiftly coped with such a non-standard shock, making another record during the initial year of crisis – “normal” finished goods inventory self-assessments hit an all-time high of 71% (at that point). “Normal” answers increased to 72% during the second year of crisis, according to an inventory monitoring. Hence during that crisis enterprises managed (for the first time since 1992) to control their supply-demand balance and pursued a careful policy of managing their finished products inventory.

In 2017 – during the recovery stage – “normal” finished goods inventory self-assessments saw a small decline as a result of scheduled accumulation of finished goods overstock to be able to

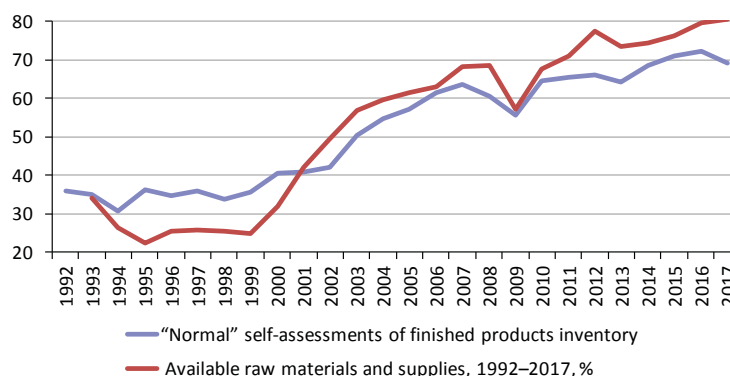


Fig. 3. ‘Normal’ self-assessments of finished products inventory and available raw materials and suppliers, 1992–2017, %

meet the expected increase in demand, with the highest expectations recorded in the second quarter of the year. However, slow recovery from the crisis forced the industrial sector to return back to minimizing their overstock inventory, and therefore “normal” answers climbed back to a high level.

In 2015–2017, the Russian industrial sector has reached the best level of availability of raw materials and supplies in the period of 1993–2017. Du-

during the initial year of crisis, “normal” raw materials availability answers increased by 2 points from the preceding non-crisis year, getting close to the highest value recorded in 2012. During the second year of crisis, this indicator gained another 3 points, hitting an all-time high. During the recovery stage in 2017, the industrial sector has managed to achieve even a better level of availability of raw materials and supplies, with 81% of enterprises saying they have “normal” level of availability of raw materials and supplies, according to average annual self-assessments. Thus the industrial sector during the ongoing crisis has experienced minimum difficulties with raw materials and supplies and managed to reduce their shortage to a historical low. This is what also makes the fading crisis different from previous crises.

Enterprise self-assessments of **production capacity and labour supply** add more details to the non-crisis picture (*Fig. 4*).

According to our surveys, during the crisis of 2015–2016 the Russian industrial sector was able to solve their HR issues through staff recruitment rather than layoffs (as is commonly practiced amid crisis). It was not until the onset of the crisis of 2015–2016 that the former option became available. Enterprises therefore managed to achieve the best possible labour supply in 2017 as the Russian government achieved an unexpectedly low unemployment rate. The HR policy of the Russian industrial sector amid the recent crisis seems to be reasonable enough considering that the industry experienced shortage of qualified employees, primarily blue-collar workers, during years preceding the crisis. Moreover, a new influx of workers from vocational schools cannot be counted on due to a degrading secondary vocational education. In 2017, the Russian industry has managed to cope with the shortage of labour force owing solely to the crisis of 2015–2016.

The Russian industry is in need of more qualified workers than production capacity. Enterprises have had excessive production capacity (with a potential to manufacture competitive products) since 2009. The balance of capacity self-assessments in the industry has been positive, which is unusual amid crisis, over the recent 9-year period of our monitoring. In 2017, “adequate production capacity led by the expected changes in demand” has hit a historical high of 78%. ●

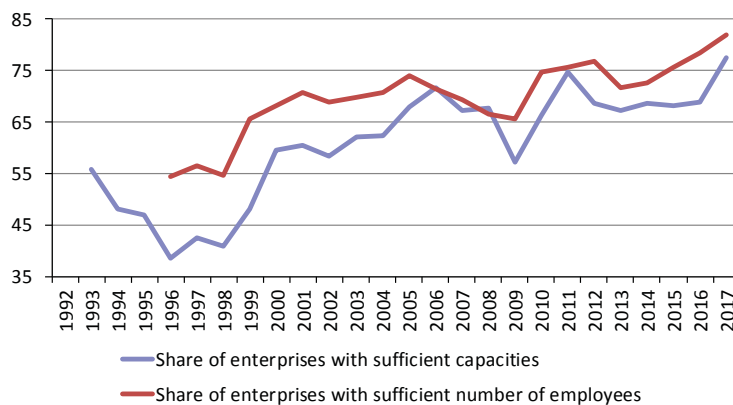


Fig. 4. Share of enterprises with sufficient capacities and sufficient numbers of employees

3. “BLIND SPOTS” AND UNUSED AGRICULTURAL LAND: RESULTS OF THE 2016 ALL-RUSSIA CENSUS OF AGRICULTURE

V.Uzun

Provisional results of the 2016 All-Russia Census of Agriculture¹ suggest that the view of agricultural land needs to be revised completely. They also suggest that regulatory and supervisory authorities should draw serious conclusions from that.

The second All-Russia Census of Agriculture was conducted in 2016, marking almost fifty years since the first one (2006). Prior to that, a census of agriculture was also conducted way back in Tsarist Russia. The 2016 Census provisional results discovered huge “blind spots” – agricultural areas that are neither held under the title nor by lease or their land users are unknown – on the national agricultural map. The 2016 Census discovered huge areas that are registered as arable land, according to the official statistics released by Rosreestr (Russia’s Federal Service for State Registration, Cadastre and Cartography), but they have long been out of cultivation and therefore have turned into fallow land. Farmers, according to the 2016 Census, utilized 43.3 million ha, while Rosreestr reports 28.8 million ha; conversely, 77.3 million ha were registered, according to Rosreestr, to household subsidiary farms, whereas the 2016 Census discovered only 14.3 million ha. In 2016, unused agricultural land totalled 97.2 million ha (44% of Russia’s total agricultural land).

All things considered, lawmakers and government officials should be strongly urged to coordinate their agricultural monitoring and governance activities; the framework of land registries and land use supervisors that are focused on collecting fines should be institutionally supplemented with a framework designed to prepare and transfer land plots to efficient land users and landowners; the census methodology should be updated and improved, with emphasis placed on appropriate surveys of 2–3 million real agricultural producers, instead of spending money on kitchen garden censuses (more than 30 million questionnaires).

“Blind points” on the Russian agricultural map

The 2016 Census was a comprehensive census intended to enumerate all agricultural producers and to show how land resources and other agricultural resources are used. Russia was thought to have 222 million ha of agricultural land at the time of enumeration. However, enumerators discovered only 142.2 million ha that account for 64% of total agricultural land. Furthermore, the land area enumerated in the 2016 Census turned out to be smaller by 23.8 million ha than the land area enumerated in the 2006 census.

According to the methodology of UNFAO (UN Food and Agriculture Organization), agricultural censuses are supposed to enumerate producers of at least 95% of agricultural produce. Rosstat strictly adhered to this recom-

¹ The 2016 All-Russia Census of Agriculture. Volume 1. Provisional results of the 2016 All-Russia Census of Agriculture in the Russian Federation. Moscow Information and Publishing Centre “Statistics of Russia”, 2017. P. 290.

Table 1

AREA OF AGRICULTURAL LAND IN RUSSIA, ACCORDING TO CENSUSES AND ROSREESTR,
THOUSANDS OF HECTARES

	Census data			Rosreestr's data dated 1st January						Not enumerated in census		Percentage of areas not registered and not enumerated in censuses	
	2006	2016	percentage change between 2016 and 2006	Total		Registered to agricultural producers		Not registered to agricultural producers					
				2007	2017	2007	2017	2007	2017	2006	2016	2006	2016
Total acreage, thousands of hectares	450600	349151	77.5			532146	521652			81547	172501		
of which agricultural land	165985	142207	85.7	220633	222040	190588	192901	30045	29139	24603	50694	24.8	36.0
including:													
arable land	102140	94594	92.6	121574	122707	115374	116710	6200	5997	13234	22116	16.0	22.9
meadows	13930	10299	73.9	23992	24021	17392	17117	6601	6904	3461	6818	41.9	57.1
pasture	35201	26519	75.3	68125	68489	52662	53672	15463	14816	17461	27154	48.3	61.3
perennial crops	778	654	84.1	1797	1901	1739	1811	59	90	960	1157	56.7	65.6
fallow land	13936	10141	72.8	5144	4924	3421	3592	1723	1332				

mentation. However, 36% of agricultural land turned out to have not been enumerated. The same is true of similar censuses, albeit with a broader enumeration than in Russia, that were implemented in other countries. In the United States, for example, more than 90% of total agricultural land (1 million acres) tend to be held by (registered to) the enumerated farmers.

Who are those holding the rest of the land in Russia? And why the users of the land were not enumerated in the census? Some of the areas (30 million ha) that were not enumerated in the census were not registered to agricultural producers. In 1990, there were merely 8.3 million ha of such areas¹. The expansion of unregistered areas was due to the two key factors. First and foremost, there is an economic factor: businesses refuse to farm in some areas because of high costs (even with low land taxes in Russia); second, there is an institutional factor: those who wish to acquire such areas from the state have to pay a lot for land registration. When selling or leasing land plots, the state, as the landlord, passes along all registration costs to those who will buy or lease the land. This scheme is difficult to manage, unless corruption is involved. The unregistered areas are thought to exist primarily because it is difficult to register freehold or leasehold title to a land.

Another 50 million ha are registered to agricultural producers, according to Rosreestr, but both census providers and enumerators failed to identify their landowners and land users (Table 1).

It's difficult to explain how that could happen, with all that modern information technologies and continuous space imagery of the entire area that were at hand. Neither is there an easy answer to the question why tax authorities did not help Rosstat identify land owners – these lands are subject to taxation, after all. Were any products produced on the land? Below we try to find answers to these questions.

The 2016 Census also showed that there was a difference in the type of agricultural land between current and real statistics. For example, as at the

1 V.Y. Uzun. Agriculture in Russia: Points of growth and distressed zones./ The economics of agricultural and manufacturing enterprises. 2012. No. 4. P. 27–35.

3. “BLIND SPOTS” AND UNUSED AGRICULTURAL LAND

beginning of 2017, Russia had, according to Rosreestr, 3.6 million ha of fallow land (arable land that have long been out of cultivation) that were registered to agricultural producers, whereas the 2016 Census reported a three times bigger figure (10.1 million ha). Note that the phenomenon was also revealed by the first census, but Rosreestr might have ignored it and therefore made no updates to its data.

According to the 2016 Census, agricultural producers’ perennial crops and pasture turned out to be respectively three and two times smaller than what current statistics indicate. A total of 28.1 million ha of arable land (29.2%), 13.7 million ha of meadows (57.1%) and 41.9 million ha of pasture (61.3%) are not registered to agricultural producers (or undiscovered by enumerators).

Over a decade (between 2006 and 2016) the area of all grain crops, particularly technical crops, increased; potato, vegetable, perennial crop growing areas decreased; the percentage of unsown arable land shrank, the number of cattle per 100 ha of agricultural land increased. The 2016 Census showed that current statistics were definitely overestimated relative to real statistics on potato, vegetable, horticultural areas, as well as to the number of female dairy cattle. Also, Rosstat will have to reduce considerably these figures for 2016 and previous years, like it did after the first census.

Changes in the agricultural structure

Agricultural enterprises. According to Rosreestr’s data, the number of agricultural enterprises (AEs) over a decade (2006–2016) increased nearly 12,000, while the 2016 Census reports the considerable reduction to 36,000 from 59,000. Furthermore, nearly one third of the enumerated enterprises were not involved in farming and will most likely cease to exist in the coming years. The 2016 Census showed that over a decade agricultural organizations lost one third of agricultural land, 21.1% of arable land, nearly a half of meadows and pasture (*Table 2*).

Agricultural enterprises over a decade lost 42.2 million ha of agricultural land, some (15.4 million ha) of which were transferred to farmers, others to household

Table 2

AREA OF AGRICULTURAL LAND IN AES, THOUSANDS OF HECTARES

	Census data			Rosreestr’s data dated 1 st January		Not enumerated in census*	
	2006	2016	percentage change between 2016 and 2006	2007	2017	2006	2016
Number of enterprises (farms) – total, thousands	59,2	36,1	61.0	57,3	69,1	-1,9	33,0
of which enterprises (farms) involved in farming in H1 2016	40,6	27,5	67.7				
Total acreage, thousands of hectares	410264	291588	71.1	447761	415515	37497	123927
of which agricultural land	132292	90107	68.1	131745	116038	-547	25930
including:							
arable land	82224	64861	78.9	84639	75064	2415	10203
Meadows	10176	5068	49.8	10571	9451	394	4383
pasture	30202	15202	50.3	33860	28981	3658	13778
perennial crops	373	285	76.3	371	370	-2	86
fallow land	9316	4692	50.4	2305	2172	-7011	-2520

* Negative values mean that the census discovered more units or land areas than in Rosreestr’s data.

subsidiary farms (3 million ha (according to the census), 11.5 million ha (according to Rosreestr)), with the rest of the land having been abandoned.

Operating AEs are strictly differentiated by size: most of agricultural enterprises were reclassified into the category of small and micro-sized enterprises, that is, into farms, with 445 big enterprises accumulating 69% of AEs land.

Farms and self-employed persons. As shown in *Table 3*, only 56% of units of this category registered with Rosreestr were enumerated in the 2016 Census. The number of enumerated family farms (FFs) and self-employed persons (SEPs) dropped by 110,000 from 2006. Against this background, the dynamics of land used by units of this category is startling. Unlike AEs, farmers over a decade contributed to an increase in both the overall area of used agricultural land and the area of agricultural land of all types, with the same trend observed in the data of the 2016 Census and of Rosreestr.

However, the 2016 Census showed that Rosreestr definitely underreported its data on FFs and SEPs. The census results show that the overall acreage of farmland and arable land were bigger than Rosreestr's figures by 14.5 and 8 million ha, respectively. The farming sector turned out to be more important than what current statistics indicate. The causes of that serious mistake should be analyzed. Many subjects of the Russian Federation impose strict caps on size of farms. However, farmers seem to have figured out how to bypass them. For example, no registration is required for leasehold agreements for a period of less than one year, and therefore Rosreestr does not register such land as farmers' land. If so, here comes another question: whether farmers are farming on the land of AEs or household subsidiary farms?

The 2016 Census shows that the farmer sector is heterogeneous, with most of the farmland owned by 5,800 units (3.3% of the farmers enumerated in the census) with an average acreage of 3,800 ha per unit, way above the area size caps imposed by subjects of the Russian Federation.

Household subsidiary farms. Most questions during the census data analysis are related to household subsidiary farms. According to the Rosstat methodology, Russia has three categories of units, namely AEs, FFs (and SEPs), and household subsidiary farms. These categories are represented by all sta-

Table 3

AREA OF AGRICULTURAL LAND IN FFS AND SEPS, THOUSANDS OF HECTARES

	Census data			Rosreestr's data dated 1 st January		Not enumerated in census*	
	2006	2016	percentage change between 2016 and 2006	2007	2017	2006	2016
Number of enterprises (farms) – total, thousands	285,1	174,8	61.3	304,6	312,3	19,5	137,5
of which enterprises (farms) involved in farming in H1 2016	147,5	115,6	78.4				
Total acreage, thousands of hectares	29371	43312	147.5	22027	28794	-7344	-14518
of which agricultural land	24143	39576	163.9	20869	27379	-3274	-12198
including:							
arable land	16740	26846	160.4	15609	18800	-1131	-8046
meadows	1124	2227	198.1	948	1241	-176	-987
pasture	3744	9008	240.6	4208	7137	464	-1871
perennial crops	28	53	190.6	17	38	-11	-15
fallow land	2508	1442	57.5	89	164	-2419	-1278

*See the note to *Table 2*.

3. "BLIND SPOTS" AND UNUSED AGRICULTURAL LAND

tistics (concerning gross product value, acreage, cattle population, manufacture by product type, crop yield and productivity). However, when calculating areas in household subsidiary farms, Rosstat only accounts household kitchen garden (HKG) plots, including registered arable land plots, employer-provided land plots, areas for individual housing construction, lands of horticultural, gardening, dacha, and livestock-breeding associations. When balancing the books, Rosreestr accounts, besides the above areas, individuals' land plots for grazing and haying (16.9 million ha), land plots held under freehold title (11.5 million ha) or in shared ownership (13.3 million ha) (except land plots leased by AEs and FFs, as well as those recognized as held by the above units and associations). Rosstat does not consider those huge areas as part of household subsidiary farm plots, whereas Rosreestr needs them to be able to balance the books. Those areas are held by agricultural enterprises that have ceased to operate. It appears that Rosreestr recognize those areas as held by individuals without them being aware that they are big landlords. At least none of them disclosed such assets.

According to Rosstat, household subsidiary farms produce 35% of Russia's gross agricultural produce using only 5% (12.5 million ha) of country's agricultural land. However, according to Rosreestr, 49.5 million ha are registered to household subsidiary farms. There are no data available on how 37 million ha are used (*Table 4*).

Despite size limits (2.5 ha or less) on the land held by household kitchen gardens (HKGs), 86,000 HKGs with an average acreage of 68 ha (more like farms than HKGs) were discovered in the sector, not including 40 million ha of individuals' land plots held under freehold title or in shared ownership.

It's widely accepted that household subsidiary farms tend to have very intensive production, which would be true 30 years ago. However, the census findings revealed new phenomena. In 2016, 20% of the enumerated house-

Table 4

AREA OF AGRICULTURAL LAND IN HKGS AND IN NON-PROFIT-MAKING LAND USER ASSOCIATIONS, THOUSANDS OF HECTARES

	Census data			Rosreestr's data dated 1 st January		Not enumerated in census*		percentage of area not enumerated in censuses	
	2006	2016	percentage change between 2016 and 2006	2007	2017	2006	2016	2006	2016
Number of enterprises (farms) – total, thousands	22880	23564	103,0	45902	48725	23022,5	25161	50.2	51.6
of which enterprises (farms) not involved in farming in H1 2016	20294	18788	92.6						
Total acreage, thousands of hectares	10965	14251	130.0	62358	77343	51393	63092	82.4	81.6
of which agricultural land	9550	12523	131.1	37973	49485	28423	36962	74.8	74.7
including:									
arable land	3176	2887	90.9	15127	22846	11951	19959	79.0	87.4
Meadows	2630	3004	114.2	5873	6426	3243	3421	55.2	53.2
pasture	1255	2308	183.9	14595	17554	13340	15246	91.4	86.9
perennial crops	378	317	83.9	1351	1403	974	1086	72.1	77.4
fallow land	2112	4007	189.7	1028	1256	-1084	-2752	-105.5	-219.1

*See the note to *Table 2*.

hold subsidiary farms were not at all involved in farming. According to the census data, household subsidiary farms held 4 million ha of fallow land, almost catching up with agricultural enterprises (4.7 million ha). More than 90% of HKGs had no pigs, sheep and goats, 88% had no cattle. In our view, lawmakers have made a serious mistake by classifying all HKGs as agricultural producers.

The 2016 Census showed that household subsidiary farms had much smaller crop land than what Rosstat's current reports show. For example, according to Rosstat, households in 2016 planted 1.709 million ha of potatoes (the 2016 Census showed only 1.084 million ha), 533,000 ha (376,000) of vegetables and melons, the acreage of perennial crops was 355 (300), the cow population was 3.717 million (3.449 million). Similar variances were detected after the 2006 census.

Area of non-utilized agricultural land

It follows from the above analysis that nearly 50% of agricultural landowners and more than one third of agricultural land were not enumerated in the 2016 Census. At the same time, as shown in *Table 5*, the enumerated units included almost all agricultural enterprises, FFs and household subsidiary farms that were involved in crop and livestock production. The enumerated units held 79.2 million ha of crop land, nearly in line with Rosstat's real-time data. The census data on cattle population, as expressed in conventional terms, were even slightly higher than what current reports show. There are minor deviations from current reports because they have highly overstated values for potato, vegetable growing areas and perennial crops, and for the cow population in household subsidiary farms.

Table 5

CROP AREA AND CATTLE POPULATION, BY UNIT OF ALL CATEGORIES

	Census data, 2016	Rosstat data, 2016	percentage difference in data between Census and Rosstat
Crop area, thousands of hectares	79209	79993	99.0
including: grain and leguminous crops	47429	47110	100.7
technical crops	13575	13599	99.8
potatoes	1429	2053	69.6
vegetables and melons*	716	848	84.4
stock-feeding crops	16061	16378	98.1
Perennial crops, thousands of hectares	470	517	90.9
Conventional livestock population, thousands	42393	40921	103.6
Cattle	19319	18753	103.0
Cows	7984	8264	96.6
Pigs	23269	22028	105.6
Sheep and goats	27217	24844	109.6
Poultry	557121	553011	100.7

A comparative analysis of the census data and Rosstat's current reports shows that units that were not enumerated in the census were not involved in farming nor livestock breeding on their land. In 2016, 142.2 million ha of agricultural land were registered to the enumerated units, 50.7 million ha to those that were not enumerated. The land was not in use. Needless to say,

neither was in use 29.1 million ha of agricultural land that were not registered to agricultural producers. The census data also show that only 124.8 million ha of the enumerated 142.2 million ha were in use, and therefore another 17.4 million ha of land were unused.

Thus, Russia in 2016 had 97.2 million ha (44% of country’s total agricultural land) of total area of unused agricultural land. AEs and household subsidiary farms did not use respectively 31% and over 80% of the land registered to them, whereas farmers, according to Rosreestr, used all the agricultural land that were registered to them plus 33% of agricultural land that were not registered to them. The census results give evidence that the commonly estimated (about 40 million ha) area of abandoned agricultural land is, in fact, underestimated by nearly 2.5 times.

Agricultural governance mechanisms need to be updated

The census results appear to give much food for thought for politicians and government officials of any rank. Consideration should be given to the census data for landmark decisions on agricultural governance and land resource management. It would be appropriate to show all unused agricultural land on publicly available maps to find out why they are not used (for economic reasons such as high costs, for institutional reasons such as bureaucratic constraints to access), and to develop concrete measures to deal with the issue.

Lawmakers and government officials should coordinate their agricultural monitoring and governance activities, ensure that land and forms of production management meet their designated use; the framework of land registries and land use supervisors that are focused on collecting fines should be institutionally supplemented with a framework designed to prepare and transfer land plots to efficient land users and landowners. Governing bodies of the industry should recognize the grass that annually grows on 97 million ha of abandoned agricultural land as an important element of the national wealth and therefore it should be used appropriately.

Tax authorities should publish regular reports on land tax arrears and maps of territories, specifying levels of tax arrears on agricultural land held by agricultural producers, and on losses that have been sustained due to a lack of access to land.

Rosstat should update its census methodology: instead of spending money on kitchen garden censuses, emphasis should be placed on adequate surveys of 2–3 million real agricultural producers selected by the value of produce (e.g., not less than 50,000 roubles) or by available resources that enable them to manufacture such volume of produce. In addition, this is the second time that the census detected “statistical overreporting” on potatoes, vegetables, fruits and soft fruits, milk in household subsidiary farms. It would be reasonable for Rosstat to update its methodology of statistical surveys of these farms to avoid “overreporting” in current accounts on agricultural development, instead of having to edit historical statistical data after a census. ●

4. WAGES: SECTOR-SPECIFIC VARIATIONS

V.Lyashok

If real wages continue to follow the ongoing trend, it would take three years for compensation of employees in the Russian economy to return to what it was prior to crisis. An analysis shows that wages have been hit hardest in state-financed sectors and in construction. In 2010–2014, wages rose considerably in education and healthcare. In 2017, wages in those sectors have turned out to be a tad higher than in 2010.

Wage cuts was the Russian labour market's key response to the economic downturn of 2015–2016. Wages happened to see a deeper fall (a 9% decline in average wages) than the decline in output (2.8% of GDP). As a result, the Russian economy rolled back to the 2011 level of compensation of employees. The decline gave way to a slow increase since 2016, resembling more of a stagnation than an upturn: if this trend continues, it would take another three years for the economy to return to the pre-crisis level.

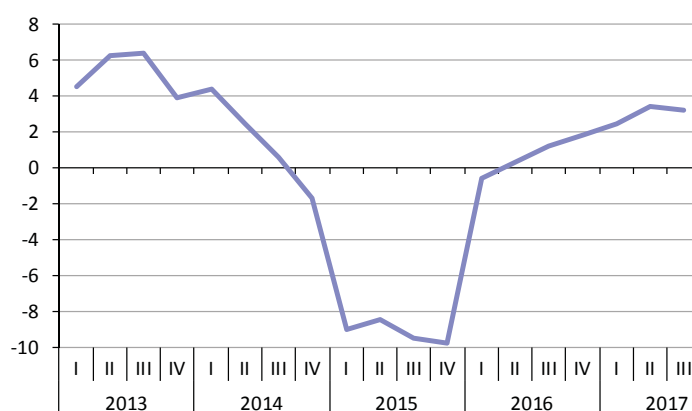


Fig. 1. Real wage growth rates, percent change from the same period of previous year

Table 1

WAGES IN VARIOUS SECTORS

	2016 average wages, roubles	Relative to nationwide level, %	Dynamics for average wages in real terms, %		
			2010–2014	2014–2016	2010–2016
Total economy	36,746	100	118.2	91.6	108.3
Agriculture	21,445	58	126.6	98.1	124.1
Extraction of minerals	69,688	190	112.6	95.8	107.9
Manufacturing	34,748	95	117.9	95.4	112.5
Electricity generation and supply	39,607	108	109.8	92.2	101.2
Construction	32,188	88	105.7	88.9	93.9
Trade	29,555	80	106.0	93.6	99.2
Hotels and restaurants	22,102	60	111.8	90.6	101.4
Transport and communications	41,762	114	110.2	91.4	100.8
Financing services	78,311	213	104.2	92.6	96.5
Real estate activities	44,040	120	111.7	95.0	106.1
Public administration	43,619	119	129.4	82.9	107.2
Education	28,094	76	140.0	88.0	123.3
Healthcare	29,845	81	131.2	89.3	117.2
Other community, social and personal service activities	32,294	88	129.8	93.9	121.8

However, the wage dynamics is largely differentiated from sector to sector (*Table 1*). 2014–2016 saw the deepest decline in public sectors such as public administration, education and healthcare as well as construction, whereas there was a minor decline in the real sector – agriculture, extraction of minerals, and manufacturing.

Within a longer period (since 2010), however, the 2014–2016 wage fall in education and healthcare was not so considerable compared with the preceding four-year wage rise. That was primarily due to the fulfilment of the May (2007) presidential executive orders that boosted real wages in education and healthcare by 40% and 31%, respectively. As a result, wages (in real terms) in those sectors increased in 2016 from 2010 by 23 and 17%, respectively, which was much higher than the economy’s average wage rise (8.3%) over six years.

Accelerated wage rise in agriculture was also seen prior to 2014 and therefore cannot be led only by an imports substitution policy in agriculture. As a result, the overall growth in this indicator in the sector hit the 6-year highest (24%) among all types of economic activity. However, agriculture still remains the lowest pay sector, with the average compensation of employees (in nominal terms) being 40% below the economy’s average.

The trade sector, the biggest service sector, saw a relatively soft decline in wages over the past two years. However, the sector’s average wages in 2016 turned out to be lower than in 2010 as a result of slow growth rates in 2010–2014.

The same, albeit to a greater extent, was also seen in the financing and construction sectors, where wage dynamics was driven by decelerating growth in labour productivity. Labour productivity in the construction and trade sectors increased since 2010 at a slower pace than the economy’s average, starting to decelerate since 2013, that is, prior to the crisis, whereas both labour productivity and wages saw higher growth rates than in other sectors until 2010.

It follows from the distribution of the number of employees by size of gross payroll according to the type of economic activity in 2013, 2015 and 2017 that wage cuts led to an increase in the proportion of persons paid below the subsistence level (SL) of a person of working age. It’s not quite correct to say that this group of persons are “working poor” because, first, this requires that household overall income be considered instead of each household member’s income; second, poverty is best identified through expenses rather than income. Anyway, such persons are indeed exposed to higher risks of poverty.

In 2015, the share of workers paid below the subsistence level increased across the economy to 12.4% compared with 9.6% in 2013, but it returned by 2017 to a pre-crisis level of 9.2% (see *Table 2*). Similar dynamics was seen for workers whose compensation equals to two or three SLs.

Unfortunately, the upgrade of OKVED statistics (the All-Russia Classifier of Types of Economic Activity) to OKVED-2 is not suitable enough to describe correctly the dynamics of this indicator in the period between 2015 and 2017. However, the percentage of low-paid workers is shown to remain steadily high in many industries.

In 2017, as before, agriculture, hotel and restaurant sector, real estate activities, administrative activities, education, healthcare and other services have the biggest share of low-income workers. One-fifth of all employees in

Table 2

EMPLOYEES PAID BELOW THE SUBSISTENCE LEVEL, AND LESS THAN TWO AND THREE SUBSISTENCE LEVELS (SLS), %

OKVED	2013			2015			2017		
	1 SL	2 SLS	3 SLS	1 SL	2 SLS	3 SLS	1 SL	2 SLS	3 SLS
Total	9.6	34.4	56.0	12.4	41.7	64.6	9.2	36.5	59.5
Agriculture	22.6	61.8	83.8	25.3	67.6	88.0	15.5	56.4	81.1
Extraction of minerals	1.2	8.7	22.9	1.5	12.3	30.5	0.9	8.5	23.5
Manufacturing	4.0	25.7	52.0	5.9	33.2	61.9	3.3	25.1	52.8
Electricity generation and supply	3.9	27.1	53.3	5.7	36.4	63.3	3.0	25.0	51.8
Construction	4.5	21.7	41.4	7.8	31.0	54.8	4.9	25.4	46.9
Trade	9.2	37.1	60.0	12.3	44.3	68.8	7.6	35.9	61.6
Transport and communications	5.4	23.1	44.2	8.3	31.4	55.4	7.6	28.8	51.0
Hotels and restaurants	9.7	43.7	67.8	15.7	50.9	73.4	2.7	20.7	43.4
Financing services	2.2	11.6	29.0	2.5	16.5	40.3	11.4	48.0	71.3
Research & development	3.0	15.4	32.9	4.1	19.8	40.6	1.5	12.0	31.7
Real estate activities							11.9	41.7	67.2
Information and communications							3.1	15.2	32.8
Hotels and restaurants							12.9	53.3	73.4
Administrative activities and related complementary services							4.9	27.2	48.6
Public administration and defence; social security							20.4	55.2	77.1
Education	19.5	50.4	71.9	24.4	57.2	78.6	11.3	51.0	73.1
Healthcare	14.3	50.8	72.3	16.3	56.6	76.7	21.0	50.3	68.8
Other service activities	20.2	53.7	73.0	20.8	57.3	76.8			

education sector are paid below the subsistence level, more than a half of workers are paid less than two SLs. Similar dynamics is seen in healthcare: one-tenth of workers are paid below the subsistence level, while more than a half workers are paid below two SLs.

Agricultural industry is the only industry where the group of workers paid below the subsistence level have shrunk considerably during a period of 2013–2017, which is partly because fishing industry is now included in this type of economic activity. Fishing, with wages higher on average, used to be classified as a stand-alone branch. However, the number of employees in fishing industry is small and therefore could not be responsible for such a considerable decline in the group of low-income workers in agriculture.

The above analysis relies on Rosstat's data on wages of corporate employees. According to statistics, however, informal economy employees account for 20% to one third of all the employees in Russia. Rosstat counts (since 2015) not only corporate employees but also private (individual) entrepreneurs and individuals to evaluate the economy's average wages for all employees. This is, however, just a part of the informal economy employees, not including private entrepreneurs whose income is not treated as employment income.

The introduction of average wage indicator for all employees had a certain effect. Informal economy employees are paid less than their formal economy counterparts and therefore average wages, as measured using this method, turn out to be lower. The indicator is used for evaluating the fulfilment of the May presidential executive orders on rising wages of persons employed in education and healthcare.

Average wages of all employees are expectedly lower (by 11–13%) than that of corporate employees (*Table 3*). In 2015–2016, wage dynamics for the former was unexpectedly soft negative, whereas it was positive for the latter. This means that 2016 saw a considerable decline in compensation of informal economy employees: persons employed by private entrepreneurs and individuals. At the same time, compensation of employees of large and medium-sized enterprises during the same period increased even at a faster pace than the average for all employees.

Table 3

WAGE DYNAMICS FOR VARIOUS EMPLOYEE GROUPS

	Wages, roubles		Wage dynamics (percent change between 2016 and 2015)	
	2015	2016	nominal wages	real wages
All employees	30694	32633	106.3	99.3
Corporate employees	34030	36709	107.9	100.8
Employees of large and medium-sized enterprises	38405	41608	108.3	101.2

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