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Abstract

The analysis of banks referred to as *community banks* in the international literature is a widespread application problem within the scope of regulators' concerns. Such banks are characterised by closer relationships with borrowers (relationship banking), as opposed to a formalised and automated approach (transactional banking).

There is no consensus on the method for defining community banks. We presented an algorithm for determining community banks, taking into account the specifics of the Russian banking sector and revealed the following. A community bank is a profitable bank, in the funding structure of which half of the funds are funds from individuals, and in the allocated funds the share of the corporate loan portfolio predominates. Community banks have a balanced funding structure. Profitability of placement is consistently higher than the cost of funding for funds from legal entities, but has a very small differential for funds from individuals. The main factor in the growth of ROA for a community bank will most likely be an increase in net interest income, the main factor in decreasing ROA is the additional formation of reserves for corporate loans (at the same time, the loan portfolio of the community bank is of relatively high quality).

Although the total loan portfolio of community banks is relatively small, their operations are deemed crucial in certain segments of the economy. The reason is that such banks possess a number of important features.

The main purpose of our study is to explore and outline the differences between community banks and other (larger) banks. Identifying such differences is essential to understand the degree of heterogeneity in the banking sector.

First, community banks are ready to deal with small borrowers and specialise in niche markets and industries. Approximately one third of the volume of corporate loans issued by a community bank are loans to small borrowers.

Second, they are open to working with financial instruments of limited demand and/or customising products to meet the needs of a small group of clients. In addition, community banks are willing to handle loans that are limited in size and are not mass-market, and to take non-standard approaches to setting interest rates.

The bulk of corporate loans issued by community banks will most likely go to companies that also have loans from other banks that are not classified as community. In addition, community banks are ready to work with medium-sized (and not massive) loans and approach setting rates in a customised manner.

The community bank is active in the short-term corporate lending segment. At the same time, in lending to both medium/large and small borrowers, loans at a fixed rate and issuance under credit line agreements (CL) are more likely to prevail.

In general, community banks show similar results relative to other groups. The findings rather indicate the stable position of community banks in the corporate lending market.

Key words: community banks, lending strategy, relationship lending, transactional lending,

JEL codes: G21, G32, D40

1. Introduction

In Russia, the banking sector is instrumental in facilitating payments between households, firms and government organisations. Banks with different levels of assets and liabilities exert different influence on the banking system as a whole. The larger the assets of a bank, the more extensive multi-branch network it can create. Medium-sized and small credit institutions, alongside with large ones, perform standard banking operations in various constituent entities of the Russian Federation (their operations are often limited to a single constituent entity).

The function of large banks and their influence on the banking sector in general is reasonably easy to determine. However, the question of what role community banks play in the Russian financial system needs to be answered, and this is the subject of our study. For this purpose, we formulate specific criteria, define and describe an approach to categorising banks as community banks (CBs). We analyse and assess their roles in the banking sector at large, compare the structure of relationships between various groups of banks and borrowers, and outline potential combinations of lending strategies.

As CBs are involved in small business lending, an essential question is whether they are sustainable. Another concern is whether sector consolidation will reduce the availability of credit to small businesses (for recent research on this subject see for example Minton et al., 2024). Some factors, such as the concentration of risk in lending, weigh against the sustainability of community banks (see, for example, the review in Hein et al., 2005). The size of community banks arguably prevents them from sufficiently diversifying their credit risks. Larger organisations are also deemed to be able to access the information they need more cheaply and to reduce the cost of services through economies of scale.[1] According to aggregate data, the operations of large banks are becoming more profitable. Smaller banks may find it more difficult to offer a wide range of services at competitive prices (FDIC 2012, FDIC 2020). This factor may limit growth in their non-interest income.

On the other hand, CBs may be successful in their strategies for a number of reasons. One such reason is that community bank managers are likely to process information differently than managers of larger banks, placing more emphasis on long-term customer relationships and possibly having a better grasp of local small businesses. The relatively smaller size of CBs enables them to grant more lending decision-making powers to local officers. This in turn allows CBs to take a relationship (as opposed to transactional) approach to their clients.

The main purpose of our study is to explore and outline the differences between community banks and other (larger) banks. Identifying such differences is essential to understand the degree of heterogeneity in the banking sector. When defining various aspects of banking, we distinguish between relationship (customised) and transactional approaches to corporate lending. The customised approach is associated with community banks, while the transactional approach is linked to larger banks. This distinction implies that banks with different amounts of assets conduct business differently and have differing strategic objectives. For example, community banks tend to rely more on sustainable relationships with corporate clients and less on non-interest incomes than larger banks. We examine the key financial performance indicators of community, large and other banks, illustrating the point that CBs may differ from other banks, and consider the main factors behind various banking strategies.

[1] However, technological advances have made it less costly to collect and analyse information. In addition, there are no consensus among academic researchers on what size or organisational structure of a bank provides its greatest performance.

2. Literature on community banks

The concept of 'community banks' has evolved in the literature. Initially, many researchers and analysts used a quantitative benchmark to define a community bank: $1 billion in assets. However, this definition did not take into account industry trends, particularly in rapidly growing markets, and ignored the specific features of community banks (FDIC 2012). Researchers then began to develop additional criteria related to conventional banking operations, such as lending and deposit operations, as well as the banks' geographical coverage. For example, the Federal Reserve defines community banking organisations as those with less than $10 billion in assets, and regional banking organisations as those with total assets between $10 billion and $100 billion,[2] combining these two groups, which provide access to banking services in different counties and are the main lender to agriculture and small businesses. The Federal Deposit Insurance Corporation (FDIC) has defined community banks more specifically as banks that focus on providing traditional banking services in the communities where they operate. By definition, such banks attract more of their deposits locally and lend primarily to local/community businesses. The FDIC established a set of criteria that categorised financial organisations as community banks. As shown in FDIC (2012), 6,941 US banking organisations qualify as CBs under the broader definition (94% of all banking organisations in the country). If the FDIC were to follow the definition based on asset size alone, 330 credit institutions would not be included in the list of community banks.

The following characteristics of community banks are found in the studies of Russian authors: geographical location, regional sources of equity capital, structure of raised capital (households, companies), provision of services within a single constituent entity, and potential easing of prudential supervision. Note that the concepts of community bank and regional bank are often used as synonyms in the Russian literature. Regional banks are frequently defined by its geographical characteristics: whether they operate within one or several regions. For example, *Lavrushin and Zhdanova, 2016* refer to community regional banks as all banks serving local customers within a single region. *Glukhova and Nuzhdin, 2014* emphasise the multiplicity of definitions of a regional bank. The authors cite practical approaches from the practices of the USA and Germany and note that in Russia the concept of a local or regional bank is not well defined.

Some researchers suggest identifying a bank as local by its contribution to the regional economy, depending on its influence on local producers and consumers. For example, *Tershukova and Tokar, 2014* consider regional banks as a significant factor in the development of real sectors of the economy in the regions. At the same time, the authors note that regional banks are not always able to provide the same range of services as large banks. *Edronova and Eliseeva, 2007*, having analysed the features of regional banks in Russia, identify two erroneous opinions, according to the authors. In particular, the thesis that large banks are initially more efficient in their activities in the regions than regional banks. The authors consider proximity to local borrowers, the personalised nature of the services provided to borrowers, as well as the willingness of such banks to lend to small and medium-sized enterprises with a formally unstable financial situation, among other things, to be the main competitive advantages of regional banks.

Theoretical aspects of the participation of community and regional banks in the financial system are studied in detail in *Stiglitz and Weiss, 1981* in terms of mitigating

[2] Board of Governors of the Federal Reserve System. Community and Regional Financial Institutions.

the problem of credit rationing and *Bernanke, 1983* in the context of accumulating specific 'knowledge capital' related to borrowers. Some authors have assessed the practical relevance of community banks in relation to specific issues, such as providing credit for recovery from natural disasters (*Koetter et al., 2019*), reducing the financial constraints of small enterprises (*Meslier et al., 2020*), and influencing the labour market during crises (*Ordine and Rose, 2008*).

What are the unique features of community banks? *Sharpe, 1990*, *Diamond, 1991* and *Rajan, 1992* were among the first to detail the distinction between customised (relationship) and transactional approaches to corporate lending. The transactional approach primarily involves providing intermediary services, attracting deposits and issuing loans. Transactional products are highly standardised. Thus, quantitative information about borrowers and scoring models play a major role in decision-making in transactional banking. In contrast, customised (relationship) banking involves the use of information that is not readily available or easily quantifiable. Such information requires more human participation and judgement and is obtained mainly by working individually with the bank's customer.

Community banks are held by fewer owners, while ownership of large banks is widely dispersed. As a result, CB owners can participate more actively in bank management (*Brickley et al., 2003, Berger and Udell, 2002*). The authors argue that this enables CBs to give local managers more decision-making power. In turn, CBs are able to take a personalised approach due to their ability to make decisions to lend to a company based on the specific information about that company. Relationship lending is considered the most beneficial to small businesses. Community bank customers are likely to prefer to deal with local managers who better understand their specific financial and business circumstances. Hence, such customers will be willing to pay relatively more for such services. Therefore, a customised (relationship) approach to corporate lending provides a niche for community banks that many large banks find less attractive (*Scott and Dunkelberg, 2004*).

Some researchers (*Hein et al., 2005*) indicate that community banks are likely to enjoy relatively higher net interest margins (NIMs) as their customers are willing to accept higher interest rates due to specialised loan terms and their depositors are ready to take lower interest rates (particularly due to the personal approach). Moreover, large banks that rely on the transactional approach may have lower profit margins as a proportionally larger share of their assets is valued as commodities.

Large banks offer the most attractive interest rates to their most profitable customers, as determined by comprehensive customer profitability models that often include information on both corporate and personal bank accounts. *Frame et al., 2001* provide evidence that large banks are increasingly using credit scoring to expand lending to small businesses. Credit scoring is standardised and its application reduces the unit cost of borrowing, but it generally fails to incorporate qualitative information about local small businesses. (*Piloff and Rhoades, 2000*).

DeYoung and Rice, 2004 show that large banks generate proportionately more non-interest income as part of their operating income than smaller community banks. For large banks that focus on the transactional approach, non-interest income often represents an important source of income since fees are closely related to the frequency of transactions, and banks that originate and later securitise loans receive commission income. The authors provide evidence that CBs that tried to generate more non-interest income encountered more volatility in earnings. This may suggest that large, transaction-oriented banks are more able to produce non-interest income than community banks.

Some authors (in particular, *Petach et al., 2021*) emphasise the key role of community banks for the financial stability and economic resilience of regions. *Nguyen, 2019* shows how much the closure of banks in regions impacts lending (including to small businesses). Access to local capital poses a key obstacle to the development of small enterprises. Determining the creditworthiness and sustainability of small businesses may be challenging. This type of business is difficult for lenders to assess, as little information is typically available about the borrower's risk profile and the characteristics of its business. By definition, emerging small businesses have virtually no reputation that a bank could use to assess their performance. Small enterprises are less likely to keep complete financial records (*Allee and Yohn, 2009*). They may be particularly vulnerable to information asymmetry as they have fewer alternative sources of funding, fewer tangible assets and greater reliance on bank lending (for a review of sources on this topic, see *Petach et al., 2021*).

The customised (relationship) approach to corporate lending is an important driver of credit market development. Based on personal interviews with bank executives in more than 20 countries and data on local enterprises, *Beck et al., 2018* found that fewer firms face credit constraints during economic downturns in regions with more banks that consider themselves as lenders applying the relationship approach. The strongest impact was found among small and new firms, domestically oriented firms, and firms relying on bank credit as the only source of financing. Thus, the authors showed that the relationship approach to lending was particularly important for small and emerging firms (and especially during periods of economic downturns), for which a lending bank would have difficulty in assessing their business using standardised scoring models. The results reported by *Petach et al., 2021* demonstrate the significance of the relationship approach to lending as applied to community banks in the US and resemble the findings of *Beck et al., 2018* obtained for EU countries.

3. Data

As a source of data, we use bank reporting data[3] on forms 0409101, 0409102, 0409115, 0409303[4] from 2019 onwards, information from SPARK Interfax regarding the borrowers' affiliation with a group of companies, and a list of developers with loans. The use of data from 2019 onwards is due to the fact that we need bank forms with all sections completed for the purposes of our research.

The period under review included two crisis years – 2020 and 2022. For more information on the main anti-crisis measures and lessons learned from the crises, as well as on assessing the impact of the Bank of Russia's anti-crisis measures, see "Report on the Bank of Russia's anti-crisis measures" (2024). In the framework of this research, we will limit ourselves to the general assumption that both crises were exogenous in nature in relation to the Russian banking system and affected all participants in the banking sector. In this regard, it would be inconsistent to isolate and evaluate the impact of anti-crisis measures on individual participants for the purposes of this research. However, it might be relevant to future research to study the heterogeneity of the banking groups under consideration.

[3] See Bank of Russia Ordinance No. 4927-U, dated 8 October 2018, 'On the List, Forms and Procedure for Compiling and Submitting Credit Institutions' Reporting Forms to the Central Bank of the Russian Federation' (as amended on 22 September 2022).

[4] Form 0409303 data are also known as credit register data, but they are not the same as credit bureau data. For more details on the methodology and description of the form, see the Bank of Russia website.

4. Algorithm for identifying community banks

The purpose of the formal algorithm used to determine community banks is to identify credit institutions that specialise in market lending to small organisations in the non-financial sector of the economy. It was assumed that in order to be included in the group of community banks, a credit institution must meet two criteria:

- corporate ruble loan portfolio should constitute a significant part of the bank's assets;
- significant part of the loan portfolio falls on 'niche' lending, defined as a portfolio consisting of 'small' loans, or a portfolio of loans to 'small' borrowers.

Loans issued to affiliated borrowers, as well as loans issued to borrowers with irrelevant types of economic activity, were excluded from consideration.

In addition, the community banks category does not include banks whose significant share of the loan portfolio was accounted for by one borrower (we proceed from the fact that excessive concentration on one borrower may distort the nature of the bank-borrower credit relationship).

The Russian banking system is characterised by the presence of specialised corporate entities. Such corporate entities would not qualify as community banks. Moreover, the national banking system includes major banking players from the top-20 banks by assets that have a broad regional presence. We also exclude such banking players from the category of community banks.

In order to develop the algorithm, we take the year 2022 as a reference point. This year is chosen due to the timing of the study: we started developing the algorithm in the middle of 2023, so the full year preceding the study is 2022. The resulted identification of community banks is robust with regard to the selected reference point (robustness check was performed with preceding years as an alternative reference points).

This leaves 89 banks holding 2% of banking sector assets.

In the US, by comparison, 95% of all banks were categorised as community banks. The share of assets held by community banks was 14% (FDIC 2012, FDIC 2020).

Next, based on expert analysis[5] of banking strategies, we select 32 out of 89 banks and call them 'narrowly defined CBs'. The remaining 57 banks are categorised as 'broadly defined CBs'.

Formally, the concept of a community bank will be understood as a bank in whose corporate portfolio the share of "niche" loans to unaffiliated companies from real sectors of the economy constitutes at least a third. At the same time, there is no concentration of loans issued to one borrower, and the share of the corporate portfolio in assets is significant (more than a third).

Practically, community banks are those banks whose business strategy can be considered as a good example of specialisation in lending to small borrowers. This definition is the same for both broad and narrow definitions of community banks. However, in the case of broadly defined CBs, we are guided only by formal indicators. In the case of narrowly defined CBs, we reinforce formal criteria with supervisory practice.

[5] Specialists of the Bank of Russia's relevant departments served as experts.

In order to compare the performance of the two groups of community banks, narrowly and broadly defined CBs, with other banking players, we classify the 14 largest banks by assets into a separate group of ‘large banks’ (LBs). The banks not included in any of these groups, i.e. not belonging to either CBs or LBs, will be referred to as ‘other banks’ (OBs), provided that such a bank was operating during the year under study and the share of its corporate portfolio in assets exceeded 33%.

Thus, in what follows we consider three groups with a fixed number of banks and one group with a variable number of banks:

1. Narrowly defined CBs – 32.
2. Broadly defined CBs – 57.
3. LBs – 14.
4. OBs – from 37 to 90 depending on the year under study.

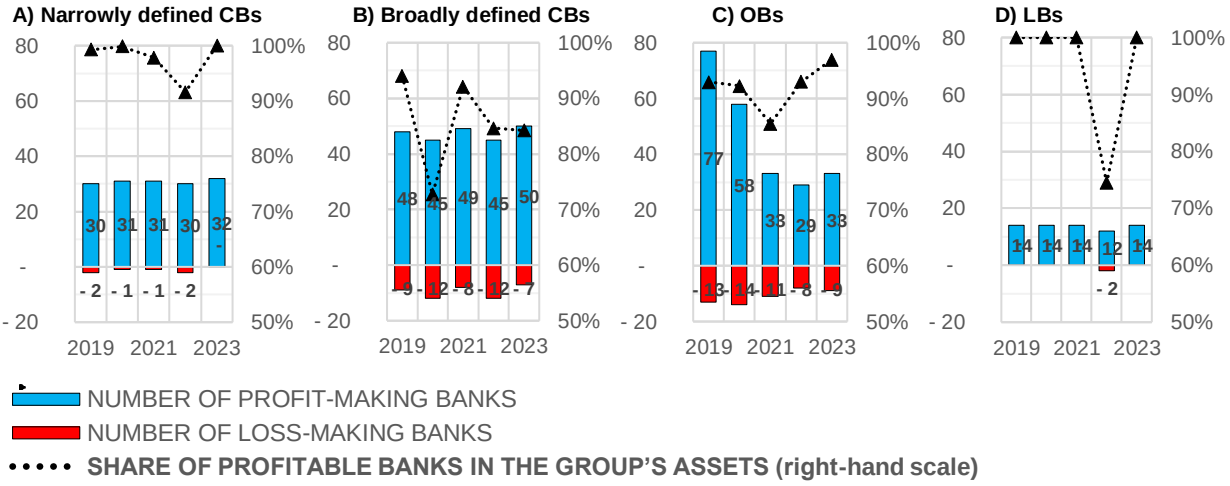
Note that the algorithm does not account for the geographical coverage of banks. We rather focus on lending strategies that can be measured and characterised universally, i.e. without reference to the specific features of the banks’ geographical footprint or the number of branches in a particular area.

5. Bank group characteristics

5.1. Financial performance and ROA

For narrowly defined CBs, the share of profitable banks in group assets was above 95% in every year except 2022. For broadly defined CBs, it was below 95% throughout the entire observation period. For OBs, it exceeded 95% only in 2023. For LBs, it stayed at 100% with the exception of 2022 (Fig. 1).

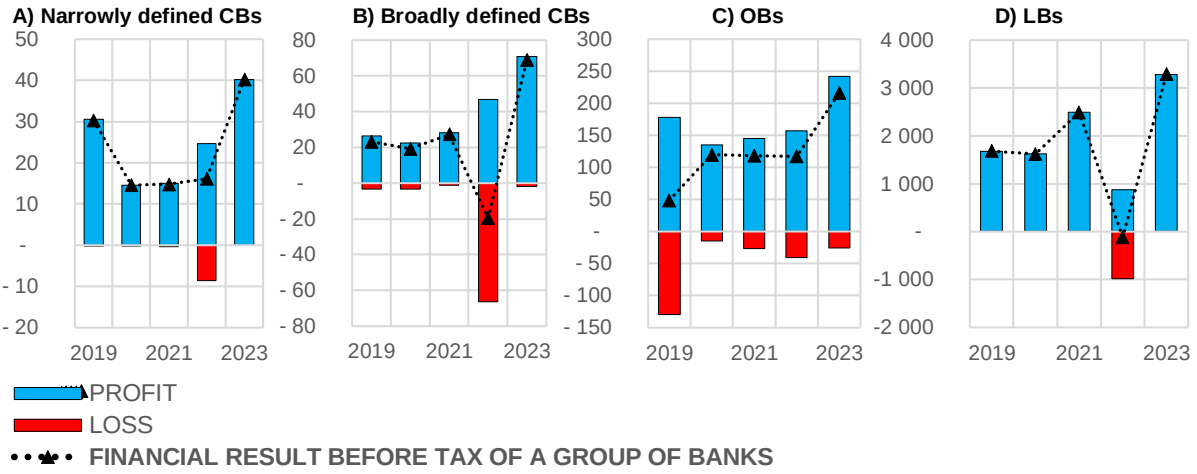
Fig. 1. Number and share in assets of profit-making and loss-making banks



Note: To calculate the share of profitable banks in the group’s assets, the total average assets of profitable banks (i.e. having a positive pre-tax profit for a given year) in the group were divided by the total average assets of all banks in the group.

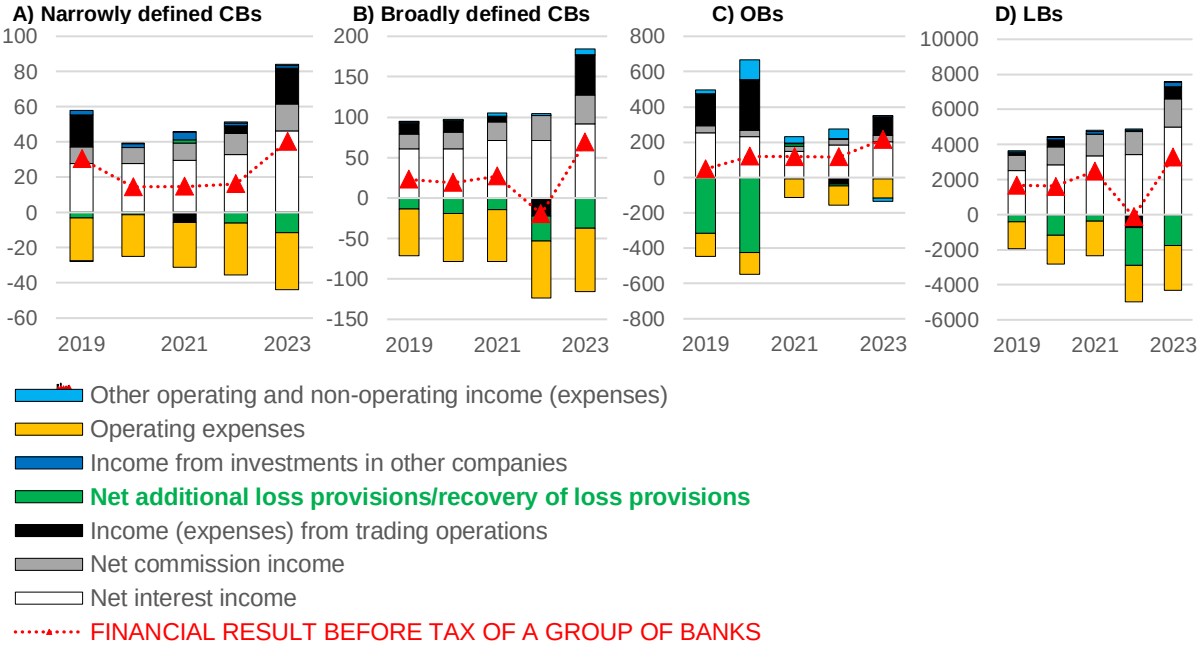
Financial performance is uneven across the groups of banks (Fig. 2). In the LB group, individual banks showed a loss in 2022. In other groups, some banks reported a loss every year in 2019–2022. Two groups of banks, narrowly defined CBs and LBs, were fully profitable in 2023.

Fig. 2. Profit (loss) before tax (billions of rubles)



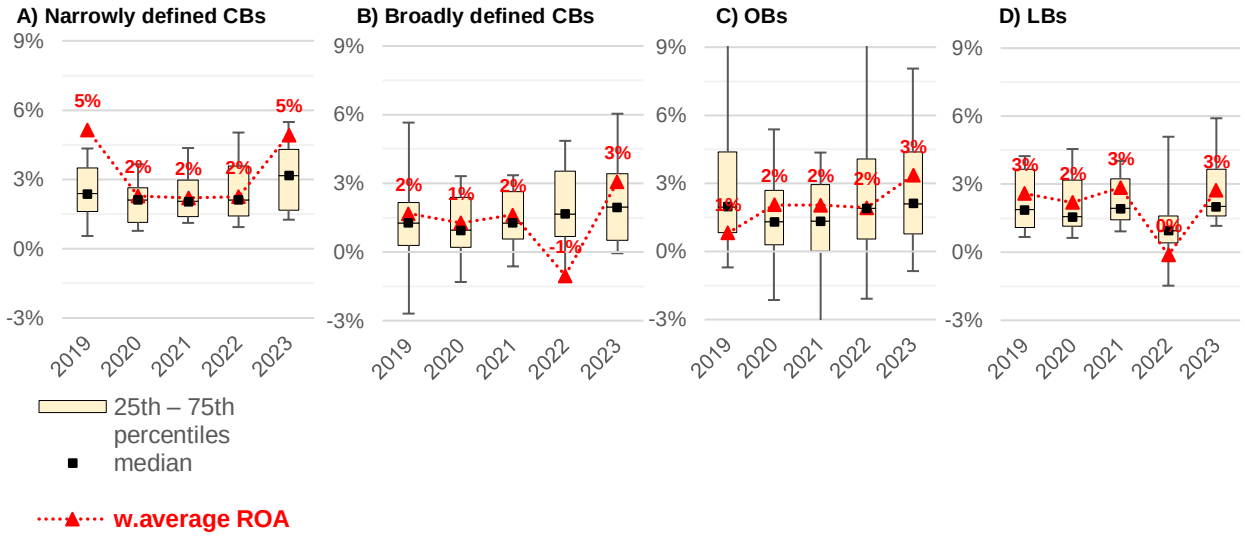
Across all the groups of banks, net interest income (NII) is the main factor behind the financial result before tax (Fig. 3). Net commission income (NCI) and operating expenses also account for a stable share in all groups of banks. Income from trading operations (formed mainly by income from cashless foreign exchange sales and purchases, derivatives operations and foreign exchange revaluation) grew across all the groups of banks in 2023. Net additional provisions increased in absolute terms in narrowly and broadly defined CBs, but decreased in OBs and LBs in 2023.

Fig. 3. Profit before tax by component (billions of rubles)



The distribution of ROA (10th – 90th percentiles) is in the positive range for narrowly defined CBs and LBs with the exception of 2022. However, no statistically significant difference between the groups of banks was found (Fig. 4).

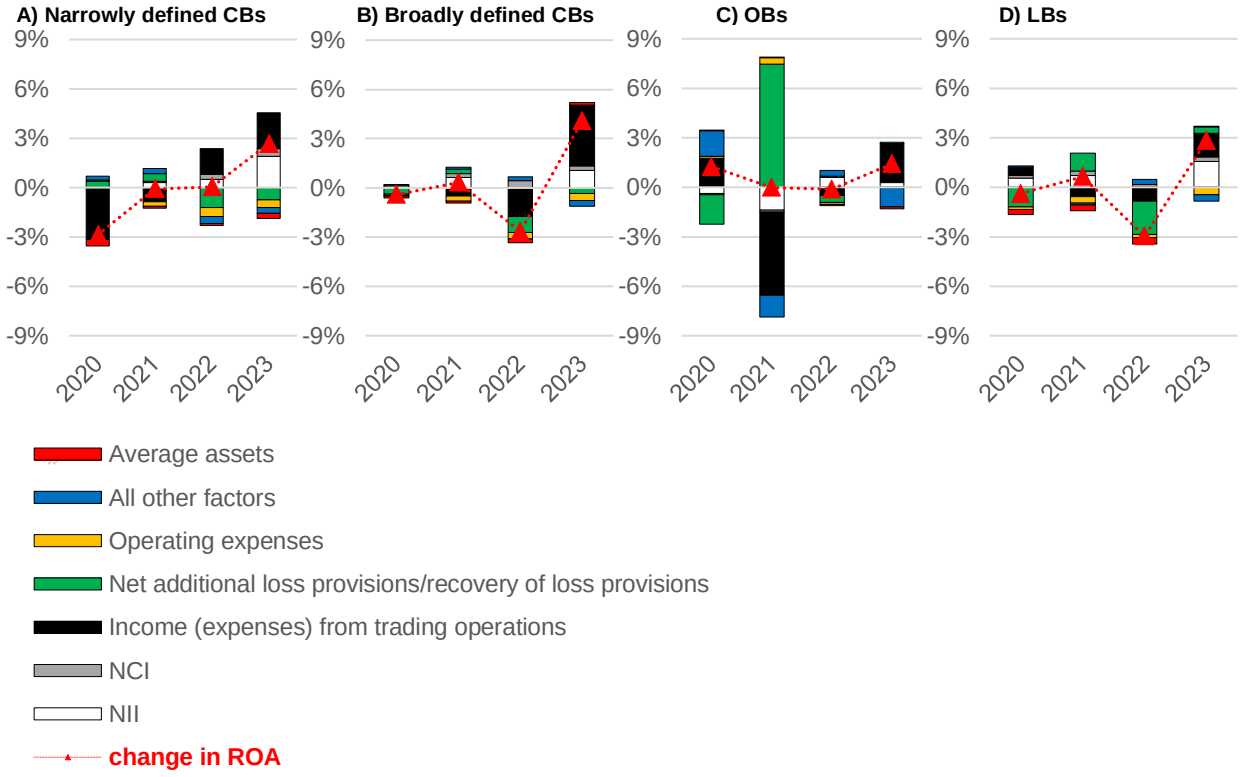
Fig. 4. ROA



Note: To calculate ROA, the annual profit before tax is divided by the average total assets. Hereinafter, the error bars in the chart show the 10th to 90th percentile range.

In 2023, the main drivers of ROA growth (Fig. 5) in all the groups of banks were income from trading operations and an increase in NII. The growth was offset by net additional provisions in narrowly and broadly defined CBs. In the OB and LB groups, lower additional provisions positively impacted the ROA growth.

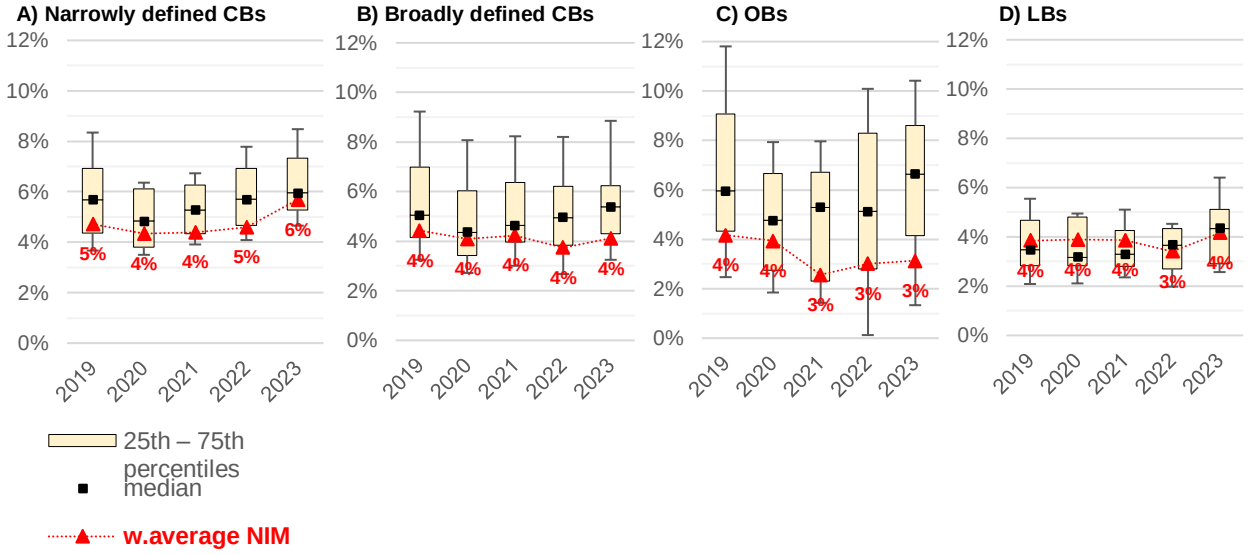
Fig. 5. ROA drivers



5.2. Net interest margin and cost of risk

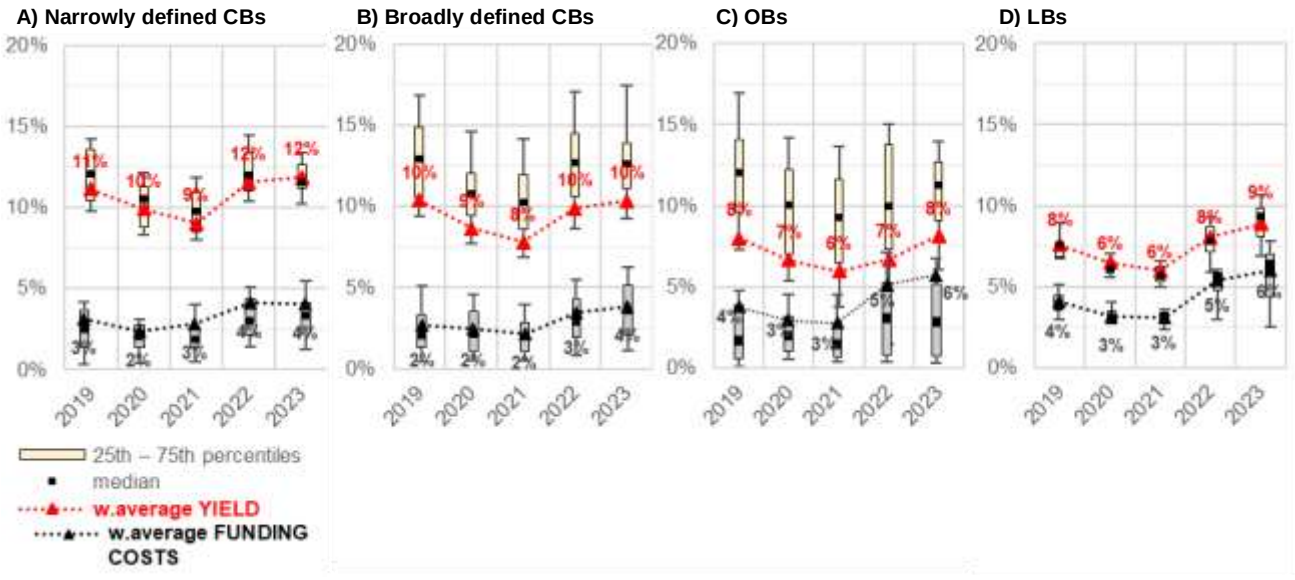
No statistically significant difference was found between the groups of banks in terms of NIM[6] (Fig. 6).

Fig. 6. Net interest margin



The return on deposits[7] in narrowly and broadly defined CBs (except for 2023) significantly exceeds the return on deposits in LBs. No statistically significant difference between the two groups of CBs was found (Fig. 7, yellow bars). No significant difference was also found in the cost of funding[8] for different groups of banks (Fig. 7, grey bars).

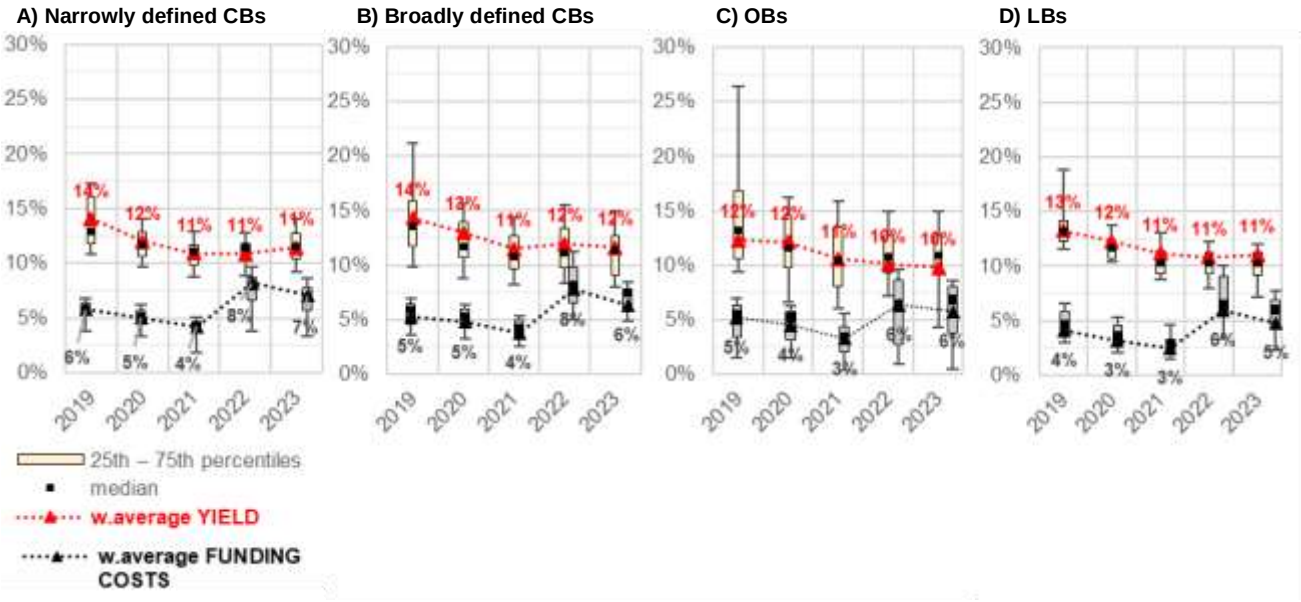
Fig. 7. Return on deposits and cost of funding for legal entities



No statistically significant difference between the groups of banks was found in the levels of return on deposits and the cost of funding for individuals (Fig. 8).

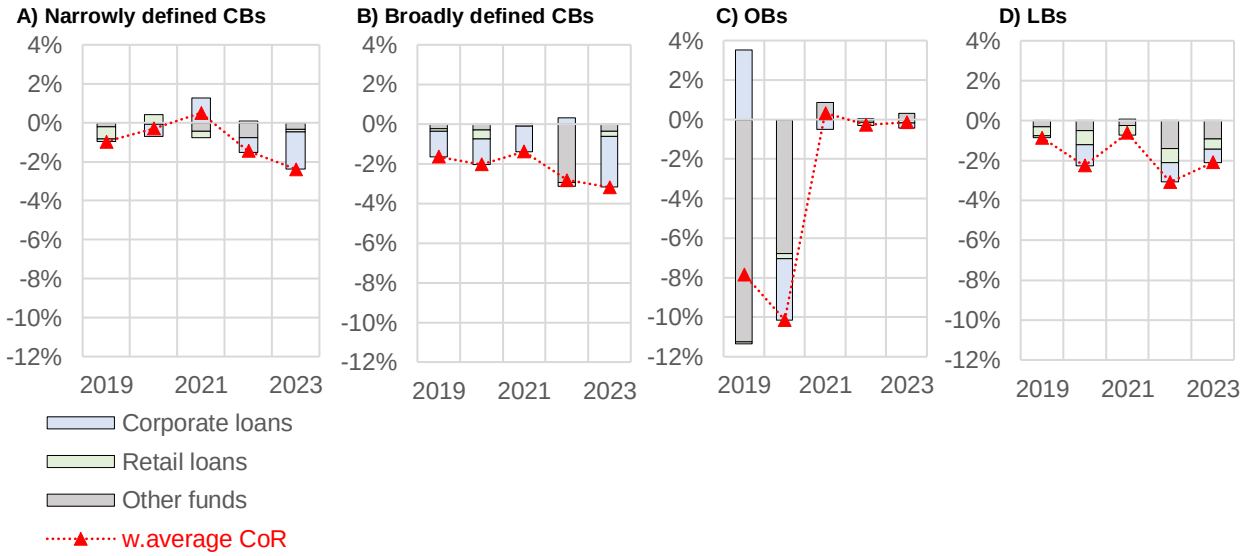
[6] To calculate NIM, the annual NII is divided by the average total assets.
[7] Return on deposits is the ratio of annual interest income to average deposited assets.
[8] The cost of funding is the ratio of annual interest expenses on borrowed funds to average borrowed funds.

Fig. 8. Return on deposits and cost of funding for individuals



In 2023, the main net additional provisions in absolute terms in narrowly and broadly defined CBs related to corporate loans. In the two other groups, these provisions related to other funds deposited. Historically, this ratio had mixed dynamics (Fig. 9).

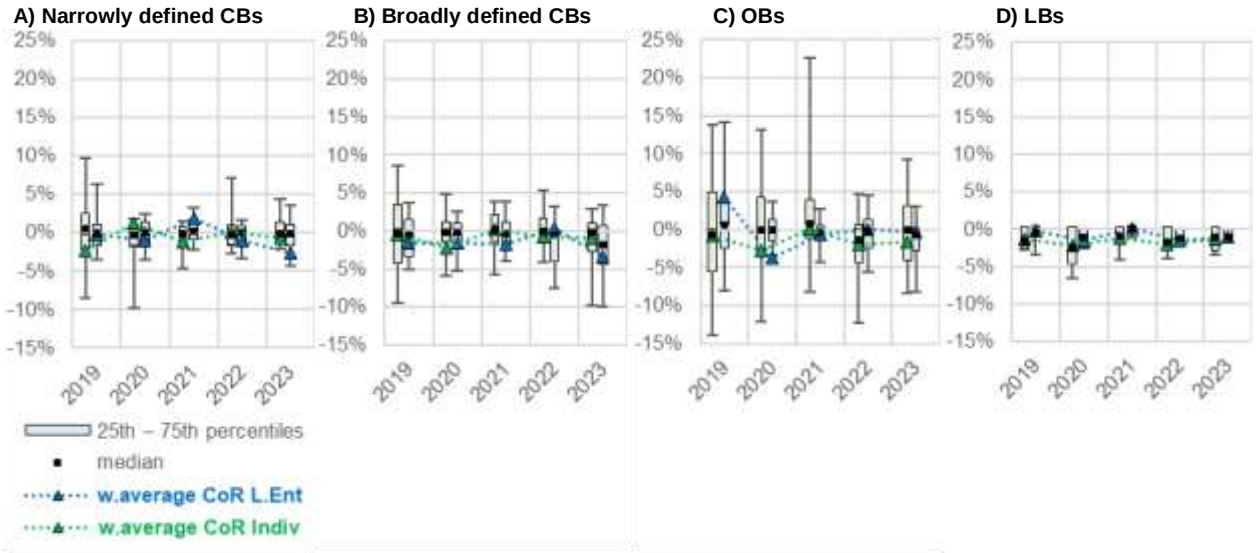
Fig. 9. Cost of risk on loans and other deposited finds



No statistically significant difference between the groups of banks was found in the cost of risk[9] (CoR) on loan portfolios of corporate and retail borrowers (Fig. 10).

[9] The cost of risk (CoR) is equal to the ratio of annual net additional reserves to the average value of the respective loan portfolio before loss provisions.

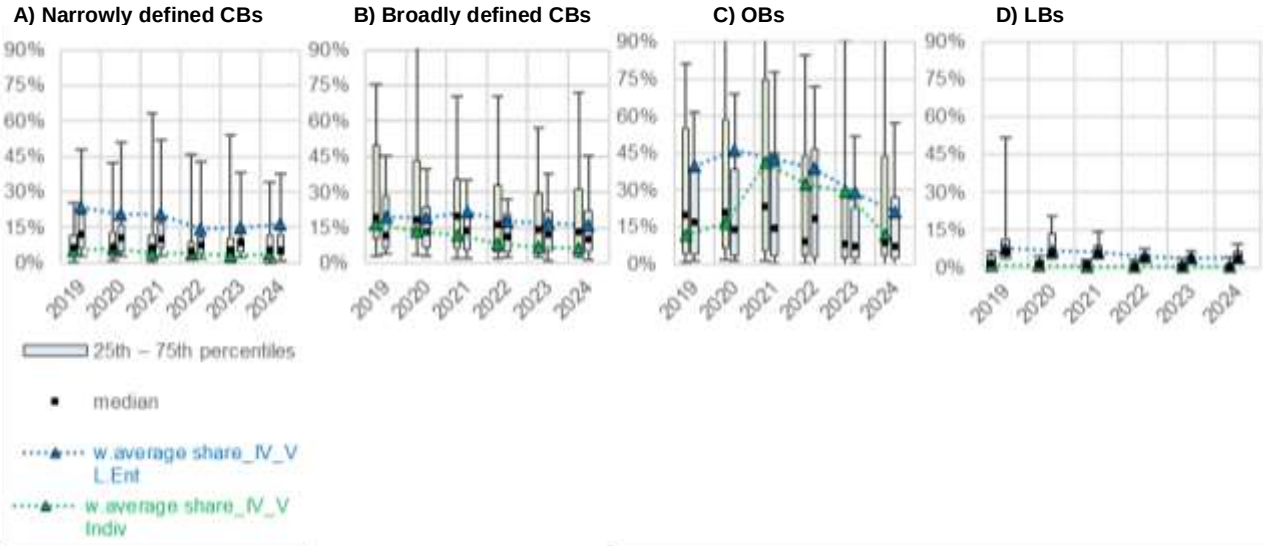
Fig. 10. Cost of risk on loans to corporate and retail borrowers



Note: Hereinafter, L.Ent stands for Legal Entities which is in fact non-financial corporations. Indiv stands for Individuals.

The share of loans of quality categories IV and V[10] across the portfolios of corporate and retail borrowers (Fig. 11) statistically differs only in the LB group. No pronounced statistical difference was found in the other groups of banks, but this indicator is generally lower in the group of narrowly defined CBs. Within this group, larger banks (by asset size) have higher share of loans of quality categories IV and V in *corporate* borrowers' portfolios.

Fig. 11. Share of loans of quality categories IV and V in corporate and retail borrowers' portfolios



Note: L.Ent stands for Legal Entities which is in fact non-financial corporations. Indiv stands for Individuals.

Additionally, we plotted the distribution of the share of non-performing loans (NPLs) in the total bank portfolios (Fig. 12). We also show the share of borrowers with payments overdue for more than 90 days or with a history of overdue payments within 12 preceding moths (Fig. 13) based on the credit register data. The differences between

[10] The share of loans of quality categories IV and V in a portfolio is equal to the ratio of loans of quality categories IV and V to the total portfolio.

the groups of banks are statistically insignificant. However, both indicators in narrowly defined CBs have a smaller interquartile range, and the weighted average is close to the LB group (the lowest among all groups of banks). This indicates that corporate portfolio quality in narrowly defined CBs is not inferior to the other groups.

Fig. 12. NPLs in corporate borrowers' portfolios by volume

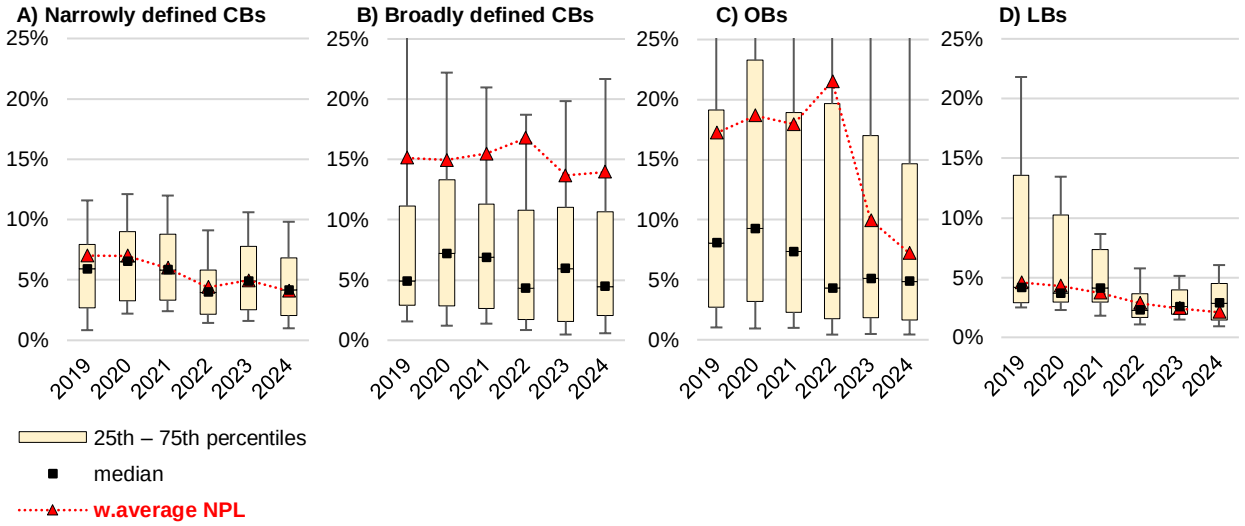
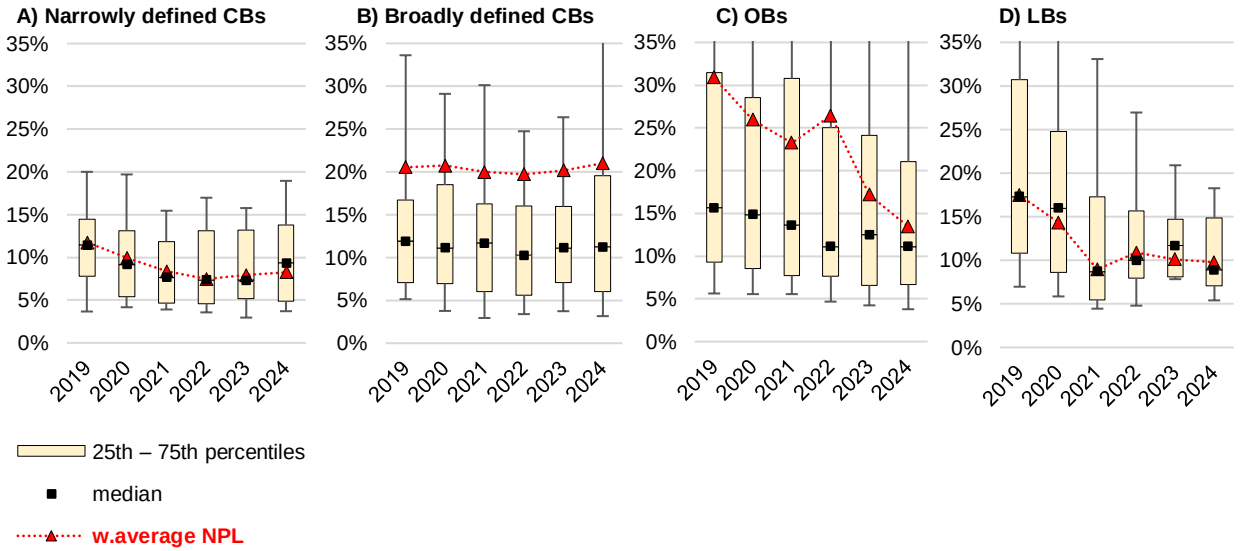


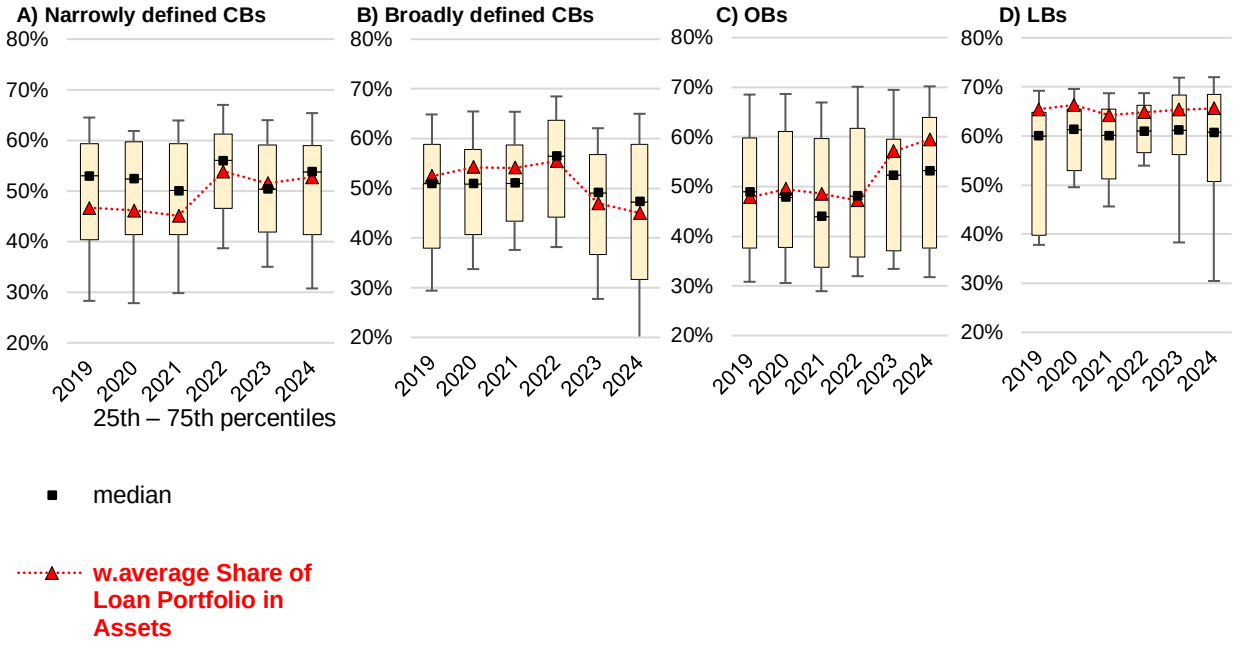
Fig. 13. NPLs in corporate borrowers' portfolios by number of borrowers



5.3. Overall asset and liability structure

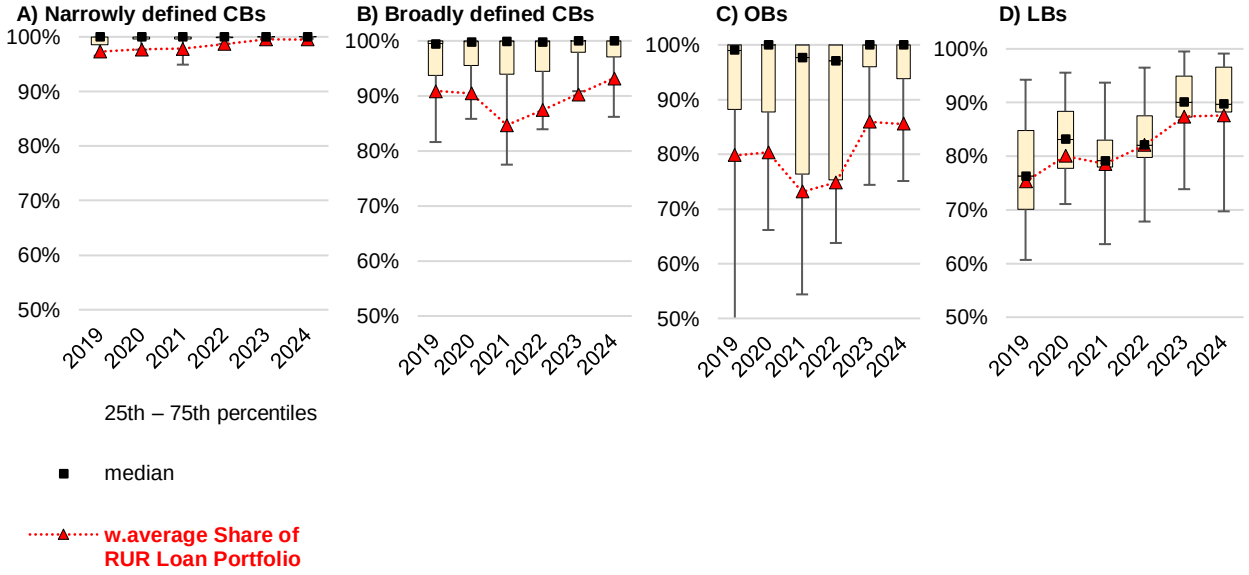
No statistically significant differences between groups of banks were found in the share of the loan portfolio in assets (Fig. 14). This share is above 50% in its median values. However, its weighted average values are considerably higher for LBs.

Fig. 14. Share of loan portfolio in assets



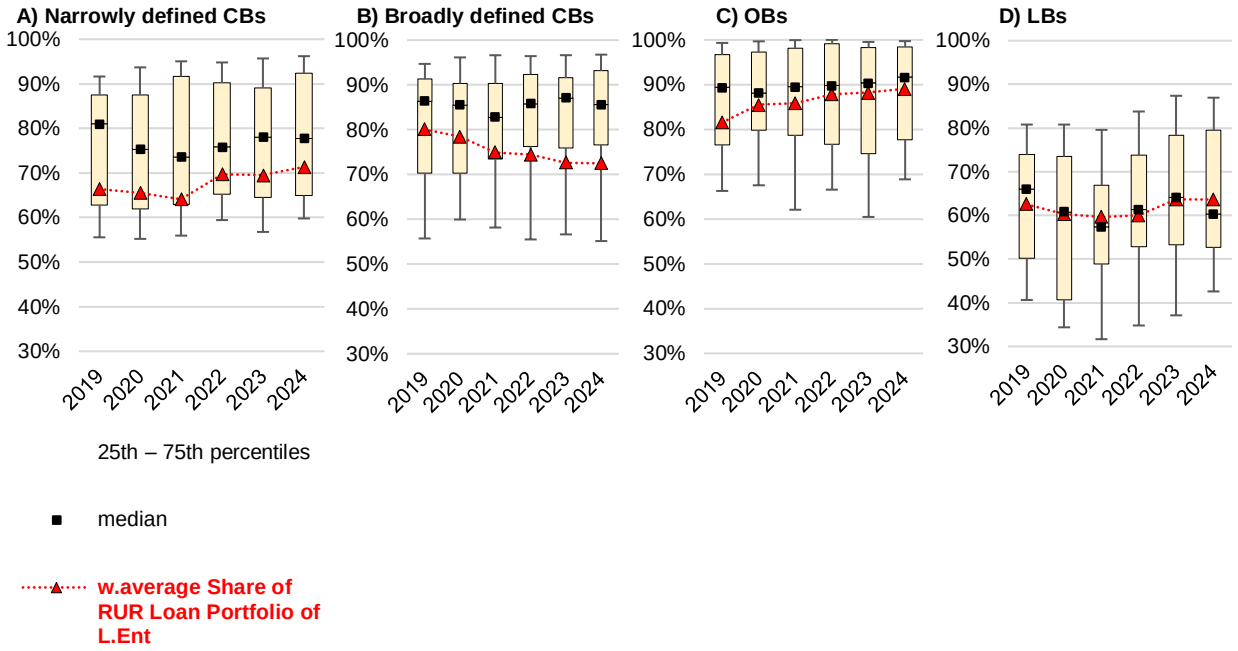
The share of the ruble portfolio (Fig. 15) is significantly higher both in narrowly and broadly defined CBs, as compared to the LB group.

Fig. 15. Share of ruble portfolio



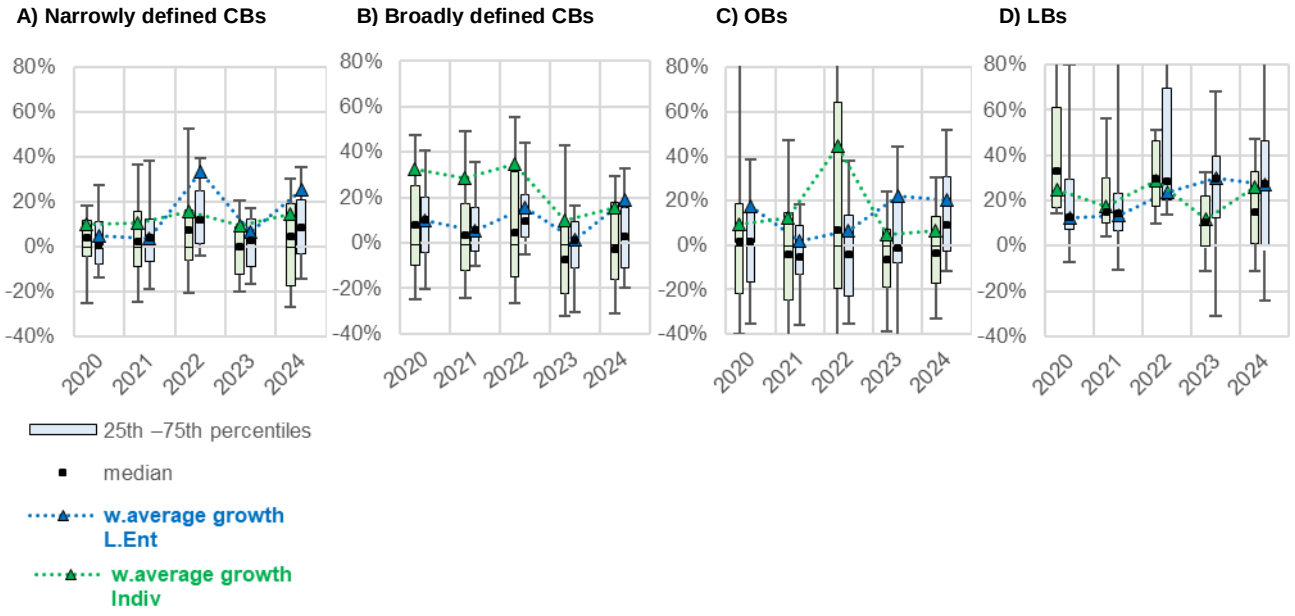
No statistically significant difference between the groups of banks was found in the share of corporate portfolio in the amount of deposited funds in rubles (Fig. 16). However, this share is generally lower for LBs.

Fig. 16. Share of corporate portfolio in deposited funds



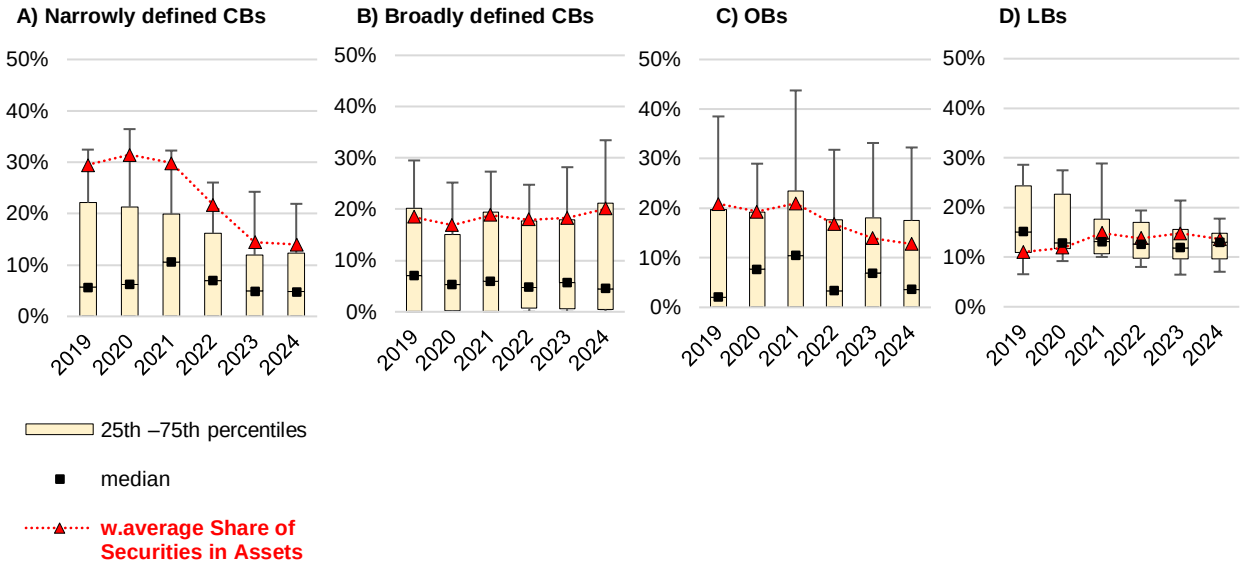
Loan portfolios of banks are growing annually in all groups of banks (Fig. 17).

Fig. 17. Ruble portfolio growth, YoY



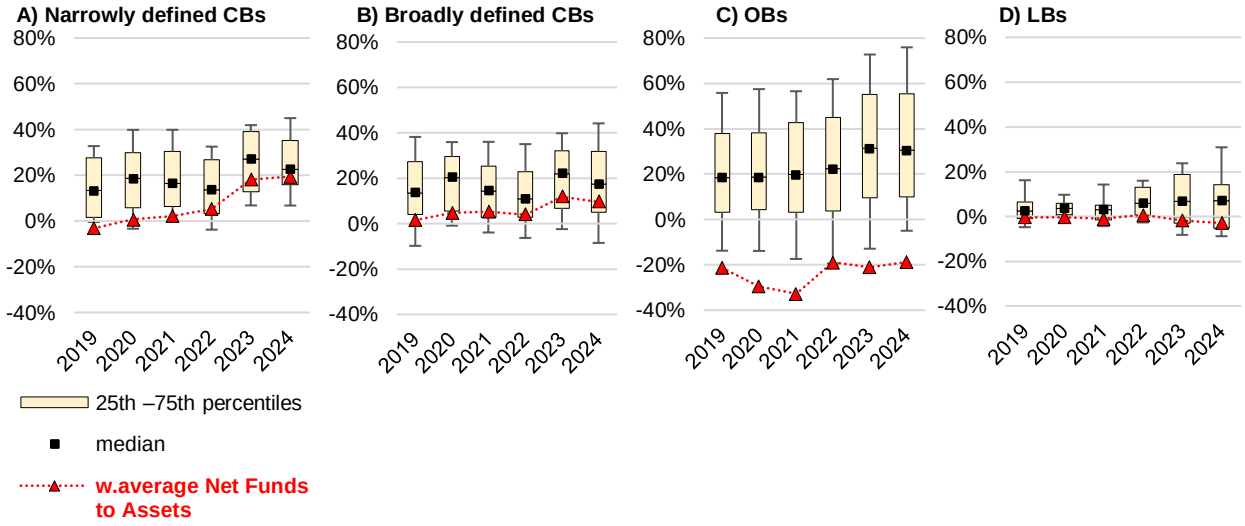
The share of securities in assets (Fig. 18) is higher by median in the LB group, but the differences between the groups of banks are statistically insignificant.

Fig. 18. Share of securities in assets



The share of net funds placed with the Bank of Russia relative to assets is less prominent for broadly defined CBs, and more significant for OBs (Fig. 19). In recent years, it has become more visible for narrowly defined CBs.

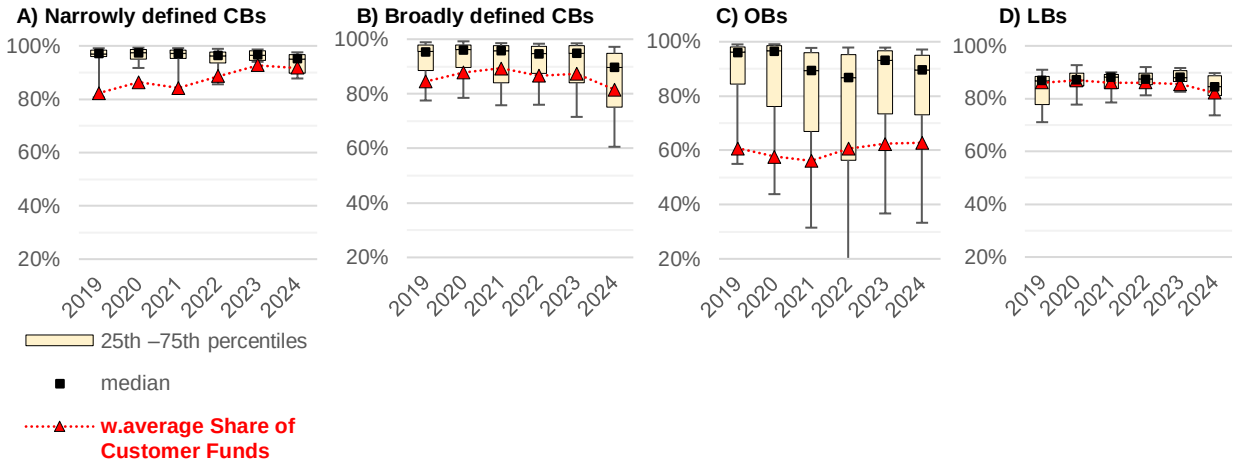
Fig. 19. Net funds placed with the Bank of Russia relative to Assets



Note: The indicator was calculated as the difference between the sum of interbank loans and deposits and other funds placed with the Bank of Russia, on the one hand, and banks' funds and loans from the Bank of Russia, on the other hand.

The share of customers' funds in liabilities (Fig. 20) of broadly defined CBs is significantly higher compared to the LB group. The difference of broadly defined CBs is statistically less distinct.

Fig. 20. Share of customers' funds in liabilities



The share of legal entities (Fig. 21) and the share of individuals (Fig. 22) in customers' funds do not show significant differences across the groups of banks.

Fig. 21. Share of legal entities in customers' funds

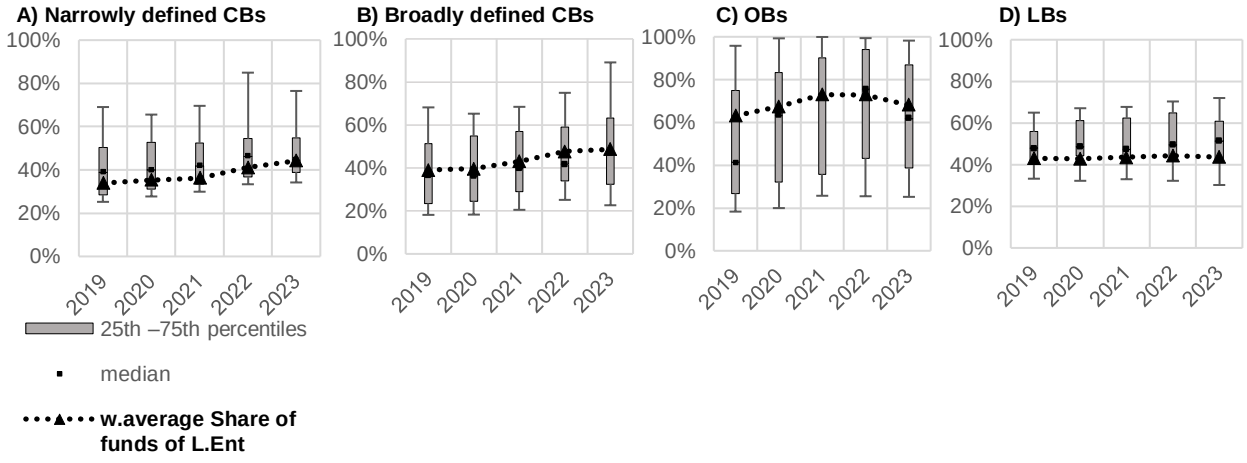
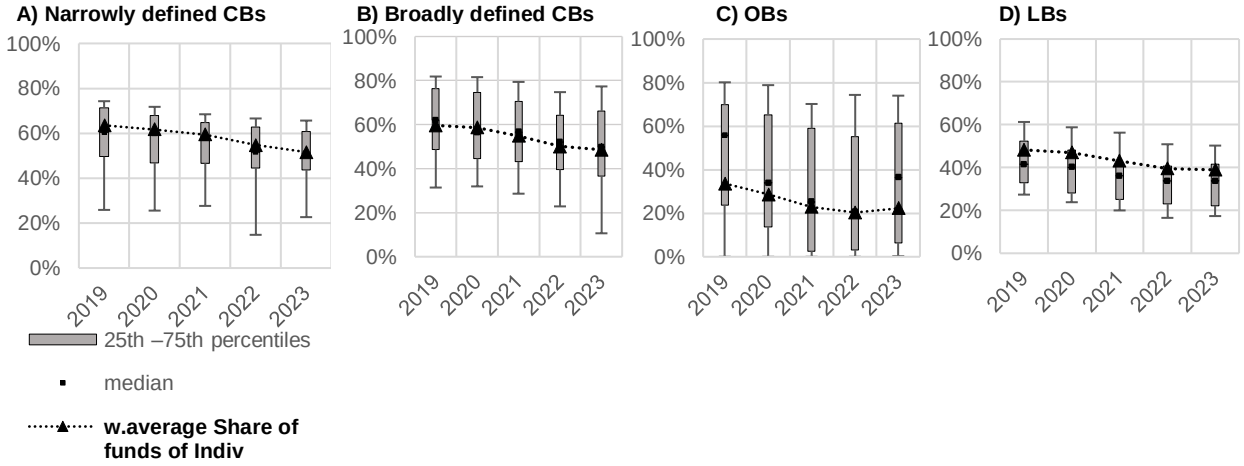


Fig. 22. Share of individuals in customers' funds

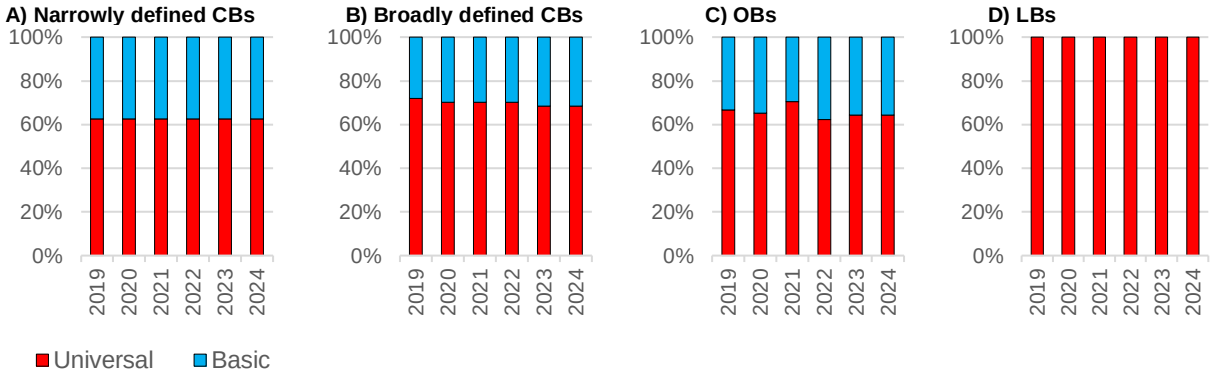


5.4. Licenses

Let us consider to what extent the identified sets of community banks in a narrow and broad definition intersect with such a set as banks with a basic and universal license (Fig. 23). This aspect may be relevant for studying the question to what extent the introduction of proportional regulation supports community banks.

For broadly defined CBs, the share of banks with a basic license is 30%, for narrowly defined CBs – 40%. The shares in the group of OBs vary within the same limits (30–40%).

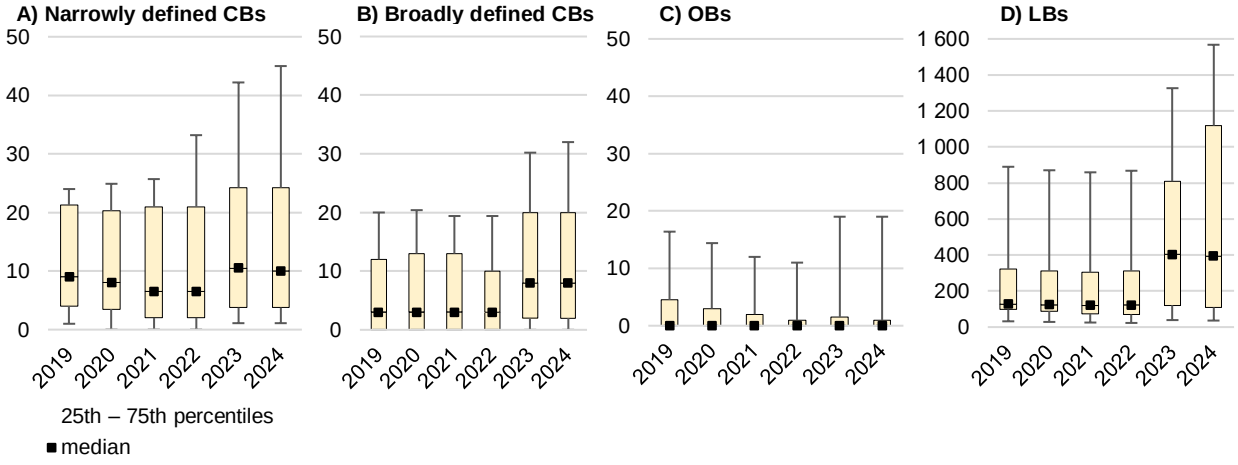
Fig. 23. Share of banks with basic and universal licenses in the group



5.5. Branches

Let us consider the number of branches by group of banks (Fig. 24). According to this indicator, the group of LBs significantly exceeds all other groups.

Fig. 24. Number of branches



6. Structure of firms' relationships with banks

We examine the structure of borrower-lender relationships between 2020 and 2024. All borrowers engaged in financial activities under OKVED codes 64/65/66 and non-resident borrowers are excluded from consideration. We take into account only loans in national currency. We exclude overdrafts and credit cards as their economic sense differs from conventional lending, such as loans and credit lines, and is more situational in nature. We also disregard loans to affiliates and borrowers with preferential loans only. However, in order to test the robustness of the results, we repeated the estimation process by *including* preferential loans, and the outcome remained the same.

Let us estimate the number of banks that granted a loan to one corporate borrower (Fig. 25). On average, the figure was 1.2 banks for all types of borrowers (medium-sized/large and small businesses). The median borrower took a loan in one bank. Let us consider separately those borrowers who had *multiple lending banks*. In this case, the number of lending banks of the median borrower was 2. On average, medium-sized/large businesses borrowed from 2.6 banks and small businesses obtained loans in 2.3 banks. Now we consider borrowers from banks including *at least one CB* (either narrowly or broadly defined), and the total number of lending banks is greater than one. The median medium/large borrower with these characteristics took loans from 3 banks, while the small borrower took loans only from 2 banks. On average, in this category, medium-sized/large businesses borrowed from 3.3 banks and small businesses from 2.6–2.7 banks.

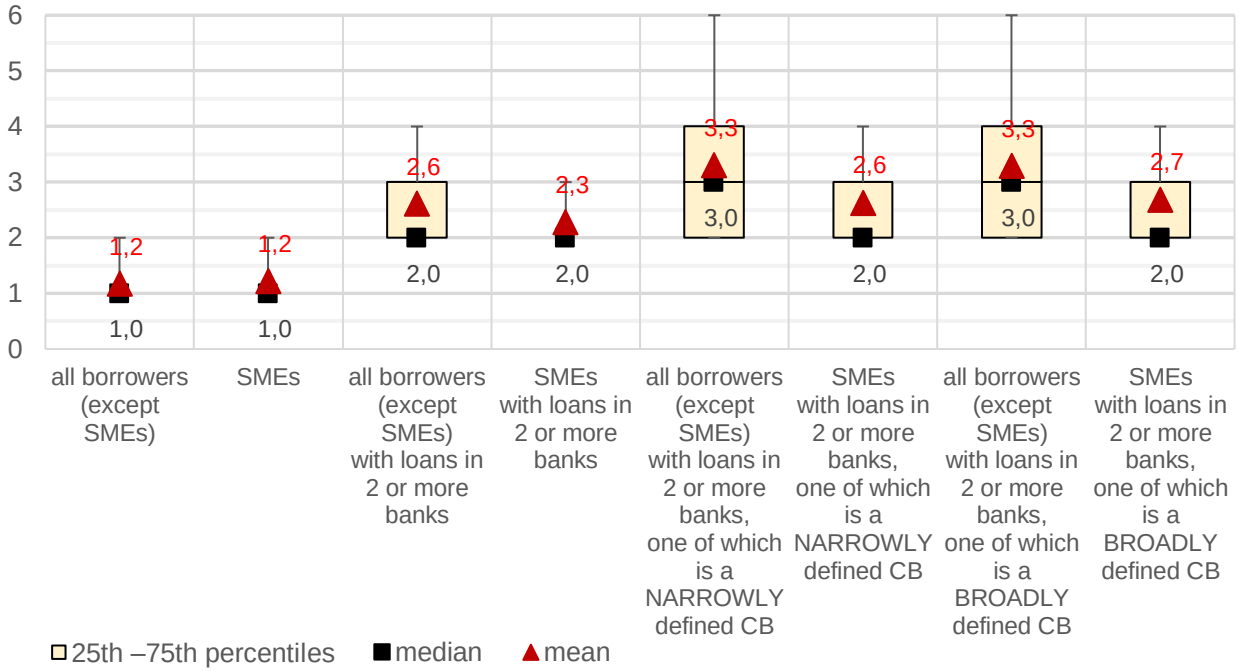
The share of the main lending bank[11] was 71% for the median medium/large borrower with loans from several banks (Fig. 26). This figure was higher for small borrowers (77%). The median value is close to the mean value. The share of the main lending bank for borrowers with loans from several banks including at least one CB (*narrowly or broadly defined*) was roughly two-thirds (67–68%) for the median medium/large borrower and three-quarters (74–75%) for the median small borrower. The median value and the mean value differ insignificantly.

The share of funds received from CBs was close to one-third (32–38%) of all loan funds of the median medium/large borrower and slightly less than half (42–45%) of all loan funds of the median small borrower with multiple lenders, at least one of which was a *community bank* (Fig. 27). The mean values are close to the median values (38–42% and 45–46%, respectively).

A recent cross-country study on corporate lending (ECB 2023) highlighted the number of lending banks and the role of the main lending bank serving borrowers in various EU countries. In terms of the number of lending banks, the Russian median corporate borrower is similar to the median corporate borrower in the Netherlands and Ireland (1 lending bank). The mean values in Russia are also close to the mean values in these two countries. In terms of the share of the main lending bank, domestic figures are closest to Spain, Italy and Portugal for medium/large borrowers and to Italy for small borrowers.

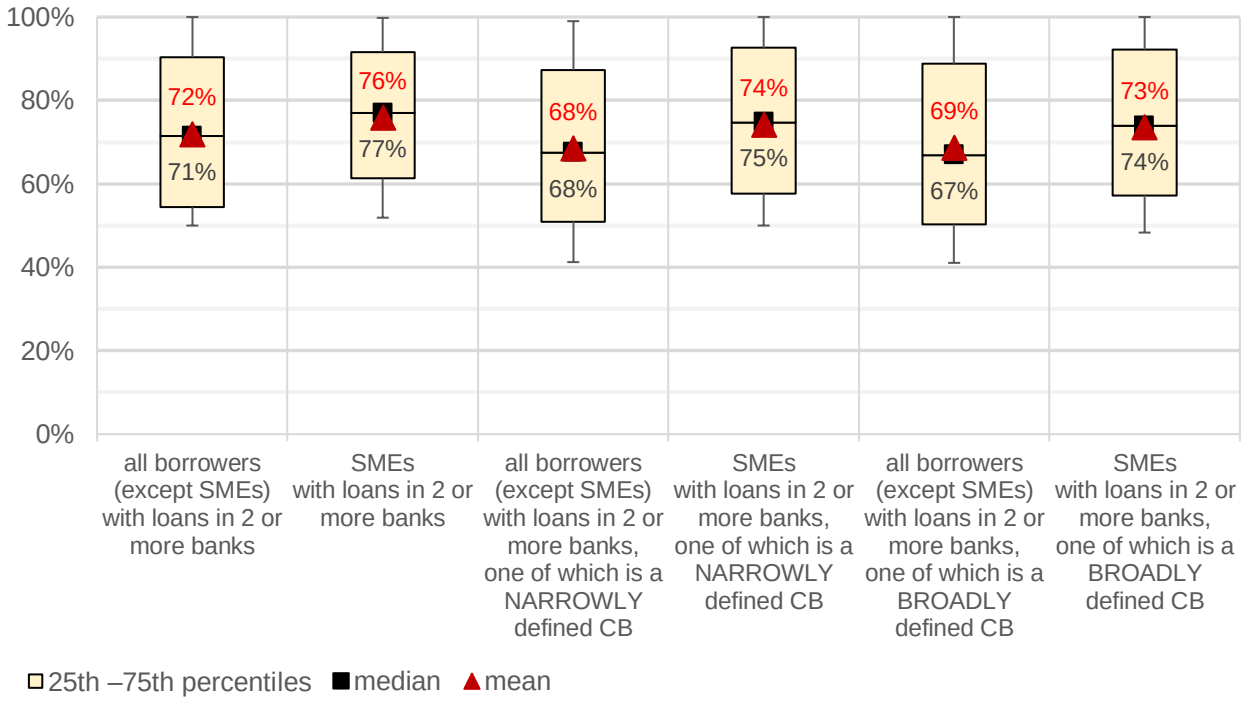
[11] The main lending bank is the bank with the largest share in the total amount of funds lent to the borrower.

Fig. 25. Number of banks from which one borrower received loans



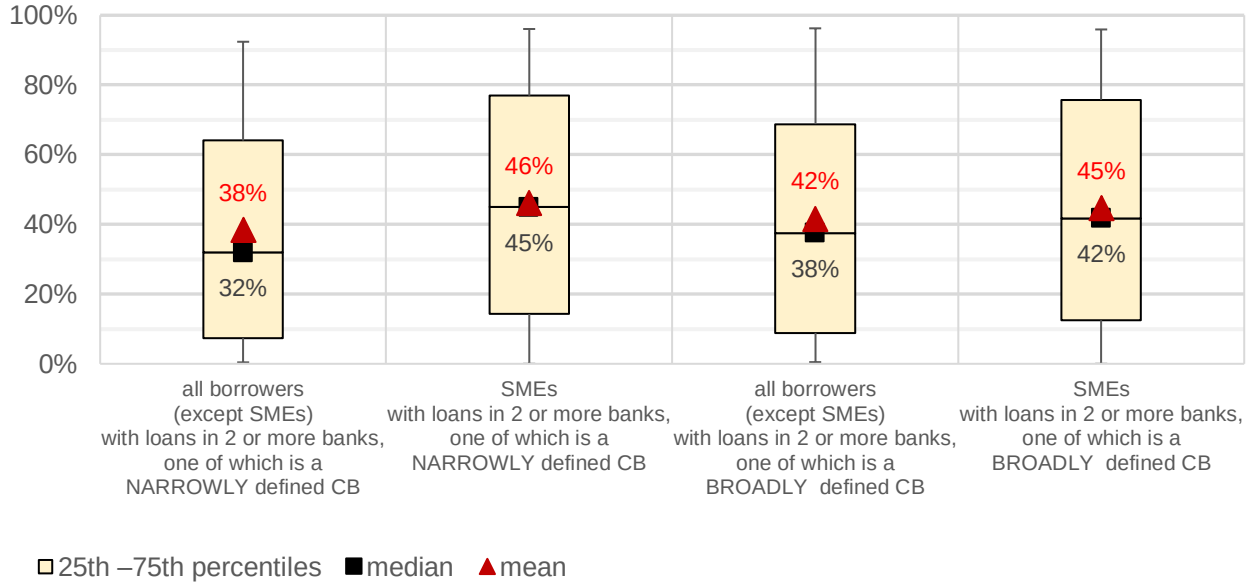
Note: SMEs stand for small and micro-sized enterprises

Fig. 26. Share of the largest lender from which one borrower received a loan



Note: SMEs stand for small and micro-sized enterprises

Fig. 27. Share of loans from CBs



Note: SMEs stand for small and micro-sized enterprises

7. Combined strategy

Here we consider the strategies of lending to borrowers by different groups of banks (Table 1).

Let *N = 1* be a (single) strategy in which the borrower takes a loan only in one bank, i.e. the number of bank-borrower relations is equal to 1.

Let *N >= 2 COMBO* be a (multiple combined) strategy in which the borrower takes loans in several banks. We assume that the borrower's lending banks belong to different groups of banks and one of the lending banks is a community bank.

Let *N >= 2 NO_combo* be a (multiple non-combined) intermediate strategy, which is a less restrictive version of the multiple combined strategy. The intermediate strategy involves borrowers with multiple bank-borrower relations, but the lending banks are either community banks or not, i.e. a borrower does not have simultaneous credit relationships with both community banks and *non*-community banks.

Below are the lending volumes for 2020–2024 provided by different groups of banks to different categories of borrowers under the strategies described above.

In the narrowly and broadly defined CB groups, the *N >= 2 COMBO* multiple combined strategy accounted for the main lending volumes, with the *N = 1* single strategy following in popularity. The *N >= 2 NO_combo* multiple non-combined strategy was not popular.

Conversely, in the OB and CB groups, the *N >= 2 NO_combo* strategy was responsible for the bulk of lending to both small and medium/large borrowers.

In the CB groups, small borrowers accounted for about a third of all loans granted (29% in the narrowly defined CB group and 34% in the broadly defined CB group). This figure is much lower (10–14%) in the two other groups of banks.

Table 1. Funds provided by groups of banks to borrowers by strategy

GROUP	BORROWER TYPE	LOANS UNDER THE STRATEGY, ₽ tn			SHARE OF LOANS TO SMALL BORROWERS, %
		N=1 (single)	N>=2 NO_combo (multiple non-combined)	N>=2 COMBO (multiple combined)	
CB (NARROWLY DEFINED)	ALL BUT SMALL BORROWERS	0.7	0.1	1.7	29
	SMALL BORROWERS	0.5	0.0	0.5	
CB (BROADLY DEFINED)	ALL BUT SMALL BORROWERS	0.3	0.0	0.9	34
	SMALL BORROWERS	0.2	0.0	0.4	
OB	ALL BUT SMALL BORROWERS	4.7	19.5	5.6	10
	SMALL BORROWERS	2.0	1.0	0.2	
LB	ALL BUT SMALL BORROWERS	28.2	66.7	15.1	14
	SMALL BORROWERS	11.8	5.5	0.9	

Note: SMEs stand for small and micro-sized enterprises.

Now we provide a more detailed profile of the loan under the *N >= 2 COMBO* strategy (where the borrower has several lending banks including at least one CB). The main characteristics are presented in Tables 2 and 3.

Table 2. Loan characteristics for non-SME borrowers that took loans from several banks

PERIMETER	SHARE OF LOANS FROM CB	NUMBER OF BORROWERS	GROUP	AVERAGE LOAN SIZE, ₽ mln	MEDIAN LOAN SIZE, ₽ mln	WEIGHTED AVERAGE MATURITY, months	MEDIAN MATURITY, months	SHARE OF LOANS UNDER CL AGREEMENTS, %	SHARE OF FIXED-RATE LOANS, %
CB (BROADLY DEFINED), N_BANKS>=2	MAIN SHARE OF LOANS FROM CB BROAD	967	CBs	10.4	3.2	12	6	98	71
			ALL OTHER BANKS	28.2	3.8	11	6	81	44
	MAIN SHARE OF LOANS NOT FROM CB BROAD, BUT SHARE OF CB BROAD > SHARE OF CB NARROW	1051	CBs	17.3	4.0	13	8	96	68
			ALL OTHER BANKS	80.2	6.0	16	6	65	55
CB (NARROWLY DEFINED), N_BANKS>=2	MAIN SHARE OF LOANS FROM CB NARROW	707	CBs	8.4	2.8	13	10	96	71
			ALL OTHER BANKS	12.4	2.5	16	7	93	63
	MAIN SHARE OF LOANS NOT FROM CB NARROW, BUT SHARE OF CB NARROW > SHARE OF CB BROAD	750	CBs	14.1	4.4	14	12	95	68
			ALL OTHER BANKS	22.9	4.0	12	6	89	50

Note: CB NARROW denotes narrowly defined community CBs, CB BROAD denotes broadly defined CBs, and N_BANKS denotes the number of lending banks.

Table 3. Loan characteristics for SME borrowers that took loans from several banks

PERIMETER	SHARE OF LOANS FROM CB	NUMBER OF BORROWERS	GROUP	AVERAGE LOAN SIZE, ₽ mln	MEDIAN LOAN SIZE, ₽ mln	WEIGHTED AVERAGE MATURITY, months	MEDIAN MATURITY, months	SHARE OF LOANS UNDER CL AGREEMENTS, %	SHARE OF FIXED-RATE LOANS, %
CB (BROADLY DEFINED), N_BANKS>=2	MAIN SHARE OF LOANS FROM CB BROAD	4598	CBs	2.1	0.7	17	6	91	86
			ALL OTHER BANKS	2.7	1.0	18	7	89	81
	MAIN SHARE OF LOANS NOT FROM CB BROAD, BUT SHARE OF CB BROAD > SHARE OF CB NARROW	3561	CBs	2.3	0.7	20	10	83	90
			ALL OTHER BANKS	3.4	1.4	18	6	92	71
CB (NARROWLY DEFINED), N_BANKS>=2	MAIN SHARE OF LOANS FROM CB NARROW	3497	CBs	2.0	0.7	17	9	91	81
			ALL OTHER BANKS	2.6	0.9	17	7	89	83
	MAIN SHARE OF LOANS NOT FROM CB NARROW, BUT SHARE OF CB NARROW > SHARE OF CB BROAD	2447	CBs	2.1	0.6	21	12	85	83
			ALL OTHER BANKS	3.1	1.0	18	6	92	80

Note: CB NARROW denotes narrowly defined CBs, CB BROAD denotes broadly defined CBs, and N_BANKS denotes the number of lending banks.

In the medium/large borrower category, fixed-rate loans accounted for 44% to 63% of loans granted by ***non***-community banks. This figure was higher for community banks, ranging from 68% to 71%. In contrast, small borrowers took loans mostly at fixed rates from all the groups of banks. The respective figure ranged from 71% to 90%.

Credit line loan agreements prevailed in the categories of both medium/large and small borrowers. This is typical for all the groups of banks.

The maturity of loans indicates that the combined lending strategies do not have a clear bias (e.g. towards a predominance of long-term loans obtained by small borrowers from community banks). The median maturity of the loans issued prevails (6–9 months), i.e. half of the loans issued under the combined strategies are short-term loans, while this figure is 9–13 months under the single strategy. Since the combined strategy is the main strategy used by CBs, we can conclude that CBs are more active in the short-term segment of lending.

Let us find out whether any groups of banks show significant differences in interest rates on corporate loans, in particular, whether a premium is available in any group of banks if the borrower is SME. To this end, we first plot the distribution of interest rates on newly issued corporate loans for all corporate borrowers (Section 7.1) and then only for 'mutual' corporate borrowers (Section 7.2), i.e. those who have loans from banks belonging to different groups (under the *N >= 2 COMBO* strategy) and thus do not create differences in rates due to variations in the borrower's default probability.

7.1. Corporate borrowers' lending rates

We estimate a distribution of loan interest rates for *all* corporate borrowers. The rates on loans over up to one year are shown in Fig. 28 and the rates on loans over more than one year are shown in Fig. 29.

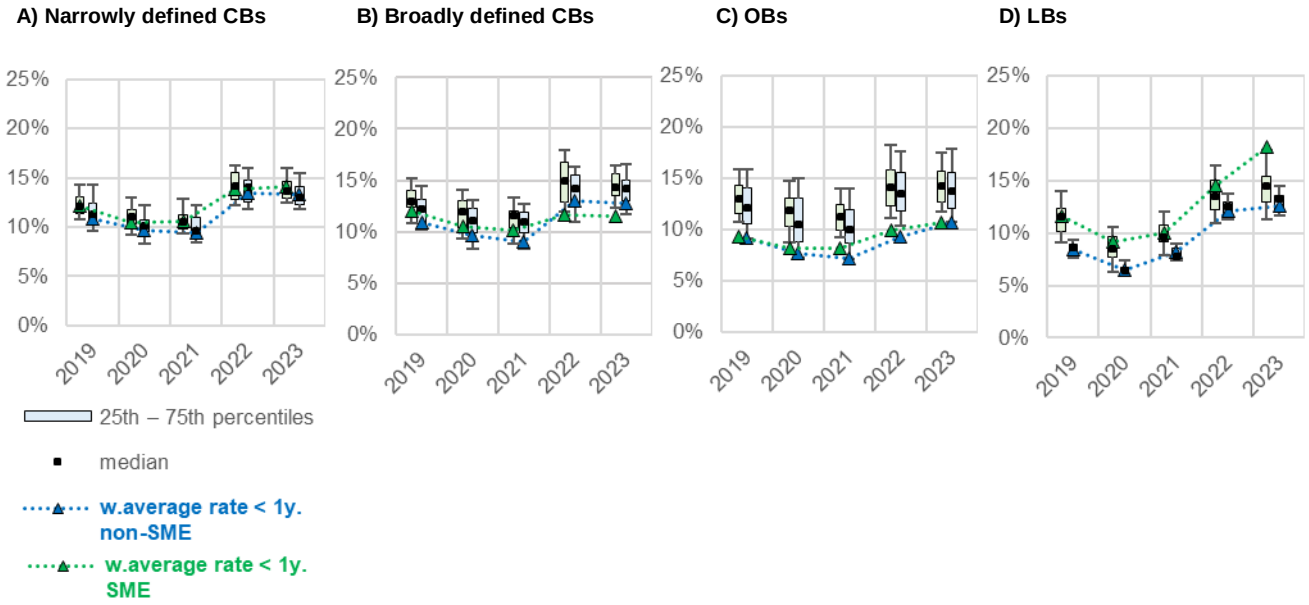
The rates on loans to SME and to medium-sized/large businesses have no statistically significant difference in all the groups of banks, except for LBs. In other words, the fact that borrowers are SME has no significant impact on interest rates on loans granted to them.

Moreover, interest rates on loans to SME also do not have statistically significant differences across different groups of banks. The exception was 2020, when the LB group had a lower level of rates than the other three groups of banks.

In 2019–2021, in the LB group, interest rates on loans to medium-sized/large enterprises were significantly lower than interest rates on loans to SME. This difference was even more pronounced for long-term loans (with a maturity of more than a year, Fig. 29).

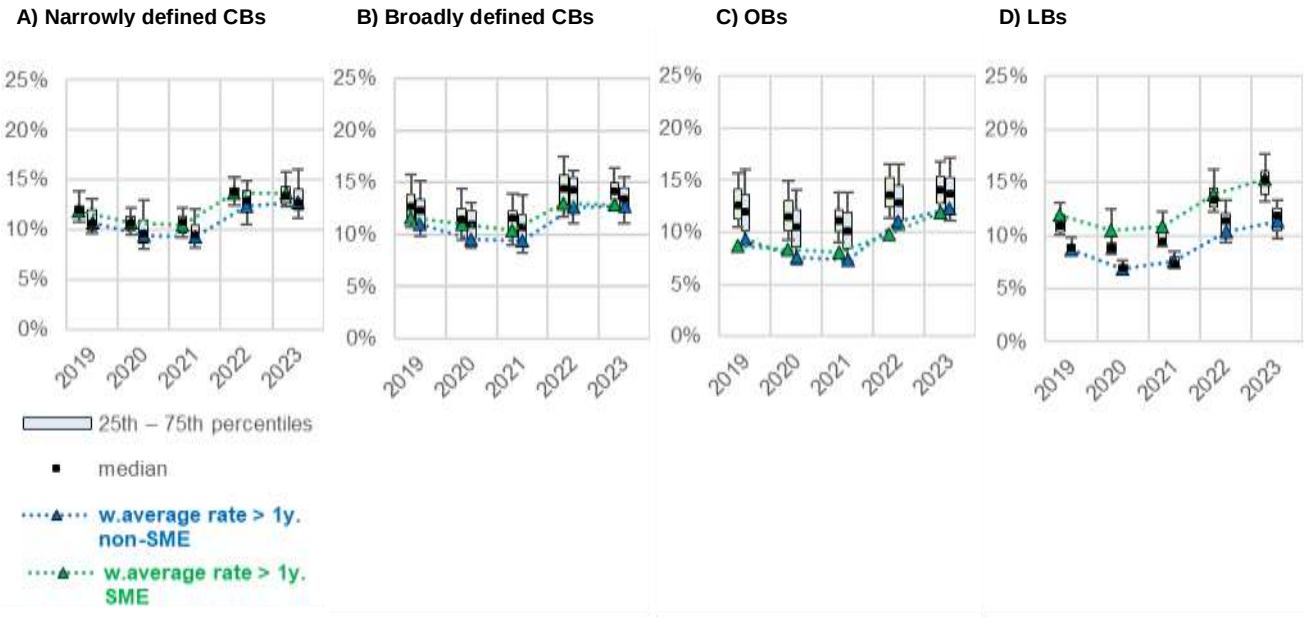
Thus, banks did not limit lending to small borrowers, but large borrowers had more favourable pricing terms at large banks.

Fig. 28. Corporate borrowers' lending rates, maturity of up to one year



Note: Preferential loans are excluded. SME stands for single small and micro-sized enterprises.

Fig. 29. Corporate borrowers' lending rates, maturity of more than one year



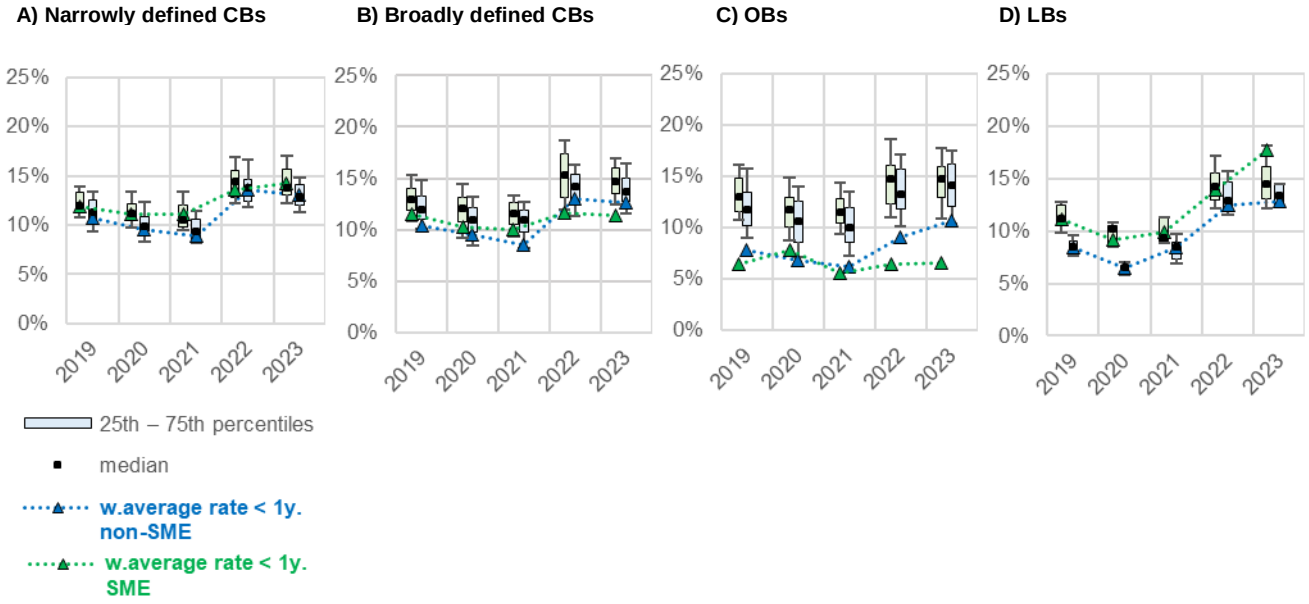
Note: Preferential loans are excluded. SMEs stand for single small and micro-sized enterprises.

7.2. Mutual corporate borrowers' lending rates

Now we estimate a distribution of rates on loans to borrowers with multiple lenders, provided that at least one of the lenders is a narrowly or broadly defined CB (the multiple combined strategy). The fact that the distribution of rates is constructed for borrowers with multiple lenders from various groups of banks helps exclude cases where the difference in lending rates could be due to variations in the probability of default of borrowers who received loans in certain banks. In the latter case, the difference in the distribution of rates could be attributed solely to the different risk profile of borrowers in a given group of banks.

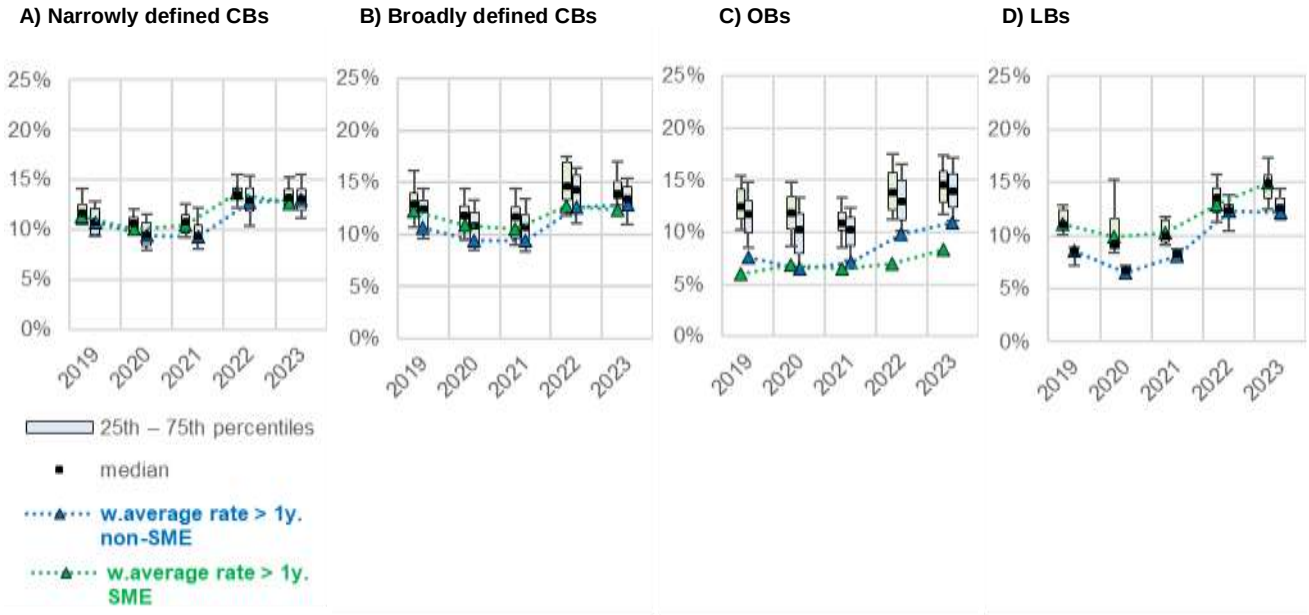
The rates on loans with maturity up to one year are shown in Fig. 30 and the rates on loans with maturity more than one year are shown in Fig. 31. In the LB group, the rates on loans to medium-sized/large enterprises are significantly lower than the rates on loans to SMEs. However, no statistically significant differences were found in the rate on loans to SMEs across the four groups of banks. This may indicate that both narrowly and broadly defined community banks do not limit lending to non-medium/large corporate borrowers. Large banks, however, may provide non-SME borrowers with significantly more favourable loan pricing terms. Note also that we do not observe a meaningful difference in the 2020 loan rates across the bank groups for this subset of borrowers (one may recall that in the previous Section 7.1 we looked at the distribution of rates across all corporate borrowers, and the LB group showed lower rates than the other three groups in 2020).

Fig. 30. Corporate borrowers' lending rates, maturity of up to one year



Note: Preferential loans are excluded. SME stands for single small and micro-sized enterprises.

Fig. 31. Corporate borrowers' lending rates, maturity of more than one year



Note: Preferential loans are excluded. SMEs stand for single small and micro-sized enterprises.

8. Conclusions

There is no consensus on the method of defining community banks. We have provided an algorithm for identifying CBs taking into account the specific features of the Russian banking sector. In addition to the formal indicators calculated on the basis of the reports of credit institutions, expert opinion was used. The algorithm helped identify Russian community banks. The business model of a community bank has the following characteristic features:

- A community bank is a profitable bank, with half of its funding structure coming from individuals.
- The share of the corporate loan portfolio predominates in the allocated funds (almost entirely in the ruble portfolio). At the same time, the loan portfolio shows stable growth of 5–10% year on year, and the share of overdue loans occupies 5% of the portfolio by volume.
- The profitability of the placement is consistently higher than the cost of funding for funds from legal entities, but has a very small differential for funds from individuals. This results in the community bank's net interest margin being around 6%.
- The main driver of ROA growth for a community bank is more likely to be growth in net interest income (NII) and trading income, rather than net fee and commission income (NCI); the main factor in decreasing ROA is the additional formation of reserves for corporate loans.
- The community bank is active in the short-term corporate lending segment. At the same time, in lending to both medium/large and small borrowers, loans at a fixed rate and issuance under credit line agreements (CL) are more likely to prevail.
- The bulk of corporate loans issued by community banks will most likely go to companies that also have loans from other banks that are not classified as community. The second largest category of clients are companies that have a loan only from a given community bank.
- Approximately one third of the volume of corporate loans issued by a community bank will be loans to small borrowers. At the same time, for medium and large borrowers, the community bank is most likely not ready to provide significantly more

favorable price conditions for issued loans (or medium and large borrowers do not apply for loans at CBs in the same manner as they apply to LBs).

Domestic CBs account for 1% of the banking sector assets. At the same time, the situation is opposite to the example of the United States – in Russia the amount of community banks is significantly smaller: the group of narrowly defined CBs is the smallest in number; the group of broadly defined CBs is approximately a third. In general, community banks show similar results as other groups. The findings rather indicate a stable position of community banks in the corporate lending market. Having considered the key financial indicators and distinctive features of the four groups of banks (narrowly defined community banks, broadly defined community banks, large banks, and other banks), we observe the following:

- The number of credit institutions whose business strategy is in line with the community bank concept is relatively small.
- Community banks are active in short-term segments of the credit market. Their services are often in demand as part of a combination of loans from different banks.
- Community banks enjoy a balanced funding structure and a relatively high quality loan portfolio.

In the context of the described strategies, it is relevant for future research to evaluate how community banks increase and ensure the availability of lending for small businesses. What are the prospects for the development of this group? To assess the role of credit received from community banks by enterprises, each having only a single relationship with one of the banks (thus implementing the single strategy), to study the characteristics of the industry to which such enterprises belong, and the lending to affiliated enterprises. In addition, it is relevant to find out the priorities in which enterprises build credit relations with different groups of banks, take subsidised and non-subsidised loans under multiple combined and non-combined strategies.

It is also necessary to highlight the challenges that community banks are likely to face. Timely consideration of such challenges will help preserve the accumulated advantages, which obviously include the ability of community banks to generate stable profits and demonstrate sustainable growth, operating within the framework of their business models, while not being either captive or subsidised credit institutions (in other words, not receiving extensive benefits). One of these challenges may be digitalisation and, as a consequence, a rethinking of the role of offices - switching to their use primarily for consultations with clients rather than for the provision of traditional banking services. The growing share of loans issued to clients remotely supports this trend. There are concerns that if the necessary digital infrastructure is not built up quickly enough, the performance of community banks may be at risk.

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