



Bank of Russia

The Central Bank of the Russian Federation



**No. 1**  
2014 Q4 - 2015 Q1

Information  
and Analytical  
Review

**Financial  
Stability  
Review**

Moscow

All statistical data and calculations in this Review are given as of April 1, 2015.

This Review in the Russian and English languages is also placed on the Bank of Russia's website (<http://www.cbr.ru/publ/?PrId=stability>).

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## SUMMARY

*In 2014 Q4 – 2015 Q1, the Russian financial system faced a number of challenges: oil price fall, high debt redemptions, and credit ratings downgrade, which collectively resulted in considerably higher market volatility. However, measures implemented by the Bank of Russia and the Russian Government during that period stabilised the situation relatively quickly. The financial system turned out to be resilient to external shocks due to, inter alia, the measures aimed at improving banking regulation and financial market development implemented in the past few years.*

*Not all the risks faced by the global and Russian financial systems were predictable. In particular, in the first six months of 2014, almost no analyst forecasted a considerable drop in oil prices observed in the second half of 2014. This episode confirmed that it is necessary to increase the financial sector resistance to key threats, develop risk management practices, and ensure availability of instruments in the central bank and the government to efficiently solve arising problems, in particular, the availability of sufficient foreign currency reserves at the central bank's disposal in order to carry out FX refinancing operations and interventions. The current level of foreign currency reserves in Russia meets all generally recognised criteria of foreign currency reserve adequacy. However, conditions in Russia require a more conservative approach that should take account of the possibility of prolonged restricted access to the foreign markets and the necessity to cover potential sizeable capital outflows for two to three years. Accordingly, the Bank of Russia has launched a policy to gradually replenish the international reserves to the target level of US\$ 500 billion.*

*In December 2014, against a backdrop of falling oil prices, considerable external debt repayments amid sanctions and general deterioration in economic situation, the Russian financial market experienced high volatility and ruble depreciation against the US dollar and the euro (in 2014 Q4, the ruble value of the dual-currency basket calculated at the official Bank of Russia exchange rates rose by 39.7%). It was accompanied by capital outflow from Russia, mostly due to the increased corporate and household demand for foreign currency. Banking sector liquidity deteriorated: the value of household deposits declined considerably (the maximum accumulated decline from 1 November to 25 December 2014 stood at 5.1%, adjusted for exchange rate revaluation), money market interest rates rose. For broker-dealers interest rates on interdealer repo exceeded 27% p.a. in the certain period. At the same time, the financial system did not face the liquidity crisis: the decline in household deposits during this period was offset by a considerable increase in corporate deposits (10.9%) and growth in the volume of the Bank of Russia refinancing operations (43%). This allowed banks to preserve most of their positions in the money market, including broker funding.*

*Large-scale anti-crisis measures taken by the Bank of Russia and the Russian Government<sup>1</sup> contributed to a relatively fast stabilisation of the situation, and starting from February negative trends were overcome. Amid higher attractiveness of ruble savings, households started selling foreign currency and deposit growth resumed (also facilitated by an increase in the deposit compensation limit from 0.7 million rubles to 1.4 million rubles in December 2014). The situation in financial markets improved due to better external conditions: growing prices for Urals crude (from the minimum of US\$43 per barrel in January to US\$60-65 per barrel in early May 2015), and mitigation of geopolitical risks after the Trilateral Contact Group worked out a package of measures to implement the Minsk Agreements on 12 February 2015. As a result, from*

<sup>1</sup> Bank of Russia press release, dated 17 December 2014, 'On Bank of Russia Measures to Maintain Stability of the Russian Financial Sector'; Order of the Government of the Russian Federation No. 98-r, dated 27 January 2015.

February to April 2015, the ruble value of the dual-currency basket decreased by 27%. Despite the fact that the two leading rating agencies (Standard & Poor's and Moody's) downgraded the Russian sovereign rating to the speculative grade, the Russian government bond market still attracted foreign investors: from mid-March to 1 May 2015 their investments in federal loan bonds (OFZ) rose by about 50 billion rubles. After a surge during the period of increased market volatility observed in December 2014 OFZ yields returned to the level of last November.

The maximum external debt repayments of non-financial companies and banks were scheduled for 2014 Q4 – 2015 Q1, in the following periods repayments are considerably lower. Companies and banks have substantial FX liquidity buffer to repay external debts. The volume of funds borrowed by credit institutions under the Bank of Russia refinancing operations in foreign currency amounted to US\$ 36 billion (as of 9 June 2015). According to the Bank of Russia estimates, the remaining limit (US\$ 14 billion) is currently sufficient to ensure stable situation with FX liquidity in the domestic market. Besides, as market conditions improve, Russian borrowers return to external markets: from November 2014 to April 2015, non-financial companies raised subordinated loans and issued Eurobonds for US\$ 6.1 billion (data provided by Cbonds), and credit institutions – for US\$0.7 billion. Domestic placements are actively conducted. The volume of ruble-denominated corporate bond placements stood at 1.8 trillion rubles from November 2014 to April 2015. Nevertheless, the following risks remain within the upcoming quarters.

### External Risks

In the short term, the US Fed's discount rate is expected to be increased from the level of 0-0.25% at which it stood for the past seven years. Although this event is expected, tighter monetary conditions in the United States may result in moderately negative consequences for the emerging markets: currency depreciation, higher bond yields, and capital outflow. Accommodative measures in the euro area where the signs of economic recovery have begun to emerge can to a certain extent smooth negative consequences of tighter Fed policy for emerging markets. At the same time, uncertainty about the situation in Greece that fails to coordinate its plan of social and economic reforms with international lenders to receive the next tranche of loans contributes to increased volatility of global currencies.

The uncertainty about oil price dynamics still persists. In the recent months the price growth has been driven by the expected decline in oil supply, however, the observed price growth increases profitability of oil production for shale fuel producers in the USA and Canada. Besides, possible increase in exports from Iran when other OPEC countries preserve their shares in output may impede the balance between supply and demand in the market. At the same time, the current price for Urals crude (US\$60-65 per barrel) is quite acceptable with regard to both creditworthiness of the Russian oil companies and fiscal sustainability of the state budget.

### Non-financial Organisations' Risks

Against a backdrop of the economic downturn, Russian companies have to optimise their business processes, in particular, capital investments and borrowings. Amid ruble depreciation and a decline in revenues debt burden continued to grow: according to consolidated statements for 2014 of 150 major companies, the average net debt to EBITDA ratio increased from 1.9 to 2.2.

The financial standing of oil and gas companies will remain stable even in case of the most unfavourable situation in the commodity markets (oil price at US\$40 per barrel). The ruble depreciation will compensate for a decline in export revenues, and changes in the tax burden resulting from the 'tax manoeuvre' are inessential under the current conditions. At the same time, elevated risks are relevant for the following industries: construction, operations with real estate and leasing. Amid shrinking household demand for housing and deteriorating financial standing of commercial property tenants, some construction and

developer companies have sizeable loans denominated in foreign currencies, while their FX income is limited. Accordingly, the transfer of lending to this sector and lease payments into rubles will facilitate higher resilience to currency risks in this sector.

### **Banking Sector Risks**

The key problem of the banking sector in the coming year will be credit risks amid negative GDP dynamics. Due to the decline in business activity in most industries the growth in the share of bad loans is already observed. The following industries show considerable growth of overdue loans from early 2015: construction, agricultural machine and equipment building, and trade. Amid high debt burden of the corporate sector the quality of corporate loan portfolio will continue deteriorating.

The situation in the unsecured consumer lending continued to worsen in the past six months: 2015 Q1 saw negative debt growth (-5.2%), return on equity of banks specialized in retail lending stood at -6.8% as of 1 April 2015. However, the analysis of the credit quality of loan vintages shows that banks tightened lending standards considerably in 2014. The share of bad loans can be expected to peak (16.5-17.0%) in 2015-first half of 2016, afterwards the situation will improve.

Credit risk results in considerable drop in banking sector profits due to the higher loan loss provisions hampering banks from increasing their capital. At the same time, the programme of recapitalisation of banks through the DIA will provide tangible support to the banking sector.

A package of regulatory easing measures implemented in December 2014 contributed to the elevated level of banking sector capital adequacy by 1.5 pp. As the situation in the financial market stabilised, the contribution of these loosening measures reduced to 0.5-1.0 pp by 1 April 2015. The Bank of Russia decided to gradually exit from anti-crisis regulatory measures; however, to avoid adverse pressure on banks' ratios some regulatory easing measures were extended<sup>2</sup>.

The surge in the interest rates in the Russian economy in 2014 Q4 increased interest rate risk of the banking sector emanated from a considerable negative difference between assets and liabilities of banks sensitive to interest rate fluctuations on the horizon of up to 30 days. Factors conditioning this difference are high dependence of banks on short-term funding, depositors' propensity to transfer funds to more profitable deposits, and a low share of loans at floating interest rates. The reduction of the key rate by the Bank of Russia in 2015 decreases considerably the expected losses from interest rate risk, however, to reduce vulnerability to this risk in future, banks can be recommended to improve their interest rate risk management practices.

### **Non-bank Financial Institutions' Risks**

The segment of non-bank financial institutions does not bear any considerable risks to financial stability due to its small size (about 6% of total assets of the financial system). At the same time, the Bank of Russia monitors risks which could have a negative impact on non-bank financial institutions' ability to perform their functions with proper quality and continuity.

In 2014, the compulsory motor third-party liability insurance market saw certain difficulties due to inadequacy of insurance tariffs and existing court practice. In response to the growing loss ratio of motor insurance, many insurers decided to optimise their regional networks, reduce or sell their retail portfolios, or abandon the market. The situation began to improve after a series of adjustments to compulsory motor third-party liability insurance tariffs in conjunction with liability limits extension.

<sup>2</sup> The Bank of Russia press release, dated 15 May 2015, 'On Anti-crisis Measures in Banking Regulation'.

*After several years of uncertainty about the future of pension accumulations, the Russian Government decided to preserve them in the pension system and resume the accumulations from 2016. This decision will ensure a stable inflow of long-term money to the economy and will contribute to lower volatility in the Russian stock market.*

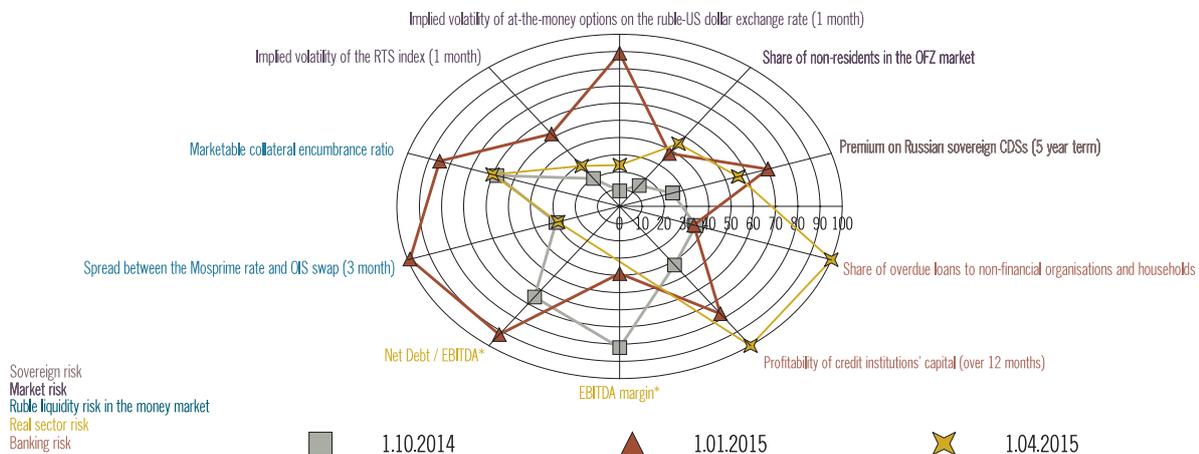
## 1. RISK MAP

In the first quarter of 2015, market risk indicators improved significantly following a period of increased volatility in December 2014, ruble liquidity indicators returned to their level of October 1, 2014. In the real sector, the debt burden continued to increase.

The situation in the banking sector deteriorated significantly, and this was reflected in the increased share of overdue loans and in the reduced return on equity.

Chart 1.

Changes in Key Russian Financial Market Indicators (units)



\*Net debt/EBITDA and EBITDA margin are calculated on the basis of consolidated financial statements of 107 companies. Data for 01.04.2015 is not available.

**Note:**

The scale of 0-100 units reflects minimum and maximum indicator values over the horizon January 1, 2012 through April 1, 2015.

From the centre to the periphery:

- increase of the premium on sovereign CDS (5 years),
- reduction of the share of non-residents in the OFZ market and growth in temporary volatility of at-the-money options on the RUB/USD exchange rate (1 month),
- growth in implied volatility of the RTS index (1 month),
- increase in the market asset encumbrance ratio,
- increase in the Mosprime rate and OIS swap spread (3 months),
- increase in the ratio of debt less cash and equivalents to earnings before interest, taxes and amortisation (Net Debt/EBITDA),
- reduction in the ratio of earnings before interest, taxes and amortisation to sales revenue (EBITDA margin),
- reduction of credit institutions' return on capital (over a 12-month period),
- increase in the share of overdue debt on loans to non-financial institutions and households.

## 2. GLOBAL ECONOMIC AND FINANCIAL MARKET RISKS

### 2.1. Risks and Economic Prospects in Major Economies

In 2014, global GDP growth rates remained at the level of 2013 (3.4% according to the IMF estimate). It is expected that in 2015-2016 the growth rate of major countries' GDP will remain at a lower level compared to the average annual rates before the 2008 crisis (see Table 1). In 2015, developed countries' economic growth rates will be 0.4 percentage points below the average for the ten years preceding the crisis, while in emerging markets and in developing countries growth rates will be 1.6 percentage points lower. At the same time, the US economy is expected to grow with moderate pace, with the euro area registering some increase in the economic growth rate, while China and a number of other emerging markets will experience economic slowdown.

One of the key events of the recent period was the significant fall in oil prices (see Chart 2). The fall in oil prices has had a mixed impact on the global economy in terms of its cumulative effect. The persistently weak global economic growth rates point to a limited nature of the positive stimulus provided by the fall in oil prices, linked to the increase in aggregate demand. However, the fall in oil prices has increased deflation risks in many advanced economies (the USA, Japan and the euro area). At the same time, reduced inflationary pressure was a positive factor for emerging markets, since it enabled many central banks to reduce their key rates in an effort to support economic growth. Many oil-exporting countries encountered negative factors: in particular, there was a surge in risks to their fiscal resilience due to the fall in their export revenue and in sustainability risks faced by highly leveraged companies in the non-financial sector.

Table 1

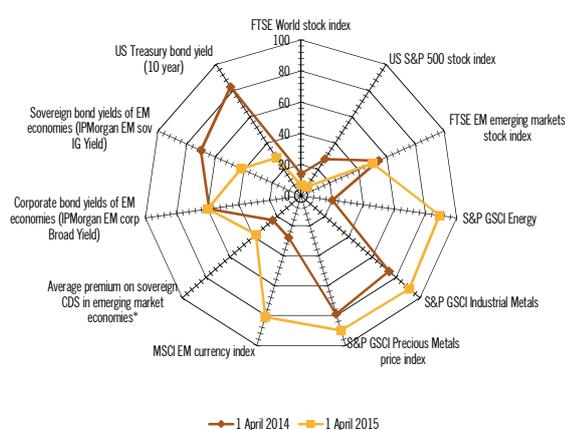
GDP Growth Rates in Major Economies

	GDP growth, %						Difference from the average pre-crisis level, p.p.			
	1998-2007	2003-2007	2013	2014	Forecast (Apr. 2015)		over 10 years		over 5 years	
					2015	2016	2015	2016	2015	2016
World	4.2	5.1	3.4	3.4	3.5	3.8	-0.7	-0.4	-1.6	-1.3
Developed countries	2.8	2.8	1.4	1.8	2.4	2.4	-0.4	-0.3	-0.4	-0.4
USA	3.0	2.9	2.2	2.4	3.1	3.1	0.1	0.0	0.3	0.2
United Kingdom	3.1	3.0	1.7	2.6	2.7	2.3	-0.4	-0.7	-0.3	-0.7
Euro area	2.3	2.2	-0.5	0.9	1.5	1.7	-0.9	-0.7	-0.7	-0.5
Japan	1.0	1.8	1.6	-0.1	1.0	1.2	0.1	0.2	-0.8	-0.7
Emerging markets & developing countries	5.8	7.7	5.0	4.6	4.3	4.7	-1.6	-1.1	-3.4	-2.9
China	9.9	11.7	7.8	7.4	6.8	6.3	-3.2	-3.6	-4.9	-5.4
India	7.2	8.8	6.9	7.2	7.5	7.5	0.3	0.3	-1.4	-1.4
Brazil	3.0	4.0	2.7	0.1	-1.0	1.0	-4.0	-2.0	-5.0	-3.0
South Africa	3.7	4.7	2.2	1.5	2.0	2.1	-1.7	-1.6	-2.7	-2.6
Turkey	4.2	6.9	4.1	2.9	3.1	3.6	-1.0	-0.6	-3.8	-3.3
Mexico	2.9	3.4	1.4	2.1	3.0	3.3	0.1	0.4	-0.4	-0.1
Oil exporting countries										
Russia	5.8	7.5	1.3	0.6	-3.8	-1.1	-9.7	-6.9	-11.3	-8.6
Iran	5.2	6.4	-1.9	3.0	0.6	1.3	-4.7	-3.9	-5.8	-5.1
Venezuela	3.2	7.9	1.3	-4.0	-7.0	-4.0	-10.2	-7.2	-14.9	-11.9
Saudi Arabia	4.3	7.1	2.7	3.6	3.0	2.7	-1.4	-1.6	-4.2	-4.4
UAE	5.7	7.2	5.2	3.6	3.2	3.2	-2.6	-2.6	-4.1	-4.1

Source: IMF.

Chart 2

### Changes in Key Global Financial Market Indicators (units)



\* The sample includes China, Brazil, Russia, South Africa, Indonesia, Philippines, Malaysia, Mexico, Peru, Chile, Turkey, Hungary and Poland.

The scale of 0-100 units reflects minimum and maximum indicator values over the period 1 January 2012 through 1 April 2015.

From the centre towards the periphery – fall in stock exchange indices, fall in commodity prices, depreciation of emerging market economies' currencies, growth in the yields on government and corporate bonds, and increase in the premium on sovereign CDSs.

Source: Bloomberg.

The IMF downgraded its GDP growth forecast for many of those countries for the coming years.

In the current situation, the US Federal Reserve (Fed) reduced its US GDP and inflation growth forecast for 2015 and moderated rhetoric concerning its plans to raise the federal funds rate at the meeting on 17-18 March 2015. According to the Wall Street Journal May survey, most economists expect a Fed decision on raising the base rate to be taken in September 2015. Against this backdrop, the value of the US dollar decreased between March 19 and May 19, 2015: the index of the US dollar relative to key currencies (the DXY index) fell by 4%, and relative to emerging markets currencies (the MSCI EM Currency Index) – by 3.3%. The US annual consumer price index declined from 1.7% in September 2014 to -0.2% in April 2015. Nevertheless, the American economic outlook remains relatively favourable owing to the recovery of the labour market. The country's unemployment rate fell to 5.4% in April 2015.

In the euro area, economic growth remains weak due to the persistence of a multitude of macroeconomic problems – the region suffers from ongoing deflation risks, low business activity, problems associated with the instability of the fiscal sphere and high levels of unemployment. Peripheral euro area countries continue to be susceptible to debt risks.

June 2015 saw an aggravation of political uncertainty linked to Greece having to make its maturing payments on the IFM loan. The Greek government had to announce that it would delay the repayment of the four June instalments and would bundle them up to make a lump sum payment on its debt on 30 June (amounting to 1.6 billion euros). The situation is further exacerbated by the fact that Greece has not managed to come to an agreement with “the Troika” on a plan of social and economic reforms enabling it to receive the next tranche of financing (totalling 7.2 billion euros). The country's authorities were not willing to agree to yet another tax increase and reduction in government expenditure. In his statement, Greek Prime Minister Alexis Tsipras called the Troika's demand to increase the VAT on electricity and to reduce payments to underprovided pensioners unacceptable. Against this backdrop, the yield on ten-year government bonds increased substantially (by 4.9 percentage points to 11.4% between October 1, 2014 and July 1, 2015).

At the same time, there have been some improvements in the dynamics of a number of indicators, largely supported by the launch of several quantitative easing programmes by the ECB. After the euro area recorded a fall in the consumer price index by 0.2% in annual terms in December 2014 (for the first time since October 2009), soon afterwards, the index decreased by 0.6% in January, returned to zero in April, and rose by 0.3% in annual terms in May 2015. The annual increase in private sector lending by euro area banks turned positive for the first time since March 2012, reaching 0.1% in March 2015. The annual increase in lending to non-financial organisations, though still negative, improved markedly (from -3% in February 2014 to -0.4% in April 2015).

Since October 2014, the ECB has been buying a wide range of asset-backed securities: as of May 1, 2015, under its Asset-Backed Securities Purchase Programme (ABSPP) it had purchased 5.785 billion euros' worth of securities, and under its Covered Bond Purchase Programme 3 (CBPP 3) – it had purchased 75.07 billion euros' worth of bonds including mortgage backed bonds. In March 2015, it launched the Public Sector Purchase Programme (PSPP): as of May 1, 2015, the ECB had purchased 95.056 billion euros' worth of government bonds under this programme. Irrespective of the

considerable scale of the quantitative easing programme, its long-term positive economic impact may prove ambiguous: only countries which have undertaken necessary reforms will benefit from the programme, otherwise quantitative easing will only assist growth temporarily and may be fraught with financial market ‘bubbles’.

In China, the GDP growth rate has been slowing down as the country shifts focus from an extensive and export-driven growth model to increasing the role of domestic demand and ensuring a more proportionate growth in various sectors of the economy. In 2014, China’s GDP growth rate fell to 7.4%. As structural reforms advance, the fiscal incentives are gradually withdrawn and financial regulation is tightened to reduce excessive growth in non-bank lending, it is expected that China’s economic growth rate will fall to 6.3% in 2016 (IMF forecast). At the same time, China faces new challenges evolving in the financial sector, which are linked with the growth of a shadow banking sector (see below in this section).

Overall, in emerging markets the risk of a slowdown in economic growth is associated with weak domestic demand. In addition, macroeconomic fundamentals – the state budget and current account balances – are negative in many of these countries (Brazil, India and Turkey).

Consequently, the global risks associated with an increase in the Fed’s federal funds rate have been deferred to a slightly more distant future, while low interest rates are expected to persist in global markets for a longer period of time. On the one hand, the continuing low global interest rates are a positive factor, since they create a favourable environment for economic stimulation. But, on the other hand, they are fraught with excessive accumulation of potential risk, which could materialise as monetary policy is tightened and financial systems adapt to the new conditions of interest rate normalisation. In particular, having to operate in a low interest rate environment, market participants will continue to transform the maturities of financial resources, build up leverage in the public and/or private sectors, increase investment in high-risk assets and refinance loans to sub-prime borrowers.

In spite of the deferred increase in the Fed’s federal funds rate, emerging markets remain exposed to the risk of an increase in global interest

rates. Three key risk spillover channels can be distinguished in these countries.

First, the hike in US bond yields may lead to considerable capital outflows from emerging market economies. Bearing in mind that the 2008 crisis was followed by a substantial liquidity squeeze in secondary bond markets, even small-scale bond sales could trigger considerable price adjustments and losses for the banking sector.

Second, the depreciation of national currencies caused by the US monetary policy tightening could exacerbate the problem of the heavy debt burden in the corporate sectors of many emerging market economies. Aggregate US dollar borrowing by non-bank borrowers in developing countries has risen significantly after the crisis, amounting, according to the Bank for International Settlements (BIS) estimates, to approximately US\$3.2 trillion. According to the World Bank, OECD and IMF data, in 2014, the total external debt of the corporate sector was 71.2% of GDP in Hungary, 40.2% of GDP in Chile, 21.1% of GDP in Malaysia, 17.2% of GDP in Turkey, 17.0% of GDP in South Africa, 13.8% of GDP in Brazil, and 11.7% of GDP in India. Until recently, issuing US dollar-denominated debt was a very attractive source of funding compared with local capital markets, due to lower interest rates and greater market capacity. Losses caused by the realisation of foreign exchange risks could be significant, in particular, bearing in mind that foreign exchange risk hedging is not always effective. Moreover, it is difficult to assess the scale of the consequences in advance, since regulators frequently lack information on private sector’s positions, including on FX positions and derivatives transactions.

The exposure of Russian non-financial organisations to foreign exchange risk is also potentially quite high, considering the fact that the total external debt was 29.4% of GDP (as of January 1, 2015). Domestic foreign currency loans to non-financial organisations accounted for roughly one third of the total bank credit to non-financial organisations, or 13.8% of GDP (as of January 1, 2015). However, unlike other emerging markets, Russian non-financial companies have been actively deleveraging during the past year, due to the insufficient access to foreign markets, which reduced their exposure to this risk.

Following the massive outflow of capital in 2014, the threat of the situation deteriorating posed by the expected tightening of US monetary policy has become less serious. Nonetheless, the emergence of severe turbulence in global markets cannot be ruled out. In these circumstances, maintaining financial stability may force the Bank of Russia and other countries' central banks to provide credit institutions with foreign currency liquidity or to intervene in the foreign exchange market.

Third, the shadow banking sector is growing, which changes potential shock-transmission channels. According to the Financial Stability Board (FSB), the assets of the shadow banking sector in emerging market economies are growing especially fast. Based on 2013 performance, the assets of financial intermediaries other than insurance companies and non-state pension funds are estimated at 55% of GDP in South Africa, 50% of GDP in Brazil, 32% of GDP in China, and 23% of GDP in Mexico<sup>1</sup>. In Russia, the assets of other financial intermediaries are smaller (approximately 5% of GDP in 2014). The assets of Russian

insurance companies and non-state pension funds are also much smaller than in other countries (5% of GDP as of 1 January 2015).

In China, trust companies have considerably increased the scale of the asset management product offering (from 7% of GDP in 2010 to 20% of GDP in 2014), with many assets underlying these products associated with high-risk infrastructure projects. The country has seen falling property prices, which can have an adverse impact on the ability of trust companies to generate income and lead to bankruptcies. The annual price growth of new residential property in China's 70 largest cities has been negative since September 2014 (-6.3% in April 2015 compared with 6.4% the year before).

Overall, the fairly satisfactory foreign trade balance and budget situation, the low public debt, the absence of excessive dependence of non-financial organisations on foreign currency funding and robust international reserves have enabled Russia to maintain a relatively high level of resilience to potential global financial market imbalances.

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<sup>1</sup> FSB methodology classifies Other Financial Intermediaries (OFI) as the shadow banking entities, while insurance companies and non-state pension funds are not regarded as part of the shadow banking system.

## 2.2. Risks of Lower Commodity Prices

Chart 3

### Oil

Over the period from the fourth quarter of 2014 to the first quarter of 2015, the average price of Brent crude fell by 38%, to US\$66.3, compared with the average price calculated for the two previous quarters (US\$106 in the second and the third quarters of 2014). The key factor driving the price fall was the change in the industry's fundamentals, in particular the significant increase in supply by the largest producers. The increase in oil production in the USA and the unwillingness of OPEC members to reduce oil extraction, together with falling economic growth rates in China and the euro area, led to an imbalance of demand and supply in the oil market. Another factor which exerted significant pressure on prices was the considerable appreciation of the US dollar against major world currencies, reaching a 12-year high<sup>2</sup> (see Chart 3).

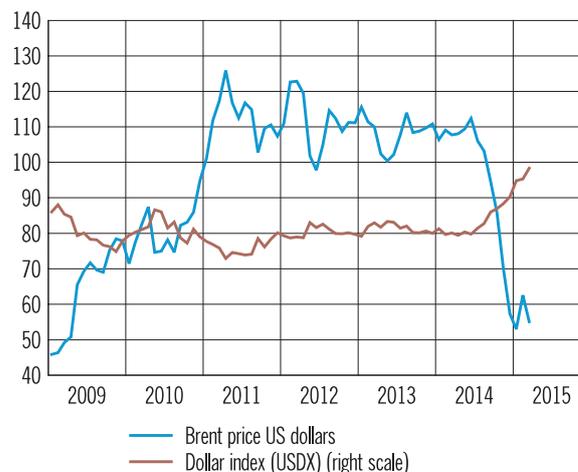
Amid low oil prices, increase in defaults of foreign oil-producing companies cannot be ruled out. Historically, growth in corporate defaults in the energy sector resulting from a fall in oil prices occurs with a 12-month lag after a sharp fall in oil prices. Since the decrease in oil prices last autumn, insufficient time has elapsed for the shock to have had a full impact on companies' balance sheets<sup>3</sup>. The scaling down of production and the insolvency of some heavily indebted companies constitute an additional factor which could escalate oil price forecasts. The consensus forecast of Brent crude prices in the first quarter of 2016 by Bloomberg analysts was US\$70 per barrel. The current prices of oil derivatives (futures and options) assume a high degree of uncertainty of future price levels; however, in March-April 2015, the implied volatility of contracts in annual terms fell to 34% from the levels of over 45% between December 2014 and February 2015<sup>4</sup>.

<sup>2</sup> The assessment is based on the US dollar index (USDIX) dynamics showing the value of the US dollar in relation to a basket of six key currencies: the euro, the Japanese yen, the pound sterling, the Canadian dollar, the Swedish krona and the Swiss franc.

<sup>3</sup> IMF. *Global Financial Stability Report*. April 2015.

<sup>4</sup> U.S. Energy Information Administration – *Short Term Energy Outlook*. May 2015

US Dollar Index (USDIX)  
and Oil Prices



Source: Bloomberg.

Key factors supporting the rise of oil prices in the medium and long term could be a fall in production volumes in oil fields with high production costs (e.g. the shale deposits in the USA and the oil sands in Canada), as well as cutbacks in planned investment programmes by large companies in the face of low price levels. The first factor has already been supported by a reduced number of oil rigs in the USA (as of May 15, 2015, their number fell by 59% from the peak seen in October 2014 and currently stands at 2011 levels). Nevertheless, a proportional fall in the oil production growth rate is not expected, since the cost effectiveness of fracking and horizontal drilling technologies is directly dependent on the combined experience and practices accumulated in the specific fields, which may increase the economic cost effectiveness of production and therefore bring down the break-even levels.

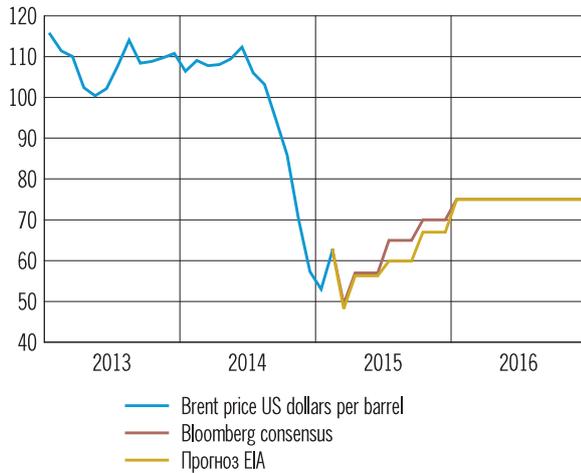
At the same time, oil supply could increase due to the growth in exports from Iran resulting from an agreement on the nuclear programme, the complete lifting of sanctions and the subsequent removal of the embargo on oil exports. According to EIA assessments<sup>5</sup> (see Chart 4), the fall in the average annual forecast prices for 2016 as a result of increased oil exports from Iran could amount to US\$5–15 per barrel (oil market supply could increase to 1.0-1.5 million barrels per day).

Other fundamental oil price reduction risks include the risk of the US lifting its oil export

<sup>5</sup> The Energy Information Administration is part of the Federal Statistical System of the United States.

Chart 4

### Oil Prices and Forecasts by Bloomberg and EIA



Sources: Bloomberg, US EIA.

restrictions and a further strengthening of the US dollar driven by the expected rise in Federal Reserve interest rates.

### Other Commodities

In the fourth quarter of 2014 and the first quarter of 2015, the prices of most commodities fell (see Chart 5) due to the falling economic growth rates in major metal-consuming countries (especially China), the US dollar appreciation, increasing steel exports from China and structural overproduction in the iron ore market. The prices of steel products exported to Europe could also experience additional pressure from antidumping proceedings and the imposition of duties by the EU on a number of countries (including China, Korea, Russia, the USA, Japan and others – see Chart 6). Overall, ferrous metal and mining industry products have experienced more pressure than non-ferrous metals due to the greater imbalance between demand and supply. For instance, the prices of coal and ferrous metals have fallen on average by 10% since the beginning of 2015 and by 26% in the past 12 months, while over the same periods non-ferrous metal prices fell by 4% and 6% respectively (see Chart 5).

In 2015, one of the key factors capable of affecting the growth of commodity prices could be the implementation of stimulus measures by key metal-consuming developing countries. One example is the Chinese government's implementation of real estate market measures, such as the purchase of

Chart 5

### Main Commodity Prices as of April 2015 (%)

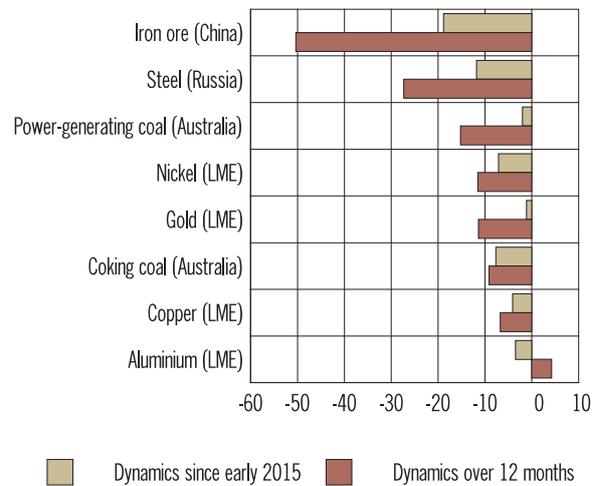


Chart 6

### Steel Exports and Steel Product Prices



Sources: Bloomberg, US EIA.

real estate from developers and its subsequent conversion to social housing, that resulted in developers' acquiring funds which could be used for investment in construction. Another factor preventing a drastic fall of prices in various markets is the availability of large amount of capacity (this is in particular typical of the aluminium market) operating on a verge of loss or at a loss. Therefore, if prices fall significantly, it is more reasonable for producers not to incur losses and shut down their facilities, and this in turn will reduce supply<sup>6</sup>.

<sup>6</sup> Approximately one third of all world aluminium plants (excluding China) are loss-making at current prices (Source: Rusal – Global aluminum industry overview).

### 3. RISKS OF ENHANCED VOLATILITY IN THE STOCK AND THE FOREIGN EXCHANGE MARKETS

#### 3.1. Enhanced Volatility in December 2014 and Response of the Bank of Russia

In the first half of December 2014, the volatility of the ruble exchange rate and of quoted securities prices in the Russian financial market plummeted due to the substantial aggravation in external market conditions and investor expectations. In order to maintain financial stability the Bank of Russia and the Government have taken additional measures which resulted in a significant improvement of the situation in 2015 Q1. Amid the easing of the Bank of Russia's monetary policy and the narrowing of credit spreads, the cost of ruble borrowing in the money market and also the yields on debt securities fell. The ongoing banking sector recapitalisation programme is increasing the resilience of the banking system and financial markets to potential shocks. At the same time, the likelihood of shocks occurrence has fallen. First, oil prices have stabilised at approximately US\$60 per barrel and the probability of a further fall is lower than six months ago. Second, banks and non-financial organisations have passed the peak in the external debt repayments which occurred in the fourth quarter of 2014 Q4 and the first quarter of 2015.

#### Causes of Turbulence in the Foreign Exchange Market

Between the beginning of October and 18 December 2014, the official ruble/US dollar exchange rate fell by 41.9%. During the same period, the price of Urals crude fell by 38%. In addition, the repayment of a significant amount of external debt – US\$63 billion – was scheduled for the fourth quarter of 2014. Of this amount, US\$32.4 billion had to be repaid in December (based on the balance of payments statistics as of October, 1 2014). In the fourth quarter of 2014, the actual amount of external debt repayments by companies and banks was significantly less than planned (US\$25.6 billion),

mainly because the majority of the maturing loans were in fact intragroup loans which were rolled over. However, the sharp fall in oil prices and the more conservative expectations of external debt repayments created fundamental preconditions for the ruble depreciation.

Non-financial organisations and households began to increase their foreign currency assets as early as October, while exporters delayed converting their foreign currency revenue into rubles, causing the ruble exchange rate to drop below the fundamental proven value (determined by macroeconomic factors). Apart from speculative demand for foreign currency, this was encouraged by FX derivative transactions, which in the past years had been concluded by many large non-financial organisations, mainly in order to reduce borrowing costs. In particular, a series of market volatility upsurges was associated with barrier options (when the exchange rate reaches a specified level, the ruble debt is converted into another currency at a predetermined rate), which were included in loan agreements with major Russian and foreign banks. In order to reduce their costs, counterparty banks entered into hedging transactions with other, usually foreign, banks. As a result, as the barrier exchange rate was approached, the banks' need for foreign currency to secure their hedging transactions increased sharply, even though non-financial organisations' payments were due in several months' time.

At present, the Bank of Russia receives information about transactions of this kind only from Russian banks, and on a voluntary basis from non-financial organisations, meaning that it does not have complete information, which complicates risk assessment. It is expected that from October 1, 2015 information about all over-the-counter derivatives will be reported to trade repositories and will become available to the regulator in accordance with the provisions of the Bank of Russia Ordinance No. 3253-U, dated April 30, 2014, 'On the Procedure for Keeping a Register of Agreements Concluded

under the General Agreement (Master Agreement), Deadlines for the Provision of Information Required for the Said Register and Information from the Said Register, as well as Presenting the Register of Agreements Concluded under the General Agreement (Master Agreement) to the Central Bank of the Russian Federation (Bank of Russia)'.

### Measures Taken to Stabilise the Situation

The sharp depreciation of the ruble increased the risk of inflation and of the financial system dollarisation. Devaluation expectations caused the outflow of a portion of household deposits (the maximum cumulative reduction between November 1 and December 25, 2014 was 5.1%, adjusted for foreign currency deposit revaluation) and their conversion into foreign cash (in December 2014, the amount of foreign cash held by the population grew by US\$8.1 billion, having increased during the previous 11 months by an average of US\$2.9 billion). The Bank of Russia's decision to increase the key rate to 17% helped bring down inflation and devaluation expectations, and reduce the profitability of speculation against the ruble, thereby increasing the attractiveness of ruble savings. In the first quarter of 2015, cash outflow from household deposits reverted to cash inflow, with the bulk of demand falling on ruble deposits: after a 2.7% fall in annual terms as of January 1, 2015, they registered a 4.9% growth rate as of May 1, 2015. The adoption of a federal law in December 2014 which envisaged the increase of the maximum deposit insurance coverage from 0.7 to 1.4 million rubles also contributed to this positive deposit dynamics.

In spite of the high volatility of the foreign exchange and stock markets, in December 2014 the financial system maintained its stability partly as a result of the measures implemented by the Bank of Russia in the previous months. Starting from July 2014, the Bank of Russia stopped using the ratings published by credit rating agencies when compiling list of non-financial companies' credit claims to which would be accepted as eligible collateral for Bank of Russia loans under the Bank of Russia Regulation No. 312-P, dated November 12, 2007, 'On the Procedure for Extending Bank of Russia Loans Covered by Assets or Guarantees to Credit

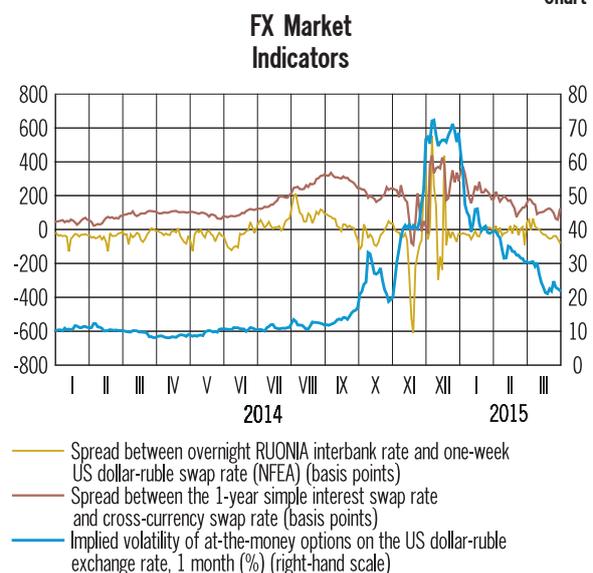
Institutions'. In October 2014, the Bank of Russia suspended the practice of accounting liquidity ratios when including securities in the Lombard List, which enabled it to expand the list of securities it could use as collateral for refinancing operations.

At the end of October 2014, the Bank of Russia started to conduct one-week and 28-day FX repos, from November 5, it started to conduct one-year repos, and from December 4, the minimum interest rates at auctions across all terms were reduced to the LIBOR levels for comparable maturities plus 0.5 percentage points. FX liquidity provided by the Bank of Russia alleviated tension in the interbank foreign currency lending market (Chart 7).

In addition to raising the key rate, from December 16, 2014, the Bank of Russia implemented a series of measures aimed at temporarily easing banking regulation, which made it possible to raise the banking sector's capital adequacy levels by approximately 1.5 percentage points. As the situation in the financial market stabilised, the contribution made by these measures fell to 0.5-1.0 percentage point by April 1, 2015.

The Bank of Russia also implemented measures aimed at developing FX and ruble refinancing instruments. At the end of December 2014 the Bank of Russia decided to create a new facility for extending to credit institutions foreign currency loans (with 28-day and 365-day terms) secured by claims on foreign currency loans. This facility will be available until the end of 2017 and will reduce borrowing costs for large exporters, enabling them to easily repay external debt without any undesired

Chart 7



implications for the FX market. In mid-December, as part of its countercyclical efforts, the Bank of Russia raised the adjustment ratios both on bonds and on non-marketable assets accepted as collateral. Further, the Bank of Russia set criteria for including in and excluding from its Lombard List securities issued as part of bond issue programmes.

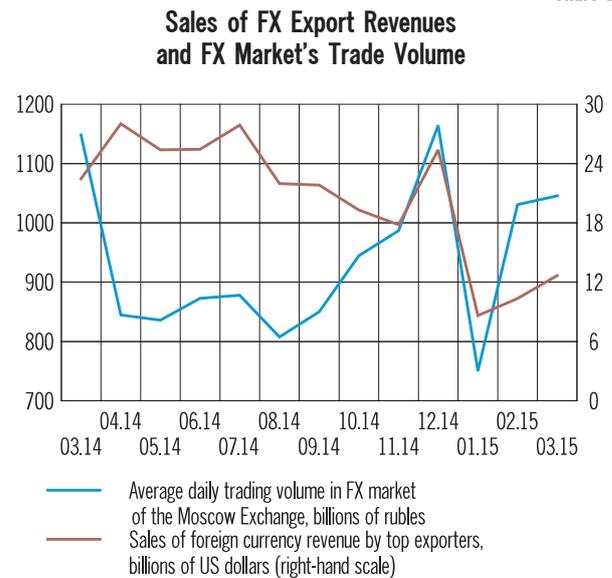
In addition, the Bank of Russia started a day-to-day monitoring of the FX market situation and arranged regular collection of information on the sale and purchase of foreign currency, both directly from large non-financial sector companies and from authorised banks. As for partially state-owned companies (OJSC Gazprom, OJSC NK Rosneft, AK ALROSA (OJSC), OJSC Zarubezhneft, and OJSC Kristall Production Association), the Russian Government instructed persons representing the interests of the Russian Federation to participate in the Board of Directors (Supervisory Board) meetings with the view of bringing by March 1, 2015 net FX asset values to the levels not exceeding those as of October 1, 2014. This measure resulted in an increased supply of foreign currency in December 2014 (Chart 8) and will help to maintain a steady inflow of foreign currency in future as well.

### Probability of Increased Volatility Recurrence in Future

February-March 2015 saw a significant improvement in the foreign exchange and stock market situation. This was associated with fundamental factors: the easing of geopolitical risks, the stabilisation of oil prices and the stability of Russia's balance of payments. Foreign currency refinancing measures implemented by the Bank of Russia also had a positive impact on the situation; aside from the ruble appreciation, they significantly improved situation with foreign currency liquidity. Taking into account the situation in the FX market, from March 2015, the Bank of Russia started raising interest rates on foreign currency liquidity provision operations, refrained against conducting several 364-day FX repo auctions, and completely abandoned them from June 1, 2015.

In the current circumstances, the recurrence of the situation seen in December 2014 seems unlikely. At the same time, even in case of an extreme adverse scenario (a sharp fall in oil prices and a capital outflow from emerging markets due to rising interest rates in advanced economies), the

Chart 8



Bank of Russia has a wide range of instruments to maintain the stability of the financial sector.

The Bank of Russia is continuing its efforts to expand the list of eligible collateral (e.g. there exists a significant potential in mortgage loans, which can be refinanced by issuing mortgage bonds).

In order to resolve the potential problem of distrust in the interbank lending market, it is advisable to amend federal legislation so that the Bank of Russia and credit institutions become entitled to conclude agreements under which credit institutions shall be compensated for part of their losses incurred by transactions with other banks in case the latter's licences are revoked (a draft law was passed by the State Duma in the first reading). The Bank of Russia has the right to extend loans to the Deposit Insurance Agency in order to avoid shortages of the deposit insurance funds. This measure will maintain the sustainability of the banks' deposit base. The Bank of Russia crisis prevention plan includes regulatory measures as well as financial markets support measures which, should a negative scenario materialise, will ensure the stability of the banking system and non-credit financial organisations.

The short period of increased volatility in December 2014 and the success of the Bank of Russia's subsequent stabilisation measures confirm the importance of a central bank having sufficient reserves to support the foreign currency liquidity of the banking system, should it come under stress. In order to replenish its international reserves the Bank of Russia decided, to purchase

foreign currency in the domestic market starting from 13 May 2015.

A key role in ensuring financial stability is played not only by crisis prevention measures implemented by the state, but also by the ability of market participants themselves – banks, non-credit financial institutions and non-financial organisations – to learn lessons from their negative experience, improve their risk management practices, including hedging, and to create capital and liquidity buffers. Non-financial organisations would be well advised to make a more careful assessment of the FX risks associated with borrowing – the FX component of the debt should correspond to a specified amount of foreign currency revenues, also taking into account its potential contraction during a period of ruble

depreciation. Enterprises should use FX derivatives with care, having estimated any potential losses resulting from stress well in advance, and having weighed them against expected gains. Banks would also find it advisable to take full account of the relationship between borrowers' foreign exchange risk and credit risk. In the recent years, Russian banks have granted foreign currency loans to organisations which did not have foreign currency revenue, although this was not a widespread practice. In 2015, the banking sector is expected to register a minimal profit, but as the economy recovers and profitability rises, it would be reasonable for the banks to allocate the bulk of their profits to increasing their capital, so as to enhance their financial sustainability.

### Impact of the Russian Federation's Credit Rating Downgrade on Financial Stability

From 2010 up to 2014, the Russian Federation's sovereign ratings assigned by international rating agencies remained unchanged. In April 2014, amid rising foreign policy tension and expected slowdown in the growth of the Russian economy, S&P downgraded Russia's sovereign rating to BBB-, and in October 2014, the rating was also downgraded by Moody's. In the first quarter of 2015, the sovereign rating was further downgraded by all the Big Three international rating agencies, with two of them (Moody's and S&P) assigning Russia a speculative rating.

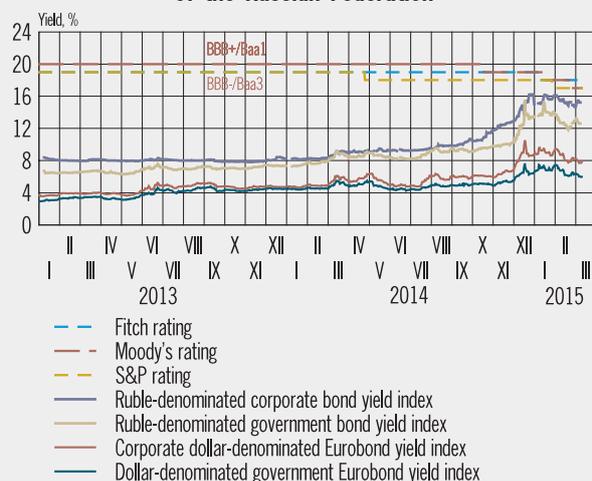
As a rule, the most significant threats associated with the downgrading of a sovereign rating include foreign investors divesting Russian assets, accompanied by an increase in the cost of borrowing for Russian residents as well as the activation of covenants in syndicated loans and other financial instruments tied to international ratings.

However, the downgrading of the Russian Federation's credit rating did not have a significant impact on financial sustainability. The reaction of corporate and government bond yields was moderate (Chart 9). Moreover, in 2015, the downgrading of the sovereign rating took place against the backdrop of a declining trend on bond yields, associated with the easing of the Bank of Russia's monetary policy and the decrease of CDS premiums on the Russian Federation's government debt.

As demonstrated by the Bank of Russia's surveys of Russia's largest credit institutions and non-financial organisations, the threat associated with the enforcement of covenants is of limited nature: in an overwhelming number of cases credit conditions do not include covenants linked to the Russian Federation's credit rating and/or to the rating of the issuer itself. Where contracts do include such conditions, the organisations have sufficient resources to ensure that covenant requirements can be met.

Nor did the downgrading of the sovereign rating have a significant impact on the volume of non-residents' investments in Russian government securities. Since the peak investment period (July 2014), non-residents' OFZ positions have fallen by less than 10%. This fall could have been due to the intention of a number of global banks to exclude Russian government securities from global bond indices. At the same time, from as early as mid-March 2015, the rise in non-residents' OFZ investments was 50 billion rubles (see the 'Non-residents' positions in the OFZ market box).

Chart 9  
Yields on Russian Issuers' Bonds and the Long-term International Foreign Currency Sovereign Rating of the Russian Federation



### 3.2. Outlook for External Debt Repayment by Companies and Banks

According to the Bank of Russia estimates, as of April 1, 2015, the external debt of banks and other sectors amounted to US\$509 billion, which was US\$106.6 billion (17%) less than on October 1, 2014. The key factor underpinning the reduction in foreign debt in the fourth quarter 2014 was not the repayment of the debt, but its revaluation (the reduction of the dollar value of the ruble- and euro-denominated debt due to the US dollar appreciation). Debt reduction resulting from transactions amounted to only US\$25.6 billion (of which US\$15.4 billion related to the non-financial sector and US\$10.3 billion – to the banking sector). On the contrary, the first quarter of 2015 saw a peak of external debt repayments : corporate and banking debt fell by US\$36 billion, with only a minimal contribution coming from the revaluation (the ruble to US dollar exchange rate reduced by only 2.5%).

In the fourth quarter 2014, the main contribution to the reduction of external debt (transaction-related) of non-financial organisations was made by the repayment of loans and borrowings<sup>1</sup> (with the balance of these transactions amounting to US\$9.4 billion), as well as by the repayment of debt obligations as part of direct investment<sup>2</sup> (US\$6.1 billion). In case of banks, the reduction of external debt was mainly formed by decrease in loan and deposit debts totalling US\$9.2 billion<sup>3</sup>.

During the period of November 2014 – May 2015, companies conducted individual transactions to attract new public external loans and borrowings. According to Cbonds, the total amount of fund raised during that period was US\$5.3 billion. Eurobonds were placed by far less frequently during this period; only two issues were registered – of US\$700 million and of US\$100 million respectively. By contrast, several companies bought back their Eurobonds at reduced market prices, making forthcoming

repayment schedules more relaxed. The funds raised by banks in foreign capital markets were considerably smaller: US\$0.42 billion in Eurobonds and US\$0.29 billion in syndicated loans.

The schedule of forthcoming payments, both for banks and non-financial institutions, is relatively comfortable. These amounts represent maximum assessments of future payments, since they include payments on rollover debt, including debt of residents to non-residents which are members of the same groups (intra-group financing), as well as debt which could have been repaid ahead of schedule. For instance, a large repayment of external debt by banks and non-financial institutions totalling US\$63 billion was planned for the fourth quarter of 2014, but, as noted above, transaction-related debt reduction was almost 2.5 times smaller.

In case of 45 largest companies<sup>4</sup> which account for approximately one third of the corporate sector's total external debt falling due by the end of 2015, 34% of the repayments to be made during this period consist of intra-group loans, which are very likely to be rolled over. Large lump-sum repayments are expected to be made in 2015 by oil and gas sector companies, representing payments on Eurobonds. The most significant repayments of public debt by the banking sector will be made largely in the third and fourth quarters.

Our assessments suggest that altogether by the end of 2015 (from May through December), excluding intra-group financing by large corporations, non-financial institutions and banks have to repay roughly US\$65 billion (including interest payments) of which approximately US\$37 billion are repayments of non-financial sector debt.

Bank of Russia estimate of the sufficiency of the largest non-financial organisations' resources for the repayment of their external debt by the end of 2015 demonstrated that available FX cash in their accounts and free operating cash flows generated by these companies were in most cases sufficient to make the forthcoming debt repayments. The estimate was made on the assumption that the companies' capital expenditure was based on

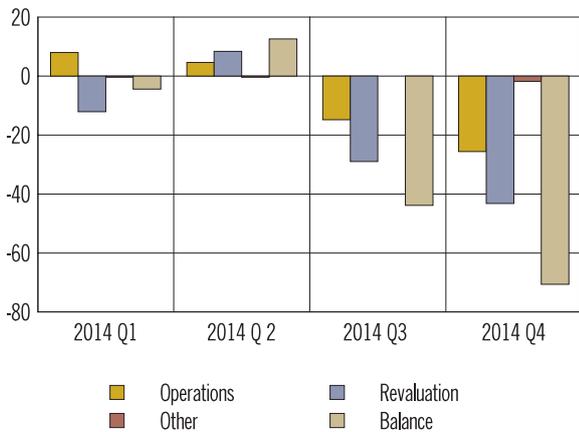
<sup>1</sup> Including trade credit.

<sup>2</sup> Credit and other funds received from foreign direct investors and direct investment institutions, as well as their dividends in arrears.

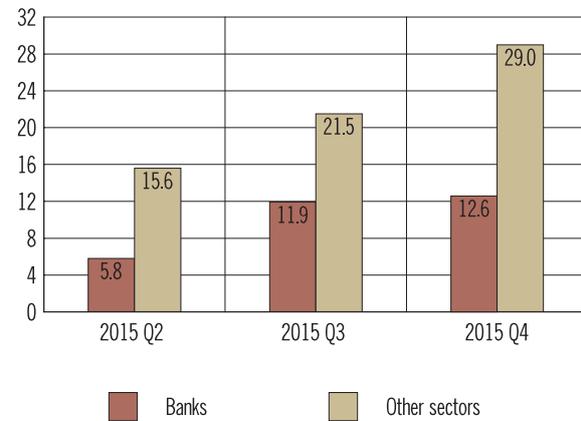
<sup>3</sup> The 'Loans and borrowings' and 'Current accounts and deposits' sections of the banking sector's International Investment Position.

<sup>4</sup> A calculation using data on forthcoming repayments of Russian companies' external debt based on information from banking control records and transaction reports (the data were aggregated into 45 groups of companies with the largest external debts; the sample did not include the subsidiaries of non-resident companies).

**Chart 10**  
**Principal Factors Affecting Changes in the External Debt of Banks and Non-financial Organisations in 2014 (billions of US dollars)**



**Chart 11**  
**Schedule of Forthcoming External Debt Repayments (including interest payments) by Banks and Non-financial Institutions (billions of US dollars)**



Source: IIP.

revised plans and that they refinanced their debt to Russian banks.

According to Bank of Russia estimates, in 2015 the banks have a net foreign currency buffer (liquid assets minus outstanding external debt) of US\$43 billion (assuming refinancing of the liabilities to the Bank of Russia, rollover of retail deposits and redistribution of foreign currency liquidity within banking groups). The potential foreign currency

liquidity deficit experienced by individual banks does not exceed US\$4 billion in total – this demand can be satisfied in the interbank lending market or by using Bank of Russia repos. As of June 9, 2015, the unused limit on FX refinancing operations stood at US\$14 billion. It follows therefore that foreign currency liquidity is sufficient to repay external debt, both for banks and non-financial organisations.

## 4. RUSSIAN FISCAL STABILITY ASSESSMENT

### 4.1. Medium- and Long-term Federal Budget Sustainability

Ensuring debt sustainability of the federal budget is a key objective of the fiscal policy and a key component of ensuring overall financial stability. The acceptable amount of government debt allows conducting flexible fiscal policy, meeting the specified budget obligations amid changing federal budget revenues. Sovereign liabilities, in their turn, form the assets of banks, insurance companies, pension funds and other institutional investors, thus impacting their financial stability and the stability of the financial sector as a whole.

In the last decade, the debt sustainability of the Russian federal budget was one of the key factors of macroeconomic stability. During this period, Russian government debt, judged by international standards, was among the lowest ones, constituting 14.4% of GDP in early 2015. This fact makes Russia different from many countries, both developing and developed ones. Such low level of government debt shows that there are no significant deficit financing requirements, the sovereign risk is low and the budget debt sustainability is persistent. At the same time, this level of government debt is problematic for the banking sector, due to the insufficiency of high-quality collateral and difficulties in implementing the Basel III liquidity coverage ratio.

Along with the implementation of conservative debt policy, the stability of the federal budget during the last decade was reinforced by the existing system of accumulating oil and gas revenues. In recent years, as part of this system a 'budget rule' has become effective, which requires the limit of federal budget expenditure to be calculated on the basis of its revenue generated when the oil price is at its base level (defined as its historical average), increased by not more than 1% of GDP. Thus, budget expenditure and budget deficit are limited, so that the budget rule essentially limits debt sustainability risks.

In the recent years, lower sovereign risk that was ensured by the sovereign funds creation (the

Reserve Fund and the National Wealth Fund) has increased the attractiveness of the Russian economy in general and of the domestic government borrowing market in particular. Following the liberalisation of the federal government bond (OFZ) market, the second half of 2012 saw an inflow of foreign investment in OFZ, as investors highly rated the ability of the accumulated 'budget cushion' to absorb potential shocks. In fact, oil and gas revenues accumulated in sovereign funds allowed to mitigate the aftermath of the 2008-2009 crisis, and to resist the external shocks in the second half of 2014, and to become a factor in reducing the medium-term vulnerability of the state budget.

In the second half of 2014, the federal budget faced the realisation of several types of risk. First, the slump in commodity prices resulted in lower foreign currency revenues from oil and oil product exports which sharply reduced the dollar amount of budget revenues from oil and gas with regard to natural resources production tax on hydrocarbon extraction and export duties on oil and oil products (Chart 12).

At the same time, in the second half of 2014, ruble exchange rate dynamics allowed to partly offset the impact of the loss of foreign currency revenues due to the exchange rate revaluation, and to a large extent maintain budget revenues from oil and gas in ruble terms (Chart 13). Nevertheless, in the first four months of 2015, the ratio of the federal budget revenues from oil and gas revenues to GDP fell by more than 2 percentage points compared with the figure for 2014. If over the rest of 2015 oil prices persistently exceed the average for the first four months of 2015 (US\$55 per barrel for Urals crude), the gap can be expected to reduce and the trend towards restoration of the amount of the federal budget revenues from oil and gas will continue.

The second factor of potential vulnerability of the federal budget is associated with macroeconomic risks: Russia's economic downturn and the shrinking tax base. In the third and the fourth quarters of 2014, the economic growth continued

Chart 12

**Oil Prices and Federal Budget Oil and Gas Revenues in Dollar Terms**

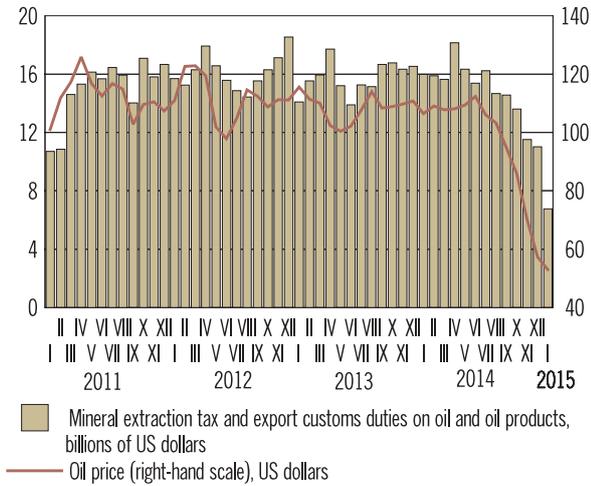


Chart 14

**Annual Growth of the Quarterly Real Federal Budget Non-oil and gas Revenues and Real GDP (% p.a.)**

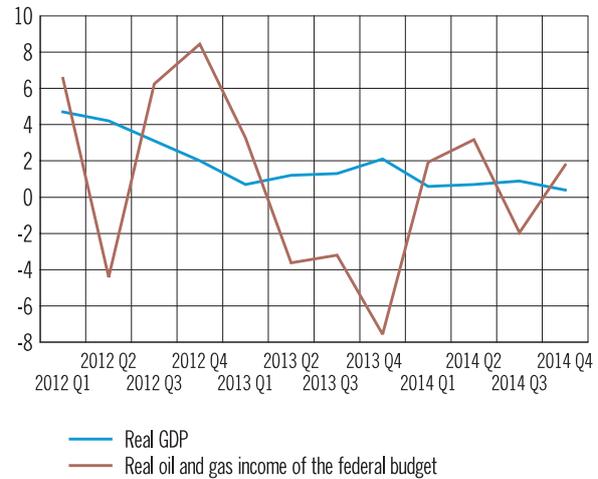


Chart 13

**Oil Prices and Federal Budget Oil and Gas Revenues in Ruble Terms**

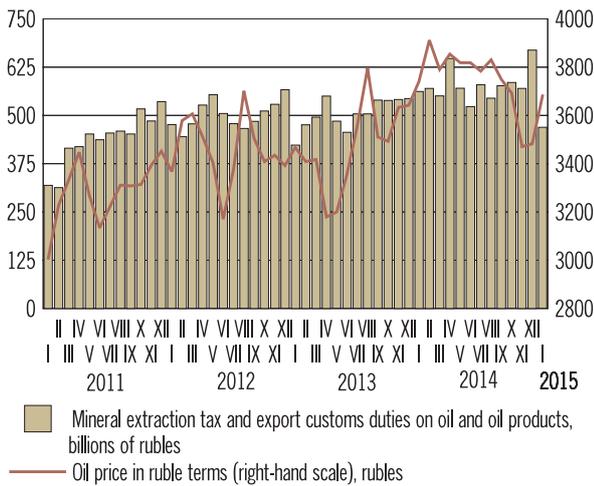
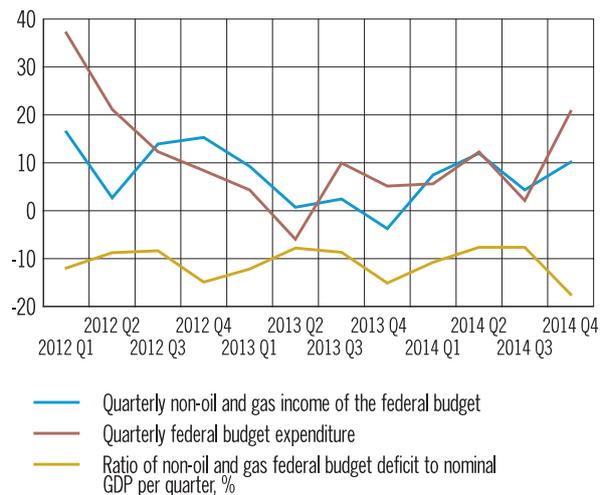


Chart 15

**Annual Growth of the Federal Budget Non-oil and Gas Revenues and Expenditure (% p.a.)**



to slow (annual real GDP growth rates were 0.9% and 0.4% respectively), while the annual real GDP is preliminary assessed to have fallen by 1.9% in the first quarter of 2015 Q1. Changes in real wages have also turned negative. In the third and the fourth quarters of 2014, their annual movement was 0.6% and -1.7% respectively, while it is preliminary assessed to have been -8.3% in the first quarter of 2015. The medium-term trend towards slower movement is also typical of the quarterly real budget non-oil and gas revenues, which grew at near-zero rate in 2014 (Chart 14). It can therefore be concluded that, with adjustment for general price increases, there has been no growth in the tax base and therefore no growth in the sources of replenishment of the federal budget.

At the same time, this risk factor has a limited impact on the federal budget stability. First, the first four months of 2015 did not see a decline in the amounts of main non-oil and gas revenues relative to GDP. According to data supplied by the Federal Treasury, during this period, the ratio of revenues from VAT on goods sold in Russia and from excise duty to GDP exceeded the figures for 2014 by 0.6% and 0.1% respectively. Second, the fiscal policy envisages a 10% cut in a large group of federal expenditures. The increase in the federal budget non-oil and gas deficit in relation to the quarterly nominal GDP in 2014 Q4 was a result mostly of higher federal budget expenditure in December 2014. The ratio remains at an acceptable level below 20% (Chart 15).

Chart 16

### Weighted Average Yields in the OFZ Market and the Key Rate

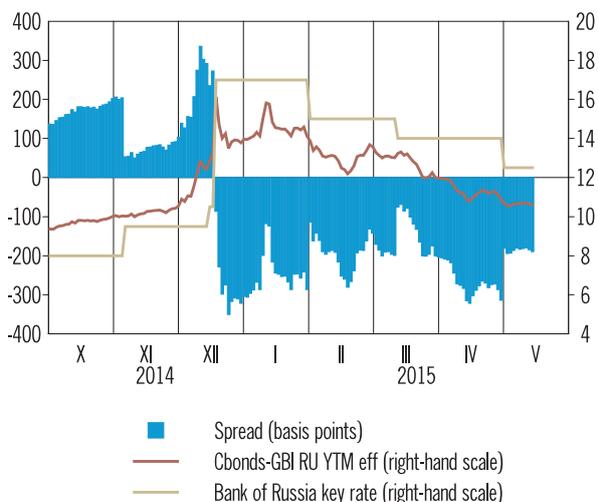
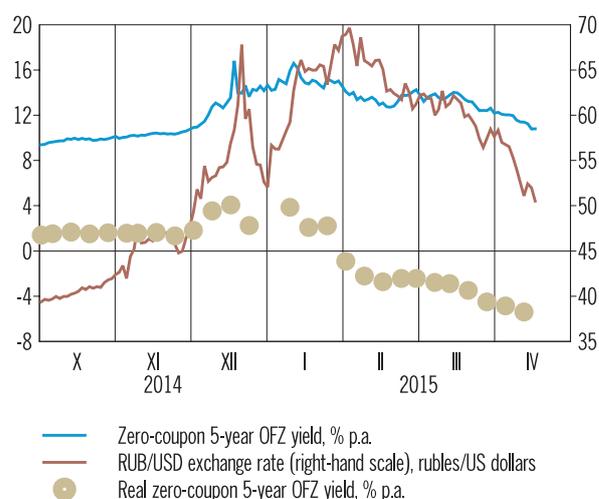


Chart 17

### Zero-coupon Yields and the USD/RUB Exchange Rate



Nevertheless, the increase in the federal budget expenditure in December 2014 represented the third risk factor – the need to implement an anti-crisis programme to support the economy and the financial sector. Its most important part – the asset contribution to the capital of the Deposit Insurance Agency and the issue of OFZ for the relevant amount, along with other measures – resulted in growing federal budget deficit and sovereign government debt.

The change in the macroeconomic environment also impacted the level of the federal budget's government debt. Pursuant to Federal Law No. 384-FZ, dated December 14, 2014, 'On the Federal Budget for 2015 and the Planning Period 2016-2017', as of January 1, 2016, the upper limit of the government debt was set at 7.2 trillion rubles. Pursuant to Federal Law No. 93-FZ, dated April 20, 2015, 'On Amending the Federal Law On the Federal Budget for 2015 and the Planning Period 2016-2017', this level was raised to 8.1 trillion rubles. At the same time, from November 2014 to April 2015, the domestic government debt of the Russian Federation actually increased from 5.7 trillion rubles to 7.1 trillion rubles, i.e. by 23%. As a result, the ratio of the domestic government debt of the Russian Federation to GDP increased from 8% to 10% from November 2014 to April 2015<sup>1</sup>.

This large increase in government debt hardly had any impact on debt sustainability of the federal budget. Russia's debt burden continues to be

among the lowest by the international standards<sup>2</sup>. This means, on the one hand, that sovereign risks continue to be limited and, on the other hand, that there is enough room for manoeuvre, allowing flexible management of the Russian government debt. Thus, if the situation further deteriorates, the government debt can be increased while maintaining sovereign risk at an acceptable level.

In the first four months of 2015, amid slower inflation growth and lower interest rates, investors' interest in Russian assets has grown and investment demand in the domestic financial market has revived. High sovereign debt yields seen in late 2014, combined with relatively low sovereign risk, increased the attractiveness of Russian bonds, including OFZ, to domestic and foreign investors. Expected further decline in inflation and interest rates increased participants' interest in the OFZ market, and as a result, in the first four months of 2015, the volume of OFZ placements (at par value) amounted to 213.2 billion rubles, i.e. four times greater than OFZ placements year-on-year. The main buyers at OFZ auctions were Russian

<sup>1</sup> The calculation is based on GDP data for 2014.

<sup>2</sup> Existing studies, based on base models of fiscal sustainability (Ghosh, Atish R., Jun I. Kim, Enrique G. Mendoza, Jonathan D. Ostry, and Mahvash S. Qureshi, 2011), suggest that an estimate of the maximum stable ratio of Russian government debt to GDP exceeds 70% (Michel A. Habib., Jean-Charles Rochet, 2013). In the above models, the maximum sustainable ratio of government debt to GDP is determined over a long-term horizon, taking into account the long-term values of budget parameters (income and expenditure), economic growth rates and interest rates.

subsidiaries of foreign banks and to a lesser extent state banks and non-bank financial organisations.

As market participants expected the Bank of Russia to reduce the key rate, in the first four months of 2015, the OFZ yields maintained a downward trend, while their weighted average return persisted below the Bank of Russia key rate (Chart 16).

Meanwhile, real zero-coupon OFZ yields turned negative during the period (Chart 17). Therefore, as the macroeconomic environment improves and inflation and the key rate reduce, the nominal yield on Russia's sovereign borrowings can be expected to further decline.

## Non-Residents' Positions in the OFZ Market

In the fourth quarter of 2014 and the first quarter of 2015, the situation in the financial markets was characterised by high stress levels. In late 2014, the rise in interest rates had a negative impact on the value of ruble-denominated debt securities, while the downgrade of Russia's sovereign rating by international rating agencies raised fears over possible foreign investors' flight from Russian assets, in particular from the Russian domestic government debt market: following the liberalisation of the OFZ market (opening nominee accounts for foreign clearing houses in the Russian central depository), the volume of investments by foreign investors grew from 107 billion rubles in early 2012 to historical highest of 945 billion rubles (or 26% of the OFZ market) in July 2014.

At the same time, the adverse market situation did not have a considerable negative impact on foreign investors' positions in the OFZ market. As of 1 March 2015, non-residents' investments amounted to 851 billion rubles, or 18% of the total market volume. Thus, the current fall in non-residents' investments stood at 10% against the maximum level. The fall in the non-residents' share is mainly associated with the increase in the size of the market itself due to the issue of OFZ to the value of 1 trillion rubles, intended for additional capitalisation of the banking system. If we exclude these issues, the non-residents' market share will be 23%.

The reduction in non-residents' investments in recent months may be associated with the planned exclusion of OFZ from global bond indices and consequently the sale of OFZ by index funds. In March 2015, OFZ exclusion from the investment grade (IG) securities segment of the JP Morgan GBI-EM and EMBI indices (emerging market bond indices) was announced. The weight of OFZ in the JP Morgan GBI-EM index had steadily decreased since mid-2014 (see Chart 18) and the volume of non-residents' investments showed rigid correlation with this ratio.

Since mid-March 2015, the volume of non-residents' investments in OFZ has grown by 50 billion rubles, pointing to the preservation of foreign investors' interest in the Russian market. The maturity structure of non-residents' investments has not changed significantly: investment volumes are fairly evenly distributed between maturities of 1-15 years, with investments in OFZ with maturities of up to 1 year and over 15 years highly negligible.

Chart 18

### Non-Residents' Investments in the OFZ Market and the Weight of OFZ

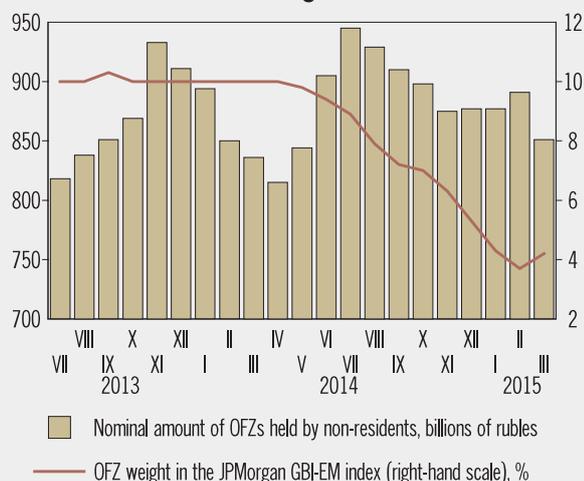
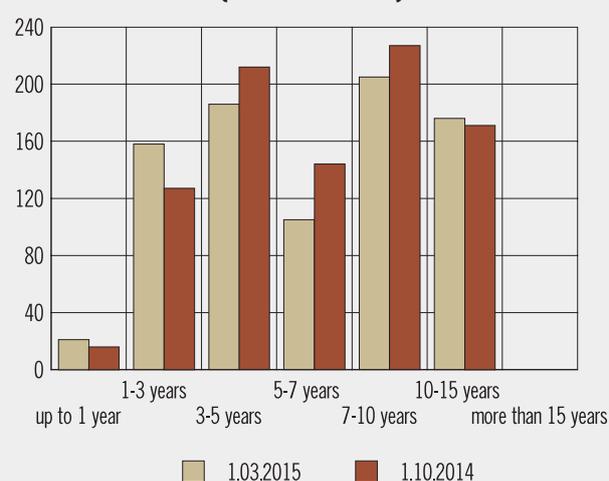


Chart 19

### Non-residents' Investments in OFZ (billions of rubles)



## 4.2. The Imbalances and Debt Sustainability of Russian Regions

Table 2

### Imbalance Risks of Regional Budgets

In 2014, the deficit of consolidated budgets of Russian regions amounted to 447.6 billion rubles, or 0.6% of annual GDP. Compared with 2013, when the total deficit of regional budgets stood at 642 billion rubles<sup>3</sup>, the balance of regional budgets improved. At the same time, most regions (78 of 85 Russian regions) ended up with budget deficits.

The slight decrease in the regional budget deficit in 2014 is associated with regional revenues growing faster than expenditure due to higher own revenues (Table 2). In 2014, the nominal own revenue growth rate stood at 7%, while during low budget deficit period the nominal own revenue growth of the regions exceeded 17% (Chart 20). Income tax revenues came close to the 2012 record level of 2.0 trillion rubles<sup>4</sup>.

In 2014, income tax revenues varied across Russian regions. In 29 regions income tax revenues were lower than in 2013. Oil and gas producing regions contributed the most to the tax revenue growth (49.1 billion rubles – Sakhalin Region, 42.7 billion rubles – Khanty-Mansi Autonomous Area – Yugra, 36.4 billion rubles – Tyumen Region).

The 151.7 billion ruble (10%) increase in uncompensated receipts to regional budgets from the budget system in 2014 proved insufficient to balance them (most uncompensated receipts resulted from grants and subsidies to constituents of the Crimean Federal District in the amount of 124.9 billion rubles).

In 2015, amid the forecasted economic downturn, the risks of regional budget imbalances are expected to increase, and the consolidated budget deficit of Russian regions may exceed the deficit of previous year. In current conditions only changes in central fiscal policy, including lower

<sup>3</sup> In 2013, the deficit of the Russian budget system at the regional level increased considerably – compared with 2012, the total deficit of the consolidated budgets of Russian regions grew 2.3-fold.

<sup>4</sup> In 2013, income tax revenues fell by 260 billion rubles compared with 2012 levels, and one of the reasons quoted by experts was introduction of the Consolidated Taxpayer Group concept.

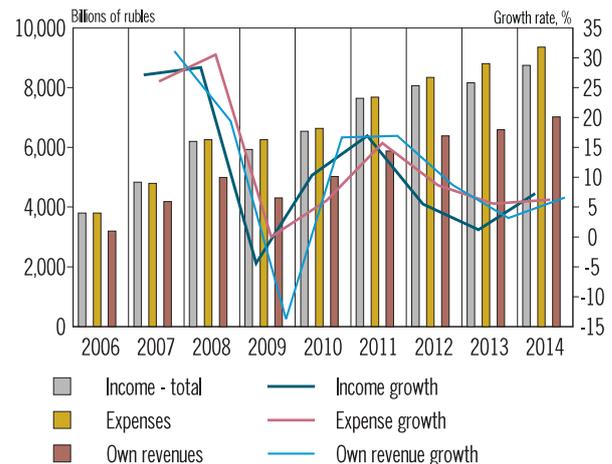
Regional Budget Performance Indicators

	2014	2013	Change	
	billion rubles	billion rubles	billion rubles	%
1. Income, total	8,746.5	8,164.7	581.8	7
including				
1.1. own revenues, of which receipts:	7,018.2	6,588.1	430.1	7
- from corporate tax	1,964.0	1,719.7	244.3	14
- from household income tax	2,693.5	2,499.1	194.4	8
- from property tax	957.5	900.7	56.8	6
1.2. uncompensated revenues	1,728.3	1,576.6	151.7	10
2. Expenditure, total	9,353.3	8,806.7	546.6	6
3. Deficit	447.6	642.0	-194.4	-30

Source: Federal Treasury.

Chart 20

### Income and Expenditure of Consolidated Budgets of Russian Regions



Source: Federal Treasury.

share of programmes jointly funded by the regions, can ensure balanced budgets.

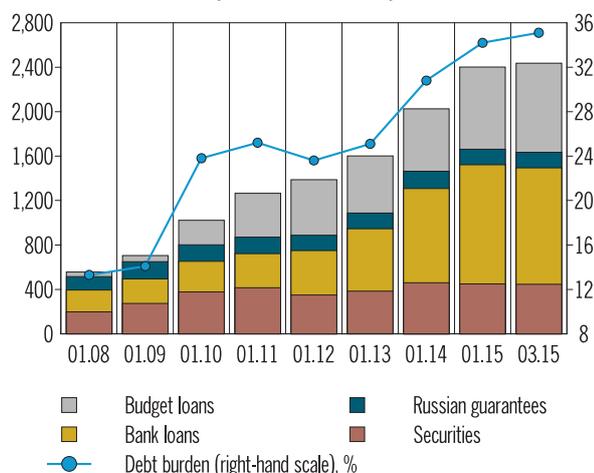
### Debt Burden of Consolidated Budgets of Russian Regions

The ongoing accumulation of regional budget imbalances increases budget system stability risks at the regional level. The public debt of the Russian regions increased from 2.2% of GDP in 2012 to 2.9% of GDP in 2014.

More financial resources are needed to cover the emerging regional budget deficits. The debt of consolidated budgets of Russian regions doubled

Chart 21

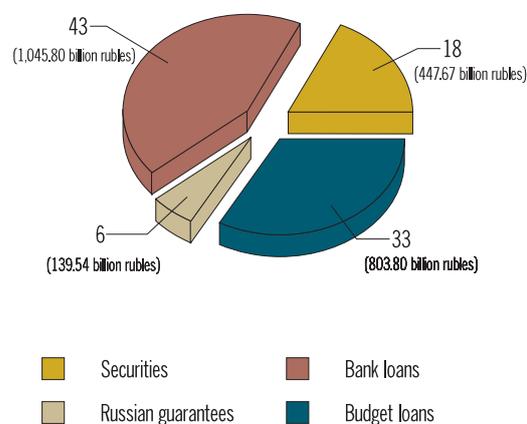
### Debt Burden of Russian Regions (billions of rubles)



Sources: Ministry of Finance, Federal Treasury, Bank of Russia calculations.

Chart 22

### Public Debt Structure of Russian Regions as of 1 March 2015 (%)



Source: Ministry of Finance.

over the last five years, reaching 2.4 trillion rubles<sup>5</sup> as of March 1, 2014 (Chart 21).

Since early 2014, the debt burden of consolidated budgets of Russian regions rose from 31% to 35% as of 1 March 2015<sup>6</sup>. The debt burden level exceeded 55% of own revenues in more than half of Russian regions.

Access to market sources of financing for some regions is partially restricted due to the high debt burden. Besides, such regions may also face difficulties in refinancing their current debt, as banks become more selective in assessment of regional risk.

The regional debt structure shows a drop in market borrowing, replaced by public budget loans (Chart 22). The share of market debt declined from 66% as of January 1, 2014 to 62% as of March 1, 2015, mainly due to the reduction in debt on securities by 11.7 billion rubles over this period.

Public budget loans are issued to partially cover the budget deficit and to replace regional liabilities on bank loans and securities in order to cut the expenditure on public debt. In 2014 interest rates on public budget loans were reduced to 0.1% p.a.

Paragraph 1 of the Plan of Priority Measures to Ensure Sustainable Economic Development and Social Stability in 2015, as approved by Order No. 98-r of the Government of the Russian Federation,

dated January 27, 2015, provides for additional 160 billion ruble funding for public budget loans to Russian regions, as a stabilising measure (subject to implementation of regional anti-recessionary plans by Russian regions).

Despite the additional public budget loans, the amount of bank loan debt in consolidated regional budgets went up from 846.3 billion rubles in early 2014 to 1,045.8 billion rubles as of March 1, 2015. Bank loans represent the main source of funding of regional budget deficits, and have the largest weighting within the regional debt structure (Chart 22). Regions are most active in attracting bank loans at the year-end. In December 2014, bank loan debt increased by 31% or by 207.6 billion rubles. The growth in bank loan debt at the year-end is caused by redemption of public budget loans, which mature during the financial year, and the uneven nature of expenditure. In late 2015, bank debt in regional budgets is expected to increase due to the budget deficit and seasonal factor.

Wider use of public budget lending is justified by restricted access to market resources and higher cost of borrowing in the market, but it is a short-term solution to the problem of regional budget deficits. Regional budgets imbalances accumulated in 2012-2014 and the consolidated regional budget deficit expected in 2015 will increase the debt sustainability risks of the Russian regions.

<sup>5</sup> Includes the public debt of Russian regions and the municipal debt.

<sup>6</sup> The ratio of the aggregate debt of consolidated budgets of Russian regions to own revenues (less uncompensated revenues) for the previous 12 months.

## 5. NON-FINANCIAL ORGANISATIONS' RISKS

### 5.1. Systemic Risks in the Oil and Gas Sector

By early 2015, oil and gas companies had faced two key external factors directly impacting their main financial performance indicators:

- significant drop in oil prices;
- change of taxation in the industry (the 'tax manoeuvre').

Downward oil price trend continued through the second half of 2014. The average monthly Urals crude price dropped from last year's high (US\$109.7 per barrel) in June 2014 to US\$86.7 in October 2014 (Chart 23). The lowest level was reached in January 2015 at US\$47.0 per barrel. Subsequently, in the first quarter of 2015, oil prices were moderately recovering, and in April 2015 average monthly Urals crude prices reached US\$58.6 (an overall reduction of 46.6% relative to June 2014). At the same time, from June 2014 to April 2015, the official ruble exchange rate depreciated against the US dollar by 31.8%. Thus, the oil price fall in ruble terms was not as dramatic (-17.9% by June 2014).

Besides, main taxes in the oil and gas sector (export duties and extraction tax) are linked to company revenues and are charged at progressive scale, i.e. if prices are falling, the proportion of tax

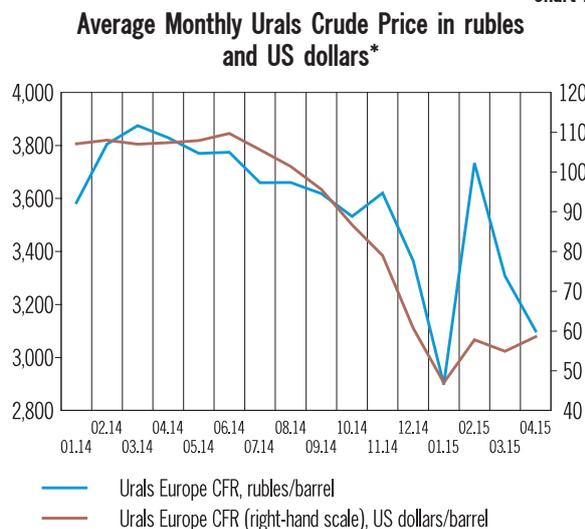
in a company's revenue decreases quickly, thus considerably mitigating any effects of market price volatility. For example, if the oil price reduces from US\$100 to US\$50 per barrel, the net revenue of oil and gas producers in dollar terms reduces by 25.4-33.5% at different levels of taxation in 2014-2017.

Export prices for natural gas that are defined in foreign trade contracts and linked to oil prices with a time lag of 6-9 months, showed slight downward trend and declined only by 18.8% in dollar terms from June 2014 (the peak of oil prices) to February 2015 (Chart 24). Consequently, lower oil prices will exert downward pressure on natural gas prices at least until the middle of the second half of 2015.

Similarly, the ruble depreciation allows gas producers to offset the reduction in export revenues denominated in foreign currency.

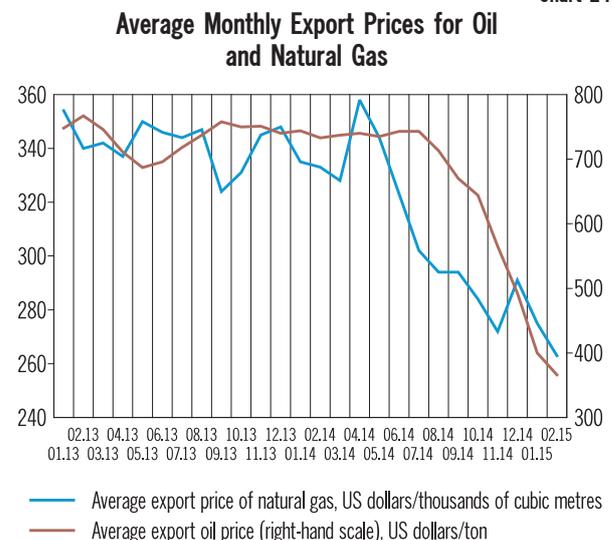
Thus, despite export prices halved, the ruble revenues of oil companies changed to a much lesser extent. On the other hand, despite most costs are denominated in rubles, the ruble depreciation has a negative impact on oil and gas company costs, since the cost of foreign equipment and services will increase proportionally to the growth in the US dollar exchange rate. This factor may encourage oil companies to optimise their investment budgets due

Chart 23



\* Calculated at the official Bank of Russia exchange rate.  
Source: Thomson Reuters.

Chart 24



Source: Ministry of Economic Development, Federal Customs Service.

Table 3

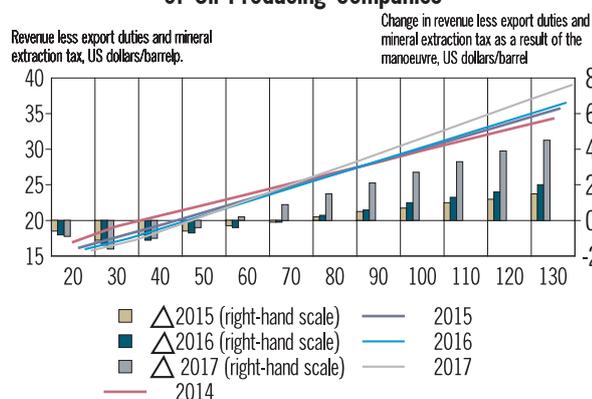
## Scenario Analysis of Oil Price Impact on the Aggregate Debt Burden of Major Oil and Gas Companies\*

Indicator	2014 (estimate)	Forecast for 2015							
		US\$40 per barrel		US\$50 per barrel		US\$60 per barrel		US\$70 per barrel	
		Ratio	Δ	Ratio	Δ	Ratio	Δ	Ratio	Δ
Net debt / EBITDA (average)	0.9x	1.7x	+0.8x	1.4x	+0.5x	1.2x	+0.3x	1.1x	+0.2x
Net debt / EBITDA (median)	0.9x	1.5x	+0.6x	1.2x	+0.3x	1.1x	+0.2x	1.0x	+0.1x
EBITDA / interest expenses (average)	19.7x	10.3x	-9.4x	12.1x	-7.6x	13.9x	-5.8x	15.7x	-4.0x
EBITDA / interest expenses (median)	19.2x	9.3x	-10.0x	10.7x	-8.5x	12.1x	-7.1x	13.5x	-5.7x

\* Net debt and interest expenses are assumed to persist at the level of the last reporting period.

Sources: Bloomberg, S&P Capital IQ, company statements in compliance with IFRS and US GAAP, Bank of Russia calculations.

## Scenario Analysis of the 'Tax Manoeuvre' Impact on the Foreign Currency Export Revenue of Oil Producing Companies\*



\* Excluding adjustment ratios characterising oil production from specific fields, preferential duties for production from East Siberia fields, or production of super heavy oil.

Source: Bank of Russia estimates.

to the limited financial resources and to suspend or cancel certain low-profit projects.

From 2015 a 'tax manoeuvre' is being carried out in the taxation of oil and gas companies. It provides for lower export duties on oil and oil products and simultaneous increase in the base rate of oil extraction tax.

Both measures envisaged by this 'tax manoeuvre' will result in higher oil prices in the domestic market: the first one by limiting domestic oil supply due to more profitable exports and increased export volumes, and the second one by increasing extraction costs. According to the Bank of Russia estimates (Chart 25), in current conditions the tax burden of companies changes relatively little as a result of the 'tax manoeuvre' (within  $\pm$ US\$0.5 per barrel). The notable difference between the new and the previous versions of the 'tax manoeuvre' for 2017 is explained by this year's unchanged base rate of oil extraction tax and the maximum rate of

export duty before any tax changes, unlike their subsequent adjustment.

Thus, oil producers benefit from the 'tax manoeuvre' due to higher export revenues per barrel of crude oil after export duties and oil extraction tax, at price of over US\$70 per barrel in 2015-2016 and over US\$60 per barrel in 2017, compared with the previous tax regime.

At low oil prices the foreign currency revenue of companies after export duties and oil extraction tax are lower than it was before the 'tax manoeuvre'. In ruble terms the difference in revenue received also increases if the ruble depreciates at given oil prices denominated in US dollars.

On the whole, the 'tax manoeuvre' has no considerable impact on the overall tax burden in the sector; however, it results in redistribution of income between production and refining in favour of production due to higher export oil netback<sup>1</sup>. Therefore, in order to offset falling income in the refinery sector, and to limit domestic price growth, the 'tax manoeuvre' involved a simultaneous reduction in excise duties on oil products sold in the domestic market.

The major oil and gas companies have one of the lowest debt burdens among Russian companies, as measured by net debt/EBITDA ratio.

Most oil companies<sup>2</sup> maintain net debt/EBITDA ratio below 1x, keeping the average value between 0.7x to 0.8x over the last two years, which shows that they are capable of servicing their internal and external debt.

<sup>1</sup> Export netback is revenue from the sale of oil and oil products, excluding taxes in the form of export and excise duties, the cost of refining, transportation and sale.

<sup>2</sup> Calculated using a sample of eight largest oil and gas companies.

Interest payments for most companies are minor relative to their operating profit (industry average EBITDA/interest expense coverage ratio is around 20x).

According to the Bank of Russia calculations (Table 3), in the worst market conditions (average oil price at US\$40 per barrel in 2015), the average

debt burden in the sample of companies would remain at an acceptable level by the end of 2015 (net debt/EBITDA = 1.7x), and the ability of companies to service their debt would also be at a financially sustainable level (EBITDA/interest expense = 10.3x).

## 5.2. Financial Position of Industries With High Debt Burden

Amid the economic downturn, Russian companies have to adapt to new macroeconomic realities, and primarily they cut capital investments, optimise current expenses, and reduce their debt burden. The depreciation of the ruble gives a considerable competitive advantage to industries with export potential, where any fall in domestic demand is offset by a redirection of products to external markets. Domestic demand-oriented industries rely on various government incentive programmes.

### Metals and Mining

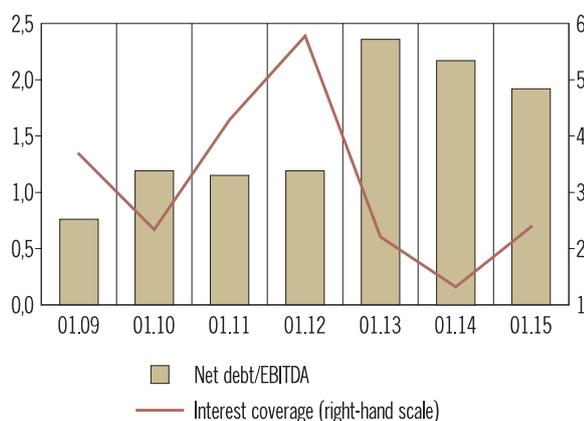
Financial position of companies operating in non-ferrous segment looks more secure than that of ferrous metal companies and coal producers, amid stable demand from the largest consumers of non-ferrous products and relatively high EBITDA margins in this industry (over 35%). Risks are typical of some companies with higher debt burden, and in particular those with large share of foreign currency debt and relatively low level of export revenues.

Profitability growth for metal companies in 2015 looks rather constrained. In 2014, losses are mostly 'non-cash' in nature and result from revaluation of foreign currency liabilities; this exerts downward pressure on net profit margin (Chart 27).

Amid the ruble depreciation, financially stable companies are carrying out gradual deleveraging by buying back bonds and shares in the market:

Chart 26

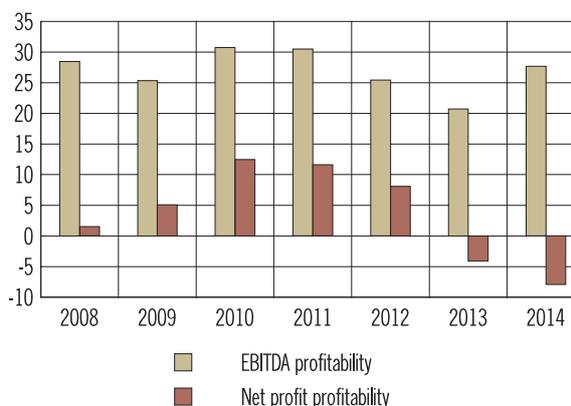
### Average Debt Burden and Interest Coverage Ratio (EBIT/interest expenses) of Major Companies in the Sector\*



\* Calculated for a sample of 17 major metal companies.

Sources: consolidated statements of companies, Bank of Russia calculations.

Chart 27  
Average Profitability Indicators of Major Companies in the Industry\* (%)



\* Calculated for a sample of 17 major metal companies.

Sources: consolidated statements of companies, Bank of Russia calculations.

companies are the leaders in early redemption of Eurobonds in 2015, with more than 500 million US dollars' worth of liabilities bought back.

### Construction and Operations with Real Estate

Currently, no considerable drop in construction is observed due to the ongoing completion of earlier projects (in particular, according to Rosstat in residential construction in the first quarter of 2015 the number of commissioned houses increased by one third year-on-year). The slowdown in the residential segment is likely to become apparent by the end of this year being the result, among other things, of a contraction in mortgage lending (over 30% of flats are bought using this instrument). Falling rent rates observed in the residential segment may result in sales of investment flats in the secondary market.

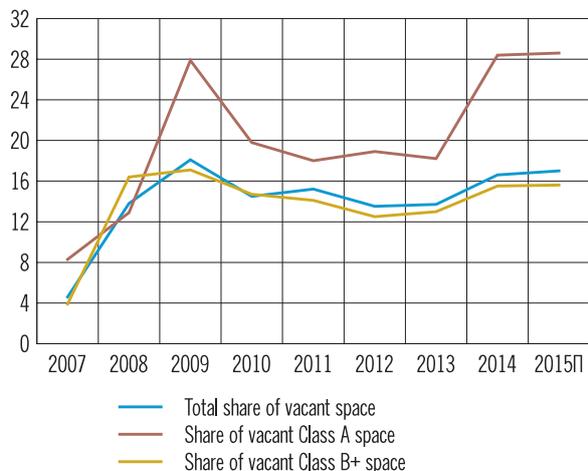
Weaker demand for commercial property coincided with commissioning of considerable volume of premises, resulting in a record high (17%<sup>3</sup>) share of vacant office space which is expected to further increase by the end of 2015 (Chart 28).

The key risks faced by construction companies are associated with their relatively low profitability, particularly building contractors and companies with high debt burden. The share of foreign currency loans in the overall debt structure of the 'Construction' industry is small (not more than 20% of total debt). Meanwhile, some companies may have a higher share of foreign currency debt,

<sup>3</sup> Data from Jones Lang LaSalle.

Chart 28

### Share of Vacant Office Space in Moscow (%)



Source: Jones Lang LaSalle.

Chart 29

### Balanced Financial Result for the Construction Industry (billions of rubles)



Source: Rosstat.

with ruble revenue making servicing of such debt problematic. Foreign currency debt in the 'Real Estate Operations, Leasing and Services' segment is reaching 36%. According to estimates, about one third of all real estate leasing contracts may be denominated in US dollars or euros; however due to the ruble depreciation and the downturn in business activity, since late 2014 a rental rate revising trend has been observed, including linking rents to the ruble, which significantly increases currency risks for developers.

## Electric Power Industry

In 2015, electricity generation may decline slightly following the decline in GDP: to some extent

demand will be propped up by export-oriented sectors with power intensive production. The ruble depreciation will have a moderately negative impact on financial stability of companies, mainly affecting investment programmes (the estimated import component may amount up to 20-30% of capital investment), while the share of foreign currency debt remains minimal. One positive aspect here is moderate debt burden in the sector (the average net debt/EBITDA ratio<sup>4</sup> for major companies stands at 1.8).

The main factor affecting the financial position of energy companies amid unfavourable market environment is the need to meet extensive investment obligations (or face fines for non-performance or delays). Furthermore, price formation in the power energy and heat supply markets is regulated by the government; projects have long payback periods and low internal rates of return, creating significant exposure to changes in bank lending costs. At the same time, from 2015 generating companies are expected to start to receive funds under Capacity Delivery Agreements for previously commissioned facilities, and this should have a positive impact on companies' balance sheets.

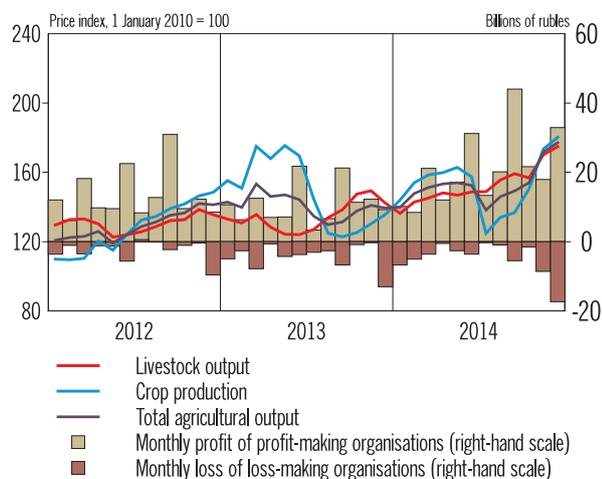
## Agriculture

In 2014, the financial standing of companies in the agricultural sector remained varied: profitable companies managed to increase their return on sales considerably, while unprofitable ones accumulated losses (Chart 30). The higher return on sales in the sector can be explained by considerable product price growth in the second half of 2014 due to both the ruble depreciation and the ban on imports of some food products. At the same time, the ruble depreciation resulted in higher prices for mineral fertilisers, imported machinery maintenance, seed grain and other exchange rate-sensitive items. This will limit growth in profitability and increase company costs in 2015.

In 2014, the aggregate estimated debt burden (loans and borrowings/operating profit) significantly decreased from 16.1 in early 2014 to 5.2 in the beginning of the first quarter of 2015 (Chart 31). The main reasons for this decrease were higher profitability, considerable decrease in loans issued,

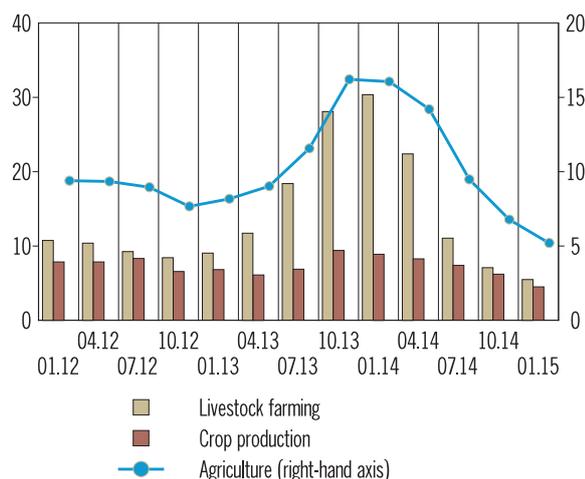
<sup>4</sup> Calculated for a sample of 33 major power companies on the basis of 2014 consolidated statements.

**Chart 30**  
**Product Price Index and Financial Performance of Agricultural Companies**



Sources: Rosstat, Bank of Russia calculations.

**Chart 31**  
**Estimated Debt Burden of Companies in the Industry Using the 'Loans and Borrowings/Operating Profit' Ratio**



Sources: Rosstat, Bank of Russia calculations.

and general deterioration of bank lending conditions for agricultural sector.

The average share of foreign currency loans is very low in this sector (approximately 5% of total debt as of early 2015), which means that currency risks in the sector are minor. This ratio rose in 2014 as a result of the ruble depreciation, while issuance of new foreign currency loans practically stopped.

The high debt burden makes this industry highly exposed to interest rate risks in relation to both new and existing ruble loans.

## Motor Industry

After a surge in demand for cars at old prices in late 2014 and the first quarter of 2015, annual growth in car sales continued to decline. The motor industry is a cyclical industry which may experience significant drops during economic downturn. According to the Association of European Business forecast, in 2015 car sales may fall by a quarter, while the commercial vehicle market will hit a new low.

In 2015, many large companies are expected to report losses, inter alia, due to the ruble depreciation exerting downward pressure on the profitability of car manufacturers, with their mostly ruble-denominated revenue and largely foreign currency-denominated costs. Notably, the largest car manufacturers increased their debt burden in 2014 (median net debt/EBITDA ratio went up from 3.2 to 4.0)<sup>5</sup> and reduced their ability to service debts.

Nevertheless, there are positive factors at play that may provide support for the industry, such as extension of government scrappage scheme to 2015, and the existence of some potential for export (markets of the Middle East, Africa, Latin America, and Southeast Europe). A number of the largest car manufacturers have already announced plans to increase exports of cars and commercial vehicles in 2015 by 20-40%. However, no growth of exports has yet been observed, according to Federal Customs Service data. In January-March this year, exports of cars fell by 9% (in thousand tonnes), and by 44% (by value), while exports of commercial vehicles fell by 22% and 33% respectively.

<sup>5</sup> Calculated for a sample of four major companies.

## Company Losses in the Form of Exchange Rate Differences Caused by the Ruble Depreciation

In 2014, many large businesses reported losses and/or equity reduction due to negative exchange rate differences resulting from the revaluation of liabilities caused by the ruble depreciation. The effects of this revaluation on the financial position of companies are listed below.

1. Losses caused by the revaluation of foreign currency liabilities are 'non-cash' losses, and are not treated as real cash outflows.

Besides, in consolidated financial statements companies have the option not to report such losses directly in their income statement for the period. In this case changes in foreign exchange differences when revaluating liabilities are recorded in other comprehensive income, which is part of equity and does not affect net profit for the period (IFRS 39 'Financial Instruments: recognition and measurement').

It should also be noted that foreign exchange differences from revaluation of liabilities are typical of exporters that borrow in foreign currency and hedge currency risk naturally by ensuring counter flows in the form of foreign currency revenue. The revaluation of debt in such companies is one-step, while export revenue in ruble terms grows over subsequent periods.

2. Exchange rate losses in a company with good operating performance and an acceptable debt burden are usually not a sign of deterioration of financial position from the perspective of investors and creditors (as demonstrated by certain large companies which reported considerable exchange rate losses in 2014 but showed good operating performance and were able to buy back debt and pay dividends on shares).

3. The Bank of Russia survey of roughly 20 of the largest companies shows that quantitative covenants in loan agreements do not include such items as net income or equity. Restrictions are normally imposed on the operating items: debt/EBITDA, net debt/EBITDA, EBIT/interest expenses, etc. EBITDA and EBIT are 'purged' of any revaluation effects. Therefore, negative revaluation effects on the balance sheet will not result in early termination of debt by creditors or investors.

4. Unlike in banks, in the non-financial sector the share of equity in liabilities is rather large: about 44% on average in a sample of 57 companies. Therefore, there is normally a considerable equity buffer to absorb exchange rate losses, and at the system level the revaluation will not cause the net asset value to fall below the authorised capital value (and trigger the right of counterparties to require early termination of debt, or the right of tax authorities to demand liquidation of the company in court). The situation in large companies is monitored regularly by the Bank of Russia.

## 6. THE EVALUATION OF BANKING SECTOR SYSTEMIC RISKS

### 6.1. Risks of Lending to Non-financial Organisations

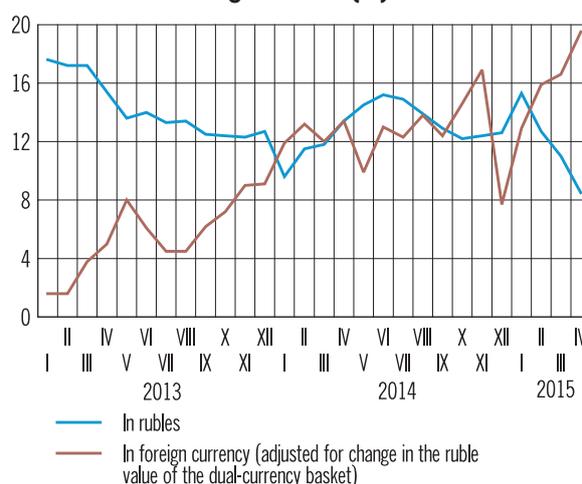
Amid the closing of foreign capital markets and rising interest rates on foreign loans, non-financial organisations are showing increased demand for foreign currency loans from Russian banks. At the same time, the demand for ruble loans is gradually decreasing (Chart 32). The quality of the loan portfolio varies considerably according to the loan currency. Amid the slight growth in the share of overdue foreign currency loans (+0.1 percentage points from October 2014 to March 2015, to 1.9%), there is a surge in overdue ruble loans (+1.5 percentage points to 6.7% for the same period). The high quality of the foreign currency loan portfolio results from the high creditworthiness of exporter borrowers (fuel and energy sector, chemical industry, etc.).

The share of IV-V quality category loans in loans to legal entities (including SMEs)<sup>1</sup> increased by 1.3 percentage points in the estimated period to 7.8% as of 1 April 2015. The quality of portfolio of ruble loans to non-financial organisations will continue deteriorating until late 2015. This is shown by overdue debt growth rates exceeding the loan portfolio growth rates.

The situation for specific types of economic activity also varies. The largest share of overdue debt is seen in loans to organisations engaged in agricultural activities and construction (Chart 33). The highest growth in overdue debt since early 2015 is observed in construction (+ 2.5 percentage points to 13.9% for ruble loans), machinery and equipment production for agriculture and forestry (from zero to 2 percentage points for foreign currency loans), wholesale and retail trade (+1.7 percentage points to 7.4% for ruble loans and +1.9 percentage points to 5.4% for foreign currency loans), and coke, oil products and nuclear material production (+1.4 percentage points to 12.3% for ruble loans).

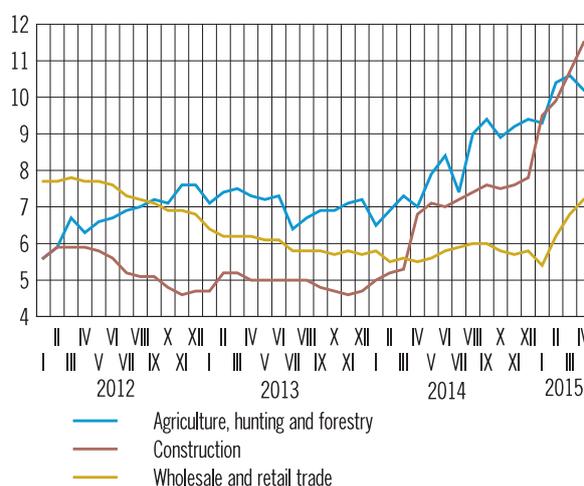
In 2015, the annual growth rate of loans to non-financial organisations may be 9-11%. Due to the increase in the number of unprofitable non-financial organisations, as well as growth in the value of losses for such organisations in the first quarter 2015, the overdue debt on loans to this category of borrowers is expected to increase in the future.

Chart 32  
Annual Growth in Overdue Loans to Non-financial Organisations (%)



Source: Bank of Russia.

Chart 33  
Share of Overdue Loans by Segments (%)



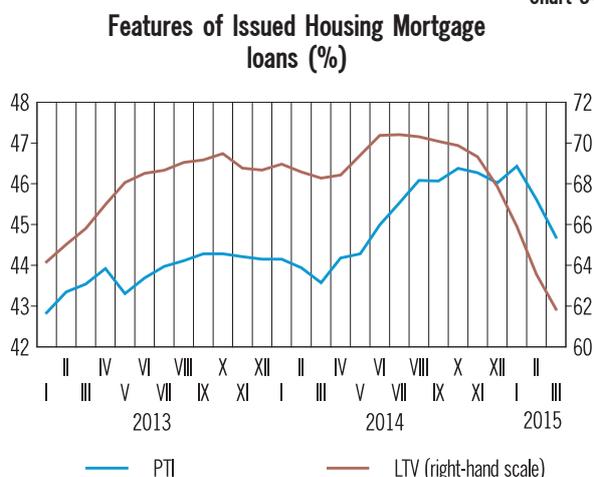
Source: Bank of Russia.

<sup>1</sup> Excluding credit institutions.

## 6.2. Risks in the Mortgage Lending Market

The mortgage lending market is entering a new phase: credit expansion in this segment is giving way to tighter requirements for potential borrowers. The share of 'bad' loans in banks' portfolios is expected to increase amid lower household real incomes and higher unemployment rate. The deterioration in the quality of loan portfolio will be the result of considerable volumes of higher-risk loans: in 2014, over 24.5% of loans had LTV<sup>2</sup> over 70% and PTI<sup>3</sup> over 50%, compared with 20.8% in

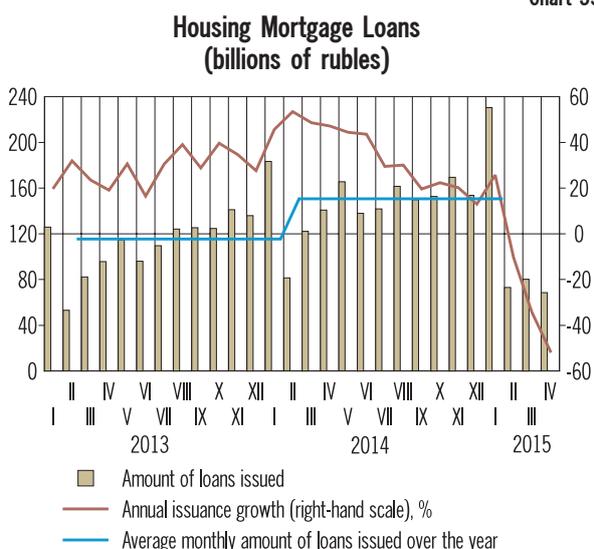
Chart 34



\*As of 1 April 2015, this group of banks accounted for over 75% of debt on housing (including housing mortgage) loans.

Sources: data from the largest banks specialising in mortgage lending, Bank of Russia calculations.

Chart 35



Sources: Rosstat, Bank of Russia calculations.

<sup>2</sup> LTV is a ratio of loan debt to the market value of housing.

<sup>3</sup> PTI is a ratio of monthly loan payment to the borrower's monthly average income.

2013 (Chart 34). However, stress tests conducted by the Bank of Russia together with major banks specialising in this lending segment suggest that the situation similar to the one in the unsecured consumer lending market will not be repeated.

In the last quarter of 2014, amid the ruble depreciation and higher inflation expectations, households sought to preserve savings, which caused the realisation of deferred demand for mortgage loans (Chart 35).

In the second half of December 2014, banks tightened their underwriting standards and increased interest rates on loans. The minimum down payment requirements were increased by 10-20 percentage points to 20-30%. At the same time, in January-February 2015, loans were partly issued based on applications approved before the rate increase, this resulted in an increase in the average level of interest rates on ruble mortgage loans issued in January-March 2015 by only 1.7-2 percentage points compared with December, to 14.2-14.5%.

Tougher lending requirements, along with rising interest rates on mortgage loans, resulted in lower demand for this type of lending in the first quarter of 2015. By January 2015, the volume of ruble loans issued was already 10% less than in January 2014. In January-February, the decline was 25% (Chart 35), and reached 35% by the end of Q1. LTV for new loans primarily stood at less than 80%.

One of the factors supporting the mortgage lending segment in 2015 will be the governmental interest rate subsidy programme, under which loans totalling 400 billion rubles could be issued. But even taking this program into account, the total amount of loans issued in 2015 may decline by 30-40% year-on-year. The Bank of Russia also took measures aimed at encouraging banks to provide lower-risk mortgage loans (with a high down payment and low debt burden for the borrower).<sup>4</sup> Besides, risks on foreign currency mortgage loans were limited.<sup>5</sup>

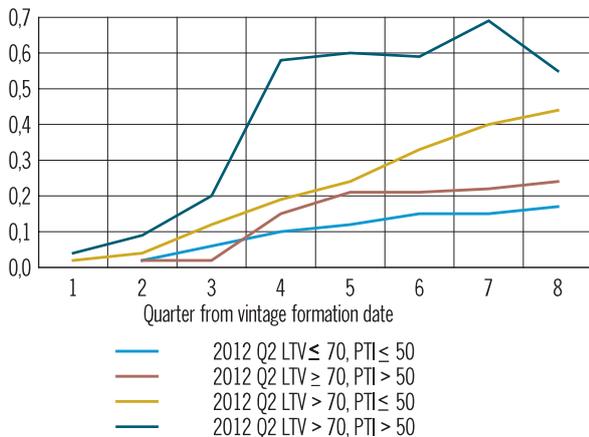
Despite the expected decline in demand for mortgage loans in 2015, residential property prices

<sup>4</sup> The risk ratio on loans with LTV below 50% and PTI below 40% was decreased from 0.7 to 0.5 starting from 1 January 2015. The minimum provision for mortgage loans without overdue payments was decreased from 0.5% to 0.35%.

<sup>5</sup> The risk ratio on mortgage loans in foreign currency issued after 1 April 2015 was increased from 1 to 3.

Chart 36

### Share of Loans with Payments Overdue for more than 90 days\* (%)

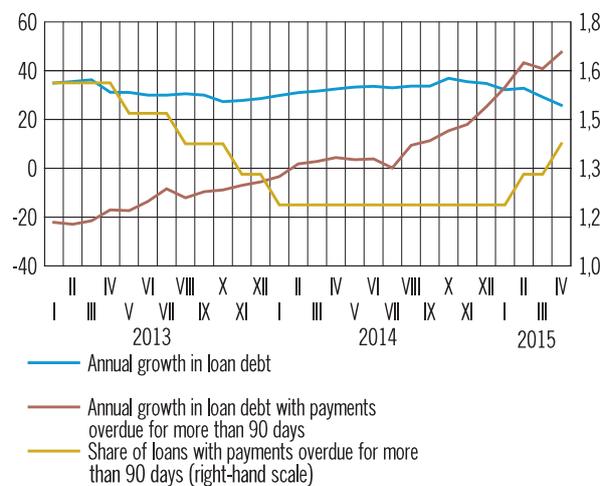


\* Data available for the earliest period.

Sources: data from major banks specialising in mortgage lending, Bank of Russia calculations.

Chart 37

### Quality of Housing Mortgage Loan Portfolio (%)



Source: Bank of Russia.

will decrease moderately, since, firstly, the rise in prices in the previous periods was limited, i.e., no price ‘bubble’ was observed in the real estate market, and secondly, developers can limit the market supply of new housing (as it happened during the 2008-2009 crisis). In this regard, risks of banks associated with the depreciation of the real estate collateral for mortgage loans are assessed as moderate.

Despite the observed deterioration, the quality of mortgage loan portfolio remains high, although it is considerably varied by loan currency and such parameters as LTV and PTI (Chart 36). The share of overdue foreign currency loans was 13.4% as of April 1, 2015, while for ruble loans it was only 1%. The annual growth rate of bad loans<sup>6</sup> increased from 15.4% as of October, 2014 to 47.6% as of April 1, 2015 (Chart 37).

In order to monitor systemic risks in the mortgage lending market, the Bank of Russia, together with major banks in the housing mortgage lending segment, conducts regular stress testing of the mortgage loan portfolio. Stress scenarios take into account significant deteriorations of macroeconomic factors such as unemployment and real income of households, which decrease the borrower solvency. In most pessimistic scenario, in 2015 the share of bad loans (denominated in rubles) may increase from 1.2% to 3.7%, both due to higher credit risks and lower lending activity of banks.

According to the stress tests, by the end of 2015 we may see growth in overdue mortgage loans, but the share of ‘bad’ loans in loan portfolio will remain at an acceptable level, and banks will be able to comply with capital adequacy ratios.

<sup>6</sup> Denominated in rubles and in foreign currency.

### 6.3. Risks of Unsecured Consumer Lending

The activity of banks in the unsecured consumer lending segment continues to decline. Since December 2014, the total volume of outstanding loans has been showing negative monthly growth (-1.1% in December 2014, -1.8%, -1.8% and -1.7% in January-March 2015). In December 2014-March 2015, consumer lending fell by 4.5%, seasonally adjusted.

Amid higher funding cost and negative growth in real household income, the key retail market players continue to tighten requirements for potential borrowers, in particular in relation to the amount of disposable income. Banks are refocusing their credit products on customers with medium and high levels of verified income (Chart 38). These measures allowed keeping borrowers' debt burden indicators at 2014 levels even despite the considerable deterioration in macroeconomic conditions in November-December 2014. According to a survey of retail banks<sup>7</sup>, the customer debt burden (the PTI ratio) for one bank as of April 1, 2015 was 31%, while the average number of loans serviced by the borrower was 1.32.

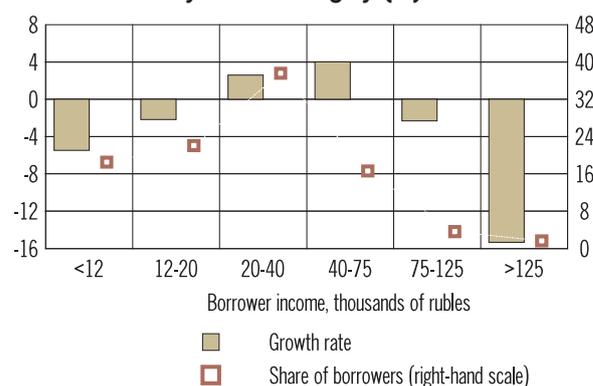
Requirements for new borrowers are being increased amid the realisation of risks concerning the generations of loans (hereinafter – vintages) issued in 2013 that are characterised by a high level of borrower debt burden (Chart 39). As a result, the share of 'bad' loans (consumer loans with payments overdue for more than 90 days) continued to grow, reaching 14.2% as of 1 April 2015. In these circumstances, banks specialising in consumer lending experienced a fall in the return on equity: from 12.2% to 2.8% in 2014 and to a negative level of -6.8% as of 1 April 2015.

The improvement in the quality of vintages seen since late 2013 is partly the result of the Bank of Russia measures aimed at cooling the consumer lending market. As a consequence, tighter underwriting criteria create prerequisites for reversing the trend for deterioration of retail banks' portfolio quality. As high-risk vintages of

2013 are replaced by new loans with relatively low debt burden, the share of non-performing loans will stabilise. The decline in the quality of consumer loans is expected to be record low at the end of 2015 when the share of bad loans will reach the level of 16.5-17.0%.

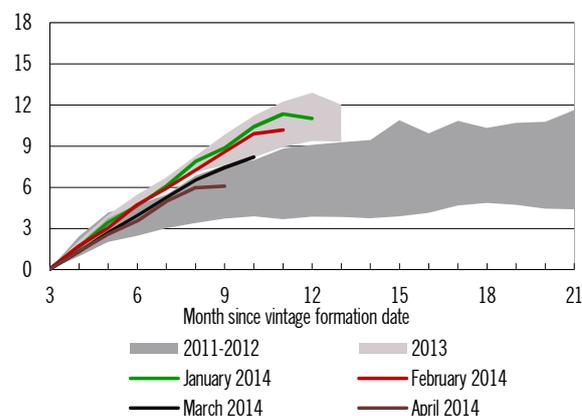
Profitability of credit institutions specialising in unsecured consumer lending will recover slowly. In this situation, retail banks are closing their branches and expanding sale of loans to external collection agencies (142 billion rubles in the fourth quarter of 2014, 132 billion rubles in the first quarter of 2015) to reduce the burden on capital and to optimise costs.

Chart 38  
Growth Rate and Share of Borrowers  
by Income Category (%)\*



\*The Bank of Russia project to inspect outstanding household loans (data as of 1 April 2015). 56% of retail lending market covered. The sample included 25 major retail banks by household loan portfolio with household loans exceeding 10% of bank's assets.  
Source: Bank of Russia survey.

Chart 39  
NPL90+ Indicator  
on Loan Vintages (%)\*



\*Calculations based on NBCH data.  
Sources: NBCH data, Bank of Russia calculations.

<sup>7</sup> The Bank of Russia project to inspect outstanding household loans (data as of April 1, 2015). 56% of retail lending market covered. The sample included 25 major retail banks by household loan portfolio with household loans exceeding 10% of bank's assets.

## 6.4. Banking Sector Interest Rate Risk

Interest rate increase in the Russian economy over 2014 due to higher market volatility and tighter monetary policy of the Bank of Russia resulted in realisation of the banking sector interest rate risk. To save their deposit base, banks increased rates for raising funds from households and non-financial organisations. In December 2014, the rate on ruble household deposits for up to one year, including demand deposits, rose by 6.1 percentage points and the rate on deposits of non-financial organisations for up to one year, including demand deposits, increased by 5.2 percentage points. At the same time, the interest rates on ruble loans for up to one year increased by 0.2 percentage points for households and 4.4 percentage points for non-financial organisations in December 2014. Thus, in response to higher funding cost in rubles in the short term, banks did not carry over the interest expense onto borrowers completely and faced a reduction of net interest income.

The prerequisites for the realisation of interest rate risk in the banking sector formed long before December 2014 and were reflected in the increase of the negative gap between the volume of short-term assets and liabilities (Chart 40).

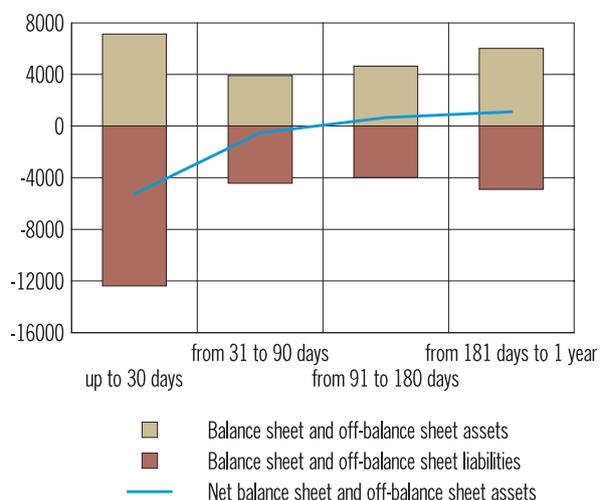
Short-term liabilities exceed assets due to several factors. First, banks have increased the volume of Bank of Russia refinancing provided at floating interest rates (in 2014, credit institutions' debt on Bank of Russia refinancing operations increased by 2.8 trillion rubles to 7.3 trillion rubles). Second, due to the possibility of early closure of deposit or partial withdrawal of funds, households and companies transfer a substantial part of funds to the new, higher-yield deposits. The third reason is the low share of floating rate assets on the balance sheets of Russian banks (although in some cases, according to the terms of the loan agreement, banks had the right to change the interest rate unilaterally, which was implemented where the financial position of the borrower allowed it).

In order to analyse the impact of interest rate risk on banking sector stability, in February 2015, the Bank of Russia stress tested 28 major banks as at early 2015, encompassing an increase in ruble interest rates by 650 percentage points (which corresponded to the actual increase in the Bank

of Russia key rate from 16 December 2014). The results of the stress test demonstrated that the cumulative gap for a 30-day time horizon would have amounted to -5.3 trillion rubles. As a result of the realisation of the interest rate risk, the weighted average capital adequacy of the analysed group of banks would have reduced from 11.9% to 10.9% during the year. The capital deficit of banks, whose capital adequacy would have decreased below 10%, could have reached 210 billion rubles. It should be noted that these estimates did not take into account additional capitalisation of the banking sector.

The Bank of Russia's reduction of the key rate to 11.5% p.a. contributed to a significant decrease in potential banking sector losses from the realisation of interest rate risk. In the first quarter of 2015, the trend started to change: growth in ruble deposit rates slowed down and gave way to decline, leading to a reduction in the size of the negative gap between assets and liabilities. At the same time, a new risk arises that extending loans at lower interest rates after the period of raising expensive deposits will reduce the interest income of the banking sector. As interest rates on short-term deposits rose more than those on long-term deposits (+6.1 percentage points for maturity up to one year and +3.3 percentage points for maturity more than one year on household deposits in December 2014), a considerable part of the 'expensive' deposits can be expected to be repaid before the end of this year. However, the risk of deposit outflow would

Chart 40  
Maturity of Banks' Assets and Liabilities Sensitive to  
Interest Rate Risk (billions of rubles)



deter banks from a significant reduction of interest rates on new deposits.

The growth of rates in foreign money markets following the expected increase in the federal funds rate of the US Federal Reserve should not have a significant negative impact on the interest rate margins of Russian banks since considerable part of foreign currency loans is also issued by them at floating rates.

One of the most important factors in reducing potential losses from realisation of interest rate risk is the quality of risk management systems in banks. The results of a survey of major banks regarding the interest rate risk management system show that most banks:

- have developed and approved an interest rate risk management policy (in half of the banks it is a part of their general risk management policy) and developed a system of internal reports to inform on the level of interest rate risk;

- have a limit system in order to constrain the risk both for the bank and the trading books, as well as a procedure to monitor and regularly review it, and a list of measures and procedures in case the limits are exceeded;

- use various methods to assess interest rate risk (duration method, gap analysis, evaluation of instrument sensitivity, VaR evaluation, stress testing).

Some banks hedge interest rate risk by using foreign exchange swaps, interest rate swaps, currency swaps, FRA, currency futures, options on interest rates, and OFZs. Other banks do not hedge interest rate risk. The main counterparties

in hedging transactions are large credit institutions (both residents and non-residents) and large Russian corporate customers.

In general, the processes for managing interest rate risk in major Russian banks are consistent with international practice and recommendations of the Basel Committee on Banking Supervision. However, in order to improve interest rate risk management systems, banks are advised as follows:

- to ensure greater independence of divisions responsible for managing interest rate risk from business divisions of the bank in order to avoid conflicts of interest;

- to more clearly formalise the principles of operation of all elements of the interest rate risk management (monitoring, limits setting, stress testing, hedging, exchange of information, procedures to reduce the level of interest rate risk, etc.);

- to regularly assess interest rate risk management system through the internal control service;

- to develop a practice of verifying interest rate risk assessment models;

- to develop a system of limits to restrict interest rate risk in the bank book beyond a general limit on the amount of capital to cover interest rate risk.

Besides, banks are advised to increase the share of assets with floating interest rates for customers with the ability to hedge interest rate risk. The increase in instruments with floating interest rates will make it possible to avoid abrupt changes in net interest income during periods of volatility in market interest rates.

## 7. SYSTEMIC RISKS OF NON-CREDIT FINANCIAL INSTITUTIONS

The segment of non-credit financial institutions does not bear any considerable risks to the financial stability due to its relatively small size (6% of total assets of the financial system). At the same time, the Bank of Russia monitors risks which could have a negative impact on non-credit financial institutions' ability to perform their functions with due quality and continuity.

### 7.1. Insurers

In 2014, Russian insurers were able to show an acceptable return on equity (16% against 12% in 2013). However, real returns were somewhat lower as this indicator takes into account the Bank of Russia's moratorium on the revaluation of securities<sup>1</sup> and support from owners accounted in other income.

The unfavourable macroeconomic environment affected demand for insurance services. In 2014, the growth of insurance premiums decreased by 3.3 percentage points to 8.5%, and as a result, the insurance market was valued at 987.8 billion rubles. In the first quarter of 2015, the deceleration continued with premium growth at 1%.

In 2014, the compulsory motor third party liability insurance (OSAGO) market saw certain difficulties due to inadequacy of insurance rates and existing court practices. In response to the growing unprofitability in the OSAGO segment, many insurers decided to optimise the regional networks, reduce or sell the retail portfolio, or abandon the market.

Against this background, a large-scale reform of the OSAGO insurance system started, under which the insurance limits for damage to property were increased from 120 to 400 thousand rubles for each person affected, as well as compensation for harm caused to life or health of each person affected

from 160 to 500 thousand rubles; the procedure for reimbursement of the necessary expenses to restore the health of persons affected was also simplified considerably. Taking this into account, the Bank of Russia updated rates and adjustment ratios for OSAGO insurance. These measures were designed to normalise the situation with the OSAGO insurance loss ratio and increase the affordability of insurance services.

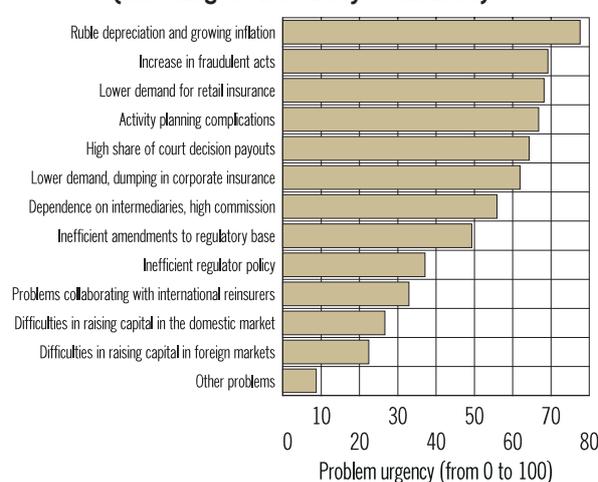
There was also a positive trend in legal expenses of insurers: in the fourth quarter of 2014, the share of payments based on a court decision reduced in the total number of paid losses under OSAGO insurance.

The external political situation impacts the process of organising reinsurance protection for the risks of companies affected by economic sanctions, facilities of dual or military purpose, and facilities located in the Republic of Crimea. In this regard, insurers, with the participation of the Bank of Russia, are carrying out measures to attract alternative capacities, including cooperation with reinsurers in BRICS countries.

According to the Bank of Russia survey, conducted among leading insurers (there were 22 companies participating in the survey with 73% market share in 2014), the depreciation of the

Chart 41

#### Current Problems in the Insurance Market (according to the survey of insurers)



Source: Bank of Russia survey data.

<sup>1</sup> Bank of Russia Information Letter No. 015-57/2477, dated 19 March 2015, 'On Recording the Value of Securities in Statements for Supervision Purposes in the First Half of 2015'.

national currency seems the most pressing issue for insurance companies in the first quarter of 2015 (see Chart 41). In particular, 13 of the 22 leading insurers had a short open currency position (OCP) in 2014, based on estimates of the motor insurance liabilities linked to the exchange rate of foreign currencies; for seven companies under analysis, the short OCP to capital ratio exceeded 50%. Thus, the financial stability of insurers, primarily operating

in the OSAGO and motor hull insurance segments, is heavily dependent on exchange rate fluctuations.

Respondents indicated activation of fraud as the second most important problem, affecting the growth of insurance indemnity payments and insurers' spending on additional verifications during loss settlement. Lower demand for retail insurance took the third place.

### Insurance Companies' Anti-recessionary Measures

In order to improve the results from insurance operations most insurers specialising in non-life insurance raise motor hull rates, abandon unprofitable insurance lines, and promote the use of deductibles.

In the crisis environment, insurers are headed for cost optimisation (Chart 42). In 2014 the share of business expenses in the contributions across the whole market fell to 29.1%, which is 8.2 percentage points lower than in 2013.

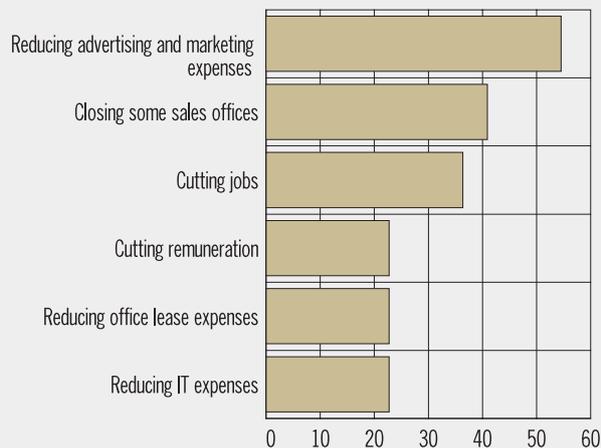
In 2015, the most popular cost reduction measure will be lower advertising and marketing expenses; some companies will reduce this budget item by as much as 85.0%.

The efficiency of regional networks is actively monitored: more than 40% of the surveyed insurers continue to consider possible closure of some sales offices, especially in the regions with high motor insurance loss ratio. More than one third of the surveyed insurers plan to cut the number of employees. This cost reduction, on the one hand, makes it possible to maintain short-term profitability, but on the other hand, unless effective electronic technologies are introduced, may have negative impact on the accessibility and quality of insurance services.

As part of anti-recessionary measures, one-third of the leading insurers are planning to use financial support from shareholders in 2015.

Chart 42

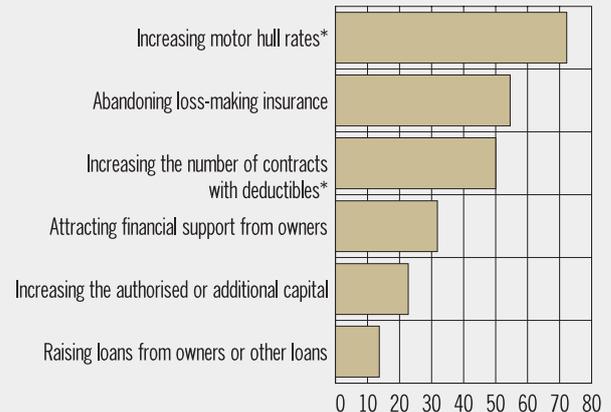
#### Cost Reduction Measures (% of respondents)



Source: Bank of Russia survey data.

Chart 43

#### Insurance Portfolio and Capital Management Measures (% of respondents)



\* Of insurers specialising in non-life insurance.  
Source: Bank of Russia survey data.

## 7.2. Non-state Pension Funds (NPFs)

In 2014, amid highly volatile financial markets the NPFs performance was neutral. The annual return of NPFs on pension savings stood at 4.9%, which was below inflation (11.4%), but higher than the return of the PFR (2.6%); the return on pension reserves decreased to 1.9% (Table 4). At the same time, in 2014, 9 NPFs made a loss on pension savings. In 2014, in view of the moratorium on the transfer of the investment part of pension, cumulative growth of pension savings was negligible (by 4%, to 1132 billion rubles at market value). Pension reserves increased by 8.2% to 900 billion rubles.

In 2014, to improve the transparency and reliability of the pension market, the Bank of Russia obliged pension funds operating in the system of mandatory pension insurance, to go through the procedure of corporatisation, and join the pension guarantee system by the end of 2015. From January 1, 2014 to April 30, 2015, 63 NPFs underwent corporatisation, of which 26 joined the system of guaranteeing the rights of the insured persons.

Amid the instability in the Russian financial market, the NPF risks associated with the quality of investments have increased. The problem of investments in affiliated structures, as well as in tools like closed-end unit investment funds and mortgage participation certificates, which are non-transparent in terms of assessing their value is pressing. In order to limit credit risks, the Bank of Russia took

measures to tighten requirements to assets in which pension savings can be invested. Starting from July 1, 2015, NPFs will have to limit investments both in projects of their own shareholders and in the financial assets of the group of related entities.

For NPFs who joined the guarantee system, the new rules governing the transfer of the investment part of pension became effective, actually increasing the investment horizon from 1 year to 5 years. This will allow NPFs to invest pension savings in long-term assets, which could lead to an increase in investment market risks.

In 2015, the pension system received more than 600 billion rubles of 'unfrozen' pension savings formed in the second half of 2013 and at the end of the transition campaign in 2013-2014; this will contribute to reducing the shortage of long-term investments and the cost of funding in the Russian financial market.

After several years of uncertainty about the future of the investment part of the pension, the Russian Government decided to maintain the investment element in the pension system and to resume accumulations from 2016. This decision will facilitate the inflow of long-term money into the Russian economy, which is especially important in conditions of restricted access to foreign capital markets. Besides, the activation of NPF activities in the Russian stock market will provide a more accurate pricing of financial assets, thus contributing to price stabilisation and reduced volatility in the Russian stock market.

Table 4

### Return on investment of NPF funds

Indicators	Units	2013		2014	
		Pension savings	Pension reserves	Pension savings	Pension reserves
NPF return	%	7.4	5.3	4.9	1.9
PFR return	%	6.7	-	2.6	-
NPFs that sustained losses	pieces	2	3	9	13
NPFs that had a negative real rate of return	pieces	26	49	86	112
NPFs that had return above inflation	pieces	63	68	1	3
NPFs that had return at 1.0% or more above inflation	pieces	42	50	1	2
NPFs that had return at 2.0% or more above inflation	pieces	16	29	1	2

### 7.3. Professional Securities Market Participants

The growing instability in the financial market in 2014 Q4 contributed to increased demand for the services of professional securities market participants. In particular, the number of their active customers increased by 44.0% to 87,800 people in December 2014 compared with December 2013. Turnover at the Moscow Exchange rose by 14.6% to 515 145 billion rubles owing to currency (+46.5%) and forward (+26.2%) segments (Table 5).

At the same time, in December 2014, professional market participants faced difficulties in raising liquidity. Following the Bank of Russia decision to raise the key rate to 17%, the money market contracted. Liquidity supply from banks dropped, as credit institutions needed available funds. Interdealer repo rates for brokers exceeded

27% p.a. (Chart 44). Brokers had to borrow at high interest rates to maintain the clients' margin positions and avoid fire sales of assets.

However, unlike during the 2008 crisis, no serious problems occurred in the form of stopping the chain of lending against securities due to the National Clearing Centre's money market transactions. This resulted in recovery of trading volume in the last week of 2014 in the repo market and the reduction of interest rates to the upper bound of the interest rate corridor of the Bank of Russia (Charts 44 and 45).

The realisation of market risks in December 2014 led to a decrease in the amount of broker capital from 499 to 302 billion rubles, although brokers were able to avoid major defaults.

For its part, the Bank of Russia is tightening supervision over professional participants. In particular, it has developed new reporting

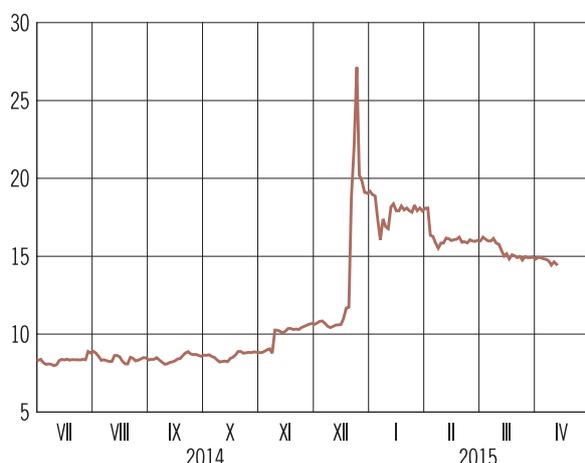
Table 5

#### Main Performance Indicators of Professional Securities Market Participants

Indicators	Units	2013	2014	2015 Q1
Number of brokerage companies	units	880	804	778
Moscow Exchange turnover	billions of rubles	449,380	515,145	127,670
Interdealer repos	billions of rubles	74,237	57,152	10,573
Repos with CCs	billions of rubles	3,750	25,028	9,536
Number of registered customers	thousands of people	1,105	1,190	1,232
Number of active customers (for the last month of the period)	thousands of people	61	88	82
Assets	millions of rubles	834,372	1,065,289	1,213,931
Equity capital	millions of rubles	498,670	301,933	302,572
Debt burden (liabilities/equity)	%	96	171	169
Share of outstanding obligations under repos	%	0.02	0.02	0.02

Chart 44

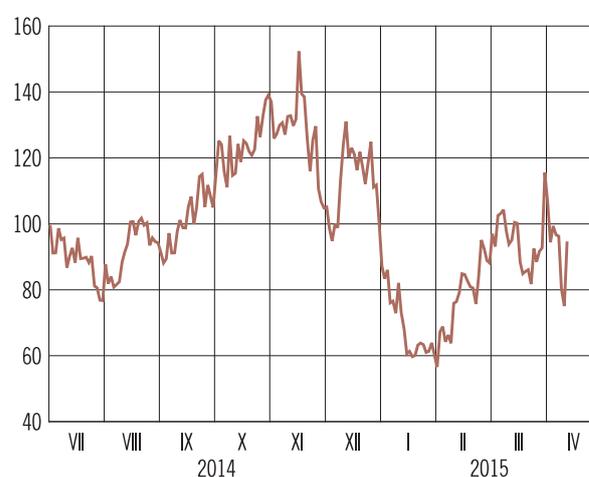
#### Broker Rate of Borrowing from Banks in the Interdealer Repo Market Without CCP (%)



Source: Bank of Russia based on Moscow Exchange data.

Chart 45

#### Volume of Broker Borrowings from Banks, Including the Repo Market with CCPs (billions of rubles)



Source: Bank of Russia based on Moscow Exchange.

requirements for them (starting with 2015 Q1 reporting) which involve weekly monitoring of OTC transactions for a number of brokers. At the same time the Bank of Russia is developing a mechanism

to provide liquidity directly to brokers in crisis situations through repo transactions with CCPs, which will limit the spread of liquidity problems of professional participants during market shocks.

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