February 14, 2018

Debt relationships structure may restrain development and growth in Russia

Debt market map

- **ACRA continues its series of research on the debt market map for Russia and Kazakhstan.** New statistical data allows us to analyze currency profile and periods of debt relationships.

- **Currency risk for Russian financial system is mitigated in general.** The only domestic foreign currency net borrower is the non-financial sector, but the negative currency position and the flow of payments under currency debt are secured by the sector's export earnings. The currency debt position of the financial sector is almost balanced. On average, the share of foreign currency in the Russian debt is 40%, of which internal loans account for more than a half.

- **One of the roles foreign currency plays in Russia is hedging non-currency risks as, historically, weaker ruble coincided in time with other shocks.** Investments in currency assets in order to hedge all possible risks impair the derivatives market in Russia.

- **With time, interest rate risk can become more relevant than currency risk.** Targeting inflation, achieving low interest rates and a tight budget rule with less volatile exchange rates increase the likelihood of unsynchronized occurrence of interest and currency risks. Interest rate risk dominates in developed financial markets and, theoretically, it can manifest itself in Russia, not being hedged by revaluation of foreign currency assets.

- **Average debt maturities are short in Russia**. The averaged bond debt maturity is 9 years, while the debt maturity dominating the banking sector is close to 2 years. The main reasons for such short-term maturities and their weak transformation: lack of understanding of the equilibrium of rates, prices, and rates, underdeveloped risks hedging tools. Underdeveloped long-term lending is a barrier for investment development, even against the backdrop of historically low interest rates, and a constraint for accelerated economic growth above the potential of 1.5-2%.

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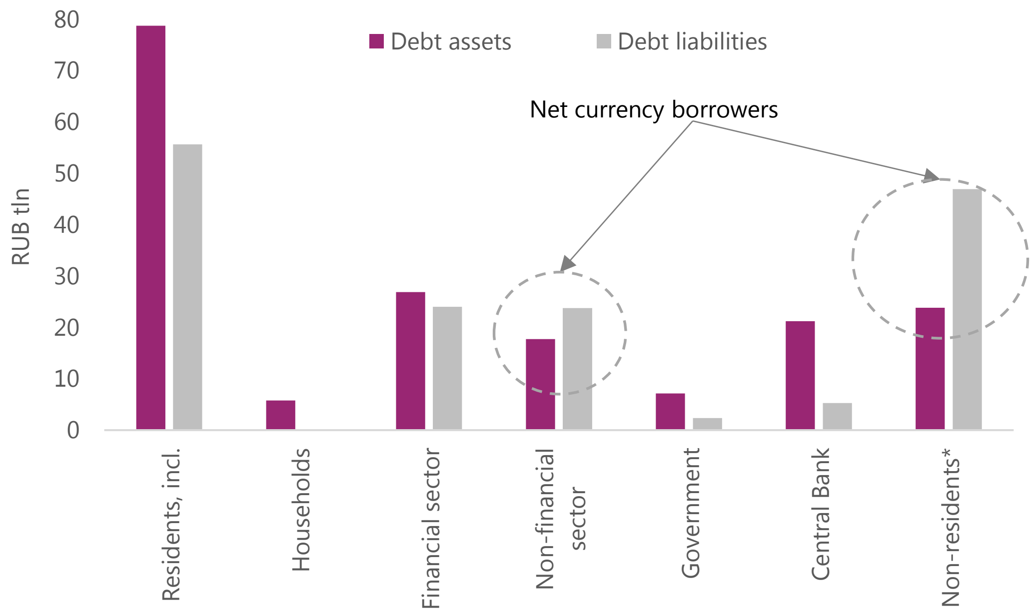
Role of foreign currency in the Russian debt market is high, but domestic creditors prevail

Using the approaches described in the first research on the debt markets map, as well as new data published by the Bank of Russia, we arrived at from-whom-to-whom tables for foreign currency debt in Russia (see Annex 1). All graphs and conclusions of the section are derived from them.

The key net foreign currency borrower is the non-financial sector. The negative net position on foreign currency debt assets is hedged and partially secured by the currency earnings of the sector's exporters. As of July 01, 2017, the position was 29% of goods exports in 2017 and 36% of goods exports in 2016 (the year with the worst external price conditions in the last 10 years).

Figure 1. Gross currency debt assets and liabilities, July 01, 2017



* transactions with non-residents

Source: ACRA estimates

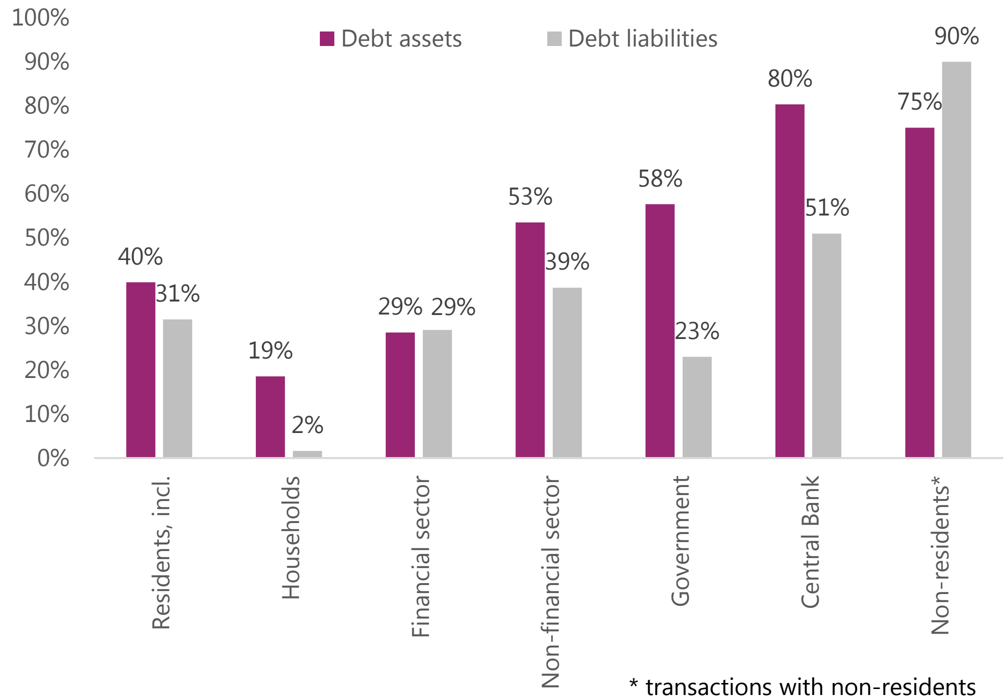
Figures 1-5 show debt relationships in the form of credit, loan, deposit or debt security (a stock, not a flow).

Currency relationships are mostly relevant for the Bank of Russia among all Russian residents. Their shares in debt assets and liabilities are 80% and 51%, respectively (Fig. 2). Most of them relate to international and budgetary reserves. Budgetary reserves are assets for the state and liabilities for the Central Bank. A newly introduced scheme of interaction between public agencies, when the Ministry of Finance makes currency interventions in strong correlation with the budget rule, has led to the fact that budget reserves can be considered as currency obligations of the Bank of Russia. Until 2017, they were actually ruble denominated but protected from currency revaluation. But now, the expenditure of budgetary reserves should lead to the simultaneous sale of the same amount of international reserves, which did not happen automatically before 2017.

On an average by sector, the share of foreign currency in debt relationships is relatively high: 40% and 31% for assets and liabilities, respectively. This can not be unambiguously perceived as a consequence of the low capacity of domestic savings markets, as a significant part of the foreign currency debt—about 55%—is a debt owed to residents, that is, domestic (Fig. 3). For public debt, this share is even higher—about 2/3. In general, Russia's international investment position in foreign currency is positive, even without international reserves (USD 385 billion as of July 1, 2017). This means that, in aggregate, residents lend more than borrow in foreign currency.

The accumulated international reserves exceed the foreign currency debt, vulnerable to forced repayment. This is the reason for low effectiveness of potential sanctions aimed at it.

Figure 2. Share of foreign currency in debt relationships, July 01, 2017



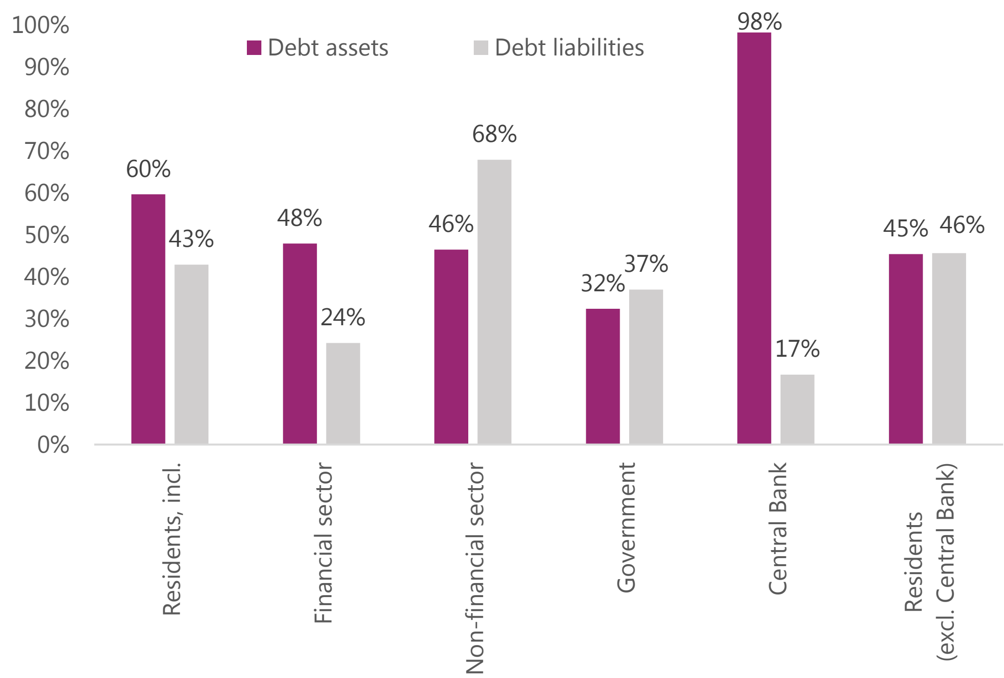
* transactions with non-residents

Source: ACRA estimates

Low share of foreign currency in government obligations is a world trend. Over the past 15 years, it has fallen from 45% to less than 20% in developing countries. In this sense, the Russian debt structure is typical.

In many cases, currency debt and savings not only expand the base of creditors, but also serve as an insurance against the currency risk of operations or a crisis in a broad sense. This is an indispensable feature of all commodity-exporting countries and, partly, historically conditioned. Some reasons are gradually becoming a thing of the past, which can lead to a change in the debt profile (see Table 1).

Figure 3. Share of non-resident currency lenders and borrowers, July 01, 2017



Source: ACRA estimates

Table 1. Economic drivers for converting debts and savings into foreign currencies

Sector	Drivers for loans / liabilities[1]	Drivers for savings / assets
Households	Expectations of lower debt service costs, assuming a relatively stable ruble exchange rate. The assumption was reasonable until the Bank of Russia supported the 'controlled exchange rate regime'. It is also reasonable if the Ministry of Finance carries out currency interventions positively correlated with the currency proceeds of exporters. (-)	Historical experience of use of foreign currencies to preserve savings. The last three cases (in 1997, 2008 and 2014) of actual drop in households' income were hedged for one year by a positive revaluation of savings denominated in US dollars, if their volume amounted to 73% of annual income in 1997 and 2008 and 36% in 2014. Ruble-denominated income was hedged on account of lower interest yields. (-)
Non-financial sector	Hedge against currency risk relating to currency-denominated operating expenses. (+) Expectations of lower debt service costs, assuming a relatively stable ruble exchange rate. (-)	Hedge against currency risk related to foreign currency expenses. (+) Hedge against other risks. (-)
Financial sector	Market demand and supply of currency debts from other sectors. Possibility to earn on intermediary services. (+)	
		Hedge of an insurer against currency risk of currency-denominated payments. (+) Hedge against other risks. (-)
Government	Formation of a benchmark yield for non-government borrowings. (+) Formation of a credit history. (+)	Foreign policy, including non-export credits to national governments. (+)
Central Bank	Transactions with non-residents. (+)	Currency lender of last resort. (+) Freedom of choice in exchange rate policy. (+)

Source: ACRA

[1] (+) means stable or growing importance; (-) means declining or zero importance.

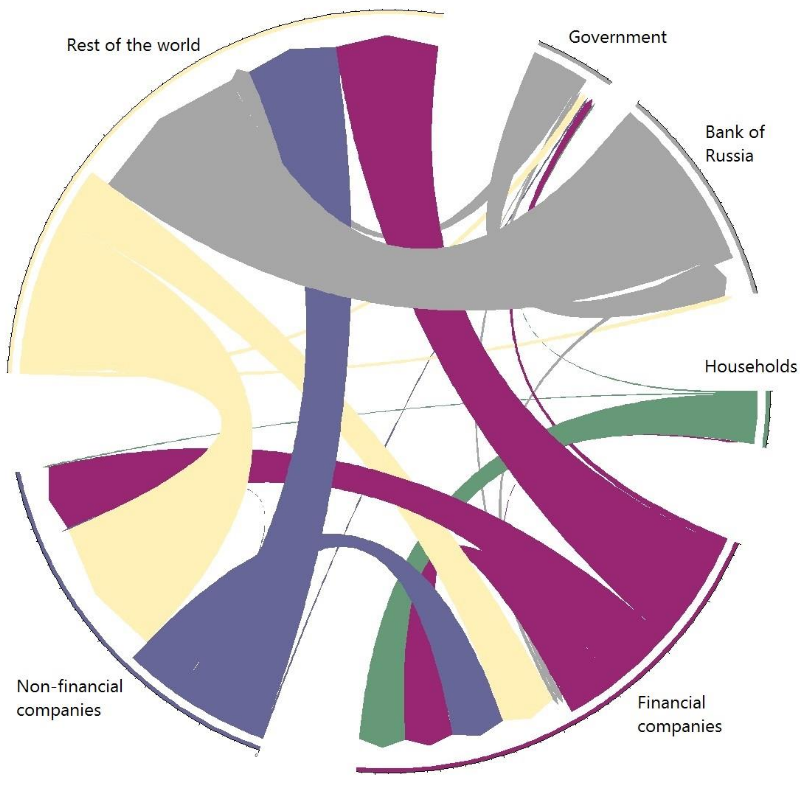
Efficiency of foreign currency as a hedging tool may be overestimated

Like in any other commodity-exporting country, most of the crisis phenomena historically occurred in Russia simultaneously with fluctuations in prices for basic export commodities. That is why currency revaluations that occurred in the period from mid-1990s to the present day coincided with large-scale implementations of various types of risk: interest rate risk, refinancing risk, market etc. Sufficient currency position could compensate losses associated with temporarily more expensive lending, cheaper financial assets and lower cash flow from operations. The price of such hedge was lost ruble interest income, as ruble interest rate is traditionally higher than the currency interest rate.

The historical effectiveness of foreign currency as a hedge against all possible risks is a positive fact from the viewpoint of an economic agent. However, the effectiveness of the currency, apparently, hinders the development of financial market instruments, and therefore it may be undesirable from the viewpoint of society as a whole. Moreover, its effectiveness may have been overestimated.

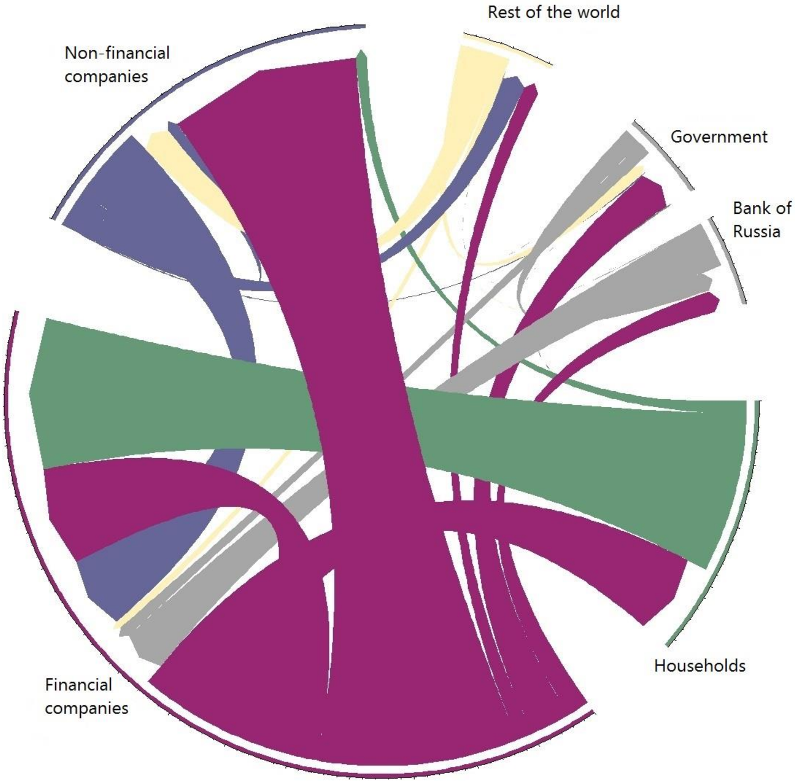
Many hedge strategies are built on the assumption that the above 100% correlation will continue. If such assumption is not entirely true, the relatively high share of foreign currency in debt relationships and cash can be a structural risk factor, even if most agents have currency positions balanced and currency risk hedged. Risk events that are perceived as hedged by currency revaluation may theoretically occur without it.

Figure 4. Currency debt relationships in Russia, July 01, 2017



Source: ACRA estimates

Figure 5. Ruble debt relationships in Russia, July 01, 2017



Source: ACRA estimates

Short-term debt relationships may restrain economic growth in Russia

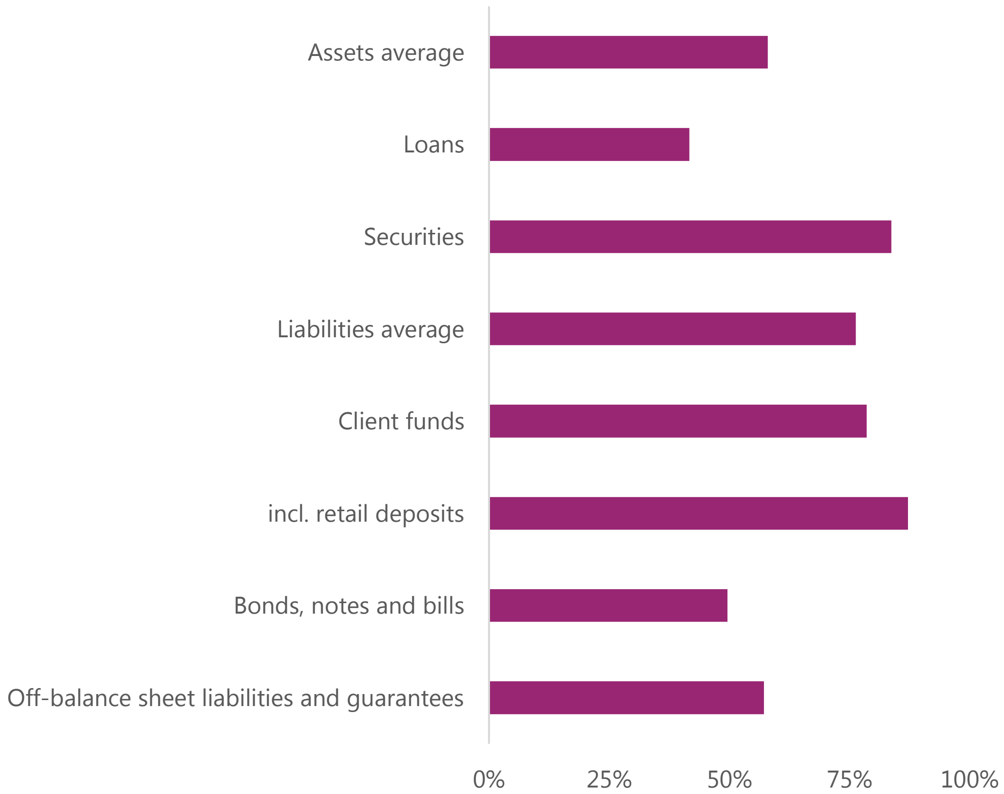
The estimations are based on the Agency's data for 1H2017 for banks holding in aggregate 80% of the total assets of the Russian banking system. See Annex 2 for more details about the problems of estimations based on data in public domain.

Lack of "long money" is traditionally considered a problem restraining economic growth, because in the absence of long-term funding, investors have to spend own money to made complex investments in fixed assets. This limits the range of potential projects and facilitates the monopolization of markets. In 2012, the economic growth in Russia entered a trajectory that lags behind the world, so the problem becomes more relevant.

As at early 2018, the share of bonds expected to mature next year as scheduled was about 11%, which, roughly speaking, can be interpreted as an impressive average period of about 9 years (provided that the schedule is straight-line). The bond market is the most transparent, long-term and not dominant segment of debt relationships. Therefore, in terms of maturity, the above is just an upper estimate. The actual debt maturity in Russia is shorter than commonly believed.

In general, debt relationships include traditional lending through financial intermediaries. For commercial banks (the largest part of the system), the share of short-term liabilities and liquid assets is about 75% and 60%, respectively. In terms of estimated average maturity, it is 1.3 years and 1.7 years, respectively.

Figure 6. Share of cash flow from repayments in the nearest year*, for 1H2017



* Including debt service costs, averaged for a representative sample of commercial banks.

Source: ACRA estimates

The main reasons for short maturities and their weak transformation are:

1. Historical market volatility, lack of understanding about the equilibrium levels of interest rates, inflation, exchange rates, which is mostly caused by the transitional period of the 1990's and 2000's in the Russian economy. With the accumulation and institutionalization of market experience, as well as the emergence of public economic policy tools, like inflation targeting and budget rules, the role of uncertainty declined.

2. Immature internal risk hedge tools used to compensate losses arising out of incorrect provisions in long-term contracts, and low availability of external tools. The turnover of the derivatives market, which may serve a basis for hedge, is small compared to the volume of accepted risks, in particular interest rate risks. The situation is aggravated by the fact that the legal infrastructure has no experience in resolving disputes involving such contracts, while the general financial literacy of the society is not high enough.

3. A widespread practice of granting loans to related parties, which mitigates the refinancing risk in short-term debt relationships. However, this increases the concentration on specific borrowers and, consequently, reduces the predictability of the credit risk for bank portfolios.

Annex 1. From-whom-to-whom tables for currency debt relationships

The subject of our research is debt in the form of credit, loan, deposit, or debt security.

For more details on assumptions, data sources and aggregation methods, see Annex to research [Russian government to become a net borrower and Kazakhstan government to remain a net creditor in 2018](#) published July 27, 2017.

Mutual financial claims broken down by institutional sector have become a part of the modern system of national accounts. The statistical agencies of the Eurozone countries, Japan and Canada introduced the so-called "from-to-whom-to-whom" tables into their financial accounts. Analyzing aggregated balances is useful to understand the spreading channels of economic shocks, as well as structural features of financial systems capable of aggravating or mitigating risks implemented locally. Furthermore, in addition to the volume of mutual claims, the data on their maturities, currency profile and instruments is used. Despite the absence of such tables in the financial accounts of the System of National Accounts (SNA) of Russia and Kazakhstan, based on mixed statistics and certain assumptions, it is possible to obtain their reasonable estimates in six sectors, from 2008 until now.

In this research, we focus on foreign currency debt relationships in Russia. The initial data on their structure is sufficient to obtain estimates for the tables from January 01, 2016 to the present day. The smaller the absolute value in a table cell, the greater the probable relative error of the estimate.

Table 2. From-whom-to-whom for currency debt relationships, Russia, RUB tln (as of July 01, 2017)

		To whom						
		Households	Non-financial sector	Financial sector	Government	The Bank of Russia	Rest of the World	Total
From whom	Households			0.2				0.2
	Non-financial sector	0.1	0.1	7.3			16.3	23.8
	Financial sector	5.4	6.4	5.8	0.7	0.1	5.8	24.2
	Government	0.3	0.3	0.8		0.2	0.9	2.5
	The Bank of Russia			0	4.4		0.9	5.3
	Rest of the World		10.9	12.9	2.3	20.8		46.9
	Total	5.8	17.7	27.0	7.4	21.1	23.9	102.9

Source: ACRA estimates

Table 3. Agent categories by sector

Macro-sector	Agents
Households	Households and non-for-profit organizations servicing households
Financial sector	Credit institutions (including banks whose license is withdrawn); VEB; investment funds (including UITs); leasing, factoring, forfeiting companies; commodity, forex exchanges; brokers, dealers; asset management companies; NPFs; insurers; state-owned financial corporations (including DIA)
Non-financial sector	Other non-financial companies (including state-owned)
Government	Federal government (managing the Reserve Fund), regional and municipal governments
The Bank of Russia	The Bank of Russia
Rest of the World	Non-residents

Source: ACRA

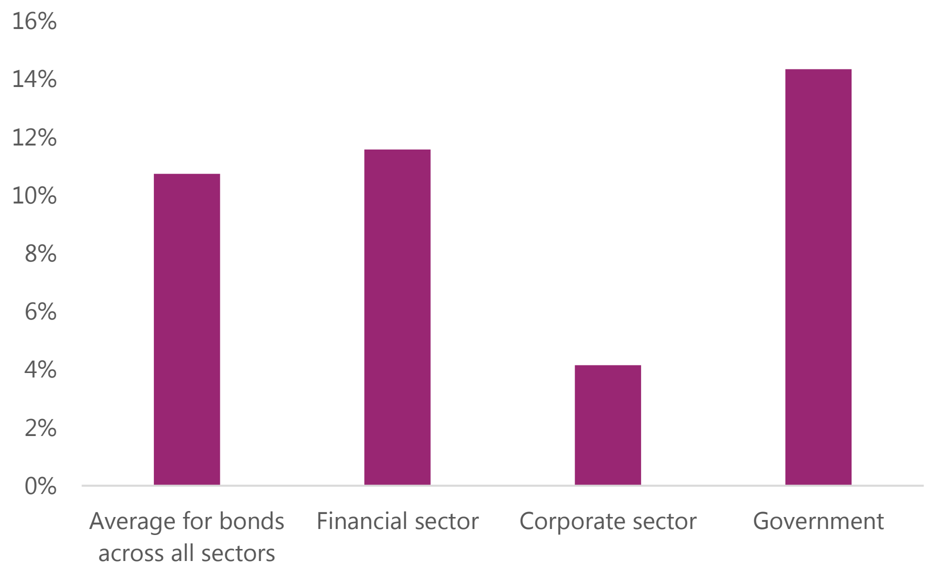
Annex 2. Estimated share of short-term debt relationships

1. The average maturity of debt relationships between banks is actually poorly observed, because, in most statistics, each loan or security is usually categorized at the time it appears in the balance sheet, and subsequently, the maturity group does not change until repayment. For example, a three-year loan issued in 2016 still remains a three-year loan in 2018, a year before maturity. Therefore, it is virtually impossible to single out the short-term debt on the basis of such sources. This is relevant, for example, to most public forms of bank reporting (Form No. 101 for example.) and the Bank of Russia's data on the external debt. For a more correct estimate, it is necessary to use non-public sources, such as Form No. 125.

For certain banks, the difference in estimated short-term portion of the debt reaches 20 pps, depending on the source. In addition, the estimates are not comparable because the method we use not only covers the principal debt, but also debt service costs. The share of short-term debt is the ratio of all payments due next year on a loan to the amount of payments until loan maturity.

2. The share of short-term debt in the form of bonds is estimated based on Cbonds data reflecting bonds issued by Russian issuers, with the assumption that there are no early repayments. Here, only the date the last part of the principal is repaid is included into the calculations (without taking into account other principal repayments and coupon payments).

Figure 7. Share of short-term bonds, as of January 01, 2018



Source: ACRA estimates based on Cbonds data.

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