The Central Bank of the Russian Federation

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This Review and statistical data in the Russian and English languages are also placed on the Bank of Russia’s website.

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Summary

External Risks

Global risks, and particularly, the risk of slowdown in the economic growth of the European Union and emerging market economies, are highly important for Russia, especially from the perspective of export dynamics and risks of further decline in oil prices. During the period from June to the first half of October 2014, oil prices fell to the lowest level in the four years amid slower growth of demand and recovery of oil supply. Another reason of the drop in oil prices is the appreciation of the US dollar against most currencies, caused by expectations of the imminent monetary policy tightening by the US Federal Reserve System. In the context of growing key interest rates in the United States and the United Kingdom in 2015, emerging market economies as a whole may face capital outflows and rising credit spreads.

One of the important external factors for the Russian financial system in the second and third quarters of 2014 was the introduction of US and EU sanctions against major Russian banks and companies in the oil and gas sector which banned debt financing for periods of more than 30 days. An outcome of the sanctions was the reduced supply and increased cost of US dollar borrowing in the money market. In order to stabilize the situation, the Bank of Russia began overnight FX swap operations to provide dollars. The imposed sanctions also led to an increase in the private capital outflow from Russia: its value amounted to $85.2 billion in January-September 2014, almost doubled the value in the corresponding period of 2013 ($44.1 billion). The capital outflow was caused mainly by the growth in foreign assets of Russian non-financial organizations and the decline in bank foreign liabilities. No mass exodus of foreign investors from Russian assets was observed: in particular, the non-resident portfolio of federal bonds remained quite stable in recent months; as of August 1, 2014 the share of foreign investors in this segment stood at 24.9%.

In the baseline scenario\(^1\), assuming the retention of sanctions through the first half of 2015, Russian borrowers are able to repay external debts on their own, taking into account accumulated foreign-currency financial assets of enterprises and cash flows from operations. In case of a prolonged preservation of sanctions, banks and non-financial organizations will have to switch to the domestic market of borrowings. In addition, systemic effects may be caused by the concentration of foreign debt payments in some periods, which requires the Bank of Russia to regularly assess the adequacy of foreign exchange liquidity and, if necessary, to implement measures supporting the foreign exchange liquidity of credit institutions. The Bank of Russia plans to launch repo transactions denominated in US dollars and euros for the periods of 7 and 28 days.

Non-financial Organizations’ Risks

Against the background of Russia’s slower economic growth, the financial standing of enterprises somewhat deteriorated, which was reflected in the increase of overdue receivables, reduction of current liquidity ratios, and the continued low level of profitability. At the same time, stabilization of debt burden of companies in the first half of 2014 can be regarded as a favorable factor. The value of the net debt/EBIDTA of the major companies in the oil and gas sector decreased from 0.3 as of January 1, 2014 to 0.2 as of July 1, 2014. The respective ratio of the 60 largest non-financial organizations, excluding oil and gas companies, remained stable at 2. At the same time, amid declining profitability, many companies in metals and mining, electric power, machine building and automobile

\(^1\) The baseline scenario is outlined in the draft “Guidelines for the Single State Monetary Policy in 2015 and for 2016-2017.”
industries still demonstrate growth in the debt burden, which increases their vulnerability in the event of a further deterioration of the economic situation and rising debt-servicing costs.

**Banking Sector Risks**

The banking sector is stable now, although moderate negative trends resulting primarily from a recent structural slowdown of the Russian economy are observed. The banking sector capital adequacy ratio decreased from 13.2% as of April 1, 2014 to 12.6% as of September 1, 2014, which was mainly due to an increase in loan loss provisions.

A positive trend was the restoration of growth in household deposits: following the negative dynamics in the first quarter of 2014, the volume of ruble deposits rose by 5.5% in April-August. Customer confidence in credit institutions under foreign sanctions has not diminished: this group shows higher rates of loan and deposit growth than other banks. The overall increase in raised basic funding sources helped to stabilize the banking sector debt to the Bank of Russia, and its structure has changed: from August more than half of the debt falls not on repo operations but on loans secured with non-marketable assets and sureties, as a result of which a significant part of market collateral remains unencumbered.

In the medium-term, the economic slowdown can lead to the increased credit risk of the banking sector, especially in the corporate segment. Recent reporting data have not demonstrated a significant deterioration yet: as of September 1, 2014, the overdue claims on loans of non-financial organizations amounted to 4.5%, whereas at the beginning of 2014 it stood at 4.2%. The high level of overdue loans and their significant growth since April 1, 2014 was typical for construction and agricultural sectors (by 0.8 percentage points to 7.6%, and 2.4 percentage points to 9.4%, respectively).

Banks’ lending to households continued to slow down, the annual growth rate of loans amounted to 18.2% as of September 1, 2014, the rise in unsecured consumer loans slowed to 16.8%. The share of unsecured consumer loans overdue by more than 90 days increased, leading to a decline in the profitability of banks specializing in this type of lending. In response to the Bank of Russia measures, implemented in 2013-2014 and aimed at limiting consumer lending risks, banks have tightened requirements for borrowers on new loans and reduced the percentage of approved applications which will help to mitigate systemic risks in the retail lending segment. In addition, a positive factor is the stability of borrowers’ debt burden amid lower effective interest rates on consumer loans.

Risks of the rapidly growing mortgage lending segment are regarded as moderate, the level of overdue loans is low, the growth rate of prices for residential real estate over the past year remains below inflation. At the same time, loans with a high LTV ratio\(^2\) (over 70%) account for a substantial share, so to limit potential systemic risks, the Bank of Russia is considering a possibility of setting differentiated risk weights for mortgage loans, depending on the LTV level.

**Non-credit Financial Institutions’ Risks**

The sector of non-credit financial institutions still accounts for a negligible share of the Russian financial system’s assets (9% at the end of 2013), which is typical for emerging market economies.

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\(^2\) The LTV ratio is calculated as the ratio of current loans to the market value of residential property.
In the first half of 2014, the unfavorable macroeconomic situation led to slower growth in insurance premiums (by 5 percentage points to 8.5%). Insurance companies experienced difficulties related to high losses in the segment of auto insurance.

The moratorium on the transfer of pension accumulations to non-governmental pension funds in 2015, discussed by the Russian Government in the third quarter of 2014, can significantly affect the future operation of the non-governmental pension funds (the annual rate of growth in pension accumulations has slowed to 23.6% as of July 1, 2014). The moratorium in a situation when the external capital markets are closed may result in an increased deficit of long-term investments in the Russian financial market.
1. Global Economic and Financial Market Risks

The current foreign economic situation is characterized by a significant degree of uncertainty and creates potential risks for the Russian economy and the financial system. Along with macroeconomic risk factors associated primarily with the deteriorating growth prospects of the eurozone and China, an important role is played by geopolitical risks related to the situation in Ukraine (for more details see Chapter 2).

Global risks impact financial stability in Russia through several channels. Firstly, the situation in global commodity markets, especially oil market, determines the amount of the significant share of export receipts in the budget, as well as the exchange rate dynamics. In recent months, oil prices showed a steady downward trend, reaching the minimum level for the last four years against the background of slower economic growth in a number of major oil importers, and the appreciation of the US dollar. However, forecasts of the International Monetary Fund (IMF), although adjusted downward, still suggest an acceleration of global economic growth in 2015, which may contribute to the recovery of oil prices.

Secondly, the capital flows of the private sector area significant channel for the direct influence of global risks on financial stability. The loose monetary policy of major central banks in recent years stimulated capital inflow to emerging markets. Active foreign investments in local financial assets and real estate resulted in the formation of the signs of bubbles in a number of countries and the excessive use of leverage by financial institutions. Russia experienced a net outflow of private capital ($61 billion in 2013 and $85.2 billion in January-September 2014), which was largely due to the accumulation of foreign assets by the Russian non-financial sector, including assets in the form of direct investment ($43.2 billion in January-September 2014), and demand for foreign currency cash ($15.1 billion over the same period). At the same time, foreign investors showed interest in buying government bonds (see Box 1).

An increase in key interest rates in the United States and the United Kingdom in 2015 may lead to an outflow of capital from emerging markets, higher credit spreads, lower prices of financial assets and weakening national currencies. At the same time, the recent episode of high volatility in the global markets in May-June of 2013, associated with the statement of the Federal Reserve’s former head Ben Bernanke on an imminent tapering of monetary stimulus in the USA, showed that these effects varied significantly in the financial markets of different countries depending on their fundamentals (the state budget and the current account balances). The exposure of the Russian financial system to global risks related to the tightening of monetary policies in major economies is not higher than that of other emerging market economies, given that Russia has already experienced a significant capital outflow for various reasons.
1.1. Risks and Economic Prospects in Advanced Economies

Box 1. Analysis of Non-residents’ Positions in the OFZ Market

In the second half of 2012—the first half of 2013, the Russian federal bond (OFZ) market saw a significant increase in the share of foreign investors, which was as a result of the liberalization of the market: Euroclear and Clearstream were given an opportunity to open nominal holder accounts with the Russian central securities depository. As a result, the share of foreign investors in the OFZ market rose from 7% in mid-2012 to 28% as of May 1, 2013, which was the maximum value of this indicator in the period under review.

Since the beginning of 2014, amid the escalation of international tension, the yields of Russian government securities increased: the OFZ yield index rose from 7.3% as of December 30, 2013 to 9.4% as of September 1, 2014\(^3\). Due to unfavorable market conditions the Russian Ministry of Finance limited the issue of new securities. During the first three quarters of 2014, the volume of OFZ placements stood at 132 billions of rubles, more than a third of the volume in the same period of 2013 (471 billions of rubles).

However, adverse market conditions did not affect the value of the non-resident OFZ portfolio. Moreover, on July 1, 2014 this figure amounted to 945 billions of rubles, which was the highest value since the liberalization of the government debt market) and the share of foreign investors was 25.6%. On August 1, 2014, the value of non-resident portfolio decreased slightly, amounting to about 930 billions of rubles, which corresponded to the level of the second quarter of 2013. In general, the stability of foreign investments is an evidence of the efficiency of the measures taken to liberalize the market and the persistent confidence of foreign investors in the Russian government debt.

Non-resident investments are evenly distributed by securities maturity in the segment from 1 year to 15 years. OFZs with maturities of 5-7 years account for the largest non-resident share (42%).

\(^3\) According to Cbonds data.
In the third quarter of 2014, the concerns associated with a possible slowdown in the global economy increased. The United States and the United Kingdom experienced an acceleration of economic growth, which gave grounds to expect a rise in the base rates in these countries. In the eurozone, the situation was less favorable, both in terms of their growth prospects (due to the factors of geopolitical tensions, among other things), and the stability of the financial sector. Many emerging market economies showed lower economic activity.

**Macroeconomic Risks**

In October, the IMF once again reduced its forecast for global growth in 2014: it was expected in July that this indicator would be 3.4%, in October the estimate was lowered to 3.3% (in 2013, global growth was also equal to 3.3%). The estimate of global GDP growth in 2015 was reduced from 4.0% to 3.8%. Advanced market economies expect economic growth to accelerate from 1.4% in 2013 to 1.8% in 2014, and emerging market economies and developing countries to slow down from 4.7% to 4.4% (Chart 3).

![Chart 3. Economic Growth in Leading Economies, %](image)

Source: IMF.

Prospects for the US economy are gradually improving, but economic growth has not yet moved to a stable path: GDP annual growth is expected to reach 2.2% in 2014, like in 2013, but this figure is still below the average annual growth rate in the pre-crisis period of 2000-2007 (2.7%). In September, the United States registered a deterioration in a number of macroeconomic indicators: retail sales fell by 0.3% and producer prices went down by 0.1% compared to the previous month. Simultaneously, amid the unemployment rate going down to its lowest level since July 2008 (5.9% in September 2014), the Federal Reserve completes the exit from its quantitative easing program and in the near future plans to implement further measures for monetary policy tightening. In the United Kingdom, the base rate increase may occur even earlier than in the USA. In September, the head of the Bank of England M. Carney stated that the regulator could raise the rate in the spring of 2015.

At the same time, in the eurozone, risks to economic growth have aggravated again. In the second quarter of 2014, GDP growth stood at zero quarter on quarter. In September, the PMI Markit for 18 eurozone countries fell to 52.0 points (the lowest level since November 2013) and the Manufacturing PMI decreased to 50.3 points (the lowest level since July 2013). At the same time, the threat of deflation in the eurozone increased: the annual growth of consumer prices in the region amounted to only 0.3% in September 2014. Macroeconomic risks rose not only in the peripheral countries of the eurozone, but also in the key economies. In October, the German Ministry of Economy lowered its April forecast for GDP growth in 2014 from 1.8% to 1.2% and from 2% to 1.3% in 2015.

Eurozone peripheral countries are still subject to serious fiscal and debt risks. Despite their access to international debt markets, they still have excessive debts while the potential of fiscal consolidation is almost exhausted. Higher macroeconomic risks in the eurozone have started to have a
negative impact on the peripheral countries' ability to raise funds. The yield of ten-year Greek
government bonds increased to 8.9% on October 16, 2014 from 5.7% a month earlier.

In order to stimulate lending, the European Central Bank (ECB) launched the targeted long-term
refinancing operations (TLTRO), and also announced a program of quantitative easing, assuming the
purchase of securitized papers. At the auction of September 18, 2014, bank demand for ECB four-year
loans was low, €82.6 billion (while the total limit of liquidity provided at auctions in September and
December was set at €400 billion), ECB long-term funds were raised mainly by the largest banks of the
eurozone. This was partly due to the unwillingness of smaller banks to signal to the market about their
potentially vulnerable positions, while they continued to actively increase their capital prior to the
publication of the results of the banking sector asset quality review on October 26, 2014. But, most
probably, a more important reason was still low demand for bank loans from companies and households
amid negative economic trends. In this situation, the room for monetary policy maneuver is limited,
structural reforms aimed at improving the efficiency of the labor market, pension system and public
services are required to stimulate growth.

The sustainable recovery of the Japanese economy was jeopardized against the background of
the April increase of the tax on consumption: in the second quarter, the GDP declined by 1.8% quarter
on quarter (7.1% annualized). The Government of Japan started preparing an action plan to support the
economy, in particular it considered the possibility of fiscal stimulation.

In emerging market economies, an economic slowdown continues due to a reduction in
domestic and external demand. IMF expects a decrease of GDP growth in China from 7.7% in 2013 to
7.4% in 2014 and 7.1% in 2015. According to the National Statistics Bureau of China, the annual growth
rate of industrial production in China slowed to 6.9% in August, which was the lowest level since
December 2008. In August, imports fell by 2.4% in annual terms, pointing to a decline in domestic
demand and a need for additional support to the economy. In the second and third quarters, the
People's Bank of China increased the volume of liquidity provision and reduced reserve requirements for
banks specializing in lending to agricultural sector.

We also observe the deterioration in in the Chinese real estate market. In July 2014, real estate
prices in 68 of the 70 largest cities of the country showed a negative trend. A potential decrease in real
estate prices will not only affect construction companies and the manufacturers of construction
materials, but can also lead to decrease in local budget revenues (funds from taxes on real estate
transactions and fees for the transfer of land for development provide from 37% to 66% of receipts in
the budgets of local administrations). On September 30, the People's Bank of China softened mortgage
lending standards (financial companies were allowed to issue mortgage loans to second-home buyers on
the same terms as to other first-home buyers, provided they had no debt on other mortgage loans).

A noticeable deterioration of the economic situation was observed in Brazil: the country fell in
recession with the GDP decline in the first two quarters of 2014 by 0.2% and 0.6%, respectively. Amid
the negative growth in the industrial production and investments, IMF expects that GDP growth in Brazil
will make up to 0.3% in 2014.

Thus, the risks of the global economy may increase, which is reflected in the growing volatility of
the financial markets and the formation of a downward trend in commodity prices.
**Financial Risks**

Super soft monetary policy pursued by major central banks in recent years led to a substantial revaluation of various classes of assets, increasing the possibility of losses in the case of a market price correction.

Chart 4. S&P 500 Index and Ratio of Market Capitalization

![Chart 4](source)

Source: Bloomberg.

Signs of overheating are observed, in particular, in the US stock market. In the second quarter of 2014, the ratio of the capitalization of companies whose shares were included in the S&P 500 index to the US GDP amounted to 105%. This index reached its peak value since the dotcom crisis of 2000 (130%); before the mortgage crisis of 2008 it stood at 97% (Chart 4). For the entire US stock market the index amounted to 143%. The largest growth in market multipliers was typical for the segment of Internet companies (Chart 5).

The market of structured products is gaining momentum again. In January-July 2014, the value of CLO\(^4\) issue amounted to $90 billion, of which the United States accounted for two-thirds. If the current trend persists, this market may repeat the fate of the subprime mortgage market.

The situation in the banking sector of the eurozone is not quite stable: major banks may face difficulties. In June-August 2014, the problems in the parent company of one of the key Portuguese banks, Banco Espirito Santo SA, led to a reduction of its capital to the level where the direct state support turned to be impractical. It is planned that it will be restructured through the division into a bank with quality assets and a bank with "toxic" assets, which will be subsequently liquidated.

A possible further depreciation of the euro as a result of the divergent policies pursued by the Fed and the ECB would increase the cost of dollar loans for European banks from which they are still very dependent. In early 2014, the share of US dollar-denominated loans issued by US money market funds to European financial institutions stood at 31% of funds’ total portfolio. Given the interest rate and foreign exchange risks, the stability of European banks will depend both on their capital adequacy and the degree to which their positions are balanced and hedged, as well as on foreign exchange positions of their borrowers obtaining US dollar loans.

Prior to announcement of the ECB stress test results, European banks are tried to actively raise new capital from the markets, mainly through the issuance of the so-called hybrid products (AT1 bonds\(^5\),

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\(^4\) CLOs (collateralized loan obligations) are bonds secured by expected payments on the pool of issued loans. Subprime loans granted to companies with a significant amount of accumulated debt often serve as collateral.

\(^5\) AT1 bonds (additional Tier 1 bonds) are irredeemable subordinated bonds, on which coupon payments are made during the period of dividend payment.
CoCo bonds\(^6\)). According to BIS estimates, during the period from 2009 to 2013, the value of issued CoCo bonds stood at $70 billion and in the first half of 2014 it reached $40-50 billion. Hedging transactions aimed at reducing capital requirements become more popular. Although these tools allow increasing capital adequacy ratio and thereby strengthening investor confidence, their impact on the stability of the financial sector in the long run is unclear. A high accumulation of such instruments by banks may adversely impact the ability of ultimate owners of these hybrid products to absorb risks.

The development of new forms of lending, especially within the shadow banking sector, can be a source of financial instability both in the advanced countries and emerging market economies. From 2002 to 2012, the assets of non-banking financial companies in emerging market economies have grown from 6% to 35% of GDP, and banking sector assets from 30% to 85% of GDP.

Higher risks arise from the Chinese shadow banking system, its total assets including assets of money market investment funds, funds managed by securities companies, and other investment funds, financial and trust companies amounted to $3 trillion (32% of GDP). China demonstrates a rapid growth in allocation of funds in wealth-management products (WMPs) by banks and other investors. However, many assets underlying these products are related to high-risk projects, and may turn to be incapable of providing funds sufficient to meet liabilities. In July 2014 the China Banking Regulatory Commission published principles for mitigating risks associated with financing through WMP issues. Banks are required to establish special units for the issue of WMPs and classify potential customers by their risks for the purpose of individual risk assessment. The risks of the Chinese shadow banking sector may have adverse impact through the materialization of banking sector’s credit risk, as well as foreign investors’ losses from investing in WMPs and non-financial sector’s liabilities. According to IMF estimates, the claims of foreign banks to all sectors of the Chinese economy have tripled over the past three years, and amounted to $1.2 trillion. The non-banking sector accounts for a third of these claims.

Among the major risks of emerging market economies an important place belongs to the growing debt burden of the non-financial sector. In many countries, there is still a dynamic growth in lending, as well as in the volume of outstanding corporate bonds, including those issued in international markets. This increases foreign exchange risk. Emerging market economies are not immune from corporate defaults amid slower economic growth and higher borrowing costs.

The materialization of the systemic risks of certain major countries can have a contagion effect on other countries, especially emerging market economies. Global investors’ risk aversion may lead to an outflow of capital from these markets, which will affect the stability of their banking systems and economic growth. Amid the tightening of US monetary policy, the emerging market economies are becoming more sensitive to such effects.

1.2. Risks of Lower Commodity Prices

Oil Price hit the Four-year Minimum

Since mid-June 2014, oil prices began to decline and in October they reached their minimum over the past four years. As of October 16, 2014, Brent crude oil fell to $83.07 per barrel, the OPEC oil basket price dropped to $85.14 per barrel.

\(^6\) CoCo bonds (contingent convertible capital instruments) are bank contingent hybrid bonds, which are converted into shares and allow to absorb losses at the reduction of the capital adequacy ratio below a certain level.
The growth of supply and reduced demand for oil amid the ongoing stagnation in the EU and an economic slowdown in China became the main factors that contributed to a decrease in the prices of raw materials in the third quarter of 2014. The International Energy Agency report, published in early September, noted that, despite the armed conflict in Iraq and in Ukraine, the level of supply on the oil market was higher than expected, due to the start of oil supplies from Libya, the first signs of stabilization of the situation in Iran, and an increase in oil production in the United States.

Continued growth in oil production from shale rock in recent years has allowed the USA to increase the volume of extracted oil to record high levels and reduce oil imports from other countries, especially the OPEC. Saudi Arabia, the largest supplier of oil to the world market, as a result of the loss of its key customer, the USA, is trying to prevent a decrease in oil production (which would have a positive impact on the price) in order to maintain the current market share. However, the spread of oil shale technologies in other countries is unlikely in the medium term, owing to current economic problems and absent infrastructure. It is possible, nevertheless, to increasingly use new technologies to expand production at the existing oil fields.

A decline in the dollar price of oil is somewhat explained by the appreciation of the US dollar against major currencies: the euro, yen, pound sterling, Canadian dollar, Swedish krona, Swiss franc. The US Dollar Index (USDX) is a measure of the US dollar value against a basket of six major currencies: the euro, yen, pound sterling, Canadian dollar, Swedish krona, Swiss franc.

A decline in the dollar price of oil is somewhat explained by the appreciation of the US dollar against major currencies: the correlation between oil prices and the US dollar (Chart 7), especially after the 2008 crisis, remains very high. Another factor underlying the negative dynamics of prices is the reduction of speculative activity on commodity markets amid tapering the stimulus measures of US monetary policy. During the upward phase of the price cycle, oil and other commodities were increasingly becoming the target for financial investment, and now an opposite trend is observed.

A significant decline in oil prices already happened in 2012, when in the period from April to June, the price of Brent crude fell by 30% to $89.2 per barrel. However, prices began to recover quickly against the background of the implementation of stimulus measures of monetary policy pursued by the ECB and the Fed, and already by December 2012 they rose by 25.5% (to $111.1 per barrel). The USDX for six major currencies reached 85.1 as of October 15, 2014, the peak value for the period since July 2013 (Source: Bloomberg).
improvement in the global economy (in 2015, an acceleration of global growth compared to 2014 is still expected) can change or stop this trend.

**Lowest Five-year Prices for Ferrous Metal Products**

This year, a fall in prices of iron ore and coal has continued. From the beginning of the year, iron ore prices have dropped by 50.5% ($78.3 per ton, the minimum level since September 2009), coking coal prices by 23.4% ($93.5 per ton, the lowest level since 2008). This trend is attributable to several factors.

Firstly, a decline in the growth rates of the Chinese economy was followed by a slowdown in steel demand and a more restrained domestic consumption of iron ore and coal. Currently, only 78% the capacity of world steel producers, the main consumers of coal and iron ore, is being utilized due to low steel prices and weak sales profitability. Secondly, an increase (by 30%-50%) in iron ore production by the world's largest mining companies led to the excessive supply of raw materials on the market. In addition, on October 15, 2014, China imposed stamp duties on imported coal (coking coal, fossil coal, power plant coal, and anthracite) amounting to 3%-6% depending on the type. The fees were introduced to support the Chinese producers amid lower growth rates of the national GDP. As supply of coal exceeds demand, the introduction of this measure can result in coal cheapening.

**Chart 8. Prices for Ferrous Metal Products, US dollars per ton**

**Chart 9. Prices for Three-month Forward Contracts, US dollars per ton**

Sources: Bloomberg, London Metal Exchange

**Growth of Prices in the Non-ferrous Metal Market in 2014**

Since the beginning of 2014, a rise in the prices of aluminium and nickel is registered while copper prices remain relatively stable (Chart 9). In 2014, for the first time since 2006 a deficit is expected in the global aluminum market due to an increase of global demand by 6%-7% due to higher consumption of the metal in the automobile, aircraft and aerospace industries of the leading economies, as well as to the reduction in the capacity of global producers in 2013 because of low metal prices. As a result, aluminum prices rose by 16.9% as compared with the beginning of 2014 and reached their 18-months high by the end of August. However, in September aluminum prices started to drop (in the last month and a half they declined by 7.5%), which was partially explained by the recovery of production in China, and a growing general downward trend in commodities prices denominated in US dollars.

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8 China’s share of global consumption of iron ore is 67%, and that of coal is 50%.
9 BHP Billiton, Rio Tinto, Vale, Fortescue Metals Group.
A high level of production of crude ferro-nickel in China and low demand for nickel in advanced economies in 2013 led to a decline in nickel prices to $13.500 per ton\(^{10}\) (the lowest level since 2009). During January-August 2014, nickel prices rose by 30%. A sharp increase in prices was attributable to the introduction (the largest supplier of raw materials for Chinese producers of crude ferro-nickel) of a ban on the export of unprocessed nickel ore and concentrates in Indonesia. Since the beginning of September 2014, nickel prices showed a downward trend amid news of a maximum stock of nickel on the London Metal Exchange. In general, it is expected that the slower growth of the global economy will be a restraining factor for metal prices and, accordingly, for the profitability of Russian metallurgical companies (see Chapter 4).

\(^{10}\) The average level of nickel prices in the second half of 2013.
2. The Impact of Sanctions on Financial Stability

The increased tension in Ukraine and the introduction of sectoral sanctions against Russian banks and companies by the USA, the EU and other countries was a negative factor in the reporting period. The direct effect of sanctions was the loss of access to foreign markets by the companies, which was the source of relatively cheap and long-term funds. The indirect effect of sanctions was linked, inter alia, with the fact that to avoid their broader interpretation by US and EU authorities\(^\text{11}\) and fearing the possible spread of restrictions on a wider range of Russian companies, foreign counterparties preferred to minimize their risks, in particular they:

- limited the **refinancing of external borrowings** not just for the companies that came under the sanctions, but in some cases, for other Russian borrowers;
- lowered **limits on Russian banks** even for transactions that were not subject to the restrictions (swaps and short-term loans);
- **extended the cycle of payments in foreign currency** (as a result of verification procedures payment delays lasted from a few hours to several days).

In addition, **foreign rating agencies stopped assigning ratings to new instruments of companies that came under the sanctions**, which limited bond placement by the issuers among institutional investors who were obliged to make investments in bonds with a rating not lower than a certain level.

### 2.1. Prospects for External Debt Refinancing

In general, the ratio of external debt of the Russian banking sector and non-financial organizations to GDP is low, although it is higher than in a number of emerging market economies (Chart 10). At the same time, a significant part of the external debt is long-term: about 75% of the debt shall be repaid after 2015 (Table 1).

**Chart 10. Ratio of Private Sector’s External Debt (Banks and Non-financial Organizations) to GDP in Selected Emerging Market Economies as of January 1, 2014, %**

Sources: World Bank, IMF.

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\(^{11}\) An example is the case with BNP Paribas, which in 2014 was accused of carrying out operations in US dollars for customers from Sudan in the circumvention of US sanctions. The Bank is obliged to pay a fine of $8.97 billion by court decision.
Table 1. Estimated External Debt and its Planned Repayment (Principal and Interest) by Sector, $ billion

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total as of October 1, 2014</th>
<th>Maturing in 2014 Q4 (data as of July 1, 2014)</th>
<th>Maturing in 2015 (data as of July 1, 2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>678.4</td>
<td>54.2</td>
<td>125.3</td>
</tr>
<tr>
<td>Government</td>
<td>48.3</td>
<td>1.2</td>
<td>6.4</td>
</tr>
<tr>
<td>Central Bank</td>
<td>15.7</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Banks and other sectors</td>
<td>614.4</td>
<td>53.0</td>
<td>118.8</td>
</tr>
<tr>
<td>Banks</td>
<td>192.0</td>
<td>13.7</td>
<td>42.2</td>
</tr>
<tr>
<td>Other sectors</td>
<td>422.4</td>
<td>39.3</td>
<td>76.7</td>
</tr>
</tbody>
</table>

In Table 1, the schedule of external debt repayment and servicing is provided in accordance with the original repayment schedule set forth in a loan agreement. This calculation is the upper bound of the range of possible external debt repayment, since among other things it includes payments on rollover debt, debt of residents to non-residents, which are members of the same group, as well as debt, which could be repaid prematurely.

The External Debt of Non-financial Organizations

According to Cbonds data, the total volume of Eurobonds placed by Russian companies as of October 1, 2014 amounted to approximately $92.4 billion (22% of the total external debt), the volume of syndicated loans stood at $123.7 billion (29% of the external debt). The rest of the external debt of non-financial organizations in the amount of about $206 billion (49% of the external debt) is represented by bilateral loans.

Liabilities denominated in US dollars (62%) dominate the debt structure; the share of debt to non-residents denominated in rubles is about 24%, in euros 12%.

A substantial external debt and a high share of liabilities to non-residents in the total debt structure are typical mainly for the largest exporters, for the following reasons:

1. Companies prefer funding in foreign currency because of a natural hedge, when the share of debt denominated in foreign currency roughly matches the share of foreign currency in proceeds (see Chapter 4).
2. The cost of financing on external markets for companies with an investment grade rating is generally lower and the terms of funding are longer.
3. Expanded lending to major companies by Russian banks requires significant funds available to credit institutions and an increase in their capitalization.

Oil and gas companies are the main borrowers on the external markets. Three major Russian oil and gas companies account for at least 3.2 trillion rubles, which is about 20% of the total external debt of the non-financial sector. The share of external debt of the major oil and gas companies amounts to 84% of their total debt liabilities. It is the highest share in comparison with other industries.

The Bank of Russia survey of the largest non-financial organizations (the calculation is based on a sample of 25 companies provided relevant data).
According to the schedule, the payments of the largest non-financial organizations are distributed evenly over time: the remainder of 2014 and the whole of 2015 account for only 26% of the payments. The share of redemptions scheduled for the period after 2019 is 38%. This payment schedule will allow the companies to gradually repay the external debt, using their own operating cash flows and taking loans from Russian banks.

As regards the debt repayment schedule in certain industries, it should be noted that the representatives of oil and gas and metal industries have a significant short-term external debt where payments until the end of 2015 stand at respective 35% and 21% of the total debt, whereas for the...
other industries this figure does not exceed 5%-7%, and most of the payments refer to the period after 2019\textsuperscript{13}.

Despite relatively large payments until the end of 2015, the risks associated with the payment of external obligations by oil and gas companies remain moderate. The favorable factors that influence the oil and gas companies are the following: low debt burden (see Chapter 4), allowing to raise additional funds from Russian investors, historically highest energy prices in rubles and relatively low volatility of operating cash flows, part of which may be used for payments on foreign debts.

Risks of external debt refinancing are limited for companies in the metal industry with good financial standings. The volume of the external debt of metallurgists with a high level of a debt burden is not critical as their major creditors are predominantly Russian banks.

In general, Russian exporters are able to repay their external debts, using their own operating cash flows and refinancing by Russian banks. A possible negative effect here is the reduction and delayed implementation of the planned investment programs.

**Bank External Debt**

The external debt of the Russian banking sector amounted to $192 billion as of October 1, 2014. The liabilities denominated in US dollars (70.5%) dominated the currency structure of bank external debt, according to the data as of April 1, 2014; the share of debt to non-residents denominated in rubles made up approximately 15.3% and in euros 10%. The main volume of the external debt was accumulated by state-owned banks (Chart 14). The bulk of the planned repayment falls on the period beyond the next three years (Chart 15).

![Chart 14. Structure of Banking Sector External Debt by Type of Banks as of October 1, 2014, %](chart14)

![Chart 15. Term Structure of Banking Sector External Debt by Type of Banks as of October 1, 2014, %](chart15)

In September, the Bank of Russia conducted a survey of 30 largest credit institutions to assess the actual term structure of bank assets and liabilities denominated in foreign currency within the horizon of the fourth quarter of 2014-2015. It was assumed that banks used money, securities, funds on the accounts of credit institutions, and receipts from the repayment of foreign currency loans to meet their liabilities to non-residents, Russian organizations and banks. It was found out that the 30 largest banks had a net foreign currency buffer (gap between liquid assets and liabilities maturing in the fourth quarter of 2014-2015) of $32 billion in the period under review. Some banks can experience a shortage.

\textsuperscript{13} Bank of Russia data on 42 largest companies with liabilities to non-residents on a consolidated basis.
of foreign currency liquidity due to maturity mismatch, but for the banking sector as a whole, the problem of external debt refinancing is not of a systemic nature.

2.2. The Impact of Sanctions on Borrowing Costs for Russian Banks and Companies

Yield Growth and Lower New Borrowings

In the period of declining geopolitical tensions in June-early July, Eurobond yields returned to the levels of the beginning of the year, but following the introduction of sectoral sanctions they grew again and currently exceed the level of the beginning of the year by an average of 100 basis points. CDS premiums both for Russian non-financial organizations and banks rose by an average of 140 bp and 160 bp, respectively, in the first nine months of 2014 (Chart 17).

Since the beginning of the year, the yields of corporate ruble bonds have increased by 2.3 percentage points to 10.7% on average, which corresponds approximately to a rise in the Bank of Russia key rate (Chart 16). At the same time, it should be noted that the slower growth of Eurobond yields in the secondary market occurred amid the sharp contraction of the primary market and a significant deterioration in the terms of new borrowings.

In the first nine months of 2014, Russian non-financial companies placed only two Eurobond issues in February 2014, totaling about $1.7 billion, which was more than 10 times below the record high volume for the same period of 2013. Using the temporary improvement in June-July, banks placed Eurobonds with a total value of about $9.2 billion in the first three quarters (a decrease of 21.5% on the same period of 2013), but after the introduction of sectoral sanctions placements almost ceased.
The placements testified either to a shorter term of borrowing or a higher profitability. The almost constant yield on investment-grade issuers’ placements was caused by decreased maturities. A substantial increase in the average yield on the initial placements by issuers with a "BB" rating (over 300 bp) was followed by the average maturity kept at the same level (Chart 21).

Sources: Cbonds data, Bank of Russia calculations.

* Syndicated loans, excluding public bilateral loans, as of September 30, 2014.

In the first nine months of 2014, the value of syndicated loans to Russian non-financial organizations amounted to $12.0 billion, a decrease of 57% compared to the lending volume in the same period of the previous year is registered. Banks virtually stopped taking syndicated loans in the second and third quarters of 2014.

In the domestic bond market, the value of placements by non-financial organizations fell 3.5-fold to 157.2 billion rubles in the three quarters of 2014 year on year. According to Cbonds data, the
non-financial organizations placed ruble bonds only to a total of 41.2 billion rubles in the third quarter of 2014.

Since external debt markets were closed, Russian banks became more active (compared to non-financial organizations) in the ruble bond market: in the three quarters, they placed bonds worth 259 billion rubles (excluding Vnesheconombank placements), a decrease of only 17% on the same period of 2013. The low activity of non-financial organizations in the IPO market shows that they are not ready to borrow at current rates, and have sufficient internal resources.

Reduced Supply of US dollars in the Domestic Market

Banking sector foreign liabilities to legal entities are going down due to imposed sanctions and increased foreign assets of the non-financial sector in the recent months. The state-owned banks and foreign bank subsidiaries have the largest volume of redemptions on obligations. At the same time, a steady demand from non-financial organizations for foreign-currency loans from Russian banks persists.

As a result, the Russian banks faced a decreased supply of US dollars in the domestic market in recent months. The interbank foreign-currency loan market and currency swap market showed a contraction in the volume of operations (Chart 24). The imbalance of supply and demand in these markets led to an increase in the cost of US dollar borrowing (Chart 25).

To normalize the situation in the foreign exchange market, the Bank of Russia decided to start from September 17, 2014 reverse overnight FX swap operations at fixed interest rates: the ruble interest...
rate was set to 7.0%, and the US dollar rate to 1.5%. The introduction of this new instrument by the Bank of Russia had a positive information effect and reduced the cost of US dollar borrowings on the market. The spread between the RUONIA rate and the 1-week swap rate\(^{14}\) decreased from 2.1 percentage points on September 17 to 0.9 percentage points on September 22 (on October 13, the spread amounted to 0.8 percentage points).

**Chart 24. Open Positions in Market of FX Interbank Loans for up to 7 Days in 2014, billions of rubles**

**Chart 25. Spread between Rate on Ruble Interest Rate Swaps and Rate on US Dollar/Ruble Cross FX Swaps for 1 Year, pp**

Source: Bloomberg.

A high cost of US dollar borrowing in the FX swap market, along with insufficient supply, forces banks to raise interest rates on foreign currency deposits of legal entities. As funds are raised to replace the diminishing amount of deposits with a lower cost (the funds are largely used to finance the previously provided loans), banks may face a decreased interest rate margin in the future.

### 2.3. The Impact of Sanctions on the Banking Sector

In the period from March to September 2014, the US and EU sanctions were introduced against some Russian credit institutions and their subsidiaries. Despite their negative impact on certain operations, the sanctions have not significantly influenced this group of banks in general, their financial position remains stable.

The assets of analyzed group of banks continue to increase, and even more rapidly than the assets of the banking sector as a whole (Chart 26), they preserve a high level of credibility with customers.

\(^{14}\) The indicative premium for US dollar/ruble FX swaps for a term of 1 week (NFEA SWAP Rate).
Direct Effects of the First Stage of Sanctions (from March 2014)

Analysis of the performance of banks, included in original sanction lists, shows that the sanctions had no material adverse effect on the operations of those banks in March-September of the current year. Their total assets rose by 18.0% in that period. The banks significantly reduced the volume of transactions with non-residents and refocused on the Russian market. Transactions with residents expanded by 35.0%, while the volume of claims to non-residents narrowed by 64.9%. More than three quarters of non-resident bank loans were repaid, the amount of deposits of non-resident legal entities fell by 37.8%. A negative consequence of the imposed sanctions was a decrease in the volume of individual deposits by 22.8%, but in general, the funds raised from residents in March-September 2014 increased by 20.4%.

Direct Effects of the Subsequent Phases of Sanctions

In addition to the sanctions introduced against some banks in the second quarter of 2014, in the third quarter of 2014, the USA and the EU imposed sectoral sanctions against the largest Russian credit institutions. The assets of banks covered by the second wave of sanctions rose by 4.1% from early July. An increase of liabilities to residents by 4.2% was registered for this group of banks, including that of
corporate deposits by 16.6% and a rise of individual deposits by 1.6%. Net assets denominated in foreign currency expanded from 386 billion rubles to 455 billion rubles in that group of banks in general.

The banks covered by sanctions (both in the first and in the second stage) have substantial capital: the capital adequacy ratio of the analyzed group of banks ranges from 10.5% to 15.7% (the weighted average of 11.7% as of September 1, 2014). In addition, the planned recapitalization of VTB and the Russian Agricultural Bank will have a positive impact on the stability of these banks.

The return on equity of the analyzed group of banks decreased by 1.2 percentage points from April 1, 2014 to 15.2% as of September 1, 2014 (for the banking sector as a whole by 1.5 percentage points), while the level of profitability of these banks was higher than that of the sector as a whole. The main factors of declining profitability, like that of other banks, were higher provisions, negative revaluation of securities in the first quarter of 2014 and slowdown in interest income (which was not a direct consequence of the sanctions imposed on those banks).

Chart 27. Return on Equity for 12 Months, %

In case of high liquidity risk, the analyzed group of banks has enough collateral (both marketable and non-marketable assets) to acquire refinancing from the Bank of Russia.
3. The Imbalances of Regional Budgets and Debt Sustainability of Russian Regions

The Problem of Imbalanced Regional Budgets

The total deficit of the consolidated budgets of Russian regions increased 2.3-fold and amounted to 642 billion rubles or 1.0% of the annual GDP in 2013. The number of regions with the budget deficit rose from 67 in 2012 to 7715 in 2013, and the exceeding by the regions of the maximum deficit value established by law became systemic16. As a result, the Russian regions registered a higher debt burden in 2013, which was primarily associated with an increase in their liabilities under bank loans. The average debt burden grew from 21.2% to 26.4%17 in the regions (Chart 28).

Chart 28. Debt Burden of Russian Regions, %

Sources: Ministry of Finance and Federal Treasury.

In January-July 2014 the consolidated budget of the Russian regions was executed with a surplus of 308.95 billion rubles, although 40 regions had a budget deficit, the total value of which amounted to 103.54 billion rubles18. A positive dynamics of the receipts from a corporate tax was registered: the value of the receipts amounted to 1,227 billion rubles in January-July 2014 compared to 1,015 billion rubles in the same period of the previous year.

Relatively balanced regional budgets in the first seven months of 2014 were achieved mainly as a result of the implementation of inter-budget redistribution measures. In January-July 2014, subsidies to adjust fiscal capacity (as of August 1, 2014, subsidies were received by 72 regions), grants to support the measures aimed at balancing the budgets, as well as inter-budget targeted transfers expanded year on year. The total amount of inter-budget transfers received by regions from other budgets of the budget system in January-July 2014 amounted to 893.7 billion rubles (780.4 billion rubles in January-July 2013). In addition, government support to regions in the form of budget loans increased, and made up to 529.0 billion rubles as of August 1, 2014 (480 billion rubles as of April 1, 2014 and 426.2 billion rubles as of January 1, 2013) (Chart 30).

15 The total number of Russian regions in 2013 stood at 83.
16 In 37 regions, the budget deficit exceeded 15% of their income in 2013 (Article 92 of the Budget Code of the Russian Federation sets the limit in the amount of 15% of approved income, excluding uncompensated receipts).
17 The ratio of the public debt of Russian regions to their own revenues (excluding uncompensated receipts).
In many regions, the surplus was formed due to the advance transfer of budget appropriations; after their use, higher deficits of regional budgets are expected. The deficit of the regional budgets is estimated by the Russian Ministry of Finance at about 530 billion rubles in 2014.

In order to meet social and current obligations of debt servicing and repaying in the fourth quarter of 2014 in full, many Russian regions will continue to experience a need for market borrowings\(^1\), at the risk of a failure to raise the necessary resources.

The deficit of the regional budgets may require the Ministry of Finance to issue budget loans to the regions from the federal budget, or to take other measures of supporting the undisputed fulfillment of their obligations under loan agreements (bonds). Currently, possible supportive measures are limited by Federal Law No. 349-FZ, dated December 2, 2013, "On the Federal Budget in 2014 and for the Planning Period of 2015 and 2016", according to which 80 billion rubles are allocated for extending budget loans to the budgets of the Russian budget system in 2014 (this year, additional 100 billion rubles will be allocated for these purposes), 70 billion rubles in 2015 and 50 billion rubles in 2016.

![Chart 29. Public Debt of Russian Regions, billions of rubles](image)

**Source:** Ministry of Finance.

Growth in own revenues in January-July 2014 and the provision of inter-budget transfers allowed the regions to prevent an increase in public debt, which helped to stabilize the debt burden of the Russian regions. At the same time, higher inter-budget transfers in 2014 testify to the continued accumulation of regional imbalances between the own revenues of the regions and the volumes of assumed expenditure obligations. Nevertheless, in spite of the regional imbalances, the budgetary system as a whole maintains financial stability: the consolidated budget of the Russian Federation and the budgets of state extra-budgetary funds had a surplus of 1,387.8 billion rubles in January-July 2014.

**Bank Exposure to Russian Regions’ Risks**

Bank portfolios of debt obligations of Russian regional and local governments (including bonds pledged in repo transactions with the Bank of Russia) amounted to 274 billion rubles at par value as of August 1, 2014. Loans\(^2\) stood at 766.2 billion rubles as of the same date, there were no overdue loans registered. The total bank exposure to the Russian regions did not exceed 1.7% of banking sector assets as of August 1, 2014.

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19 From April 1, 2014 to September 25, 2014, only 10 issues of bonds were placed in Russian regions with a value of 64.6 billion rubles maturing in 2018-2021.

20 Loans granted by banks to the financial authorities and the extra-budgetary funds of Russian regions.
Russian banks’ portfolios of securities issued by sub-federal borrowers are characterized by a moderate concentration. Among the 200 largest credit institutions by assets only nine have portfolios of sub-federal bonds exceeding 30% of their capital (the assets of these banks account for less than 2% of banking sector total assets). The portfolios of these banks are rather diversified by issuer: the average volume of securities of the same region is 16% of the capital of these banks, and excluding Moscow bonds only 6% of their capital. The concentration of credit risk on loans granted to the financial authorities of the Russian regions is also insignificant. Only two credit institutions of the 200 largest by assets have credit claims on loans granted to the Russian regions exceeding 30% of their capital. Thus, bank portfolios of the debt obligations of the Russian regions are not a source of systemic risk for the banking sector.
4. Non-financial Organizations' Risks

A slowdown in sales growth, lower profitability and tightened access to foreign borrowings as a result of imposed sanctions pose the main risks of the non-financial sector. For oil and gas companies there is an additional risk of the EU and the US imposed ban on supply of the equipment for deep sea oil exploration and production, work in the Arctic and on shale oil deposits in the Russian Federation, as well as a ban on the provision of services for such projects.

Amid increased borrowing costs, low economic growth and declined prices in commodity markets, companies will be forced to review their investment programs, optimize their debt portfolios and debt repayment schedules and in some cases to finance the emerging deficit of financial resources through the sale of foreign assets.

Financial positions of the largest enterprises is expected to remain stable in the short-term, while the main negative consequence of curtailing investment programs will be lower growth in operating cash flows in the long-term perspective.

The Financial Position of the Non-financial Sector

The financial standings of non-financial commercial organizations remained satisfactory in the first half of 2014, although it somewhat worsened year on year.

The financial position of enterprises varied considerably depending on the size of assets they managed. The most favorable was the standing of the largest enterprises, despite some deterioration, the most difficult was that of enterprises with assets below 100 million rubles. Sector-wise, industrial enterprises indicated the strongest financial position (Table 2).

Table 2. Selected Indicators of Financial Position of Enterprises Engaged in Major Industries in First Half of 2013 and 2014 (Based on Bank of Russia Polls)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Agriculture, hunting, forestry</th>
<th>Industrial output</th>
<th>Construction</th>
<th>Wholesale and retail trade</th>
<th>Transport</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>first half of 2014</td>
<td>first half of 2013</td>
<td>first half of 2014</td>
<td>first half of 2013</td>
<td>first half of 2014</td>
<td>first half of 2013</td>
</tr>
<tr>
<td>Debt to capital ratio*</td>
<td>1.4</td>
<td>1.4</td>
<td>0.8</td>
<td>0.7</td>
<td>7.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Current liquidity ratio (excluding overdue receivables)*</td>
<td>1.6</td>
<td>1.6</td>
<td>1.5</td>
<td>1.7</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Absolute liquidity ratio*</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Debt coverage ratio (revenues as % of obligations)**</td>
<td>44.9</td>
<td>41.4</td>
<td>67.1</td>
<td>70.1</td>
<td>29.6</td>
<td>32.5</td>
</tr>
<tr>
<td>Return on sales,%**</td>
<td>14.3</td>
<td>7.4</td>
<td>14.9</td>
<td>14.0</td>
<td>2.1</td>
<td>5.9</td>
</tr>
<tr>
<td>Return on assets,%**</td>
<td>3.6</td>
<td>2.0</td>
<td>3.1</td>
<td>3.0</td>
<td>-0.5</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Results of the analysis presented in this section, unless otherwise specified, are based on accounting data, as well as information of Bank of Russia regular polls of non financial commercial organizations in 79 regions of the Russian Federation (as of September 5, 2014, the poll covered more than 17,000 enterprises).
The level of self-financing grew slightly (to 53.9%) as a result of advanced growth of liabilities, whereas the capital of companies increased by 2.6% (1.6% in first half of 2013).

Moderate growth of enterprises’ liabilities (8.4% in the first half of 2014) did not cause a noticeable increase in the debt to equity ratio. The ratio remained moderate across the non-financial sector on the whole (0.85 ruble per 1 ruble of equity) and differed significantly depending on the type of industry and the size of enterprises’ assets.

One of key risks is the relatively low operating margin of enterprises (about 9%, according to Rosstat). Over the past two years, it has decreased by about a third from the 2004-2007 levels (13%-15%). A positive trend has been indicated in the stabilization of margin since July 2013 and a certain growth in the first half of 2014, although overall profitability is still below the level of the 2008-2009 crises.

Debt coverage by various kinds of assets remained high, however, an increase in overdue receivables up to 7% was observed. It was the maximum value over the past four years, although during the crisis of 2008-2009 even higher levels were registered (Chart 32). Debt coverage by revenue was significantly lower than in the first half of 2013.

During the second quarter of 2014, a decline in the current liquidity ratio of enterprises continued from 164% to 148% year on year (Chart 34).

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22 Calculated as the ratio of capital and reserves to the total balance of a non-financial organization.
In general, negative trends in enterprises’ activities have not led to a significant deterioration of their ability to service their debt yet and, as a consequence, to a significant increase in overdue loans (Box 2).

**Box 2. The Loans and Overdue Loans of Enterprises by Industry**

The quality of the portfolio of loans to non-financial organizations deteriorated insignificantly from April 1 to September 1, 2014 amid slower economic growth. Annual growth rates of overdue loans outpaced the growth of loans (Chart 35), which led to a slight increase in the share of overdue loans, by 0.3 percentage points to 4.5%.

Currently, banks are boosting loans to companies engaged in mining, as the latter have no access to external capital markets. Growth occurs both in loans denominated in rubles and in foreign currency, whereas banks register the slower annual growth rate of the portfolio of loans extended to agricultural, real estate, wholesale and retail companies (Chart 36).

Reduced annual growth rates of lending to agricultural firms were accompanied by increased overdue loans, which rose from April 1 to September 1, 2014 by 2.4 percentage points to 9.4%. In addition, overdue loans continued growing in construction (by 0.8 percentage points over the period under review, to 7.6% as of September 1, 2014).
The Financial Position of the Largest Non-financial Organizations (Companies)

The Bank of Russia carries out the analysis of the 60 largest companies in the key sectors of the economy based on IFRS consolidated financial statements.

According to consolidated financial statements, the net financial debt\(^{23}\) of the 60 largest companies is about 8.8 trillion rubles. The average annual growth rate of the net financial debt from the end of 2011 has amounted to approximately 11% compared to only 3% growth in EBITDA. The main reason for the growth of debt in 2013 is Rosneft’s purchase of TNK-BP, which has led to an increase in the total debt by 18%. Since the second half of 2013, the selected companies have shown a gradual reduction in the debt burden (estimated by net financial debt/EBITDA) and a small rise in EBITDA, which is explained by relatively stable extraction and production, the historically highest prices for hydrocarbons in rubles, as well as the positive dynamics of prices for non-ferrous metal products. The debt burden of the non-financial sector, excluding oil and gas companies, grew from 1.8 in September 2013 to 2.0 as of the beginning of 2014 and remained on this level during the last two quarters.

\(^{23}\) It is calculated as the sum of short-term and long-term loans net of cash and cash equivalents.
The highest debt burden is registered in machine building, automobile production, metals and mining, transportation and energy industries. Amid the smooth decrease in EBITDA, the debt burden ratios in these industries grew for the third year in a row, except for the transportation sector, which demonstrates stabilization.

The main risks of metallurgical companies are associated with a continued reduction in global prices for coking coal, steam coal and iron ore. At the same time, a positive trend is indicated in the activity of many large companies, selling non-core or unprofitable assets in order to reduce the debt burden, and increase short-term liquid assets.

**Chart 39. Average Net Financial Debt/EBITDA by Industry**

**Chart 40. EBITDA Dynamics by Industry (Year on Year), %**

Sources: data from companies' public statements, Bank of Russia polls; Bank of Russia calculations.

The growing debt burden in machine building and automobile production was mainly due to lower operating profits as a result of negative dynamics of car manufacturing. Slower growth in consumer income caused a decline in car sales. Thus, according to the Association of European Businesses, the sales of new cars and light commercial vehicles in Russia decreased by 25.8% in August 2014 and 12.1% since the beginning of 2014.

A higher debt burden in the energy sector is explained by a continued decline in the profitability of the largest companies.

In terms of debt coverage, the exposure of the largest companies to the risk of margin calls is minimal, since the overwhelming majority of the debt is not secured by shares or bonds, the most common types of collateral are export revenue, inventories, and fixed assets.

**Largest Companies' Foreign Exchange Risk**

Export oriented companies borrow foreign currency in general, they usually use naturally hedging to manage foreign exchange risk. The depreciation of the ruble impacts them favorably. For example, on July 1, 2014, the EBITDA index (calculated as a cumulative for the previous 12 months) grew in the oil and gas and metallurgical sectors by respective 8% and 12% year on year. At the same time, import-dependent industries (retail, engineering, automobile and agricultural companies) may show lower profitability due to rising costs associated with imports.

Many large companies have FX open positions in derivatives. Most of these positions were positively revalued in the periods when the ruble depreciated. In nominal value, such instruments roughly correspond to available risks that are not hedged naturally. Only a few companies used in the
previous year’s barrier swaps aimed at reducing the cost of ruble loans. Thus, the pressure on the capital of the largest non-financial organizations, caused by the ruble depreciating in 2014, is expected to be very limited. Some companies with a gap between the share of foreign currency debt and the share of export revenues (a number of companies in the metals and mining industry, building materials industry and telecommunications sector) fall in the zone of moderate risk.

**Largest Companies’ Interest Rate Risk**

Companies’ major interest rate risk is associated with syndicated and bilateral loans, the interest payments on which are tied to benchmarks. The most common reference rates are LIBOR (about 88% of the total value of loans), of which 3M LIBOR benchmark rate accounts for three quarters of loans, and EURIBOR (about 10%); remaining syndicated loans are tied to the Mosprime rate (2%). The share of floating rate debt securities in the total value of outstanding Eurobonds as of September 1, 2014 amounted to approximately 0.6%, thus companies’ interest rate risk associated with Eurobonds is minimal.

Next year, the Federal Reserve is expected to begin the tightening of its monetary policy, which will impact money market rates. According to a current Bloomberg consensus estimate, the LIBOR will rise by more than 1 percentage point by the end of the next year, which will cause a respective increase in interest payments of non-financial organizations using US dollar LIBOR-linked debt instruments. As the ECB maintains its policy, the EURIBOR remains virtually unchanged, so risks for borrowers having EURIBOR-linked loans are insignificant.

In the ruble bond market floating rate debt instruments are prevalent among issuers of the infrastructure sector (transport, electricity), the operating revenues of which is related to benchmarks used through a tariff policy. Bonds with a rate determined by such indicators as the GDP growth rate

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24 The currency of a loan (rubles) is changed (into US dollars) if the exchange rate reaches a certain level (the hedging of a creditor bank).
and inflation rate amounted to 15% of the total outstanding amount of bonds as of September 1, 2014, and bonds with interest rates depending on the Bank of Russia key rate stood at about 8% of the total.

Besides, most corporate bonds of non-financial organizations (60%) are placed with an embedded put-option in the domestic bond market. In this case, the previously established coupon rate should be adjusted at the put date to the prevailing market rate in order to keep investors from claiming the issuer to buy back bonds. In the first nine months of 2014, issuers raised a coupon rate in about 40% of cases and reduced it almost three times less often.

However, the abovementioned rise in interest rates will not have a significant effect on the companies’ profitability in the context of the observed stabilization of the debt burden.
Box 3. The Impact of Events in Ukraine on the Financial Position of the Largest Companies

The political crisis in Ukraine, accompanied by a significant depreciation of the Ukrainian hryvnia (by 62% against the US dollar and 28% against the ruble as of the beginning of October 2014) and the economic recession (according to the forecast of the IMF Ukraine’s GDP is going to fall by 6.5% this year) have both a direct and indirect impact on the financial position of Russian non-financial companies:

- a direct impact is shown in lower decreased exports to Ukraine, the import restrictions imposed by Ukraine, and the worsening of Russian subsidiaries’ financial standings in Ukraine;
- an indirect impact appears in foreign sanctions, an adverse background for foreign investments, the restrictions of supply of equipment and technologies, etc.

According to the Federal Customs Service of Russia (FCS), in the first half of 2014, the exports to Ukraine amounted to $12.4 billion (an increase of 24.4% compared to the first half of 2013), imports from Ukraine stood at $6.1 billion, a decrease of 23.3% year on year. A decline was observed in most major items of exports to Ukraine in this period, except for fuel and energy products due to higher purchases prior to declined deliveries from June 2014 (Chart 43).

The estimated share of Ukrainian assets in the financial performance indicators of the largest Russian companies by industry are:

- 6%-8% of revenues, 7-10% of EBITDA, 6%-8% of total assets in telecommunications;
- up to 7% of revenues, up 5% of EBITDA, up to 6% of total assets in metallurgy;
- 3%-5% of revenues, up 5% of EBITDA, 2%-6% of total assets in engineering;
- about 5% of revenues in the chemical industry;
- the operations of Russian oil and gas companies in Ukraine are insignificant.

According to the published consolidated financial statements of companies for the first half of 2014, the financial performance of Ukrainian subsidiaries adversely affected financial indicators of Russian companies, but the cumulative effect was not critical.
5. The Evaluation of Banking Sector Systemic Risks

Retail Lending Market Risks

Bank activity in lending to households continues to decline. At the same time amid a slowdown in unsecured consumer lending, persistent high growth rates of housing loans, including housing mortgage loans, are registered (Chart 45). The risks in the segment of unsecured consumer lending remain high, which leads to lower revenues of banks that specialize in this type of lending. Risks in the segment of mortgage lending are regarded as moderate, the level of overdue loans is low, the growth rate of prices for residential real estate remains below inflation. At the same time, a certain concern is caused by a substantial share of loans with a high LTV value (over 70%)\(^{25}\).

### Chart 45. Annual Growth Rates of Retail Loans, %

![Chart 45. Annual Growth Rates of Retail Loans, %](image)

Source: data received by Bank of Russia through polling credit institutions.

### Chart 46. Retail Lending Market Segments Compared by Value, Quarterly Loan Growth Rate and Effective Interest Rate (2014 Q1 and Q2), %*

![Chart 46. Retail Lending Market Segments Compared by Value, Quarterly Loan Growth Rate and Effective Interest Rate (2014 Q1 and Q2), %*](image)

* The size of a circle is proportional to the amount of a loan balance in the segment. Lighter colors show the state of the market in the first quarter of 2014.

Source: data received by Bank of Russia through polling credit institutions.

Bank Activity in Retail Lending by Segment

The annual growth rate of loans to individuals amounted to 18.2% as of September 1, 2014 and 28.7% as of the beginning of the year. The situation differed considerably by retail lending segment.

The annual growth rate of car loans continued to decline, but remained positive as of September 1, 2014. Slower lending growth was registered on the background of the decreased sales of new cars in the first eight months of 2014 due to economic factors (the economic slowdown and the depreciation of the ruble) and the termination of the program of preferential car loans in December.

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\(^{25}\) The LTV ratio is calculated as the ratio of current loans to the market value of residential real estate. If stress scenarios materialize in the real estate market and overdue mortgage loans grow, banks may find it necessary to sell collateral at prices below the purchase price. Realized losses are generally covered by a down payment. In case of the insufficiency of the down payment, the banks may suffer losses.
2013. According to data provided by large banks\textsuperscript{26}, the quarterly growth rates of car loans in the second quarter remained negative (Chart 46).

Bank activity in unsecured consumer lending also decreased. The annual loan growth rate stood at 16.8\% as of September 1, 2014. The survey showed persistent negative quarterly growth rates of POS loans.

The annual growth rate of housing loans (including housing mortgage loans) continued to outpace the rate of growth of banking sector assets and amounted to 33.7\% as of September 1, 2014.

\textit{Borrowers’ Debt Burden}

According to polling data, in the second quarter of 2014, the debt burden of borrowers remained largely unchanged, and the weighted average value of the DTI\textsuperscript{27} stood at 31\%. Despite the constant level of borrowers’ debt burden, an upward trend in the number of loans per borrower, including those taken from different banks was observed in the past year and a half. According to Unified Credit Bureau data, the share of borrowers with only one loan fell from 62\% to 57\% over the past year and a half, the share of borrowers with two loans remained virtually unchanged, and the share of borrowers with three or more loans steadily increasing. The share of borrowers having loans in one bank fell from 71\% to 65\% in the last year and a half.

In the second quarter of 2014, banks reduced lending to borrowers with incomes exceeding 125,000 rubles by 3\% in comparison with previous periods, when the faster growth of relatively wealthy borrowers was registered.

\textit{The Quality of the Unsecured Consumer Loan Portfolio}

A slower growth rate of household income had a negative impact on the quality of bank loan portfolios. The share of loans overdue for more than 90 days rose by 2 percentage points from April 1 to September 1, 2014 to 11.3\%. According to polling data, a significant increase in the quarterly growth rates of overdue loans occurred in the segment of cash loans (from 13\% in the first quarter of 2014 to 20\% in the second quarter), with the largest share of overdue loans is still typical for the segment of POS loans (17.5\% under Russian Accounting Standards (RAS)).

\textsuperscript{26} To analyze trends and systemic risks in the consumer lending market, starting from 2013 the Bank of Russia conducts quarterly surveys of household loans by polling the largest banks in the market. In the second quarter of 2014, the survey covered 20 banks, which accounted for 57\% of outstanding consumer loans.

\textsuperscript{27} The debt-to-income ratio is calculated as the ratio of borrowers’ total payments under a loan agreement for the past quarter to their total income. In this case, the amount of individuals’ debt to one bank is given in the numerator of the DTI with the debt to other banks and non-credit financial institutions being disregarded.
The deterioration of the banks’ loan portfolio was largely related to the growth of overdue loans issued before July 1, 2013, i.e. before the introduction by the Bank of Russia of increased risk ratios for consumer loans with a high effective interest rate by the Bank of Russia. Since the second half of 2013, consumer lending standards have become tighter and a number of approved loan applications filed by potential clients have decreased. In case this trend persists and the share of good loans in the bank portfolios increases, the proportion of loans overdue payments for more than 90 days may slightly reduce in 2015. The stabilization of annual growth rates of non-performing loans older than 90 days and a significant slowdown in the annual growth rates of loans overdue up to 90 days evidence about a possible change in the situation with overdue loans in the bank portfolios (Chart 47).

**Risks of Banks Specializing in Unsecured Consumer Lending**

The Bank of Russia regularly analyzes the operations of banks that specialize in the unsecured consumer lending (hereinafter sampled banks) due to a significant systemic risk in this type of lending. The analysis showed that the sampled banks started providing loans mainly with an effective interest rate below 35%. This fact is also evidenced by the stabilization of increased risk weights for consumer loans in calculating the capital adequacy ratios (Chart 49).

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28 As of October 1, 2014, the number of banks that were active participants in the unsecured lending market stood at 26. They meet the following criteria: the value of unsecured loans exceeds 10 billion rubles, the ratio of unsecured loans to assets is over 20% and the share of interest income on loans to households is in excess of 35% of total interest income.

29 CLR code in calculation of the N1.0 capital adequacy ratio.
However, the slower growth rates of the loan portfolio and higher provisions for earlier issued loans led to a decline in profits and caused losses in a number of sampled banks in the first half of 2014. The return on equity of the sampled banks stood at 9.2% as of September 1, 2014, which was significantly below the average for the banking sector (13.0%). The ability of the sampled banks to increase interest income by expanding the loan portfolio is limited now due to relatively low capital adequacy ratios (Chart 50). The recovery of the profitability of the sampled banks is possible in the future via the business diversification, quality improvement of the loan portfolio and, as a consequence, lower expenses on provisions.

Box 4. Results of Surveying the Largest Participants of the Microfinance Market as of June 30, 2014

Amid lower bank activity in providing unsecured consumer loans, a significant increase in overdue microloans was registered in the microfinance market, along with deterioration in the quality of the microloan portfolio. In order to improve the financial sustainability of the sector and mitigate risks, the Bank of Russia introduced new prudential measures in 2014 (requirements for provisions, provision of data to credit bureaus, the regulation of an effective interest rate on loans, the limited size of fines, etc.). However, their effect has not come yet.

According to a Bank of Russia study of consumer microloans30, the volume of loans (including overdue loans) of microfinance organizations (MFOs) grew more than two times faster than the volume of bank loans to households: the annual growth rates stood at respective 46.7% and 20.9% as of July 1, 2014. One of the reasons for a rapid growth of the MFO portfolios was a low base effect typical of the microfinance market. Thus, microloans to individuals other than PDLs accounted for 70% of participants’ total loans and PDL microloans31 made up the remaining 30%.

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30 Since 2014, the Bank of Russia conducts a quarterly survey of loans in the microfinance market by polling its major participants. In the second quarter of 2014, the project involved 39 private microfinance organizations (MFOs), which accounted for about 35% of the market in terms of the loan value (the total portfolio of participants stood at 14.2 billion rubles).
31 PDL microloans (payday loans) are microloans provided to individuals in the amount of no more than 45,000 rubles for up to two months.
The number of MFO borrowers, participants of the project, exceeded one million people\textsuperscript{32}, an increase of 60\% over the year. Most of them were borrowers from the PDL microloans segment, 59.0\% of the total number of clients participating in the project (51.6\% last year).

The annual growth rate of overdue loans (79.5\% (under RAS)) substantially outpaced growth of the microloan portfolio (46.7\%). During the year, the share of overdue loans in the total portfolio of participants rose by 8.6 percentage points and amounted to 46.7\% on June 30, 2014. In addition, the share of non-performing loans (under IFRS) was significantly higher (38.8\%) than in the market of banks unsecured consumer loans (segments with the highest level of non-performing loans are credit cards (23.3\%) and POS-credits (18.0\%). At the same time, due to the specifics of the PDL microloan segment, the correct value of its overdue loans (up to 90 days past due) on loans issued for the quarter amounted to 14.8\%.

MFOs will start to make provisions in a mandatory manner based on the results of 2014\textsuperscript{33}. Currently, provisions for the loan portfolio impairment are created only by some large MFOs. The share of loan loss provisions decreased by 4.8 percentage points and amounted to 15.6\% of total microloans as of June 30, 2014. The ratio of provisions to overdue loans also fell (by 21.5 percentage points) and stood at 37.3\%\textsuperscript{34}.

Financial stability indicators of the project participants are positive on the whole, but a downward trend is observed. The median of capital adequacy ratio (NMO1)\textsuperscript{35} corresponded to 67.2\%, whereas on June 30, 2013 it amounted to 77.9\% (Chart 53). The median of the liquidity ratio (NMO2)\textsuperscript{36} was 287.6\% (254.3\% on June 30, 2013). The minimum limit value of NMO1 is from 5\% to 12\% (depending on a MFO specialization and method of funds raising), and that of NMO2 from 70\% to 90\% (depending on the availability of bonded loans).

\textsuperscript{32} The number of borrowers is calculated for individual MFOs and summed up (i.e. the possibility of one borrower attracting loans in several MFOs is not taken into account).


\textsuperscript{34} The share of provisions on microloans to individuals was calculated based on the loans with overdue payments of more than 30 days.

\textsuperscript{35} The capital adequacy ratio of a microfinance organization (NMO1) defines requirements for the minimum amount of capital needed to meet its obligations on borrowings from individuals and legal entities.

\textsuperscript{36} The liquidity ratio of a microfinance organization (NMO2) defines requirements for the minimum value of the ratio of its total liquid assets to its total short-term liabilities needed to meet its obligations on borrowings from by individuals and legal entities.
The Situation in the Segment of Housing Mortgage Lending

Systemic risks were in the mortgage lending market are currently limited. The share of mortgage loans overdue for more than 90 days amounted to only 1.2% as of August 1, 2014, which is significantly less than in other segments of consumer lending. Analysis of real estate prices in the primary and secondary markets in Russia and Moscow shows the absence of excessive price growth and the associated risks of collateral depreciation. According to Rosstat, on July 1, 2014, the annual price index for a typical apartment in the Russian primary market was 106.57, and in the secondary market 103.81.

The Bank of Russia regularly analyzes the standards of granting new mortgage loans and the loan indebtedness of banks that are leaders in this segment. The analysis is performed in the context of macro-prudential indicators, such as LTV and DTI. According to survey data, as of July 1, 2014, loans with LTV of more than 70% accounted for 47.5% of housing mortgage loans, and those with LTV of over 80% made up 27.7% (Chart 55). Loans with DTI of more than 50% accounted for about 36.5% of loans (Chart 56).

In the second quarter of 2014, the average LTV rose. The current average LTV on newly issued loans (69.8%) was higher than its pre-crisis level of 2007 (63.7%). New loans were issued primarily with LTV ranging from 80% to 90% (40% of newly issued loans). Amid a continued downward trend in the quality standards of newly issued loans, the systemic risks in this lending segment may increase substantially. In order to limit potential systemic risks, the Bank of Russia is considering the possibility of establishing LTV-based differentiated risk ratios.
Chart 55. Housing Mortgage Loans by LTV as of July 1, 2014, %

Source: Bank of Russia survey data.

Chart 56. Housing Mortgage Loans by DTI as of July 1, 2014, %

Source: Bank of Russia survey data.
6. Risks of Non-credit Financial Institutions

This chapter focuses on non-credit financial institutions that could become a source of systemic risk.

Insurers

In the first half of 2014, growth in insurance premiums slowed down by 5 percentage points to 8.5%, which was due to both macroeconomic factors and problems in certain insurance segments.

In particular, the compulsory motor third party liability (CMTPL) market registered a significant increase in insurers’ legal expenses, including both costs associated with court proceedings and penalties. This, along with unbalanced insurance rates, led to a higher combined ratio for this type of insurance in the first half of 2014.

In order to stabilize the situation in the market, certain amendments to the Law on CMTPL were adopted in July 2014. In particular, since October 1, 2014, a limit on compensation for damage to property is increased from 120,000 rubles to 400,000 rubles, and an unlimited euro-protocol is introduced in capital regions. Since April 1, 2015, a limit on compensation for the damage caused to life and health will be increased from 160,000 rubles to 500,000 rubles, as well as a procedure for calculating insurance benefits will be changed and a list of beneficiaries under insurance agreements in case of death of a victim will be expanded. Since July 1, 2015, amendments introducing a new tool, the electronic CMTPL policy, will come in effect.

The motor own damage insurance market demonstrated a noticeable drop in profitability. In the first half of 2014, the combined ratio for this type of insurance reached 94.4% (89.6% in the first half of 2013).

The scarcity of liquid assets in a number of insurance companies reduces their solvency, affects the stability of the insurance market and the return on investment of insurers’ own funds and insurance reserves.

Legal, regulatory and supervisory measures adopted over the past period of time contributed to lower systemic risk in the insurance industry.

Non-state Pension Funds (NPFs)

In the second quarter of 2014, the NPF corporatization continued. As of October 1, 2014, forty one of the fifty three NPFs that had taken such a decision as of the date, completed the corporatization process. Private NPFs manage more than 91% of NPF pension accumulations.

The process of NPFs joining the guaranteed pension accumulation system began. As of October 1, 2014, the Bank of Russia received 26 applications for entry into the system from the NPFs which hold more than 85% of NPF pension accumulations.

One of major events that could affect NPF activities in the short term has become the proposal for a moratorium on the transfer of pension accumulations to NPFs in 2015 discussed by the Russian Government in the third quarter of 2014. Given the similar decision taken earlier with regard to the year 2014, the NPFs could have a shortfall of about 243 billion rubles in 2014 and 280 billion rubles in 2015.

38 In Moscow, St. Petersburg, the Moscow and the Leningrad regions.
The suspension of transfers of pension funds amid closed external capital markets may result in the growing deficit of long-term investment in the local financial market, which will further slowdown economic growth and increase the cost of internal funding.

The development of the voluntary pension accumulation system that is now discussed is unlikely since citizens' distrust in the pension system increased. In the context of slower economic growth, employers are also not eager to develop corporate pension programs. As a result, the number of participants in non-governmental pension programs fell starting from the beginning of the year by almost 400,000 and reached fewer than 6.4 million people as of July 1, 2014, showing a decrease of 5% in annual growth.

Analysis of the NPF activities for the past period suggests that their major risks are reputation risk and the risk of the loss of confidence in the NPFs as an institution. In general, NPF risks are not of a systemic nature.
7. Infrastructures' Risks

Financial market infrastructures (FMIs) process transactions on the financial market by providing market participants with services of centralized clearing, settlements and centralized electronic records, thus ensuring higher efficiency and lower costs and risks.

According to the Bank of Russia Ordinance No. 3341-U of July 25, 2014, "On the Recognition of Financial Market Infrastructures to Be Systemically Important", the Bank of Russia determined a list of systemically important FMIs, the insolvency of which may affect financial stability. The non-bank credit institution “National Settlement Depository” (a closed joint-stock company) (NSD) was recognized by the Bank of Russia as a systemically important central securities depository, a systemically important settlement depository and a systemically important repository, and joint-stock commercial bank National Clearing Centre (closed joint-stock company) (NCC) as a systemically important central counterparty. The Bank of Russia performs ongoing oversight of above mentioned FMIs.

The Volume of Transactions with the Central Counterparty in Moscow Exchange Markets

The NCC as a central counterparty (CCP) in Moscow Exchange markets provides centralized clearing in the FX market, derivatives market, securities market, and in the market of standardized OTC derivatives.

The average daily value of the open positions of clearing members in trades with the CCP in the Moscow Exchange markets increased from 647.1 billion rubles in April 2014 to 734.4 billion rubles in September 2014. In particular, the average daily value of the open positions in the securities market rose from 74.6 billion rubles in April 2014 to 134.1 billion rubles in September 2014. The dynamics of the open positions in the FX market, derivatives market and securities market of the Moscow Exchange in trades with the NCC is shown in Chart 57 and Table 3.

Chart 57. Open Positions in FX Market, Derivatives Market and Securities Market from April 1, 2014 to October 1, 2014, billions of rubles

Table 3. Average Daily Value of Open Positions in FX Market, Derivatives Market and Securities Market in 2014 Q2 and Q3, billions of rubles

<table>
<thead>
<tr>
<th>Period</th>
<th>FX market</th>
<th>Derivatives market</th>
<th>Securities market (including repos with CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Q2</td>
<td>580.29</td>
<td>60.45</td>
<td>88.47</td>
</tr>
<tr>
<td>2014 Q3</td>
<td>557.13</td>
<td>70.43</td>
<td>115.23</td>
</tr>
</tbody>
</table>
Risk-Management of the NCC as CCP

The NCC manages its risks in accordance with Russian legislation, including Bank of Russia Ordinance No. 2919-U of December 3, 2012, "On Assessing the Management Quality of a Credit Institution Performing Central Counterparty Functions" as well as with account of international standards on CCP activity, including FMI Principles.\(^{40}\)

The NCC takes a number of risk management measures to maintain the stability in the processed financial market segments it:

- monitoring of the total open positions of clearing members in all markets where it performs CC functions;
- monitoring of the financial sustainability of organizations with which it has established contractual relationship and with regard to which it has credit exposures;
- setting the limits to reduce the procyclicality of calculating the value of collateral for the transactions of clearing members; in particular, in setting discounts for assets accepted as collateral, market stress conditions are taken into account.

In addition, the NCC is improving its risk management system within which the following projects have been already implemented this year:

- since July 28, 2014, the clearing members serviced by the NCC in Moscow Exchange markets have got access to a new service called, “risk balancing”, which allows them to redistribute foreign exchange exposures risk across open positions in the derivatives and FX markets and to reduce the collateral value for oppositely directed positions in both markets through the netting of foreign exchange exposures;
- transferring obligations and collateral of a clearing member’s client from one clearing member to another in case of a pre-default state of the clearing member;
- a cross-default procedure has been implemented, which, in the event of the default of a clearing member, provides for using its collateral accounted in all markets where the NCC provides clearing services, before using the NCC equity capital and the default fund of non-defaulting clearing members.

In the reporting period, due to higher volatility in the Moscow Exchange markets, the NCC adjusted collateral rates based on the current conditions in the financial markets. This can be illustrated by the adjustment of collateral rates for the instruments of the securities market on September 17, 2014, which resulted in covered market exposure arising from highly volatile instruments.

Table 4. Collateral Rates of Securities Market Instruments on September 17, 2014

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Financial instrument code</th>
<th>Minimum collateral rate as of beginning of trading day, %</th>
<th>Ratio of minimum transaction price to last transaction price on September 16, 2014, %</th>
<th>Ratio of minimum transaction price to first transaction price on September 17, 2014</th>
<th>Collateral minimum rate during trading day</th>
</tr>
</thead>
<tbody>
<tr>
<td>OJSC AFK Sistema</td>
<td>AFKS</td>
<td>35</td>
<td>-38</td>
<td>-29</td>
<td>10:05 AM / 10:10 AM / 11:50 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>52.5% / 70.0% / 80.0%</td>
</tr>
</tbody>
</table>

The adequacy of collateral provided by clearing members will also be evaluated by the Bank of Russia through comparing collateral rates established by the NCC for instruments traded in the Moscow Exchange markets, and the stress value of a change in the prices of the instruments in these markets.

The analysis of the adequacy of collateral rates carried out by the Bank of Russia in the period under review showed that the collateral rates for the most liquid instruments\(^{41}\) traded in the markets were set at a level exceeding a two-day drop in the prices of these instruments during the period under review in the FX and securities markets (\(\text{CVaR}^{2 \text{ days \ 99\%}}\)) and a one-day fall of \(\text{CVaR}^{1 \text{ day \ 99\%}}\) in the derivatives market (Chart 58 and Chart 59). It should be noted that all of the two-day changes in exchange rates did not exceed the size of the collateral rate set by the NCC at 4.5%, which testified their adequacy. Similar observations refer to collateral rates in the securities and derivatives markets of the Moscow Exchange.

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\(41\) The most liquid instruments include those, the trading volume of which exceeded 80% of the trading volume in the relevant market of the Moscow Exchange in the period under review.
Thus, in case of a stress scenario similar to the one mentioned above (CVaR^{2 days 99%} in the securities and FX markets, CVaR^{1 day 99%} in the derivatives market), the NCC will be able to meet its obligations to non-defaulting clearing members using the individual clearing collateral of the clearing members.

It should be noted that no cases of clearing members’ failure to fulfill their obligations to the NCC that could cause subsequent defaults were observed during the period under review. The ratio of outstanding obligations of the clearing members to the NCC for a month period to the value of open positions in the reporting period did not exceed 1.4% (Chart 61). The largest number of clearing member defaults was recorded in the FX market (51.2% of total defaults in the Moscow Exchange markets). The growth in the value of outstanding obligations of clearing members in September 2014 was caused by a sequence of defaults of OJSC Bank “Prioritet”, which lost its license on September 30, 2014. Taking into account the existing NCC risk management system, neither the NCC nor the non-defaulting clearing members suffered any losses in the reporting period.

One of the most significant events in NCC activities during the period under review is the introduction of the following changes in the clearing rules in the Moscow Exchange markets:

- clearing services are provided in the securities market twice a day, at 16:00 and 19:00 (previously only at 19:00), which allows clearing members to withdraw securities and funds received under T+ transactions for other deals, including REPO transactions with the Bank of Russia;
- non-residents with an access to organized markets are provided with clearing services in the Moscow Exchange markets, which allows to expand a list of clearing members.

On September 29, 2014, the Bank of Russia confirmed under its Ordinance No. 2919-U “On assessing the Management Quality of a Credit Institution Performing Central Counterparty Functions” the quality of the NCC’s management system being satisfactory based on the results of analysis of the quality of its risk management system, as well as the internal controls and corporate governance.

The decision allows credit institutions to use a special prudential regime of risk assessment that provides for lower risk weights for transactions with the NCC as a CCP when calculating required ratios in accordance with Bank of Russia Regulation No. 139-I of December 3, 2012, “On Banks’ Required

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43 Clearing members’ defaults include such procedures as the settlement of a technical default and a close-out netting.
Ratios”. It allows to mitigate banks’ financial and non-financial risks, while minimizing the systemic risks of the financial sector.

One of the next important stages in the development of the NCC’s risk management system is the introduction of a “single collateral pool” that enables clearing members to reallocate exposures and reduce the size of the collateral for oppositely directed positions in all Moscow Exchange markets.

**NSD Risk Management**

The NSD is a central securities depository and a payment system that makes cash and securities settlements in exchange and OTC markets. The NSD also serves as a repository maintaining the register of contracts concluded in the OTC market on the terms of a master agreement, and performing the functions of a clearing house by carrying out the clearing of spot transactions in the OTC market for securities accepted.

NSD’s financial exposures are limited by Russian legislation through establishing qualifying criteria for counterparties, the main of which is the requirement for the availability of an international rating, as well as through a ban on lending money. The NSD major risk is operational risk.

To manage operational risk, the NSD monitors operational risk events and takes measures aimed at preventing them. In particular, the NSD has a back-up office ensuring the continuity of its activities.

Among the most significant events in the NSD activities under the reporting period, the following should be noted:

- On July 16, 2014, the Bank of Russia assigned the NSD a status of a systemically important payment system in accordance with Federal Law No. 161-FZ of June 27, 2011, “On the National Payment System”, which further enhances consumer confidence in the NSD;
- The clients of Clearstream Banking S.A. and Euroclear Bank S.A/N.V have been given the opportunity to acquire Russian shares through accounts of a foreign nominal holder with the NSD which will promote foreign investments by Russian companies;
- On July 1, 2014, the NSD back-up office began operating in the continuous mode, thereby ensuring the continuity of NSD activities in case of unforeseen software failures. In addition, in September, the NSD successfully carried out tests of the processes ensuring the continuity of its activities, during which critical business processes throughout the trading day were performed by the back-up office;
- The rating agency Thomas Murray completed the assessment of the conformity of the NSD as a central securities depository with FMI Principles. Based on the results of the assessment, the NSD generally meets the requirements of the FMI Principles.