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The combination of structural and conjunctural factors led to the economic stoppage in Russia.
Economic growth in the leading economies of the world
2005-2014, % y/y

The rate of global economic growth did not change substantially in 2014: according to IMF estimate, it equaled 3.4%, as in the previous year. However, this stability masks structural changes: the growth of developing economies, primarily in Latin America and CIS, slowed down considerably, while developed economies achieved some acceleration due to the revival of the EU economy.

The sharpest deceleration among leading economies was seen in Brazil, under the influence of problems on commodity markets, a high inflation and a weak domestic demand. As concerns developed economies, the situation deteriorated in Japan: domestic consumption decreased, partially due to growing taxes. The European economy strengthened: though France and Italy are still stagnating, Germany and Britain are growing on the base of the euro depreciation and cheap energy.

Source: IMF, Eurostat, National Bureau of Statistics of China, Rosstat
Despite widely spread worries about the slowdown in China, the general situation in 2014 was satisfactory there.

The growth in the EU during 2014 was stable too, though its rate was still quite low.

The US economy demonstrated high growth again in 2014 but the annual rate was deteriorated by a sharp fall in the 1st quarter. It is attributed to the cold winter, however, it may also be seen as an indicator of potential volatility.

The Russian economic growth stopped in the second half of 2014 but the decrease in GDP was not recorded as well, even in the fourth quarter: private consumption and investment declined, as well as exports, but it was compensated by import substitution. This process has been accompanied by the growth of value added in manufacturing (+2.5% in 2014) and agriculture (+1.5%), while the construction shrunked (−5.1%).

Source: World Bank, Rosstat, Eurostat
Monthly dynamics of industrial production in Russia and leading industrial economies of the world

2012-2014, monthly, Dec. 2011 = 100, seasonally adjusted

The growth of industrial production in the USA and in Germany accelerated in 2014. Germany returned to a positive and strong industrial growth (+1.9%).

After the temporary decline in early 2013 the US industry achieved the highest growth rate in 15 years (+4.3%), except post-crisis 2010. Nevertheless, in the fourth quarter, probably because of the US dollar appreciation, the American industry slowed down.

The industrial production in Russia in 2014 slightly revived, especially in manufacturing (+2.1% after +0.5% in 2013, in particular in food production, oil refining, production of plastics and railway transport).

The growth rate of industrial production in China decreased in 2014 (+8.2% after +9.9% in 2013), and it was unstable during the year.

The most important problem for the Russian economy was the cheapening of oil by 40% in the second half of 2014. Gas prices in long-term contracts slightly decreased in 2014 too but the most part of their correction will take place in 2015. Coal price decreased approximately by one quarter in 2014.

World commodity indices in 2014 plunged but this decline is explained mainly by cheapening energy products and metals. Food prices moved differently, the strongest fall in prices in 2014 was recorded on markets for grains and soybeans, somewhere also for oils, sugar and seafood.

Metal indices in 2014 continued their decline, with sharp fall of iron ore prices (in 2014 it depreciated by half) and moderate losses on copper, lead, tin and nickel markets. Such dynamics may be explained by the excess of previously — in the era of high prices — brought capacities under today’s weak demand.

Source: World Bank, Rosstat

Source: IMF
Dynamics of main exchange rates

2012–2014

USD per euro

Rubles per USD

Pounds per USD

100 yen per USD

The second half of 2014 was marked by sharp fluctuations of exchange rates. The euro depreciated by 10% in relation to the US dollar, the yen — almost by 20% because of the moderation of the monetary policy in Japan and its simultaneous tightening in the USA. The rouble weakened by more than 40%, following the oil price.

Source: Thomson Reuters
Change of investments in fixed capital of Russia

2014, without small enterprises and statistically unobservable investment

The decrease in investments remains an essential element of the economic slowdown in Russia. But in 2014 fuel and energy industries did not make a negative contribution: in general, investments in the sector were growing, though some contractions took place in electricity and heat industries, coal production and gas pipelines. The decline of investments in the economy was recorded mostly in rail and road transport, health care, organization of cultural and sport activities.

<table>
<thead>
<tr>
<th>Energy resources</th>
<th>absolute change to 2013 bln rubles [constant prices]</th>
<th>per cent change, physical volume % to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraction of energy resources</td>
<td>148.9</td>
<td>8.8</td>
</tr>
<tr>
<td>Oil refining</td>
<td>8.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Electricity, gas and heat</td>
<td>−73.0</td>
<td>−6.8</td>
</tr>
<tr>
<td>Pipeline transportation</td>
<td>31.5</td>
<td>4.7</td>
</tr>
<tr>
<td>Total (the whole economy)</td>
<td>−442.7</td>
<td>−4.3</td>
</tr>
</tbody>
</table>

Source: Rosstat

External trade of Russia: exports and imports of goods, trade balance

2005-2014, bln USD

Due to the outpacing decrease in imports, resulting from sanctions and counter-sanctions and the falling rate of exchange, trade balance of Russia slightly improved in 2014. However, sharp fall of oil prices in the end of the year led to the correction of trade balance and to the fast weakening of the ruble.

Structure of Russian budgetary incomes and non-oil deficit

2013-2014, trln rubles

Despite the deteriorating situation on world commodity markets in 2014, oil and gas incomes of the Russian federal budget grew by 0.9 trln rubles. But all the additional incomes — hydrocarbon incomes, as well as non-hydrocarbon incomes — were directed to finance growing budget liabilities. As a result, non-oil deficit increased by the sum of additional oil and gas incomes — by 0.9 trln rubles.

Source: The Ministry of Finance of Russia

Source: World Bank
Energy intensity of Russian GDP according to different estimates
2005-2013, toe per thousand USD-2011 (PPP-based)

Statistical data of 2012-2013 from different sources confirm that after 2011 the process of energy efficiency improvement in Russia restarted. Nevertheless its rates are considerably lower than before the crisis of 2008-2009.

Source: IEA, BP, Rosstat

CO$_2$ emissions in Russia and other countries
2005-2013, Mt

Global CO$_2$ emissions in 2013 continued to grow at a slightly lower rate compared to the previous year. More than a half of the 2013 increase was provided by China. Russian emissions shranked by 0.7%.

Source: BP
Crude oil exports reduction in Russia accompanied by increase in output and exports of petroleum products
Crude oil reserves in the leading countries 2000-2013, bln t

In recent years, the split down of the oil proved reserves by countries has not changed. Having multiplied four times its investigated reserves since 2000, due to heavy and extra heavy oil of the Orinoco oil belt, Venezuela still holds the leadership.

Source: BP
Crude oil production in Russia was growing during last six years (in average by 1.2% per year). Nevertheless, production growth rates are decreasing driven by economic factors and gradual entering oil production plateau.

Crude oil production in Ural Federal District continues to decrease (by 3Mt in 2014) but it still provides more than half of total Russian crude oil production (57.1%). However, crude oil production decline rate stabilized at 1.0% per year.

Crude oil production in Volga Federal District (21.9% of total Russian oil production) showed a growth during 2000-2014, but the growth rates are decelerating. Oil production in the District in 2014 increased by 1.4 Mt (+1.3%).

Crude oil production decrease on mature fields is compensated by expansion of greenfields exploration in Siberian and Far Eastern Federal Districts, which provide 9.1% and 4.4% of total Russian crude oil production respectively. Thus crude oil production in 2014 in Siberian and Far Eastern Federal Districts increased by 1.7 Mt (+3.6%) and 1.5 Mt (+7.2%) respectively.

Source: Rosstat
Oil production in the leading countries
2000-2014, Mt

The United States has become the largest oil producer due to intensive exploitation of oil shale deposits, ahead of Saudi Arabia and Russia. Russia continues to maintain almost 12% of world oil production. In Iran, the oil production has significantly decreased as a result of international sanctions imposed in 2011, but their partial abatement in January 2014 has helped Iran on its way back to growth. In Iraq, despite the new military conflict, recovery growth has been observed.

Source: IEA
The world’s biggest oil & gas companies

2013-2014, Production, Mtoe

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Aramco</td>
<td>597.4</td>
<td>487.3</td>
<td>403.3</td>
</tr>
<tr>
<td>Gazprom</td>
<td>413.2</td>
<td>303.7</td>
<td>263.9</td>
</tr>
<tr>
<td>NIOC</td>
<td>298.7</td>
<td>234.0</td>
<td>229.0</td>
</tr>
<tr>
<td>Exxon Mobil</td>
<td>234.0</td>
<td>234.0</td>
<td>229.0</td>
</tr>
<tr>
<td>Rosneft</td>
<td>224.2</td>
<td>194.2</td>
<td>199.1</td>
</tr>
<tr>
<td>PetroChina</td>
<td>199.1</td>
<td>184.2</td>
<td>184.2</td>
</tr>
<tr>
<td>BP</td>
<td>154.3</td>
<td>154.3</td>
<td>154.3</td>
</tr>
<tr>
<td>Royal Dutch Shell</td>
<td>146.3</td>
<td>179.2</td>
<td>184.2</td>
</tr>
<tr>
<td>Pemex</td>
<td>169.3</td>
<td>169.3</td>
<td>169.3</td>
</tr>
<tr>
<td>KPC</td>
<td>146.3</td>
<td>146.3</td>
<td>146.3</td>
</tr>
<tr>
<td>Chevron</td>
<td>119.5</td>
<td>119.5</td>
<td>119.5</td>
</tr>
<tr>
<td>ADNOC</td>
<td>154.3</td>
<td>154.3</td>
<td>154.3</td>
</tr>
<tr>
<td>Total</td>
<td>1294.5</td>
<td>1245.5</td>
<td>1245.5</td>
</tr>
<tr>
<td>Petrobras</td>
<td>119.5</td>
<td>119.5</td>
<td>119.5</td>
</tr>
<tr>
<td>QP</td>
<td>114.5</td>
<td>114.5</td>
<td>114.5</td>
</tr>
<tr>
<td>Lukoil</td>
<td>109.5</td>
<td>109.5</td>
<td>109.5</td>
</tr>
<tr>
<td>Sonatrch</td>
<td>104.5</td>
<td>104.5</td>
<td>104.5</td>
</tr>
<tr>
<td>Ministry of Oil [Iraq]</td>
<td>99.6</td>
<td>99.6</td>
<td>99.6</td>
</tr>
<tr>
<td>PDVSA</td>
<td>99.6</td>
<td>99.6</td>
<td>99.6</td>
</tr>
<tr>
<td>ConocoPhillips</td>
<td>99.6</td>
<td>99.6</td>
<td>99.6</td>
</tr>
<tr>
<td>Statoil</td>
<td>99.6</td>
<td>99.6</td>
<td>99.6</td>
</tr>
</tbody>
</table>

Crude oil production by leading Russian oil companies

2012–2014, Mt

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosneft</td>
<td>190.9</td>
<td>190.6</td>
<td>190.6</td>
</tr>
<tr>
<td>Lukoil</td>
<td>86.6</td>
<td>87.2</td>
<td>87.2</td>
</tr>
<tr>
<td>Surgutneftegaz</td>
<td>61.4</td>
<td>64.4</td>
<td>64.4</td>
</tr>
<tr>
<td>Gazprom Neft</td>
<td>33.6</td>
<td>32.2</td>
<td>32.2</td>
</tr>
<tr>
<td>Tatneft</td>
<td>26.5</td>
<td>26.4</td>
<td>26.4</td>
</tr>
<tr>
<td>Bashneft</td>
<td>17.9</td>
<td>16.4</td>
<td>16.4</td>
</tr>
<tr>
<td>RussNeft</td>
<td>8.6</td>
<td>8.9</td>
<td>8.9</td>
</tr>
<tr>
<td>Total</td>
<td>2012</td>
<td>2013</td>
<td>2014</td>
</tr>
</tbody>
</table>

Positions of Russian Gazprom, Rosneft and Lukoil have remained unchanged in the list of the largest oil and gas companies. On the top of the list is Saudi Arabian’s national company — Saudi Aramco.

In 2014, three of seven leading Russian oil-producing companies demonstrated output decline: Rosneft (~1.7 Mt), RussNeft (~0.3 Mt) and LUKOIL (~0.1 Mt). The rest of the companies, excluding Surgutneftegaz (there was no change in company’s production), increased their output.

Source: Forbes
Source: CDU TEK
In 2014, global oil consumption increased by 0.7%. In developed countries, it fell by 1.0%. In the developing world, there was a further increase in consumption (+2.5%), largely maintained by increased demand from the Asian market. Russia has continued to increase its share of global oil consumption in recent years.

Source: IEA
The rate of associated gas utilization in 2014 reached 85.2% (+8.2 p.p. versus 2013) and exceeded all-time high of 1995 by 4.2 p.p. due to legislative changes encouraged investment in associated gas utilization and processing. Far Eastern Federal District demonstrated the highest rate of utilization (98.1%) while the lowest rate was recorded in Siberian Federal District (36.7%).

Siberian Federal District is the leading region in terms of associated gas flaring volume (47.8% of total Russian volume) passed ahead of the former leader — Ural Federal District (27.2%) — in 2012. It is attributed to the changes in geographical structure of crude oil production (greenfields output growth with no prepared infrastructure for utilization) and higher rate arrangements in mature oil-producing regions.
Refining capacity in the leading countries

2000-2013, Mt

Since 2009, Russia’s share in global refining capacity has been growing, but not very rapidly, especially compared to China. In the EU, a prolonged reduction in oil refining capacity is still observed.

Source: BP
Between 2010 and 2014 crude oil refining in Russia has shown growth from 249.3 Mt to 294.4 Mt (+12.9%). The largest absolute increase was recorded in Volga Federal District — by 12.9 Mt (+12.9%) while the largest percentage change was recorded in Ural Federal District — by 9.2 Mt (+120.8%). Volga Federal District is the leading crude oil refining region (38.4% of total Russia crude oil refining volume).

Average refining depth in Russia in 2014 reached 72.4% (+0.7 p.p. versus 2013) and exceeded all-time high of 2008 by 0.3 p.p. due to Russian refineries modernization to be completed by 2020.
Basic petroleum products output in Russia in 2014 increased by 6.45 Mt (+3.4%). The growth was mostly driven by diesel output — 5.43 Mt (+7.6%). Gasoline output declined by 0.44 Mt (1.1%). The share of Gasoline Regular 95 continues to grow reached 27.3% in 2014 (+10 p.p. during last four years). The share of Euro-5 motor fuels has shown considerable growth: gasoline by 8.8 p.p. to 68.3%, diesel by 13.2 p.p. to 55.4%.

Source: Rosstat

Motor fuel output by emission standards in Russia 2011–2014, %

Gasoline output structure in Russia 2010–2014, %

Source: Rosstat
Petroleum products shipment in Russian regions

2014, kt

Share of the Federal District in total Russian output

Individual regions performance

Gasoline shipment

Diesel shipment

Heating oil shipment

18.3% Center
- Moscow Oblast: 4066
- Yaroslavl Oblast: 195
- Moscow: 1393
- 230
- 244
- 89
- 2519
- 577
- 943

17.7% North West
- Komi Republic: 157
- Leningrad Oblast: 1207
- Murmansk Oblast: 148
- St. Petersburg: 1170
- 115
- 524
- 1224
- 2277
- 1185

17.4% South
- Krasnodar Krai: 1224
- Volgograd Oblast: 662
- Rostov Oblast: 979
- 7403
- 15
- 781
- 3758
- 522
- 664

1.5% North Caucasus
- Republic of Dagestan: 261
- Republic of North Ossetia-Alania: 96
- Stavropol Krai: 583
- 15
- 45
- 240

15.3% Volga
- Republic of Bashkortostan: 1305
- Republic of Tatarstan: 1100
- Nizhny Novgorod Oblast: 863
- Samara Oblast: 1802
- 310
- 235
- 45
- 176
- 804
- 1254
- 520
- 1478

7.7% Ural
- Sverdlovsk Oblast: 1137
- Tyumen Oblast: 1163
- Chelyabinsk Oblast: 798
- 117
- 2
- 45
- 698
- 2676
- 524

11.8% Siberia
- Krasnoyarsk Krai: 784
- Irkutsk Oblast: 681
- Kemerovo Oblast: 683
- Novosibirsk Oblast: 751
- Omsk Oblast: 469
- 253
- 422
- 377
- 25
- 163
- 897
- 1075
- 1207
- 546
- 508

10.3% Far East
- Primorsky Krai: 466
- Khabarovsk Krai: 835
- 3927
- 2014
- 571
- 1125

Source: Rosstat
Crude oil and petroleum products exports in Russia

2000–2014, Mt

Crude oil exports in Russia continued to decline in 2014 and reached 223,4 Mt (–24,4 Mt versus 2009) in contrast to petroleum products exports which showed growth again in 2014 amounted to 164,8 Mt (+13,2 Mt versus 2013). Crude oil (89,2%) and petroleum products (94,1%) exports goes almost entirely to far-abroad countries.

Petroleum products exports in Russia

Source: Rosstat

Russian petroleum products exports to OECD countries

2000–2014, Mt

In 2014, the supply of petroleum products to OECD countries still increased, primarily due to growth of fuel oil and naphtha exports which increased by a third. Exports of diesel fuel and gasoline to the developed countries also rose, though in less significantly.

Russia's share in OECD countries imports of petroleum products, 2000-2014, %

Source: IEA
The imbalance of supply and demand in the world oil market led to a steady fall in prices in the second half of 2014. The key reasons for overproduction are growth of oil production in the US as well as the major exporting countries’ unwillingness to reduce their production fueled by fear of losing their share in the global market. Moreover, the demand for oil was weakened by slowdown of growth in the economies of China and of the European Union. A stronger US dollar was also a significant factor in the decline in oil prices.

Gasoline prices increased in January 2015 in average by 2,6 rubles (year-on-year) or by 8,5 %. RON-92 gasoline showed the highest price growth — by 2,82 rubles (+9,5 %). Diesel prices increased by 1 ruble (+3,0 %).

Petroleum products exchange trading in Russia (SPIMEX)

- Turnover, mln rubles
- Volume, Kt
- Number of contracts, 1,000 units

Petroleum products exchange trading in Russia maintain high rates of development encouraged by regulatory and legal framework evolving. High rates are also explained by passing an early stage of market development. The leading exchange market participants includes Rosneft (31,3 % of total sales), Surgutneftegaz (15,4 %), Gazprom Neft (13,4 %), LUKOIL (13,4 %) and Gazprom (10,3 %). RON-92 gasoline, summer diesel and heating oil account for substantial volumes of exchange trading in petroleum products — 26 %, 20,3 % and 14,7 % respectively.

Source: SPIMEX
Average gasoline (RON-92) prices in Russia by region

2014, rubles/l

Source: Rosstat
Refining capacity (mtpy):

1. Omsk
2. Kirishi
3. Ryazan
4. Kstovo
5. Yaroslavl
6. Perm
7. Moscow
8. Volgograd
9. Angarsk
10. Ufa
11. Syzran
12. Novokuybyshevsk
13. Ufa
14. Tyumen
15. Salavat
16. Achinsk
17. Komsomol'sk-on-Amur
18. Ufa
19. Nizhnekamsk
20. Samara
21. Saratov
22. Orsk
23. Khabarovsk
24. Tuapse
25. Ukhta
26. Krasnodar
27. Novoshakhtinsk

Gasoline (RON-92) price change in Russia by region:

January 2014 – January 2015, %

Source: Rosstat
Investment in Russian oil sector
2010–2014, bln rubles

- Crude oil production
- Petroleum products output
- Crude oil transport by pipeline

Investment in Russian oil sector in 2014 exceeded the level of 2013. The largest absolute increase was recorded in crude oil production — by 156.8 bln rubles while the largest percentage change was recorded in pipeline transportation of crude oil — by 40.2%. Petroleum products output continues to demonstrate high CAAGR recorded 26.0% in 2010-2014.

Percentage change in oil investment
2011–2014 (year-on-year), %

Source: Rosstat
Russian natural gas exports decline caused a decrease in its production.
Russia has significantly reduced its share in the world market after the discoveries of large natural gas fields in Iran, Qatar and Turkmenistan.

Source: BP
Despite a gradual increase in its production in recent years, Russia has reduced its share in global gas production due to the similar trends in the United States, Qatar and Iran. In 2012, Russia lost the leadership in gas production to the US, where the growth has been provided by shale gas exploitation. China has achieved notable progress in the production of gas and in 2013 it was ahead of Norway.
Share of LNG in world gas trade
2000–2013, %

Russia and other countries in world exports of natural gas
2000–2013, bcm

Source: IEA
Russia’s natural gas reserves (ABC1) amount to 49.5 tcm, which is 1 percent more than in 2013. The largest gas fields are located in Western Siberia oil and gas bearing province. The growth in gas reserves was provided by gas fields in the Yamal Peninsula (Bovanenkovo, Kharasaveyskoye, Yuzhno-Tambeyskoye), Eastern Siberia (Kovyktinskoye), Russian Far East (Chayandinskoye) and on the Arctic Shelf (Shtokman, Kruzenshternskoye). In European Russia the main gas reserves are concentrated in Astrakhan field and Orenburg field.

Source: Ministry of Natural Resources and Environment of the Russian Federation
Major producing gas fields in Russia

2013, bcm

About 80% of Russia’s natural gas production is carried out in the Nadym-Pur-Taz region, Yamalo-Nenets AO. In 2013, three gas fields — Zapolyarnoye, Urengoy, Yamburg — accounted for more than 40% of country’s gas production.

In 2012, gas production was started at the Bovanenkovo field (Yamal Peninsula), and it accounted 22.8 bcm in 2013 and about 40 bcm in 2014. By 2020, Bovanenkovo will become one of the largest gas producing fields in Russia. Positive production dynamics also featured on Yurkharovskoye field and Yuzhno-Russkoye field.

Source: Ministry of Natural Resources and Environment of the Russian Federation
Russia’s largest natural gas producer is Gazprom, which provided 70.7% of country’s gas production in 2013, and 72% in 2012. There is a tendency for an increase in the share of independent gas producers in the Russia’s gas production: from 16% in 2007 to 29% in 2013.

According to CDU TEK, in 2014 Gazprom’s share in Russia’s gas production amounted to 67%, which is 3.2 p.p. lower than in 2013. The reason of the decline is the drop in Gazprom’s production. Independent gas producers increase production volumes, leaders are Novatek and Rosneft.

Source: CDU TEK

Russia’s natural gas production by company
2014, bcm

Independent gas producers in Russia
Production, 2012-2014, bcm

Source: Ministry of Natural Resources and Environment of the Russian Federation, CDU TEK
In 2014, Russia’s gas production amounted to 639.2 bcm, which is 4.3% less than in 2013. The decrease was caused by significant reduction of gas exports and by decline of domestic consumption. In 2010-2014, the gas supply to the domestic market decreased by 30.7 bcm, or by 6.3%.

In 2014, Russia’s gas exports decreased by 11.4% year on year to 187 bcm, the lowest level since 2000 [except 2009]. All of the major importers of Russian gas reduced the volume of imports [except Turkey, Belarus and Kazakhstan]. A significant decrease was recorded in supplies to Ukraine (~44%) and Italy (~19%).

In 2014, more than 80% of natural gas production in Russia was provided by Yamalo-Nenets AO, which is 1.5 p.p. lower than in 2013. In 2010-2014, YNAO share in Russia’s gas production was 80-83%. In 2014 to 2013 gas production significantly increased in Krasnoyarsk region (+150%) and Sakha (+25%) and the largest drop was observed in YNAO (~6%, or ~32.9 bcm).

Source: Rosstat, Ministry of Energy of the Russian Federation
Russia’s natural gas consumption by sector

2013, mtce

In 2013, the production of electricity and heat energy provided 51.8% of Russia’s natural gas consumption, which is 1.4 p.p. less than in 2012. Gas consumption decreased by 5% in these two sectors, by 10.9% in industry and increased by 15.3% in residential sector.

![Diagram showing gas consumption by sector]

Russia’s gasification level

2011-2014, %

In 2014, investments for Russian regions gasification decreased by 15%, and Russia’s gasification level increased by 0.9 p.p. compared with 2013 and reached 65.3%. The main reason is the increase in gas debts.

![Diagram showing gasification levels]

Investment for Russian regions gasification

2011-2014, bln rubles

In 2014, investments for Russian regions gasification decreased by 15%, and Russia’s gasification level increased by 0.9 p.p. compared with 2013 and reached 65.3%. The main reason is the increase in gas debts.

![Diagram showing investment for gasification]

Natural gas supply in the leading countries

2000-2013, bcm

In Russia, the growth rate of domestic demand for gas has been lower than the world’s one over the last decade. The increase in gas production in the United States promotes the growth of its consumption there. In 2014, gas consumption in all EU countries fell below the Russian, which was caused by energy efficiency and increasing renewable energy. The ever growing use of natural gas in China led to a higher increase in demand for this energy source than the one observed in Iran in 2013.

![Chart showing natural gas supply in leading countries]

Source: BP

Source: Rosstat

Source: Ministry of Energy of the Russian Federation

Source: BP
LNG production and exports in Russia

2009-2014, bcm

Russia’s LNG production and exports is carried out on single plant on Sakhalin Island, with a capacity of 9,6 mtpa. LNG is exported by sea to the Asia-Pacific countries, mainly to Japan.

There are LNG plants projects in Russia. The plant on the Yamal Peninsula is under construction, with an installed capacity of 16,5 mtpa, start at 2017-2018. It is also planned to implement projects in Vladivostok and the Baltic Sea (Gazprom) and Sakhalin Island (Rosneft).

In 2013, Russia’s share in the global LNG market was 4,4%.

CNG consumption in road transport

2008-2013, bcm

Russia’s CNG consumption is about 400 mcm, or 1,0% of the world total. The natural gas consumption in transport is a priority of Russia’s gas industry development. One of the mechanisms to stimulate the growth of CNG consumption are subsidies to the regions. Creating the infrastructure for the Russian NGV market development will be implemented mainly by Gazprom and Rosneft.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>21,25</td>
<td>25,59</td>
<td>30,37</td>
<td>35,02</td>
<td>36,96</td>
<td>n/a</td>
</tr>
<tr>
<td>Russia</td>
<td>0,34</td>
<td>0,33</td>
<td>0,35</td>
<td>0,37</td>
<td>0,39</td>
<td>0,41</td>
</tr>
</tbody>
</table>

Source: Gazprom Gazomotornoye Toplivo, IEA

World prices of natural gas

2000-2013, $/kcm

In 2013-2014, the decline in gas prices in Europe and Asia was due to slowdown of demand, increase in supply for this energy source and decrease in world prices for oil and oil products. The main factor in the growth of prices of natural gas in the US was the abnormally cold weather in early 2014.

Source: CDU TEK

Source: IMF

Share of Russia’s LNG exports by destination

2014, %

- Japan: 81%
- Republic of Korea: 16%
- China: 2%
- Others: 1%

Source: Federal Customs Service of Russia
In 2000-2014 Russia’s gas exports geography didn’t change significantly: European countries were the main customers. Russia started to export LNG to Asia-Pacific in 2009, mainly to Japan. In 2014, LNG exports was about 8% of total Russian gas exports.

In 2014, gas exports was 140.6 bcm to far-abroad countries (74.5% of total) and 48.1 bcm to FSU countries (25.5% of total).

Source: Federal Customs Service of Russia
COAL

Moderate growth of coal production in Russia is focused on Eastern export dimension.
Countries with largest coal reserves

2013, bln t

Russia holds the second place in coal reserves in the world (after US). It possesses around 18% of world reserves.

<table>
<thead>
<tr>
<th>Country</th>
<th>Coal Reserves (bln t)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>237,3</td>
<td>26,6%</td>
</tr>
<tr>
<td>Russia</td>
<td>157,0</td>
<td>17,6%</td>
</tr>
<tr>
<td>China</td>
<td>114,5</td>
<td>12,8%</td>
</tr>
<tr>
<td>Australia</td>
<td>76,4</td>
<td>8,6%</td>
</tr>
<tr>
<td>India</td>
<td>60,6</td>
<td>6,8%</td>
</tr>
<tr>
<td>Germany</td>
<td>40,5</td>
<td>4,5%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>33,9</td>
<td>3,8%</td>
</tr>
</tbody>
</table>

Source: BP

Russia’s share in world coal production

2005–2013, %

World production of coal in 2013 remained almost flat as compared to 2012 (growth was less than 0,5%). 45% of coal production in the world was provided by China. Russian contribution made up around 4,5% (6-th rank in the world).

Top coal producing countries

2005–2013, mln t

Source: IEA World Coal Supply
There are 22 coal basins and 129 coal deposits in Russia. Over two thirds of proven reserves are concentrated within two basins: Kansk-Achinsk basin (brown coal) and Kuznetsk basin (hard coal). In 2013 coal reserves in Russia increased by 0.1%.

<table>
<thead>
<tr>
<th>Basin</th>
<th>Reserves 2014 (bln t)</th>
<th>Share of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansk-Achinsk Basin</td>
<td>79,3</td>
<td>40,7</td>
</tr>
<tr>
<td>Kuznetsk Basin</td>
<td>53,4</td>
<td>27,4</td>
</tr>
<tr>
<td>Irkutsk Basin</td>
<td>7,6</td>
<td>3,9</td>
</tr>
<tr>
<td>Pechora Basin</td>
<td>7,2</td>
<td>3,7</td>
</tr>
<tr>
<td>Donets Basin</td>
<td>6,5</td>
<td>3,3</td>
</tr>
<tr>
<td>South Yakutia Basin</td>
<td>5,0</td>
<td>2,6</td>
</tr>
<tr>
<td>Minusinsk Basin</td>
<td>4,5</td>
<td>2,3</td>
</tr>
</tbody>
</table>

In 2013 coal reserves in Russia increased by 0.1%. In 2014 coal production in Russia reached 358 mln t, which is 2% higher than in 2013. It rose in Kuznetsk (+4%) and, especially, Donets (+26%) coal basins and fell in Pechora (−6%) and Kansk-Achinsk (−3%) basins. Kuznetsk coal basin remains the center of Russian coal production (59% of total).

Source: Ministry of Natural Resources and Ecology of the Russian Federation

Source: Ministry of Energy of the Russian Federation
Regional structure of coal production in Russia
2010–2014, %

Coal in Russia is produced in 7 federal districts and 25 federal subjects. Almost 85% of coal production in 2014 came from Siberian federal district. Its significance for Russian coal industry is growing.

The largest coal producing federal subjects of the Russian Federation (Kemerovo Oblast, Krasnoyarsk Krai and Zabaykalsky Krai) are situated there.

Coal production and upgrading in Russia by types
2005-2014, mln t

Up to 80% of coal produced in Russia is presented by hard coal. Production of coking coal in 2014 made up around 86 mln t or 24% of the total. While almost all coking coal in Russia is upgraded, upgrading level of steam coal was only 27%.
Russian coal industry is dominated by large coal mining and iron and steel holding companies. The largest coal mining company of Russia JSC «SUEK» in 2014 produced almost 28% of national output. The share of top-5 coal producing companies was 60%. The rest of national production comes from around 20 minor producers.

Source: Ugol Magazine
Coal consumption growth in the world is slowing. In 2013 it grew by 2% as compared with 2012. Leading world consumer of coal, China (up to 50% of the total) is concentrated on energy balance diversification, reduction of energy intensity and limitation of greenhouse gas emissions. Russian share in world consumption of coal was 3%.

Source: IEA World Coal Supply
Supply of Russian coal to main consumers

2005-2014, mln t

In 2014 Russian companies increased coal supplies by 1% — up to 322 mln t. Meanwhile supplies to domestic market fell by 4% due to lower demand from electric power industry and population. Exports of coal from Russia augmented by 8%, imports (mainly from Kazakhstan) decreased by 16%.

Average domestic coal prices in Russia

2005-2014, rubles/t

In 2014 average domestic coal prices (either for hard steam coal or for coking coal) in Russia stabilized at the level of the previous year.

Russian investment to coal industry

2010-2014, bln rubles

Investment in Russian coal industry decreased by 28% in 2014 to the level of 2013. In the context of complicated economic situation in the country, coal companies began to freeze their investment projects.

* Iron and Steel Industry, Cement Industry, Russian Railways, etc.

Source: Ugol Magazine

Source: Ministry of Energy of the Russian Federation

* Preliminary Data
Russian hard coal exports in 2014 reached 152 mln t (+8% to the level of 2013) though in monetary terms there was a slight decrease to 11.6 bln $ (-2%) as a result of falling coal prices in the world. The largest volumes of coal from Russia went to China, UK, South Korea and Japan. Eastern vector is a priority for Russian coal exports.

Source: Federal Customs Service of Russia
Top coal exporting countries
2005-2013, mln t

International coal trade grew by 4% in 2013 (to the level of 2012). Approximately 90% of coal trade is seaborne trade. Indonesia strengthened its position as the world leading coal exporter. Its share in the world coal exports approached 32%. Russia preserved the third rank with 11% of world total.

World coal prices
2005-2013, $/t

The world market for coal is oversupplied. In 2013 coal prices irrespective of coal type or region fell. In 2014 they continued to decline so that steam coal prices approached their 5-year minimums.

World steam coal prices
2013-2014, $/t

Source: IEA World Coal Supply
Source: Metal Expert
Source: BP
Source: ВР
Petrochemicals

There is a growth of investment and evolution of import substitution in Russian petrochemical industry.
Growth of plastics production in Russia slowed to 3% in 2014. The reason was an accident at Stavrolen plant in February which caused sharp decline in polyethylene production. Still there was considerable growth in polypropylene and polystyrene production. New vinylchloride plant «RusVinyl» LLC opened in October (with the capacity of 300 tsd t per year).

In 2014 investment in Russian petrochemical industry increased by 14% as compared with 2013 and totaled 140 bln rubles.
In Russian petrochemical industry a trend of import substitution is evolving. In 2014 Russia continued to reduce imports of large-tonnage polymers and to raise their exports (with the exception of polyethylene). Nevertheless import dependence for certain items is still considerable.

Source: Ministry of Economic Development of the Russian Federation, Federal Customs Service of Russia
Total electricity consumption in Russia in 2014 was close to the level of the 2013 year.
Absolute growth of capacity in the UES of Russia amounted to 6 GW in 2014 (+3% to the level of 2013), from 2008 to 2014 it was 21.8 GW (+10.4% to the level of 2008). Total installed capacity in Russia grew at 23 GW from 2008 to 2014.

The installed capacity of power plants of UES of Russia in 2014 grew mainly due to fuel power by the Capacity Delivery Agreement (65% of all entries), the rest of the growth was provided by nuclear power (1 GW) and hydropower (in total — 1.5 GW).

Depreciation of fixed assets in the electricity did not exceed the average level of all industries in 2013. Depreciation was 34% for the generation, 43% for transmission and 35% for distribution in 2013, but depreciation in all electricity sectors has tendency to grow.

Source: Rosstat
Investments in generation, transmission and distribution of electricity in Russia*
2010–2014, bln rubles

Investment in electricity sector was roughly at the same level in 2014 in comparison to 2013
- distribution and trade
- transmission
- generation

Investments in fixed capital without small enterprises and statistically unobservable investments
Source: Rosstat

Change of investments in electricity in fixed capital of Russia in 2014 in comparison to 2013*
2014 in comparison to 2013, %

<table>
<thead>
<tr>
<th>Category</th>
<th>Absolute change to 2013 bln roubles (constant prices)</th>
<th>Per cent change, physical volume, % to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation and distribution of electricity</td>
<td>-3</td>
<td>-0.3</td>
</tr>
<tr>
<td>Generation</td>
<td>59</td>
<td>13</td>
</tr>
<tr>
<td>Transmission</td>
<td>-34</td>
<td>-11</td>
</tr>
<tr>
<td>Distribution and trade</td>
<td>-28</td>
<td>-27</td>
</tr>
</tbody>
</table>

We can see reduction of investment in transmission and distribution, investment in the production of electricity increased by 13%

* Investments in fixed capital without small enterprises and statistically unobservable investments
Source: Rosstat
Average electricity price by consumers (nominal prices)
2004, 2010-2014, rubles/kWh

Electricity price for industry and households and CPI in Russia
2004-2014, year by year, %

Electricity prices growth for different consumer groups was no faster than the rate of inflation in 2014.

Source: Rosstat
There was a small increase of electricity consumption in 2014 by the level of 2013, but it was because of relatively low base in 2013 (in comparison to previous periods), and not of because economic growth. There was decline in 2014 compared with 2012 level.

Industrial growth had not led to an increase of electricity consumption in 2014 in comparison to 2013.