BOFIT Online
2009 No. 8

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Bank of Finland, BOFIT
Institute for Economies in Transition

BOFIT Online
Editor-in-Chief Jouko Rautava

BOFIT Online 8/2009

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25.9.2009
ISSN 1456-811X (online)

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Contents

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Abstract

The aim of this paper is to analyze the increasing importance of banks in the Russian economy over the period following the financial crisis of 1998. We use several measures to assess the role of banks in domestic financial intermediation in Russia. The traditional macro-level view is complemented by the analysis of sectoral financial flows as well as by insights from micro-level studies. All of these confirm that banks are becoming increasingly important in financial intermediation. We find that the scope and efficiency of intermediation by Russian banks has improved over time, but the level of banks' financial intermediation still lags behind other countries with similar levels of income. Possible explanations for this include the dual nature of Russian financial system.

Keywords: Russia, banks, financial intermediation, financial system

Evolving financial system

Like other transition economies, Russia has a bank-based financial system. Banking is however a relatively young industry in Russia; most of the banks were established only in the 1990s. Moreover, potential customers do not have sufficiently long experience with banking services. The whole financial system, including banks, had to be built from scratch following the fall of communism. Prior to 1998 the banks' involvement in financial intermediation for the real sector was very modest. Banks failed to channel financial resources into profitable investments and in many occasions preferred to speculate in the financial markets or to merely conduct treasury functions for their owners. Karas, Schoors and Weill (2009) report that the ratio of bank lending to total bank assets was gradually shrinking until 1999. Their explanations include soft legal constraints, information asymmetries between lenders and borrowers, insufficient monitoring skills, and a lack of information on credit histories.

Following recovery from the 1998 crisis, the Russian banking system began to behave more in accord with a standard model. In response to a stable macroeconomic environment and important institutional reforms, the banking sector began to expand rapidly. Total banking sector assets, having doubled relative to GDP since year 2000, stood at 65% at the end of 2008. The EBRD index of banking sector reform increased from 2 in 1998 to 2.7 in 2006. On the scale of 1 to 4, a value of 3 indicates substantial progress in bank solvency legislation and in creating a framework for prudential supervision and regulation, as well as a significant presence of private banks. The value of 4 corresponds to the hypothetical level of a developed market economy[1]. Both the growth in size and the advancement of institutional reforms in Russia indicate an increasingly important role for banks in the economy.

Table 1 Main indicators of banking system development in the Czech Republic, Germany and Russia

	1996	1997	1998	1999	2004	2005	2006	2007
Deposits/GDP								
Czech Republic	0.57	0.56	0.55	0.52	0.59	0.59	0.60	0.61
Germany	0.60	0.62	0.63	0.78	0.96	0.98	0.99	1.01
Russia	0.11	0.13	0.13	0.12	0.19	0.21	0.23	0.27
Private credit/GDP								
Czech Republic	0.66	0.67	0.62	0.55	0.30	0.33	0.38	0.43
Germany	1.03	1.08	1.12	1.15	1.13	1.11	1.08	1.05
Russia	0.08	0.09	0.11	0.11	0.20	0.23	0.26	0.32
EBRD index of banking sector reform								
Czech Republic	3.0	3.0	3.0	3.3	3.7	4.0	4.0	4.0
Germany	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Russia	2.0	2.3	2.0	1.7	2.0	2.3	2.7	2.7

Source: Financial Structure Dataset by Thorsten Beck, based on IMF's International Financial Statistics Database, EBRD (Germany not rated by EBRD, level 4 corresponds to standards of advanced industrial economies)

[1] Corresponding values exceeded 3.3 already at the start of the 2000s in the most advanced Central European transition countries.

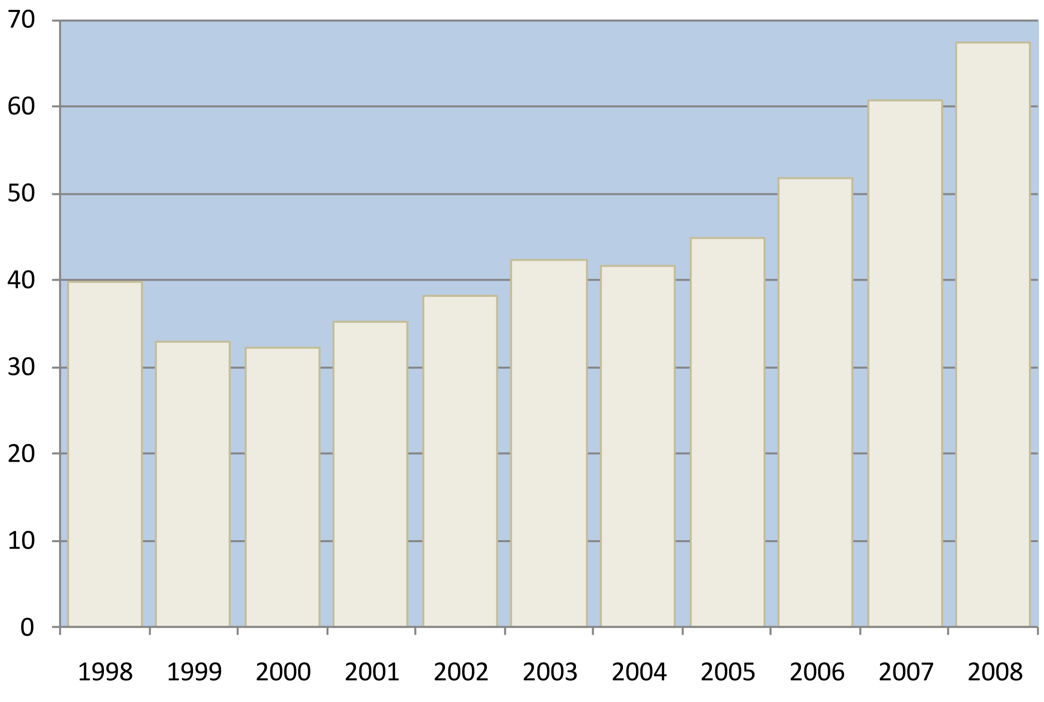
Despite these improvements, it is not clear whether Russian banks can well serve the needs of the economy. As Table 1 illustrates, financial intermediation in the CIS countries, Russia included, has been falling behind other transition countries (eg McNulty etal, 2007). This may have implications for further economic growth in the CIS. A considerable body of literature (eg Levine and Zervos, 1998, and Beck and Levine, 2004) confirms that banking sector development positively influences economic growth. Therefore, banking sector development may be a crucial precondition for economic growth - especially in countries with low initial levels of banking activities.

In this paper we use several measures to investigate how the role of the banking sector in financial intermediation evolved in Russia following recovery from the 1998 crisis. We first examine the most widespread aggregate measures, namely banking-sector share in GDP. We continue with sectoral financial flows analysis, unraveling the main creditor and debtor sectors in the Russian economy. We complement our investigation with an analysis of micro-level data, which allows us to examine the efficiency of financial intermediation in the Russian banking industry.

Measuring financial intermediation on the aggregate level

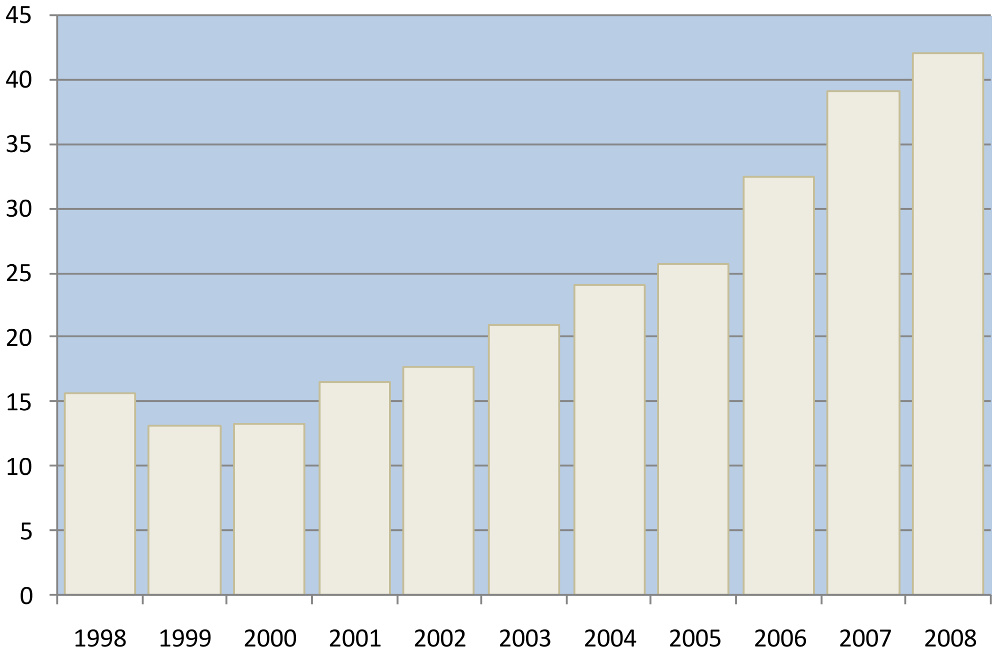
Traditionally, the degree of financial intermediation in a country is measured by the ratios of bank assets and bank credit to GDP. In Russia the ratio of bank assets to GDP doubled between 2000 and 2008, to exceed 65% at the end of 2008 (Figure 1). The same holds for bank credit-to-private sector, which currently amounts to more than 40% of GDP (Figure 2). These aggregate figures confirm the rapid growth of recent years and tell us that banks' financial intermediation in Russia has indeed increased over time.

Figure 1 Total banking sector assets in Russia, % of GDP



Source: Central Bank of Russia

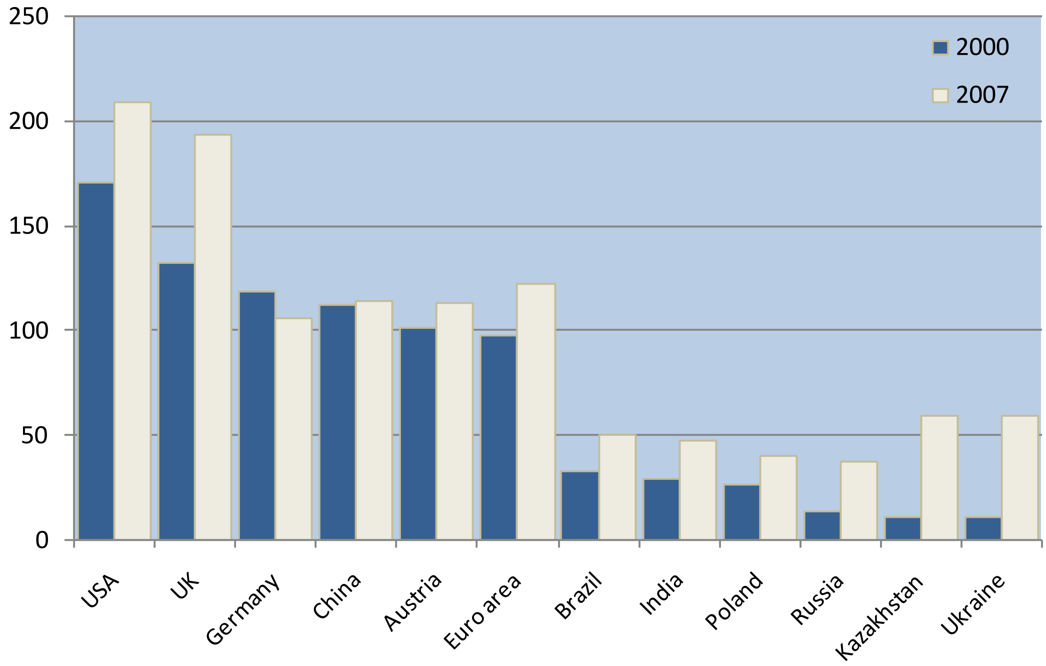
Figure 2 Domestic credit-to-private sector, % of GDP



Source: World Development Indicators

Despite this impressive growth, Russia still trails not only the developed economies but also its counterparts in Central and Eastern Europe in the level of financial intermediation (Figure 3).

Figure 3 Domestic credit-to-private sector



Source: World Development Indicators

The role of bank loans as a source of company financing of fixed investments has grown from less than 5% in the early 2000s to the current level of 11% (Rosstat, 2008). The role of other financial intermediaries in Russia is even less significant than that of the banking sector. The single largest source of finance for Russian companies is their own internal resources. In 2008 these were used to finance about 40% of such investment, down from 48% in 2002 (Rosstat). Another important source is budgetary resources, which are used to finance about a fifth of fixed investment. Despite a significant increase in equity issues by Russian companies, especially in 2006 and 2007, this source of finance is not very common and its share in financing investments reached just 2%.
The bond market is not highly developed either; only a few big Russian companies issue bonds. The share of corporate bonds in financing fixed investment is less than 1%. The ratio of nonfinancial corporate bonds to GDP was 2.4% in 2008 - much less than in developed countries (Ulykaev etal, 2009). The situation in the Eurobond market is similar; total volume amounted to 3.1% of GDP in 2008. EBRD figures confirm that this is in line with other transition countries.

Nor do insurance companies significantly contribute to financial intermediation in Russia. This sector is quite small and underdeveloped; insurance premiums amount to just 2.3% of GDP, only about a fifth of that for the developed countries (Swiss Re, 2009). Most of the insurance business concerns non-life insurance. Life insurance, which could generate financial resources for long-term investment, is almost non-existent. The long-term nature of insurance only contributes to an increasing lack of trust in Russian financial institutions.

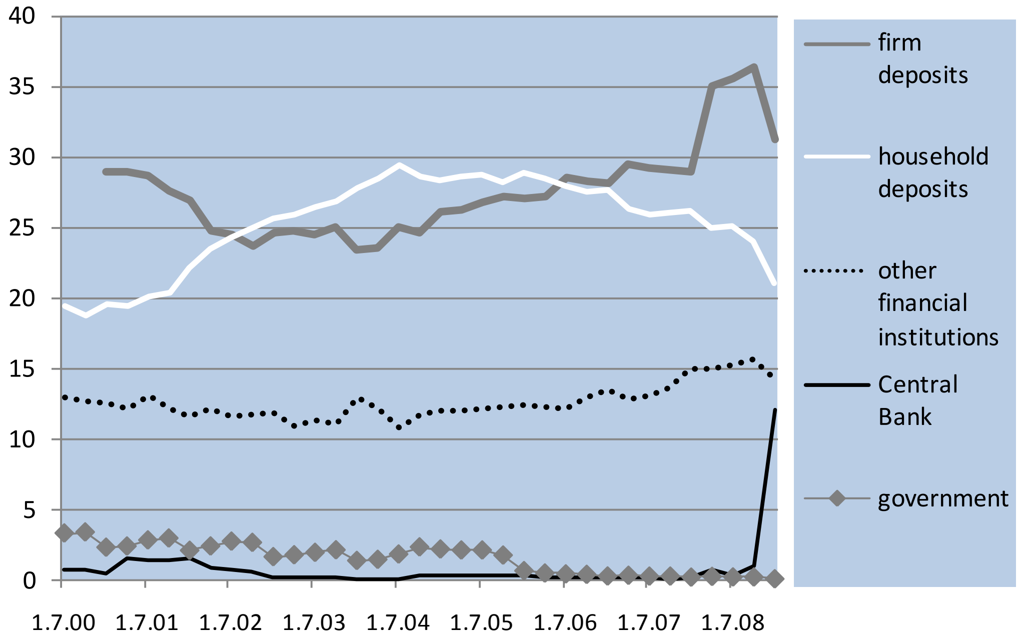
Sectoral financial flows analysis

We look more closely at the banks' role in financial intermediation by employing the analysis of financial flows between the commercial banking sector and other sectors of the economy. Since banks as financial intermediaries are supposed to channel resources from investors to productive sectors of the economy, this analysis is especially well suited for revealing their true role. Moreover, it enables us to investigate whether there are any structural breaks in the period under review.

We follow Kocenda et al (2007) in viewing the economy as a set of sectors that exchange financial assets. We account for the main economic players by considering the following sectors: public sector, nonfinancial companies, households, central bank, and other financial institutions. The flow of resources between banking and other sectors is traced via intermediation ratios that give the proportions of total banking sector assets that originate in the other five sectors. This gives a better picture of banks' role as debtors in the economy. In the same way, we analyse the other side of the banking sector balance sheet by breaking down bank lending by receiving sector. In this way, we can evaluate the contribution of each sector to the development of the banking system, as well as banking sector's channeling of the resources to different sectors. The data used in our investigation are from the Central Bank of Russia: quarterly series from the first half of 2000 to the end of 2008. Due to differences in data specifications, direct comparisons between countries require some caution. But we are able to make some (very rough) comparisons with the results of Kocenda et al (2007).

The share of household deposits in total banking sector assets gradually increased from below 20% in 2000 to close to 30% in 2004. Our analysis reveals that households were the largest creditors of banks between 2/2002 and 2/2006 (Figure 4). A very low share of household deposits in the years immediately following the August 1998 crisis was due to a lack of depositors' trust in the banking industry as well as falling real incomes. In 2006 the share of household deposits in total banking sector assets began to decline, as the growth in firm deposits clearly outpaced household deposit growth. This trend has continued during the ongoing financial crisis. Currently the largest creditors for Russian banks are thus nonfinancial companies. Their share in total banking sector assets exceeded 30% at the end of 2008. Unlike Russia, the largest creditors of banks in the Central European transition countries are households. Household deposits are considered to be the most important source of resources for banks since the maturities of these deposits are generally longer than for nonfinancial companies.

Figure 4 Banks as debtors to other sectors of the economy (% of total banking sector assets)



Source: Central Bank of Russia and authors' calculations

Another important source of inflows to the banking sector is credits from other financial institutions which, during the whole period under review, accounted for about 10% of banking sector assets. Based on micro-level bank data, Karas et al (2008) report that, even though large banks reduced their dependence on interbank funding from 25% in 1999 to 10% in 2004, they are still more dependent on interbank markets for funding than are the smaller banks. Further, they show that large banks continue to rely heavily on transactions with foreign counterparties, ensuring that in 1999-2004 the volume of foreign transactions always exceeded the volume of domestic interbank transactions. We have good reason to believe that this trend continued up until mid-2008.

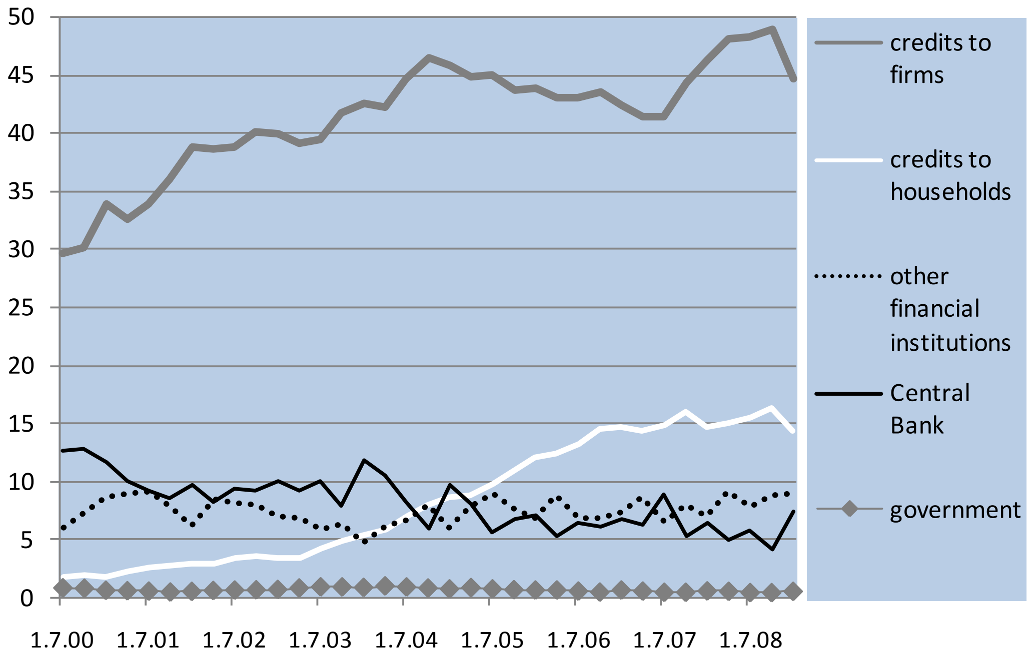
The role of government as creditor to the banking sector has not been significant and has in fact been on the decline, accounting nowadays for less than 0.5% of banking sector assets. Finally, the role of the central bank in providing funds to the banking sector has only increased recently, as a consequence of the current financial crisis and authorities' attempt to stabilize the situation. In general, flows from central bank to banking sector were close to zero during the period analysed. It is, however, important to keep in mind that the state plays a highly significant role in the banking sector, as its ownership share nowadays accounts for about half of the sector's total assets[2]. On the other hand, foreign participation in the banking sector remains relatively modest. The number of

[2] Certain estimates even suggest a larger share (see Glushkova and Vernikov, 2009).

foreign-owned banks has increased from 130 in 2000 to 221[3] at the end of the year 2008, of a total 1108 registered banks.

Looking at the other side of the coin, the most significant flows from the banking sector to other sectors are to nonfinancial companies. This accords with the Central European countries, where nonfinancial companies are also the major borrowers. Positive news in terms of financial intermediation is that the share of funds that banks lend to these companies increased up to 2008, and some subsequent slowing has occurred only because of the world financial crisis towards the end of 2008. Another positive trend for financial intermediation is the fact that lending to households has also been increasing, from about 2% of total banking assets in 2000 to 15% in 2008. Russian households have traditionally not been important bank customers; but their significance has increased in recent years. However, households' indebtedness remains lower than in the developed countries, as well as in other transition countries, which can be considered an advantage in the course of the ongoing financial turmoil. Flows from banking sector to central bank have remained relatively stable during the period under consideration, even though seasonality is clearly present in the data.

Figure 5 Banks as creditors to other sectors of the economy, (% of total banking sector assets)



Source: CBR and authors' calculations

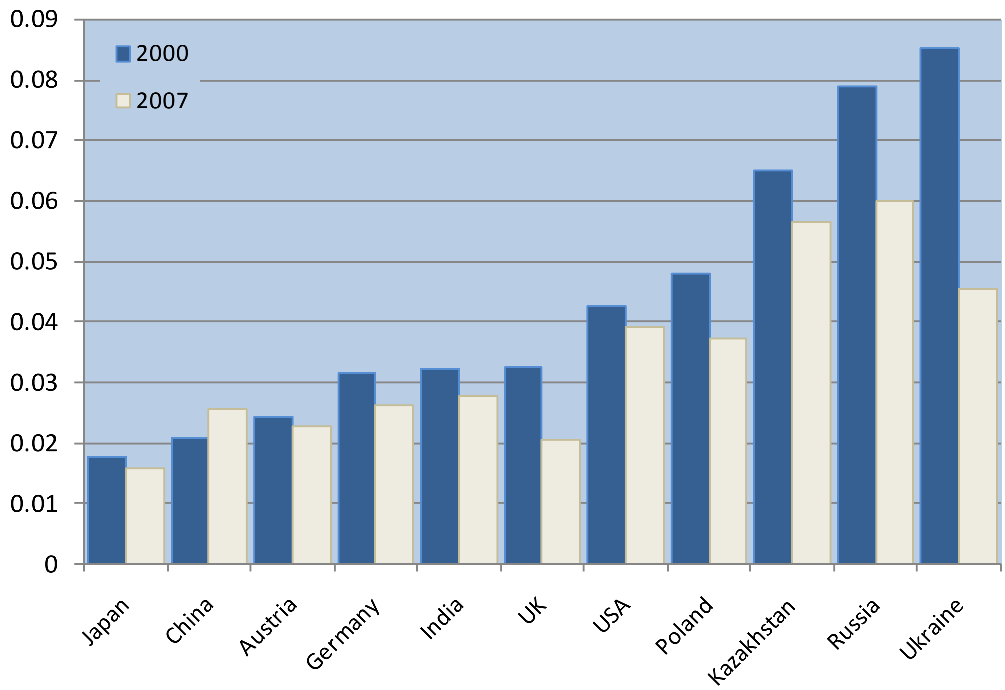
There are no significant breaks visible in the financial flows from and to the banking sector between 2000 and 2008. The system grew continuously during the period, and there were apparently no major changes that would have significantly influenced or disturbed this trend. Unlike in Central European countries, there has been no major privatization activity in the Russian banking sector. Overall, our analysis of financial flows between sectors indicates that banks have been increasingly involved in channeling funds to the real sector of the economy and have gradually begun to perform their role as financial intermediaries.

[3] Of these, 76 are 100% foreign-owned.

Has the efficiency of intermediation improved?

The increasing bank participation in the allocation of financial resources raises the question of how costly and efficient are the banks' intermediation services[4]. The most common approach in the literature that addresses this question is to investigate bank interest margins and their determinants. In general, the analysis of interest margins and explanation of the sizes involves a tradeoff. On one hand, high margins create impediments for the deepening of the country's financial intermediation, as lower deposit rates discourage savings in the form of bank deposits, and high loan rates reduce the banks' investment opportunities. Moreover, high margins may indicate problems in the banking regulation environment and information asymmetries (Claeys and Vander Vennet, 2008). On the other hand, higher margins can improve the profitability of the banking sector, strengthen bank capitalization, and solidify the sector's financial position, by creating additional buffers against negative shocks. But overall, the empirical evidence suggests that margins are smaller in more advanced banking systems. The net interest margins in Russia are still relatively high in comparison to other countries (see Figure 6).

Figure 6 Net interest margins



Note: Net interest margin is the accounting value of a bank's net interest revenue as a share of its interest-bearing (total earning) assets.
Source: Financial Structure Dataset by Thorsten Beck based on Fitch's BankScope database

Fungáčová and Poghosyan (2009) use quarterly data on all Russian banks for the period 1999 – 2007 to calculate net interest margins defined as interest income minus interest expenses divided by total assets. Overall, the margins moderately decreased during the period under review. This indicates that the process of financial intermediation has become less costly for the society.

[4] The investigation of bank interest margins is based on Fungáčová and Poghosyan (2009).

Further, they analyze the importance of margin determinants identified in the theoretical model by Ho and Saunders (1981). These determinants include market concentration, operational expenses, risk aversion, credit risk, liquidity ratio, and bank size. In economic terms, the most significant determinant of bank interest margins in Russia is operational expense. Operational expenses incurred by banks are transmitted to clients via higher margins on financial services. In this respect, there is much room for improvement in the operating efficiency of Russian banks, since the ratio of non-interest expenses in total assets is on average much higher than in developed or Central European countries (Moody's, 2008).

Bank's risk aversion is positively related to size of margin; banks with greater risk aversion charge higher margins. All the other significant determinants are negatively related to margins. First, the negative relationship between size of bank operations and margin confirms the existence of economies of scale, as larger banks tend to have lower margins. And a higher liquidity ratio enables a bank to reduce its margin. Finally, the negative relation between credit risk and margins can be explained by the market discipline argument for Russia (Karas, Pyle and Schoors, 2009). Depositors require higher premia for depositing their savings at banks with greater credit risk. An increase in deposit rates, ceteris paribus, would contribute to reduced interest margins, establishing a negative relationship between credit risk and margin.

Interest margins in Russia are however not affected by changes in market structure as measured by the regional Herfindahl index. This contradicts findings in the previous literature on developed countries as well as the prediction of the theoretical model that the coefficient would have a positive sign. Nevertheless, this result is in line with results for emerging economies, which are generally mixed and not always significant. An insignificant coefficient for the market structure might indicate that regional concentration in the Russian banking sector did not change substantially over time. Clearly, there are a few dominant players in the market, and changes in the rest of the banking system are not sufficiently large to influence the overall structure of the market.

A dual banking system?

All in all, our analysis suggests that Russian banks have begun to participate in financial intermediation in recent years. Moreover, a slight decrease in the level of bank interest margins indicates a positive trend in the efficiency of financial intermediation, even though there is still much room for improvement here. All these developments have been driven by rapid growth of the economy and increasing integration of the Russian banking sector into the global financial markets.

Despite its impressive growth rates in the 2000s, the Russian banking sector remains small relative to the size of economy. Russian households, as well as the small and micro enterprises, often have little if any contact with the financial system. Only slightly over 10% of fixed investment is financed by bank loans and, despite remarkable remonetization since the 1998 crisis, only about a third of the population have bank accounts. Due to the banking crisis of the 1990s, there remains a significant lack of trust in the banking system[5]. On the other hand, large Russian oil, gas and metal companies have financing needs that greatly exceed the capacity of the domestic financial markets. The large Russian natural resource companies are big even by global standards, and they are in effect an integrated part of the world economy. The financing needs of companies like Gazprom, Rosneft and Lukoil have been met mainly by the global financial markets. Those companies have significant export earnings, and their revenue streams depend largely on developments in the global

[5] See EBRD/World Bank Values in Transition Survey (EBRD Transition Report 2007).

economy. Large global financial groups may in fact also have much better knowledge and skills to analyze these companies than do the local Russian banks.

This is evidenced by increasing amounts of syndicated loans by foreign lenders to Russian borrowers in recent years. Syndicated loan business in Russia started to grow already in 1997, as these loans were the only finance source for companies without credit ratings. The 1998 financial crisis hampered lending, but a growing demand for long-term finance in connection with rapid economic growth in the 2000s again contributed to a significant increase in the amount of syndicated loans. In both 2005 and 2006, the volume of syndicated loans in Russia exceeded $50 billion[6], which corresponds to about a fifth of the volume of credit to the nonfinancial private sector, as reported by BIS. In 2007 the volume of syndicated loans doubled.

Despite this boom, Russian lenders did not play a significant role in the syndicated loan business. The expansion of syndicated lending has involved primarily non-Russian banks. Russian banks provided only about 2% of funding for syndicated loans reported in 1997 – 2006[7]. Moreover, the banking literature holds that the presence of a local bank in a loan syndicate creates significant informational advantages or advances in monitoring. These usually translate into smaller loan spreads for the borrower. Fungáčová et al (2009) however show that this is not the case in Russia. The presence of a Russian bank in a loan syndicate did not reduce the loan spreads. This clearly suggests that Russian banks do not have an informational advantage over international lenders in lending to large Russian firms. This may be due to the relatively small size of Russian banks, their brief experience with international syndications, or a more general mistrust of Russian banks. In most other developing countries, such disadvantages of domestic banks are more than offset by the positive value of better knowledge of local conditions.

All of this implies that Russia not only has a dual economy with the strategic, state-controlled sectors and a free-to-all, non-strategic sector. The country also seems to have a dual financial system: a domestic one serving local clients and an international one with only minimal participation by Russian banks. Up until the global financial crisis, the large corporations could rely on international markets for their investment financing, and they generally needed the domestic banking system only for settling their payments. This may well be an additional explanation for the relatively small size of the domestic banking system.

Further strengthening of this dual system would not necessarily be good news for the local, non-export-oriented clients. If a company generating eg 10% of GDP[8] needs the domestic system merely for paying its bills, the growth prospects for the domestic banking sector are not rosy. In the long term this may imply more limited access to finance for the rest of the economy which, after all, generates the majority of jobs in Russia. The current financial turmoil has effectively cut off foreign financing, pushing even the large export-oriented corporate clients towards domestic banks. It remains to be seen to what degree these companies can return to the international financial markets in the long run.

Conclusions and future prospects

The growth of the banking sector has been impressive during the economic boom years of 2001-2008. The size of the banking sector in relation to the economy doubled during this period. Moreover, lending to the real sector (ie enterprises and households) has grown rapidly, and an

[6] www.cbonds.ru

[7] Based on Dealscan data.

[8] Gazprom reports that it accounts for 10% of the Russian GDP. www.gazprom.ru/

increasing, albeit still small, share of fixed investment is financed by bank loans. Clearly the banking sector started to play an increasingly important role in channeling savings into investment and consumption. Also the efficiency of intermediation seems to have improved slightly – but from a very low initial level. A report by McKinsey states that the level of productivity in Russian retail banking is still only 23% of the US level (McKinsey 2009).

Predicting the future is always perilous. The current global financial crisis may in the best case prove to be a watershed on the way to a more efficient banking system. A crisis anywhere tends to wipe out some of the most inefficient firms, and it is possible that many of the tiny and shady Russian banks will be closed down because of the current economic collapse. If managed prudently, a restructuring of the banking industry may at the end of the day result in larger, better managed and more efficient banks dominating the sector. A number of those could well be able to participate in the international side of the banking sector, especially since, for the time being, the crisis has effectively halted foreign borrowing, even for the largest Russian corporations.

Nonetheless there is always a danger that the future will prove to be different from that hoped for. If international financial markets remain closed for a longer period of time, the large, natural resource corporations are bound to rely on the domestic markets. They are likely to crowd out most of the other borrowers and leave the domestic clients even worse off. Moreover, the domestic banking sector may emerge from the crisis weaker, with its fragile trust virtually gone for a few more years.

References

Beck T., Levine R. (2004): "Stock Market, Banks and Growth: Panel Evidence," Journal of Banking and Finance 28(3): 423-442.

Central Bank of Russia: Obzor bankovskovo sektora, various issues (2002 – 2009).

Claeys, S. and Vander Vennet, R. (2008): "Determinants of Bank Interest Margins in Central and Eastern Europe: A Comparison with the West," Economic Systems, 32: 197-216.

Fungáčová, Z., Godlewski, C., Weill, L. (2009): "Asymmetric Information and Loan Spreads in Russia: Evidence from Syndicated Loans," BOFIT Discussion Paper No. 7.

Fungáčová, Z., Poghosyan, T. (2009): "Determinants of Bank Interest Margins in Russia: Does Bank Ownership Matter?" BOFIT Discussion Paper (forthcoming).

Glushkova, E., Vernikov, A. 2009. "How Big Is the Visible Hand of the State in the Russian Banking Industry?" MPRA Paper No. 15563, available at http://mpra.ub.uni-muenchen.de/15563/.

Ho, T. and Saunders, A. (1981): "The Determinants of Bank Interest Margins: Theory and Empirical Evidence," Journal of Financial and Quantitative Analysis, 16(4): 581-600.

Karas, A., Schoors, K., Lanine, G. (2008): "Liquidity matters: Evidence from the Russian interbank market. University of Ghent, Economics Faculty Working Paper 2008/520.

Karas, A., Pyle, W., Schoors, K. (2009): "Sophisticated Discipline in a Nascent Deposit Market: Evidence from Post-Communist Russia," Oxford Economic Papers (forthcoming).

Karas, A., Schoors, K., Weill, L. (2009): "Are Private Banks More Efficient than Public Banks? Evidence from Russia," Economics of Transition (forthcoming).

Kočenda, E., Hanousek, J., Ondko, P. (2007): "The Banking Sector in New EU Member Countries: A Sectoral Financial Flows Analysis," Czech Journal of Economics and Finance (Finance a uver), 57: 200-224.

Levine R., Zervos S. (1998): "Stock Markets, Banks, and Economic Growth," American Economic Review 88: 537-558.

McKinsey Global Insitute (2009): Lean Russia. Sustaining Economic Growth Through Improved Productivity.

Moody's Global Banking: Banking System Outlook for Russia, September 2008.

McNulty, J., Harper, J., Pennathur, A. (2007): "Financial Intermediation and the Rule of Law in the Transitional Economies of Central and Eastern Europe," The Quarterly Review of Economics and Finance, 47: 55-68.

Swiss Re (2009): "World Insurance in 2008: Life Premiums fall in Industrialized Countries – Strong Growth in the Emerging Economies," Sigma No 3/2009, available at http://www.swissre.com/pws/research%20publications/sigma%20ins.%20research/sigma_no_3_2009.html

European Bank for Reconstruction and Development (2007): Transition Report 2007.

Ulykaev, A., Danilova, E. (2009): "Banks' External Debt as a Source of Financing the Russian Investment Strategy: risks and mechanisms of regulation," Dengi i Kredit 5/2009.