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**RUSSIAN ECONOMY IN 2016  
TRENDS AND OUTLOOKS  
(ISSUE 38)**

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The review provides a detailed analysis of main trends in Russian economy in 2016. The paper contains 6 big sections that highlight single aspects of Russia's economic development: the socio-political context; the monetary and budget spheres; financial markets; the real sector; social sphere; institutional challenges. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts.

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## 4.1. The macrostructure of production in 2016<sup>1</sup>

### 4.1.1. The behavior of the Russian economy in 2016: internal and external demand

For the Russian economy, the year 2016 was a period of its gradual adaptation to the new conditions determined by low prices for hydrocarbons and mineral resources coupled with the continuing anti-Russian sanctions and Russian counter-sanctions. The annual and quarter-by-quarter behavior of the economy indicated a gradual relaxation of the current crisis with regard to practically all major macro-parameters, brought about by a notable drop in the rate of inflation, changes in the structure of production, the fall in costs resulting from the ruble's depreciation, progress of the import substitution processes, and a relative stability in the labor market.

Table 1

### Main macroeconomic indices for 2013–2016, as %, relative to previous period

1	2013	2014	2015	2016	Quarter			
					I	II	III	IV
	2	3	4	5	6	7	8	9
GDP	101.3	100.7	97.8	99.8	98.8	99.4	99.6	99.3
<b>External factors</b>								
Foreign trade turnover (calculated by the balance of payments methodology)	100.0	93.2	66.4	88.6	72.9	81.6	96.2	104.5
exports	98.9	95.2	68.7	82.5	66.8	74.2	90.3	101.9
imports	101.6	90.2	62.7	99.2	85.3	95.8	105.5	108.5
balance	94.2	104.6	78.6	60.8	48.8	50.6	64.0	91.1
Oil prices, USD/barrel	100.41	94.21	50.12	44.05	31.12	39.14	43.14	50.08
Official RUB/USD exchange rate, as of period's end	33.73	56.26	72.88	60.66	67.61	64.26	63.16	60.66
<b>Internal factors</b>								
Investment in fixed assets	100.8	98.5	89.9	99.1	95.2	96.1	100.5	98.7
Consumer demand	104.4	102.0	90.2	95.0	95.7	94.8	96.9	98.7
Turnover of retail trade	103.9	102.7	90.0	94.8	94.2	94.1	95.5	95.2
Paid services rendered to population	102.3	101.3	98.0	99.7	99.8	99.5	100.0	100.3
Output of goods and services, by basic type of economic activity	100.1	100.5	95.9	100.4	99.6	100.4	100.4	100.8
Industry	100.4	101.7	96.6	101.1	99.4	101.0	99.9	101.9
Agriculture	105.8	103.5	102.6	104.8	103.6	103.3	105.6	105.0

Cont'd

1	2	3	4	5	6	7	8	9
Building construction	101.1	97.7	95.2	95.7	94.5	91.7	96.4	98.0
Transport	100.6	99.9	100.2	101.8	101.5	101.1	102.8	101.8
<b>Social parameters</b>								
Real disposable income	104.0	99.3	96.8	94.1	95.8	93.7	93.5	94.0
Real charged wage	104.8	101.2	91.0	100.6	99.4	100.3	101.2	101.5
Real size of allotted pension	102.8	100.9	96.2	96.6	97.2	95.6	96.2	97.1
<b>Labor market</b>								
Number of employed	99.8	100.2	99.6	100.1	99.8	100.0	100.2	100.4
Unemployment rate	5.5	5.2	5.6	5.5	5.9	5.7	5.3	5.4
<i>For reference:</i>								
Consumer Price Index (relative to December of previous year)	106.5	111.4	112.9	105.4	102.1	103.3	104.1	105.1
Key rate (as of period's end)	5.5	17.0	11.0	10.0				

<sup>1</sup> Author of chapter: O. Izryadnova – Gaidar Institute, RANEP.

## RUSSIAN ECONOMY IN 2016

trends and outlooks

Labor productivity	101.8	100.9	96.8	99.7	99.0	99.4	99.4	98.9
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Source: Rosstat.

The principal factors behind the negligible (by 0.2%) slide in GDP in 2016 vs. by 2.7% of GDP a year earlier were the reduction in the rate of decrease of internal demand and the retention of net exports (calculated by the SNA methodology) in positive territory.

The distinctive features of the macroeconomic situation in 2016 were determined by the differently directed dynamics of external and internal demand. The extensive use of major factors of production under changing external conditions increased disproportions in the fields of production, consumption, and investment activity. On the one hand, changes in the global market situation had a negative impact on the level of demand for Russian exports, while on the other, the restrictions related to the anti-Russian sanctions resulted in a considerable drop in imports and a number of structural shifts in their structure. The shrinkage in internal demand, which was not compensated for by the behavior of exports, remained the principal factor behind the decline in the rate of development of the Russian economy. However, judging by the quarter-by-quarter behavior of internal demand, it can be said with confidence that the rate of shrinkage in internal demand was gradually decreasing over the course of 2016, thus promising to become the factor most likely to shape Russia's economic situation in 2017.

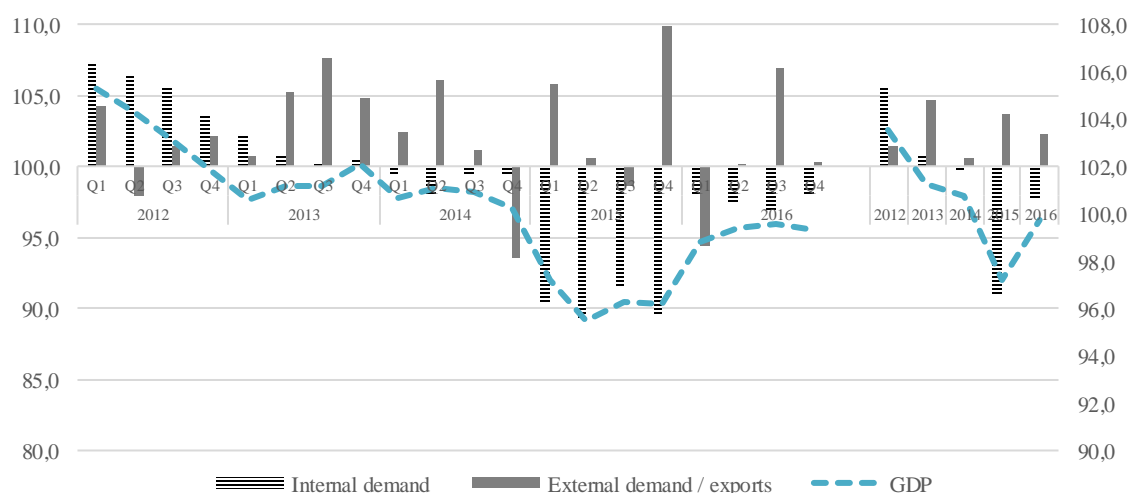
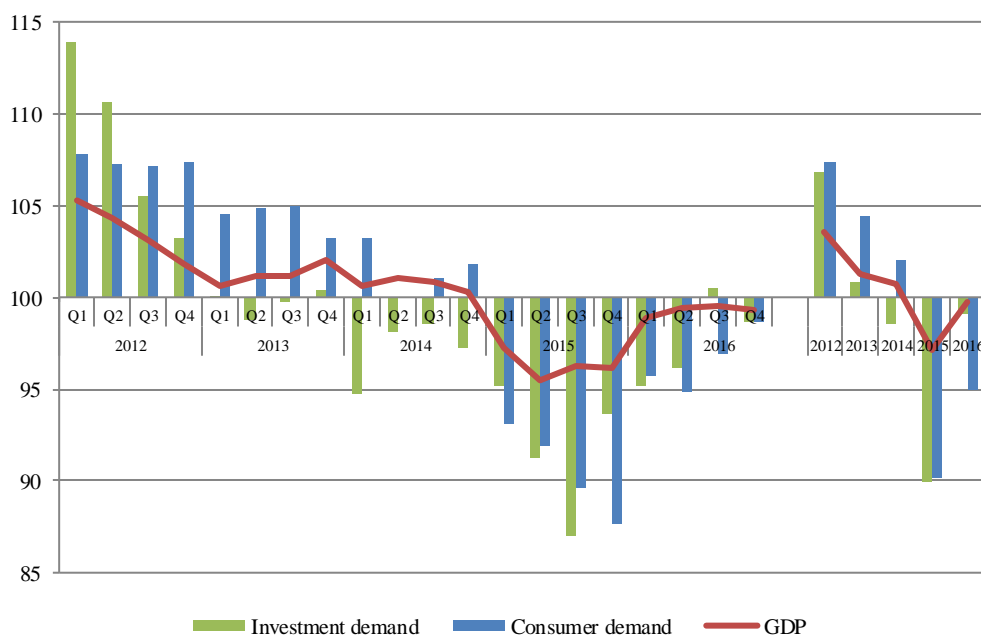


Fig. 1. Behavior of GDP, by component of internal and external demand, in 2012–2016, as % of the corresponding period of the previous year

Source: based on data released by Rosstat.

A comparative analysis of the changes in internal demand indicates that the distinctive feature of 2015 and 2016 was the simultaneous contraction of the investment and consumer markets. While in the period 2012–2014 the dynamic growth in actual household final consumption had compensated for the shrinkage of the capital market, the shrinkage of consumer demand resulting from the drop in personal income was much more significant than the shrinkage of the investment market. In 2016, household final consumption and investment in fixed assets amounted to 85.87% and 99.1% relative to their 2014 levels respectively. Investment demand was at its lowest point in Q1–Q3 2015, while Q3 2016 saw a 0.5% growth in investment in fixed assets relative to the same period of 2015. However, in Q4 2016, there was a resumption of the slide in investment, with investment returning to its average values of

H1 2016. The consumer market had been very slowly recovering from the consequences of the acute crisis of 2015. In 2016, personal real disposable income dropped by 5.9% on the previous year, versus by 3.2% in 2015 relative to 2014. The 2016 decline in personal real disposable income was its largest drop in 15 years.



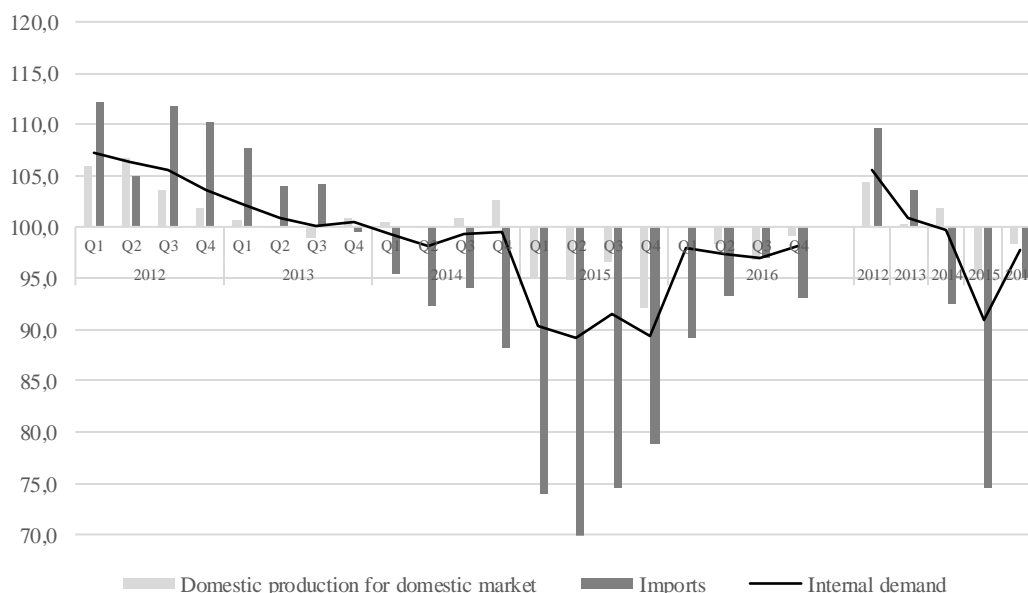
*Fig. 2.* The dynamics of investment and consumer demand, as % of the corresponding period of the previous year

*Source:* based on data released by Rosstat.

The distinctive features of the formation of the domestic market's resources in 2014–2016 were determined, on the one hand, by changes in the dynamics of production of goods and services for domestic consumption and for export markets, and by the pace and structure of imports, on the other. In 2012 and 2013, one of the major factors behind the sustenance of the domestic market's positive behavior was a broad trend towards accelerating the pace of growth in imports with respect to the dynamics of GDP. The pace of production of goods and services for the domestic market began to decline in Q3 2013. As a result, in 2014 and 2015, that trend was reversed due to the impacts of both internal and external factors, and replaced by a simultaneous drop in imports and domestic output. In 2015, in a situation characterized by economic uncertainty, a significant rise in inflation and very limited opportunities to remedy the loss of many important external sources of finance, Russia's domestic market notably shrank. The volume of imports (value in comparable prices) amounted to 68.8% of their volume in 2013, notwithstanding the fact that the ruble had been devalued 2.2-fold. The devaluation of the ruble had mixed effects on the Russian economy. On the one hand, it reduced the impacts of external factors on individual sectors of the Russian economy and facilitated imports substitution, while on the other, it led to a rise in production costs due to an increase in the price of intermediate and investment goods imports.

The dynamics of domestic production was determined by the price competitiveness of Russian goods and services against their imported analogues, and by the widening gap in production

efficiency between the tradable and non-tradable sectors. As a result, in 2015, domestic production of goods and services for the Russian domestic market dropped by 4.6% on the previous year, thus determining the prospects for the Russian economy in 2016.



*Fig. 3. The dynamics of internal demand, by component, in 2012–2016, as % of the corresponding period of the previous year*

Source: based on data released by Rosstat.

In 2016, the dynamics of imports was heavily impacted by the gradual strengthening of the ruble, by the positive dynamics of the balanced financial result of enterprises' activity and by the pressure, exacted by deferred demand, toward increase in investment and intermediate goods imports. In H1 2016, the long-going decline in the difference in the depth of the downward slide between imports and exports gave way, in August 2016, to the recovery in import demand.

In 2016, the pace and structure of imports were significantly affected by the pressure of postponed demand. In 2014 and 2015, the drop in investment in fixed assets led to a simultaneous contraction of demand for both domestically produced and imported capital goods and to strengthening negative trends on the domestic market. A number of additional difficulties emerged due to the anti-Russian sanctions and the restrictions on imports of some types of technological equipment necessary for implementing the investment plans of mineral extracting and processing enterprises, as well as infrastructure projects. In 2016, consumer and intermediate imports declined, while imports of investment goods increased, which gave the internal investment market a boost and provided an additional impetus to overcoming the recession of domestic production.

The sharp drop in imports in 2015 was followed by a number of structural changes in the domestic market: as early as Q2 2016, the share of domestically produced goods in retail trade commodity resources increased to 64%, and to 78% in the commodity resources of retail trade in food products. This trend was sustained by the resumption of the positive dynamics of

production in the consumer sector of the economy. The rate of decline in production of goods and services for the domestic market dipped to a low 1.7% from 4.6% a year earlier.

*Table 2*

**Structure of imports, by function type (calculated by the balance of payments methodology), %**

	Goods		
	consumer	investment	intermediate
2012	38.1	24.9	37.0
2013	37.6	24.3	38.0
2014	36.1	24.5	39.4
2015	36.4	23.2	40.4
Q1	37.7	21.6	40.7
Q2	36.4	21.7	41.9
Q3	35.2	23.6	41.2
Q4	36.3	25.6	38.1
2016	38.7	26.7	34.6
Q1	36.9	19.2	43.9
Q2	35.7	23.7	40.6
Q3	36.9	30.9	32.2
Q4	38.7	28.0	33.3

Source: Rosstat.

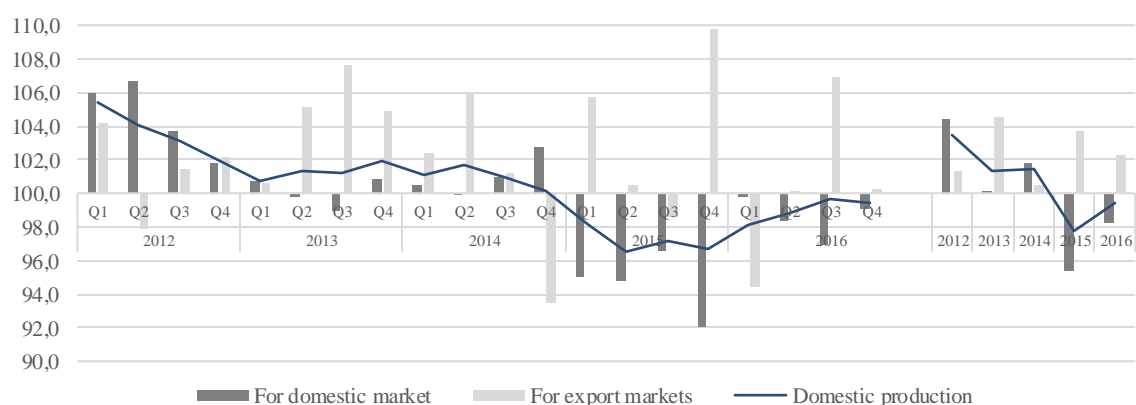
*Table 3*

**Structure of retail trade commodity resources in actual prices, %**

	Retail trade commodity resources	Including commodities		Share of food imports in commodity resources of retail trade in food products
		produced domestically	imported	
2012	100	56	44	34
2013	100	56	44	36
2014	100	58	42	34
2015	100	62	38	28
2016	100	62	38	23
Q1	100	62	38	24
Q2	100	64	36	22
Q3	100	61	39	22
Q4	100	60	40	22

Source: Rosstat.

On the whole in 2016, the dynamics and structure of domestic production of goods and services was determined by a shift towards increasing the output of goods and services for the external market.



*Fig. 4. The dynamics of domestic production of goods and services, by component, in 2012–2016, as % of the corresponding quarter of the previous year*

*Source:* based on data released by Rosstat.

#### 4.1.2. The expenditure components of GDP in 2012–2016: consumer and investment demand

The structure of expenditure-based GDP is determined by the ratio between final consumption and gross capital formation. The year 2016 saw a decline in the share and pace of final consumption, which was caused in the main by a notable drop in household final consumption. The dynamics of the expenditure components of GDP are indicative of an increase in the share of gross capital formation due to the growth of circulating tangible assets resources and the reduction in the share of net exports.

*Table 4*

#### **The structure of expenditure-based GDP, in actual prices, in 2012–2016, %**

	2012	2013	2014	2015	2016
Gross domestic product	100.0	100.0	100.0	100.0	100.0
including:	0.0	0.0	0.0	0.0	0.0
final consumption expenditure	70.4	73.7	71.4	69.8	69.4
household	51.3	53.6	53.1	52.0	51.0
state government	18.7	19.7	17.9	17.5	18.0
non-profit organizations rendering services to households	0.4	0.4	0.4	0.4	0.4
Gross capital formation	22.9	21.1	22.1	22.4	23.8
gross accumulation of fixed assets	20.2	20.2	21.1	20.7	21.1
changes in circulating tangible assets resources	2.7	0.9	1.0	1.6	2.7
Net exports	6.8	5.6	6.5	8.1	5.0
Statistical deviation	-0.1	-0.4	0.0	-0.2	1.8

*Source:* Rosstat.

One of the distinctive features of the Russian economy in 2015 and 2016 was a more pronounced drop in household final consumption than that demonstrated by Russia's GDP and investment in fixed assets. While in the period 2010–2014 the main factor sustaining the positive trend in the development of the Russian economy was growth in per-capita consumption, in 2015 and 2016 the drop in the real personal income resulted in an almost 15% shrinkage in household final consumption relative to 2014.

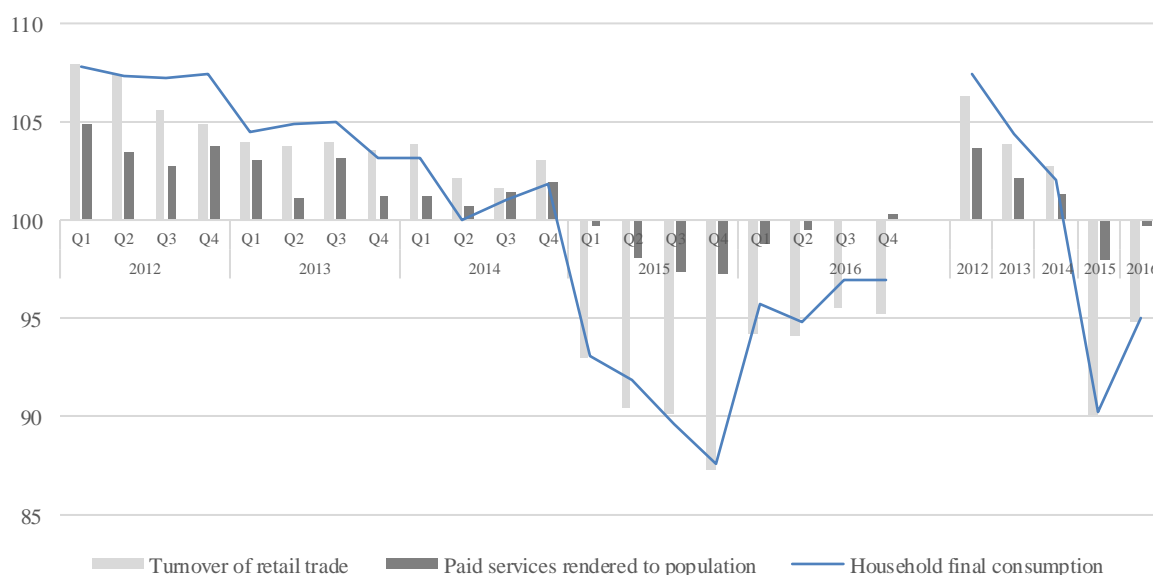
Both household final consumption and the retail market were at their lowest points in Q4 2015. As the rate of inflation decreased from 12.9% to 5.4% over the course of 2016, the rate



of decline in consumer demand gradually diminished. In 2016, household final consumption contracted by 5.0% on 2015, while the turnover of retail trade and the market of paid services rendered to the population declined by 5.2% and 0.3% respectively relative to the previous year.

An analysis of the dynamics of consumer prices and consumer demand indicates that the population responded to high inflation and changes in the magnitude and structure of prices by drastically curbing the consumer demand for non-food products and paid services, and by gradually reducing the consumer demand for food products.

As the population became to be better adapted to the new market situation, and the pressure of postponed consumer demand became stronger, the quarterly indices of 2016 gradually began to demonstrate less prominent downward trends in the turnover of retail trade. However, although in 2016 the consumer price index and the food price index stood at their 25-year lows of 105.4% and 104.3% respectively, the accumulated growth potential of consumer prices and the drop in the real income of the population became mighty factors restraining the dynamics of the consumer market. As a result, over the period 2014–2016, the turnover of the food market declined by 13.8%, and that of the non-food market by 15.6%.

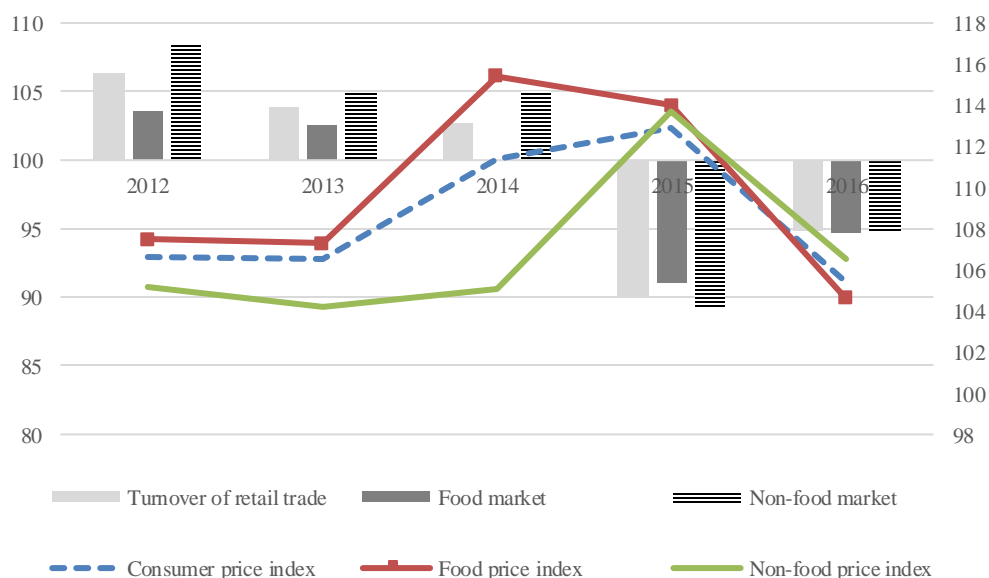


*Fig. 5. The dynamics of household final consumption in 2012–2016, as % of the corresponding period of the previous year*

*Source:* Rosstat.

The change in the level and structure of prices made a considerable impact on the dynamics and composition of household consumption expenditure. As the growth in nominal income of the population was weak, purchases of food and articles of prime necessity accounted for the major part of household consumption expenditure.

The crisis had a number of consequences, including the narrowing range of available goods, the decline in delivery orders for many expensive commodities, and the withdrawal from the market of quite a few suppliers and manufacturers. The drop in demand affected not only the relatively hi-tech consumer market segments (computers; consumer electronic products; communications equipment), but also the food market segments oriented to the high-income strata of the population.



*Fig. 6.* The dynamics of the turnover of retail trade and consumer prices in 2012–2016, as % of the previous year

Source: Rosstat.

While nominal and real wages continued on a weak upward trend, the shares of earnings, income from property and income from entrepreneurial activity in the personal income structure visibly declined; at the same time, the share of social benefits increased. In 2016, the share of labor remuneration in the money income of the population stood at its 5-year low of 64.8%, while the share of social benefits grew to 19.1%, and the shares of income from property and income from entrepreneurial activity remained at their previous level.

*Table 5*

**Structure of personal money income in 2011–2016, %**

	2011	2012	2013	2014	2015	2016
Total money income	100	100	100	100	100	100
Earnings, including hidden payments	65.6	66.0	65.3	65.8	65.6	64.8
Social benefits	18.3	18.3	18.6	18.0	18.3	19.1
Income from entrepreneurial activity	8.9	8.6	8.6	8.4	7.9	7.8
Income from property	5.2	5.1	5.5	5.8	6.2	6.3
Other types of income	2.0	2.0	2.0	2.0	2.0	2.0

Source: Rosstat.

The drop in the income of the population and the persistence of pronounced social differentiation and inequality in income distribution resulted in some increase in poverty rates and made a negative impact on the character of consumer activity. In 2016, the growth rate of personal income in nominal terms was on the decline, and there were further changes in the structure of personal money income spending: thus, the share of current consumption expenditure in the total volume of personal money income increased, while the share of savings declined to 11.3% (by 3.0 pp).



*Fig. 7. Changes in the structure of personal money income spending, as % of the previous year*

*Source:* based on data released by Rosstat.

The dynamic growth of financial assets in 2015 resulted in a shrinkage of the share of property acquisition due to the high interest rates on housing loans and housing mortgage loans, as well as a plunge of current *consumption* expenditure due to the shift of demand towards the cheaper goods segment. However, in 2016, while savings displayed an overall downward trend, there were some structural shifts resulting from an increased share of property acquisition expenditure. This trend was sustained by the lowering interest rates on loans, slower pace of inflation, and broader supply in the housing market. Meanwhile, its indices stayed significantly below their pre-crisis level of 2012, both in terms of volume and the actual share of property acquisition expenditure.

Low investment activity of the population and businesses alike represented one of the negative features of the economic situation in 2014–2016.

In 2016, the share of gross savings in GDP amounted to 30.6% vs. 31.2% in 2011. The share of gross savings in 2016 increased to 21.1%, while their structure altered due to the increased share of accumulated reserves. A distinctive feature of Russia's investment model is the substantial share of savings, where a significant portion is not transformed into investment in fixed assets. In 2016, the index of investment in fixed assets as a percentage of GDP shrank to 17.0%, or by nearly 2 pp relative to 2013.

*Table 6*

**The main indicators of the investment potential of the Russian economy  
in the period 2011–2016, % of GDP**

	2011	2012	2013	2014	2015	2016
Gross savings	31.2	29.6	26.3	28.6	30.2	30.6
Gross accumulation of fixed assets	20.0	20.2	20.2	21.1	20.7	21.1
Deposits made by individuals, as of end of year	19.9	21.3	23.9	23.4	27.9	27.1
Size of Reserve Fund, as of end of year	1.4	2.8	4.0	6.1	4.4	1.1
Size of National Wealth Fund, as of end of year	4.7	4.0	4.1	5.4	6.3	5.0
Investment in fixed assets	18.5	18.8	18.9	17.6	17.5	17.0

**Note.** The calculations based on data from 2014 onwards were done by the SNA-2008 methodology, and include the results of R&D and weapon systems investments; therefore these are incomparable with data for the previous years.

*Source:* Rosstat.

In 2016, the dynamics and structure of Russia's expenditure-based GDP were negatively impacted by a 10.5% drop in investment in fixed assets relative to 2013, the year which saw the emergence of a trend towards stabilization of investment activity. In Q3 2014, the investment slump began to deepen under the impact of the growing cost of credit resources, the restrictions on Russian companies' access to international capital and debt markets, and high geopolitical risks. In 2015, investment in fixed assets shrank by 8.4% relative to 2014. However, in 2016, the rate of decline in construction investment notably slackened, which had a positive effect on Russia's domestic market. In 2016, investment in fixed assets declined by 0.9% on the previous year, while the volume of construction works shrank by 4.3% relative to 2015.

An analysis of Russia's capital account shows that the Russian economy has been in a net creditor position for quite a long time. The drastic change, in 2014, in the global politico-economic situation resulted in the intensification of capital outflow from Russia, which involved both the banking and non-financial sectors. In 2014, capital outflow from Russia hit its 20-year high of USD 153.0bn. In 2015 and 2016, net capital outflow from Russia dipped to USD 57.5bn and USD 15.4bn respectively. An analysis of the structure of Russia's expenditure-based GDP and capital account visibly illustrates the asymmetric character of the formation of internal savings resources and their use for investment purposes.

#### 4.1.3. Changes in the GDP structure by income source

The Russian economy's recent development patterns reflect its shrinking development potential, which has become manifest in the high intensity of the use of production capacities, absence of large-scale investment projects, and low unemployment rate. Besides, the situation has been further complicated by the long-term upward trend displayed by the growth rate of production costs, which has been pushed up by the tariff policies of infrastructure provider monopolies and the accelerated wage growth relative to labor productivity. Low production efficiency remains one of the main factors that push down industry productivity and the low competitive capacity of Russia's domestic products in the domestic and foreign markets. Over the period 2010–2013, productivity decline was demonstrated by practically all major types of economic activity.

*Table 7*

#### **Productivity indices of sold goods, works, and services by type of economic activity in 2012–2016, as %**

	2012	2013	2014	2015	2016
<b>National economy, total</b>	<b>8.6</b>	<b>7.0</b>	<b>7.3</b>	<b>9.3</b>	<b>8.1</b>
Agriculture, hunting and forestry	10.7	5.2	17.4	21.3	16.8
Fishery and fish-breeding	16.2	16.5	28.6	49.4	61.0
Mineral extraction	28.0	22.1	19.2	26.8	27.2
Processing industries	10.7	8.8	9.9	12.4	10.5
Production and distribution of electric energy, gas and water	3.9	4.4	3.7	5.5	7.8
Building construction	5.0	8.3	3.4	5.4	5.5
Wholesale and retail trade	6.7	6.5	6.1	7.1	5.3
Hotels and restaurants	5.9	6.0	4.4	5.8	6.1
Transport and communications	11.1	9.7	8.4	10.6	10.8
of these: communications	23.7	23.6	20.8	21.4	18.2
Financial activity	0.8	0.5	1.5	0.5	0.7
Real estate transactions, property lease and services	10.6	10.4	10.7	9.7	12.0
Government administration and military defense; social insurance	8.3	7.8	10.3	11.7	-12.5
Education	2.5	11.8	2.3	6.2	6.2
Healthcare and welfare	6.6	4.8	6.2	7.0	10.6

Source: Rosstat.

Over the period 2014–2016, the movement of profitability indices and the financial result achieved by enterprises and organizations (balance of profits and losses) was strongly influenced by changes in producer pricing policies. The year 2014 saw a reversal in the trend that had been visible for four straight years: the producer price indices in industry, building construction and agriculture began to display dynamic growth. In 2015, the producer price index in industry amounted to 110.7%, including processing industries – 111.2%, mineral extraction – 109.8%, building construction – 106.9. The producer price index in agriculture gained 10.8%. In 2016, producer pricing policies were somewhat adjusted. Producers responded to the persistent domestic demand shrinkage trend by restraining the growth of prices for their products. In 2016, the producer price index in industry amounted to 107.4%, that in building construction – to 103.2%, and that in agriculture – to 101.8%. Given that the changes in the movement of prices coincided with an accelerated growth rate of the average nominal wage, the share of gross profits in GDP shrank in 2016 on the previous year, but still remained above its 2011–2014 level. The year 2016 saw a shift in the income structure from its corporate towards personal component. In 2016, the share of wages in GDP amounted to 46.6%, rising 1.61 pp above the corresponding index for 2015. As a result, the total productivity index across the national economy lost 1 pp relative to its 2015 level. The accelerated wage growth trend relative to that of labor productivity reemerged once again.

*Table 8*

**Price and tariff indices in December 2010–2016, to December of previous year, %**

	2010	2011	2012	2013	2014	2015	2016
Consumer Price Index	108.8	106.1	106.6	106.5	111.4	112.9	105.4
<i>Producer Price Index</i>	116.7	112.0	105.1	103.7	105.9	110.7	107.4
Mineral extraction	117.1	126.3	109.3	107.0	98.4	109.8	107.9
Extraction of fuel and energy resources	116.1	128.1	110.5	107.7	97.0	109.8	107.6
Mineral extraction, less extraction of fuel and energy resources	130.9	112.4	98.9	101.0	109.9	110.0	109.9
Processing industries	116.9	108.3	103.2	101.6	108.5	111.2	107.7
Production and distribution of electric energy, gas and water	113.8	105.1	107.0	108.1	104.5	109.3	105.1
<i>Producer Price Index</i> in agriculture	123.6	94.9	110.8	102.7	114.1	108.5	101.8
Aggregate price index in building construction	109.1	108.0	106.9	104.9	107.2	110.3	103.2
Freight tariff index	133.1	107.7	107.5	108.0	100.9	111.5	105.6

Source: Rosstat.

*Table 9*

**GDP structure, at current prices, by income source, in 2011–2016, %**

	2011	2012	2013	2014	2015	2016
Gross domestic product	100	100	100	100	100	100
Including:						
Wages of hired labor, including hidden remuneration and mixed incomes	43.9	44.2	46.7	47.2	45.0	46.6
Net taxes on production and imports	14.6	14.7	14.2	13.9	11.1	10.7
Gross profit in the economy and gross mixed incomes	41.5	41.1	39.1	38.9	43.9	42.7

Source: Rosstat.

The changes in the structure of costs and the balance of profits and losses were strongly influenced by the highly differentiated wage indices across the economy, depending on type of economic activity. The highest wages, for fifteen years in a row, have been observed in extracting industries, the production of oil and petroleum products, and the financial sector. Processing industries have demonstrated a continuing trend towards employment restructuring through cutting non-productive jobs. As a result, labor productivity in processing industries has

been growing at a rate that is higher than Russia's average, but wages, as before, have also been rising at an accelerated rate.

As wage is the major personal income component, the employment issue is one of the priority factors shaping consumer behavior. In face of the plummeting economic growth rate, the distinctive feature of the period 2015–2016 was an exceptionally low unemployment rate (calculated by the ILO methodology) of 5.5%. The total number of officially registered unemployed individuals declined by 0.2% relative to 2015, and amounted to 1.0m, while the unemployment rate was 1.2%.

The employer demand for workforce (estimated on the basis of applications filed with the local bodies of the Federal Service for Labor and Employment) has remained above its last year's level; the tension coefficient (the number of registered unemployed individuals per 100 job vacancies) in December 2016 was 86.8 vs. 101.3 a year earlier. In compliance with the established tradition in Russian practices, labor market adjustment in crisis situation is mainly achieved by means of wage cuts, part-time employment, and workforce spillover into the 'informal employment' sector, and not through an automatic surge of the unemployment rate. This phenomenon reflects not only the low level of labor force mobility, but also the weakness of government institutions responsible for labor market regulation.

While the labor turnover index (the number of hired vs. dismissed employees) is high, the turnover of jobs (liquidation of old jobs and creation of new ones) as a measure of job renewal has remained rather low. The turnover level is sustained predominantly by the liquidation of jobs by actively operating companies, and not by the creation of new jobs.

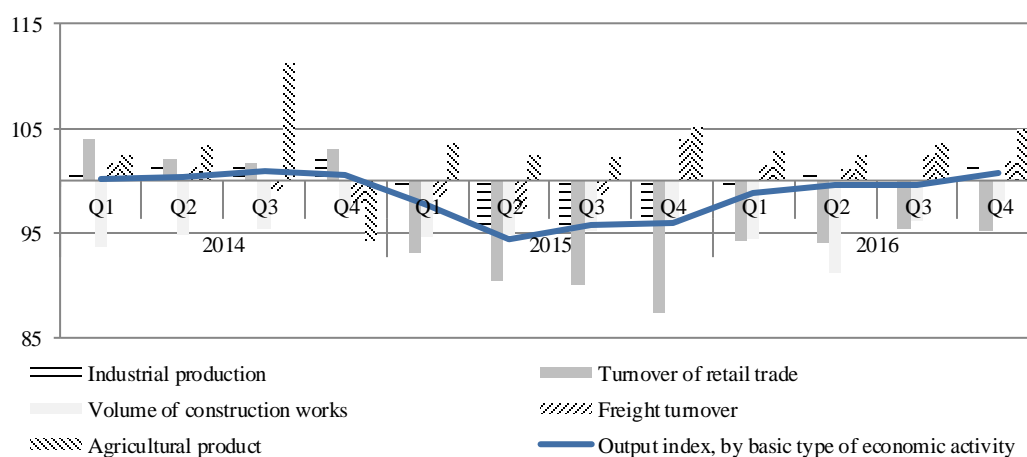
When analyzing the situation in the Russian labor market, one should note the following characteristic features: the labor market adapts to crisis conditions not through increasing the unemployment rate, but by relying on flexible remuneration schemes. Due to the underdeveloped contractual recruitment system in the sphere of labor relations and the low unemployment benefits, people prefer to stay employed during a crisis and work for a lower wage, or to work fewer hours.

Our analysis of the developments in the Russian economy over the last two decades demonstrates that, owing to the existing labor market model, the behavior pattern of the unemployment rate to acute economic crisis phenomena was smoother than that of wages, which plunged. In the current situation, the weak response of the unemployment index to unfavorable economic developments can likewise be explained by the employer policy aimed at keeping their qualified workforce, which is becoming cheaper in real terms, in expectation of future revival of economic activity. Besides, the factor that exerted downward pressure on unemployment rate growth was the supply deficit in the labor market determined by demographic factors and the outflow of migrants, whose earnings significantly plummeted due to the ruble's weakening.

The less than efficient use of production factors has remained one of the main reasons behind the dramatic slowdown in the pace of economic growth and the generally declining competitive capacity of the Russian economy as a whole. In the short run, the behavior of incomes and inflation will depend solely on the growth rate of labor productivity and return on investment - that is, total factor productivity.

#### 4.1.4. The movement pattern and structure of production, by type of economic activity

The year-on-year decline in the volume of industrial output, by major type of economic activity, has been observed since 2015. The already unstable economic development pattern has been further destabilized by the declining investment activity, turnover of retail trade, and industrial production indices. Building construction output in 2016 amounted to 95.7%, the turnover of retail trade – to 94.8 % relative to the corresponding period of the previous year. In Q2 2016, after a five-quarter-long plunge, the industrial production index demonstrated slight growth. The year-end industrial production index for 2016 amounted to 101.1%, and specifically in processing industries – to 100.1% relative to its previous year's value. In 2016, as a year earlier, the economic situation was positively influenced by growth in mineral extraction (102.5% relative to 2015), agricultural produce (104.8%), and transport services (101.8%).



*Fig. 8. The pace of industrial production, by type of economic activity, in 2014–2016, as % of the corresponding period of the previous year*

*Source:* Rosstat.

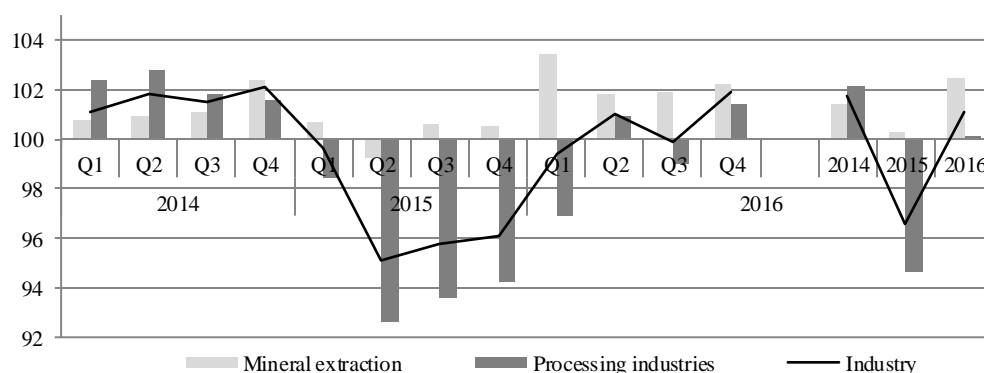
Structural changes across the economy in 2016 were determined by the increasing role of the raw materials sector and related infrastructure. In 2016, growth of mineral extraction in annual terms amounted to 2.5%, including growth of extraction of fuel and energy mineral resources by 2.6%.

The output volume index in processing industries in 2016 followed a highly unstable movement pattern. The production index plunge by 3.1% in Q1 gave way to growth by 1.4% in Q2 relative to the same periods of 2015. When taken in annual terms, the 2016 output index in processing industries slipped into positive zone, with a growth of 0.1%.

The output volume indices in the processing industry are rather significantly diversified by type of economic activity. When the output volume movement patterns for each type of economic activity in 2016 are set against those observed in 2014, when processing industries still possessed some growth potential, it becomes obvious that recovery growth was achieved only in the chemical industry, the manufacturing of rubber & plastic products, and the food industry, which had managed to cope with the crisis phenomena. The specific features of these phenomena point to lack of proper restructuring in the domestic business sector and low motivation to move domestic products to new competitive markets. In such a situation, the

effects of Russia's retaliatory sanctions were more strongly felt by processing industries, which are oriented in the main to the domestic market.

As before, one of the problems faced by the Russian economy has been the targeted support of certain industries instead of a well-coordinated system of comprehensive measures designed to generally improve the overall conditions for doing business. Low investment demand determined a production decline in the machine-building complex and metallurgy, as well as decline in investment in housing and industrial construction. The most serious difficulties with regard to production recovery growth are experienced by the machinery and equipment manufacturing sector. Its output volume index in 2016 amounted to 96.8% relative to the previous year.



*Fig. 9. The pace of industrial production, by type of economic activity, in 2014–2016, as % of the corresponding period of previous year*

Source: Rosstat.

Table 10

**The movement of production indices, by major type of processing industry, 2011–2016, as % of the previous year**

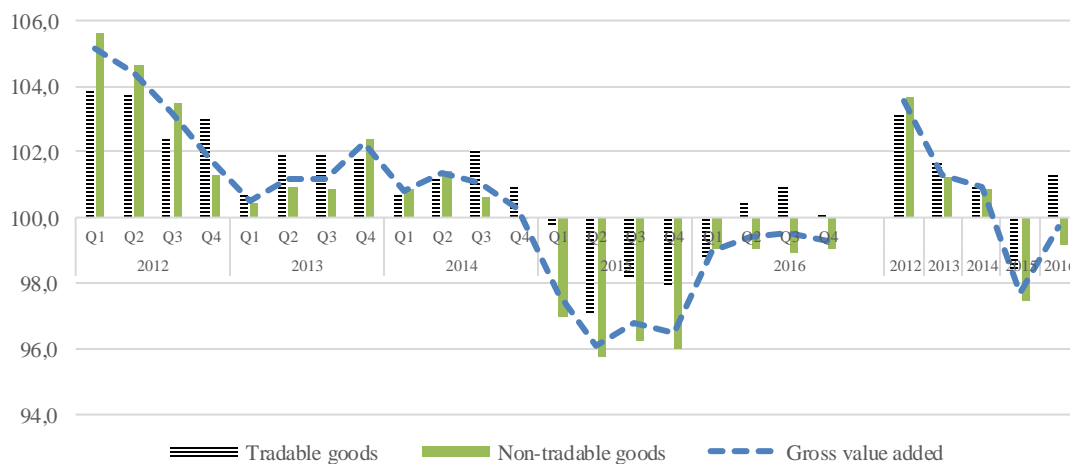
	2011	2012	2013	2014	2015	2016
Processing industries	108.0	105.1	100.5	102.1	94.6	100.1
Food industry, including beverages and tobacco products	103.9	104.1	100.6	102.5	102	102.4
Textiles & textile products manufacturing	100.8	100.7	104.3	97.5	88.3	105.3
Leather production and leather products & footwear manufacturing	105.7	98.1	95.6	97.2	88.6	105.1
Timber & wood product processing	110.2	96.2	108.0	94.7	96.6	102.8
Cellulose & paper production; publishing and printing	106.5	105.8	94.8	100.4	93.7	100.8
Production of coke & petroleum products	103.8	103.1	102.3	105.7	100.3	97.6
Chemical production	109.5	104.1	105.4	100.1	106.3	105.3
Manufacturing of rubber & plastic products	111.4	112.8	105.9	107.5	96.3	105.4
Manufacturing of other non-metallic mineral products	107.4	110.7	98.0	101.8	92.2	93.4
Metallurgical production & finished products	107.0	104.8	100.0	100.6	93.5	97.7
Machinery & equipment manufacturing	111.1	102.7	96.6	92.2	88.9	103.8
Electric, electronic & optical equipment manufacturing	111.9	106.4	99.0	99.5	92.1	99.0
Transportation equipment manufacturing	117.2	110.3	102.2	108.5	91.5	97.0
Other industries	105.3	102.6	95.4	102.7	94.0	93.8

Source: Rosstat.

In 2015, the behavior of economic induces was negatively influenced by the simultaneous plunge of output both in the tradable and non-tradable sectors. In 2016, the slide of output in the tradable sector into positive zone became the factor that leveled the negative effects of the general situation in the economy. Output in the tradable sector amounted to 101.3%, and in the non-tradable sector – to 99.2% relative to 2015.



The economic development prospects will depend on the possibility to slow down the decline in the non-tradable sector, which is one of the strategic development goals for the Russian economy. It can be achieved by reversing the existing negative trends in the social sphere and boosting the investment and consumption rates.



*Fig. 10.* The dynamics of gross value added in the tradable and non-tradable sectors of the economy in 2012–2016, as % of the corresponding quarter of the previous year

*Source:* based on data released by Rosstat.