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Determinants of Composition of Banks' Loan Portfolios in Russia

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This paper explores how bank characteristics and the institutional environment influence the composition of banks' loan portfolios. Using a data set of the Central Bank of the Russian Federation (Bank of Russia) and results of the recent Rating Agency (RA) Expert survey on bank lending to small sized enterprises in Russia, which was conducted in 2006, we show that bank characteristics such as ownership and size are important determinants of bank customer focus. In particular, we find that foreign banks are relatively strongly involved in household lending and lending to small-sized enterprises, while lending relatively less to large domestic firms. This survey provides statistically based evidence that small banks lend relatively more to small enterprises than large banks do, while large banks appear to have a comparative advantage in lending to large customers.

Keywords: banking, loan portfolio, small business lending.

Introduction

During the last decade and a half there have been important changes in the ownership structure and the institutional environment of the banking system in Russia. There have emerged hundreds banks with different characteristics regarding ownership structure and size. Reforming of Russian banking system is not completed yet and its structure is not yet formed. The decision of what banking system structure is more preferable to Russian economy should be based on researches of how different banks' characteristics influence the composition of banks' loan portfolios. The last determines the macroeconomic efficiency of the banks.

This paper explores how variations in ownership structure and size explain the role of banks in financing business activity, households, and the government. While earlier researches have been dealing with dynamics of total loans in Russia, little is known about the composition of bank lending as regards specific customer types. Do foreign banks differ from domestic banks in their loan portfolio composition? And is the composition of banks' loan portfolios also influenced by the bank size?

We are going to shed more light on these issues by combining results of RA Expert survey with data from forms 101 and 102 of the Bank of Russia's data set. These forms provide with detailed banks balance sheet information. The Bank of Russia's data set also enables to classify banks by size and ownership (foreign, domestic and state-owned). The only information the Bank

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of Russia does not provide is the scope of bank crediting of small-sized enterprises. RA Expert made a survey on Russian banks crediting of small-sized enterprises at the beginning of 2006. Combination of these data allows for an analysis of banks' credit portfolios and how certain characteristics of the bank influence its credit portfolio composition.

We make up a portfolio composition by bank type and find that bank characteristics such as ownership and size are important determinants of banks' customer portfolios. For instance, small banks tend to lend relatively more to small enterprises than large banks do, while large banks still have a comparative advantage in lending to large customers. Interestingly, foreign banks lend relatively less to large firms and more to households than do domestic banks. This result runs counter the traditional view that foreign banks in transition economies prefer to focus on large businesses as their main clients.

The outline of this paper is as follows. At the beginning we provide an overview of the literature on the determinants of bank portfolio composition, our data and methodology, then we summarize our empirical results and discuss them. Finally, we make conclusions.

Determinants of Bank Credit Portfolios: Related Literature, Data and Methodology

In this paper, we combine data provided by forms 101 and 102 of the Bank of Russia with results of RA Expert study on Russian banks crediting small enterprises in order to get a better understanding of what determines the composition of bank portfolios. A substantial amount of literature has demonstrated that more active banking systems are associated with faster economic development. More bank lending leads to capital accumulation and productivity increases, stimulating economic development.

However, the type of customers that banks choose to focus on, in other words, the composition of their lending portfolios, may have important implications for the effect that aggregate bank lending has on economic development. In a transition context, for instance, academics and international financial institutions have focused on the amount of bank financing to small-sized enterprises. Small enterprises financing is of great importance in transition countries, as small firms play an important role in the restructuring process by absorbing employees that lose their jobs in privatised, restructured or bankrupt state-owned enterprises (Kowalski and Janc, 1999). Moreover, Grishina et al (2006) and Koshkina (2006) show that the sharp decline in bank crediting Russian small-sized enterprises at the beginning of the transition process has significantly contributed to the heavy decline in output in this country. Carlin and Richthofen (1995) find that the rapid growth of the small enterprises sector and the availability of sufficient external funding for these firms has contributed to the integration of the former East and West Germany. It may therefore be important to understand what determines banks' willingness and ability to lend to small enterprises as opposed to other customer types such as large corporate customers, medium-sized enterprises or retail clients. We consider two main potential determinants of bank portfolio composition: bank ownership and bank size.

There are reasons to believe that the entry of foreign banks may lead to a change in the supply of credit to small-sized enterprises. Given that the knowledge foreign banks have of local markets is relatively limited, they may prefer to grant credit only to large and medium firms, that are viewed as being most transparent and less risky. Foreign banks may also have more difficulties in getting "soft" information, such as information on the trustworthiness of a potential client, than small domestic banks that are more aware of traditions of doing business in native country and have less hierarchical layers. This may especially be the case if the foreign head office is in a country with a significantly different culture and language. They will therefore prefer to grant most loans on a transaction-by-transaction basis, using standardised decision methodologies. Such methods to assess creditworthiness tend to use "hard" information such as financial ratios calculated on the basis of firms' financial statements (Berger et al, 2001). Obviously only a few small enterprises are able to get a loan on such conditions.

Domestic banks, on the other hand, may have a deeper understanding of the local business sector and will be able to base their credit decisions on soft and more qualitative information that is available on local and smaller firms. Small domestic banks may be better suited to collecting such information over time when dealing with smaller clients (Berger and Udell, 1995, 2002). They may also have a greater commitment to local prosperity (Collender and Shaffer, 2003). Therefore the increased presence of foreign banks in transition countries may have led to less credit to small enterprises.

However, differences between bank ownership types may have gradually disappeared during the transition process, as many foreign banks entered the region through mergers with domestic banks. Also, the distinction between hard and soft information may be more simple. Large banks may have a comparative advantage in using transaction technologies such as credit scoring and asset-based lending that can be used to finance smaller and more opaque customers, offsetting their disadvantage in relationship lending (Berger and Udell, 2006). Transaction technologies such as credit scoring that use hard information can be successfully applied to provide credit to opaque small enterprises without the need to develop relationships. Similarly, foreign banks may use asset-based lending technologies, in which the bank concluding on the capacity of the borrower to repay a debt considers assets as the primary source of repayment (Berger and Udell, 2006) rather than at the overall creditworthiness of the borrower. By using such technologies, large and foreign banks may also expand small enterprises credit (Berger and Udell, 2006). Credit scoring may therefore allow foreign banks to lend to small-sized enterprises without having to develop relationships in order to extract soft information.

Besides ownership, the size of a bank may also influence its customer profile. The reasoning is similar to the ownership argument. Larger banks may have a comparative advantage in lending to larger customers as they can use scale economies in evaluating the hard information that tends to be available on such customers.

Smaller banks, however, may not be able to lend to larger companies because of size limitations. They are, for instance, more constrained by regulatory lending limits. Small banks may also have a comparative advantage in processing soft information on small companies and small businesses may only be served on the basis of direct contact and soft information (Petersen and Rajan, 2002). Again, taking into account that large banks may use technologies such as credit scoring and asset-based lending to get around the "soft information problem", they may actually be well suited to lending to small-sized enterprises. Long-term relationships enable banks to collect information about borrowers' capacity to repay, thus reducing the cost of providing credit. The consolidation process in transition countries may therefore have led to a reduced focus of (larger) banks on small enterprises financing.

Empirical evidence on the determinants of bank portfolio composition is available for some individual countries – mainly the United States. Some of these studies confirm the hypothesis that foreign banks and large banks lend less to informationally opaque small-sized companies. In the United States, foreign banks tend to supply less credit to small firms (DeYoung et al, 1999; Berger and Udell, 2002). Berger et al (2001) study small-sized enterprises financing in Argentina. They find that foreign-owned banks and large banks have more difficulties in lending to small firms.

On the other hand Petersen et al (2002) show that penetrating into bank sector by acquiring native banks provides foreign banks with better ability to collect and process reliable information on creditworthiness of local small enterprises. This may enable relatively opaque small companies to receive funding from foreign-owned banks.

Clarke et al (2001) analyse bank-level data for Argentina, Chile, Colombia and Peru and find that foreign bank entry improves financing conditions for enterprises of all sizes, although larger firms benefit more. However, in both Argentina and Chile, small enterprises credit has been growing faster at foreign banks with a large local presence than at large domestic banks. This last result is consistent with the notion that large foreign banks – using credit-scoring methodologies, enhanced computer power and improved data analysis – will increase small-business lending (Mester, 1997). Some other recent studies that focus on foreign banking in developing countries also conclude that an increasing presence of foreign banks leads to a greater availability of credit to small companies (Beck et al, 2004; Berger et al, 2004).

Thus there are counter opinions on the influence of bank ownership and size on the composition of banks' credit portfolios. There also exist only very few empirical studies on foreign bank entry and small business credit in transition economies. We try to fill in this gap by studying the composition of banks' credit portfolios in Russia.

In this paper we use the Bank of Russia's database, namely reporting forms 101 and 102. These forms provide with information on banks' balance sheets and profit and loss accounts and are made quarterly. They allow studying Russian banks portfolio composition. The only omission of these forms is the lack of enterprise loans division to loans to large and medium-sized enterprises and loans to small enterprises. We meet this lack by data from RA Expert study of small-business crediting by Russian banks made on 2006. This study provides with ranking of Russian banks by the scope of loans to small enterprises. The Bank of Russia's database also includes information on bank size and bank ownership. We linked the information from the Bank of Russia data set and RA Expert survey together. This allows us to get a detailed picture of the portfolio of each individual Russian bank.

Thus we measured the loan proportions allocated to the following customers: household lending, small enterprises (with the scope of annual receipts below 5 million dollars), large and medium-sized enterprises (annual receipts is 5 million dollars or over), and other customers (including state-owned agencies). Banks were classified into two groups by size and three groups by ownership.

Results and Their Discussion

Table 1 shows our survey results on relationship between bank ownership/size and portfolio composition at the beginning of 2006 in Russia.

In the first part of Table 1 we report results of analysis of bank size influence to the credit portfolio structure. Large banks lend more – in terms of portfolio composition – to large and medium enterprises and governments. They lend markedly less to small businesses. Small banks lend on average 18.8 per cent of their portfolio to small enterprises, whereas large banks only allocate 0.7 per cent of all loans to such companies. Apparently, large banks still have a comparative

Table 1. Portfolio composition by bank type (in per cent of total lending, the end of 2005)

	Small banks	Large banks	Private domestic banks	State-owned domestic banks	Foreign banks
Household lending	7.3	12.9	7.6	12.8	19.8
Small enterprises	18.8	0.7	3.7	0.8	3.2
Large and middle enterprises	67.6	73.7	75.7	68.1	66.1
Other	6.3	12.7	13.0	18.3	10.8
Total	100.0	100.0	100.0	100.0	100.0

Sources: the Bank of Russia database (101st and 102nd forms) and RA Expert 400.
Note: This table shows the average lending portfolio composition by bank type. A bank is classified as "small" when its total assets are equal or less than RUR 1 billion and as "large" when its assets exceed RUR 1 billion. By ownership category banks are distinguished into three groups: (1) private banks with majority domestic ownership (over 50 per cent), (2) state-owned banks (i.e. with majority state ownership), and (3) foreign banks (banks with majority foreign ownership).

advantage in lending to larger customers as they can exploit scale economies in evaluating the "hard" information that tends to be available on such customers. However, small banks are still relatively efficient in processing "soft" information on small enterprises. Thus in spite of higher competitiveness and financial stability of large banks Russian economy needs small banks too and the program of Russian banking system development worked out by regulating authority should take it into account. The aim of this program should be to help strengthen competitiveness of Russian banks not only by their consolidation, but also by law and financial support of small banks.

Large banks also provide more household credit. The last fact is quite unexpected as small banks usually specialize on retail services, but is easily explained by the share of the largest Russian bank Sberbank in retail bank services market.

The results as reported in the second part of Table 1 show that foreign banks are significantly more involved in household lending than state domestic banks are. Private domestic banks appear to be the least involved in this type of business, because of monopolistic market position of the state-owned Sberbank at bank household services market and their low competitiveness with foreign banks in household lending. The fact that foreign banks have the largest proportion of lending to households in their credit portfolios among other bank categories reflects that foreign banks have been actively involved in developing the household credit market in the transition region, market that was completely absent before the end of the soviet socialism. Banking groups from western Europe have "exported" their know-how on mortgage and other household lending to their new eastern markets in search for new retail customers. Domestic private banks, on the other hand, have not been able to keep up with this development and have lagged behind in introducing mortgages and other household lending.

Private domestic banks and foreign banks have almost equal proportions of small enterprises lending, while foreign banks appear to lend relatively less to large and middle firms than domestic banks do. The results in Tables 1 suggest also that foreign banks are more focused on retail banking services (household and small firms lending) and less on large and middle firm lending than domestic banks are. These results run counter the traditional view that foreign banks in transition economies prefer to focus on large businesses as their main clients and thus take the best clients from domestic banks. And the traditional point of view that foreign capital expansion in the banking sector will blight Russian banks and economy should be revised.

State-owned domestic banks lend relatively more to households (in comparison with private domestic banks) and markedly less to small enterprises. This is explained by the specific structure of state-owned sector of Russian banking system in the period under the study: on 2005 it consisted of the largest retail bank – Sberbank and several large banks, specified in foreign debt and some other state-scaled thing. Thus in line with expectations state-owned banks provides markedly more credits to governments of different levels.

Conclusions

Our results suggest that bank characteristics, such as ownership and size, are important determinants of banks' customer focus.

We find that foreign banks are relatively strongly involved in household lending and lending to small firms, while lending relatively less to large firms. This conclusion runs counter traditional point of view that foreign banks tend to capture large clients and thus disable domestic banks to raise their competitiveness and financial stability. Thereby penetration of foreign banks to Russian financial market will provide greater availability of credit to small business that is of high importance in transition countries, as small companies play a significant role in the restructuring process. Development of small-sized business provides economy with the structure which favours reproduction of innovation economic growth (Medvedev, 2004).

We find also that size matters for customer focus. Small banks lend relatively more to small-sized enterprises than large banks, while large banks have a comparative advantage in lending to large customers. Thus regulating authorities which have proclaimed banks consolidation as the central line of development of Russian banking system should take into account that macroeconomic effectiveness of Russian banking system is unattainable without small banks. Perhaps unsurprisingly, state-owned banks still lend more to governments.

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References

The Bank of Russia Data Set (2006), http://www.cbr.ru/credit/transparent.asp

T. Beck, A. Demirgüç-Kunt and V. Maksimovic, "Bank competition and access to finance: International evidence", *Journal of Money, Credit, and Banking*, Vol. 36 (2004), 627-648.

A.N. Berger, I. Hasan and L.F. Klapper, "Further evidence on the link between finance and growth: an international analysis of community banking and economic performance", *Journal of Financial Services Research*, Vol. 25 (2004), 169-202.

A.N. Berger, L.F. Klapper and G.F. Udell, "The ability of banks to lend to informationally opaque small businesses", *Journal of Banking & Finance*, Vol. 25 (2001), 2127-2167.

A.N. Berger and G.F. Udell, "Relationship lending and lines of credit in small business finance", *Journal of Business*, Vol. 68 (1995), pp. 351-382.

A.N. Berger and G.F. Udell, "Small business credit availability and relationship lending: The importance of bank organisational structure", *Economic Journal*, Vol. 127 (2002), pp. 32-53.

A.N. Berger and G.F. Udell, "A more complete conceptual framework for SME finance", *Journal of Banking & Finance*, Vol. 11 (2006), pp. 2945-2966.

W. Carlin, and P. Richthofen, "Finance, economic development and the transition: The East German case", *Economics of Transition*, Vol. 3 (1995), pp. 169-195.

G. Clarke, R. Cull, M.S. Martinez Peria, "Does foreign bank penetration reduce access to credit in developing countries? Evidence from asking borrowers", *World Bank Policy Research Working Paper No. 2716*, World Bank Washington D.C.,2001, pp. 286-354.

R.N. Collender and S. Shaffer, "Local bank office ownership, deposit control, market structure, and economic growth", *Journal of Banking & Finance*, Vol. 27 (2003), pp. 27-57.

R. DeYoung, L.G. Goldberg and L.J. White, "Youth, adolescence, and maturity of banks: Credit availability to small business in an era of banking consolidation", *Journal of Banking & Finance*, Vol. 23 (1999), pp. 463-492.

O. Grishina, A. Murzina, P. Samiev, "Big Money for Small Business", *Expert*, Vol. 15 (2006), pp. 12-17, in Russian.

E. Koshkina, "They Will Simpify Lending Small Business", *Business Journal*, 17th Feb (2006), www.business-magazine.ru, in Russian.

T. Kowalski and A. Janc, "Financial contracts and relations in the small and medium-sized enterprise sector in Poland", In: A.W. Mullineux and C.J. Green (eds.), *Economic Performance and Financial Sector Reform in Central and Eastern Europe. Capital Flows, Bank and Enterprise Restructuring*, Edward Elgar, Cheltenham 1999, pp. 120-138.

V.A. Medvedev, *Reproduction and Development Priorities* (Moscow; Economica Press, 2004), in Russian

L.J. Mester, "What is the point of credit scoring?" *Federal Reserve Bank of Philadelphia Business Review*, 1997, pp. 3-16.

M.A. Petersen and R.G. Rajan, "Does distance still matter? The information revolution in small business lending", *Journal of Finance*, Vol. 57 (2002), pp. 2533-2570.

RA Expert Research on Bank Lending Small Business (2006), www.raexpert.ru/researches/credit_org.