Bank of Russia

ANALYSIS OF CONSUMER LENDING TRENDS IN 2015–2019 BASED ON CREDIT HISTORY BUREAU DATA

Information and analytical commentary

Moscow
2019

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This review was prepared by the Bank of Russia Financial Stability Department.

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SUMMARY

- *The number of borrowers in Russia has been rising gradually; as of 1 September 2019, it amounted to 39.5 million individuals. Two thirds of total borrowers have outstanding unsecured consumer loans and (or) credit card debt.*
- *The mortgage lending segment has substantial growth potential. Only 10.6% of the employed population have outstanding mortgage loans.*
- *The composition of debtors on unsecured consumer loans changes constantly, which is a sign that loans are mostly raised for particular purposes.*
- *The proportion of borrowers simultaneously having outstanding debt on several loan types is growing. This raises the risks of cross defaults between different loan types. The debt burden ratio (or payment to income ratio, PTI) introduced in the banking regulation on 1 October 2019 will limit these risks. Moving forward, banks extending long-term loans may be required to recalculate the debt burden ratio on a periodic basis.*
- *The quality of the unsecured consumer loan portfolio remains high. The number of new overdue debtors grows annually by 3–4%.*
- *Most often overdue loans are small unsecured consumer loans (up to ₽100,000); however, loans of more than ₽100,000 account for the bulk of bad debt.*
- *Potential risks may be posed by borrowers who consistently accumulate debts. Since 2017, 3.7 million borrowers have increased their outstanding debt on unsecured consumer loans (excluding credit cards) from ₽0.9 trillion to ₽2.2 trillion as they raised new loans before the repayment of old ones (not overdue).*
- *Borrowers almost never use unsecured consumer loans to make a mortgage down payment – the share of these loans does not exceed 5%.*
- *The analysis of data provided by three largest credit history bureaus (CHBs) showed that all three CHBs hold identical information about only 26% of borrowers. In order to assess a borrower's debt burden correctly, banks are advised to consult several CHBs.*

RESEARCH OBJECTIVES

The debt burden of households is a determinant of the financial system's resilience to possible shocks. In the consumer lending segment, outstanding loans have grown faster than household income since the second half of 2017. This led to an increase in the household debt burden at the macro-level[1]. From July 2017 to July 2019, this indicator rose from 8.5% to 10.4%. During this period, the key contributor to the dynamics of household debt burden at the macro-level was unsecured consumer lending (growth from 7.0% to 8.8%).

That said, banks have eased their lending standards with regards to the debt burden of consumer borrowers since early 2019 (the share of issued loans with the DSTI in excess of 80% increased from 5% to 10%). In June 2019, the Bank of Russia implemented macroprudential measures to contain growth of borrower debt burden: effective since 1 October 2019, risk weights add-ons depend on the consumers' PTI.

Disparities seen in the debt burden trends at the macro- and micro-level before 2019 may have resulted from two factors: an increase in the number of unique borrowers, that is larger lending penetration in the economy, or faster growth in borrowers' income compared with households overall. The latter hypothesis is hard to check at the banking sector level because the necessary data on borrowers' income is unavailable. The first hypothesis can be tested with the use of contract information available at CHBs, after its aggregation and deduplication.

This research serves the following objectives:

- To determine the number of unique retail borrowers in the economy;
- To analyse how borrowers change over time;
- To determine the combinations of different types of loans which borrowers have (e.g., a consumer loan raised before or after a mortgage loan) and changes in these combinations over time;
- To determine groups of borrowers who systemically accumulate debt;
- To analyse the structure of overdue loans.

For the purposes of this analysis, anonymised data of all retail loans effective as of the respective reporting dates were requested from three major CHBs (United Credit Bureau, National Bureau of Credit Histories and Equifax). The dates requested were 1 January 2015, 1 January 2017, 1 January 2019 and 1 September 2019.

The investigation helped track the development of the consumer lending market in 2019, when it posted the highest growth in five years, and compare structural changes in the market in the current year and in the years 2015–2017 and 2017–2019. At the current stage, the investigation only concerns bank loans, including securitised loans, and excludes loans issued by microfinance organisations and information CHBs passed to debt collection agencies.

[1] *Calculated as the ratio of regular retail loan repayments to total household disposable income. Total household disposable income includes households and individuals without loans and is therefore undervalued.*

1. DATA OVERVIEW

1.1. Data composition

CHBs were requested to provide uniform anonymised data:

- Unique borrower identifier.
- Loan issue date.
- Loan maturity date.
- Loan type (mortgage, car loan, unsecured consumer loan[1], credit card, etc.).
- Overdue loans as of the date.
- Total outstanding loans as of the date.
- Debt (limit) as of the loan (card) issue date.

The analysis is limited by the fact that a borrower's credit history lacks information about their income (this indicator is excluded from the data which credit history makers submit to CHBs in accordance with Federal Law No. 218-FZ, dated 30 December 2004, 'On Credit Histories'). This prevents the calculation of debt burden for individual bank customers.

To anonymise data, CHBs created a unique borrower identifier. CHBs were not requested to provide other information about a borrower's identity. However, it was possible to deduplicate loans registered with different CHBs. The unique borrower identifier allowed the Bank of Russia to calculate the number of loans and analyse which types of loans each borrower has.

As of 1 September 2019, the three CHBs provided approx. 220 billion loan entries (Table 1).

DATA RECEIVED
(MILLIONS OF UNITS)

Table 1

Credit bureau	Number of entries as of 1 September 2019
Bureau 1	104
Bureau 2	61
Bureau 3	55

1.2. Data processing

Banks often submit information about issued loans to several CHBs, which results in data duplication. In order to deduplicate data, the following approach was used. For each bank, the number of loan entries with each CHB was calculated. Data from the CHB which had the largest number of entries about a bank's borrowers were further analysed. This reduced the volume of data considerably and eliminated the duplication of entries for the same borrowers with different CHBs.

The investigation implied the comparison of the databases of three major CHBs; this is essential for lenders' usage of the information to assess a borrower's debt burden. Since 1 October 2019, credit institutions have been obliged to calculate the PTI ratio for newly issued retail loans. The indicator is calculated as a ratio of a borrower's payments under all their loans to income. In order to calculate the amount of payments under all loans of a borrower, the bank needs to address a credit history bureau. The analysis of data provided by three largest CHBs showed that all three CHBs hold identical information about only 26% of borrowers, that is, a bank may address any CHB to calculate

[1] *Cash loans and POS loans.*

the DBR for such customers. Information about other borrowers is either held by only one CHB, or banks' data about different loans are kept in several CHBs. Hence, a bank has to request information from several CHBs to calculate a borrower's liabilities correctly.

For each bank, information on outstanding loan portfolios (mortgages, car loans, unsecured consumer loans) received from CHBs was compared with data in Reporting Form 0409115 'Asset Quality of a Credit Institution (Banking Group)'. This made a double check of CHB-provided data possible.

For most banks, data provided by CHBs and recorded in the reporting form were comparable; however, for individual banks discrepancies were found (mainly with higher values in the CHB-provided data). The discrepancies result from the fact that Reporting Form 0409115 factors out outstanding loans recorded in off-balance sheet accounts, as well as interest, fines and penalties on loans. Aggregated portfolio data calculated on the basis of the CHB-provided information approximated the supervisory reporting data in banks which transferred bad loan portfolios to debt collection agencies or closed loans after writing off bad debts and sent the respective information to CHBs.

Only the loans with outstanding balances of more than ₽10,000 as of the respective date were selected for further analysis. As of 1 January 2019, approx. 3.2 million borrowers had loans with outstanding balances from ₽1,000 to ₽10,000; however, such loans only have a minor effect on the value of loan portfolios. The outstanding balances of such loans account for a mere 0.3% of the total loan portfolio.

2. AGGREGATED DATA ANALYSIS

The number of borrowers who have at least one loan with an outstanding balance of more than ₽10,000 came in at 39.5 million as of 1 September 2019, increasing by 6.6 million from 2015 (Chart 1). The current number of borrowers makes up approx. 54% of the employed and 36%[1] of the voters.

There is no comparable data for other countries; however, the available information can be used to draw a conclusion that the scope of lending in Russia is considerably lower than in the countries that faced crises caused by high household debt burden. For instance, in the US, 78% of households had loans in 2018.[2] In Korea, the number of borrowers exceeds the number of residents older than 18 years (because of residents who work abroad but have loans[3]).

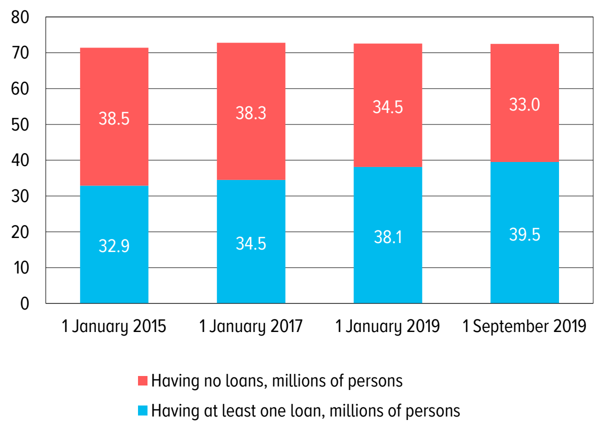
It is of note that mortgage lending has a strong potential for growth in the Russian market: the number of borrowers is relatively small (7.7 million as of 1 September 2019, including co-borrowers).

The total outstanding debt as of 1 September 2019 determined in the research (₽19 trillion) exceeds the outstanding debt recorded in bank reporting as of that date (₽16.8 trillion). This is due to several reasons. First, as was mentioned earlier, data on some banks includes a large volume of accumulated bad loans, overdue interest and fines, and other off-balance sheet liabilities. Second, CHBs' data include securitised loans (mostly mortgage loans) excluded from bank reporting.

Retail lending from 2015 to date can be divided into two periods: the period from 2015 to 2017, when the loan portfolio of unsecured consumer loans and car loans stagnated, and the period after 2017, which is characterised by an upward phase of the credit cycle (Chart 2). In the latter period, the year of 2019 is notable. During its first eight months, growth of outstanding loans was comparable with the increase seen in the past two years.

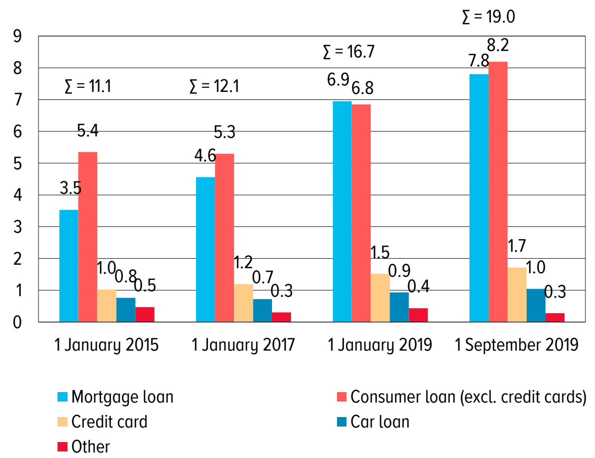
From 2015 to 2017, growth in the number of borrowers was mainly driven by the expansion of mortgage lending. Since 2017, the increase has been observed not only in the number of mortgage borrowers, but also consumer borrowers (Chart 3).

BORROWER DISTRIBUTION AMONG THE EMPLOYED POPULATION* *Chart 1*
(MILLIONS OF PERSONS)



** The number of the employed is based on Rosstat data.*

OUTSTANDING DEBT BY LOAN TYPE* *Chart 2*
(TRILLIONS OF RUBLES)



** Here and elsewhere, only retail loans with outstanding balances of more than ₽10,000 as of the cut-off date, unless indicated otherwise.*

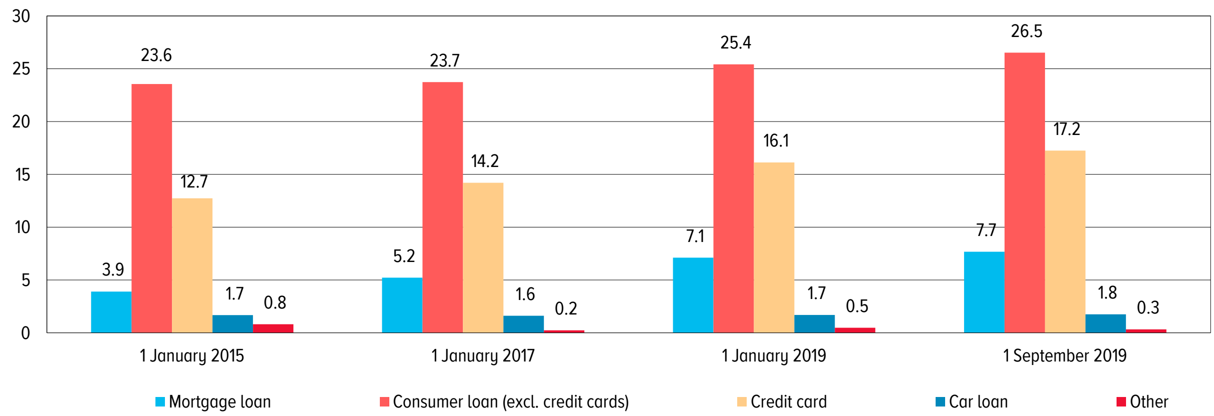
[1] *The number of voters was determined based on the Central Election Commission data.*

[2] *www.aspeninstitute.org.*

[3] *Bank of Korea consumer credit panel: a new statistical initiative for financial stability. M. Kim. BIS, IFC Conference, 30–31 August 2018.*

NUMBER OF BORROWERS BY LOAN TYPE*
(MILLIONS OF PERSONS)

Chart 3



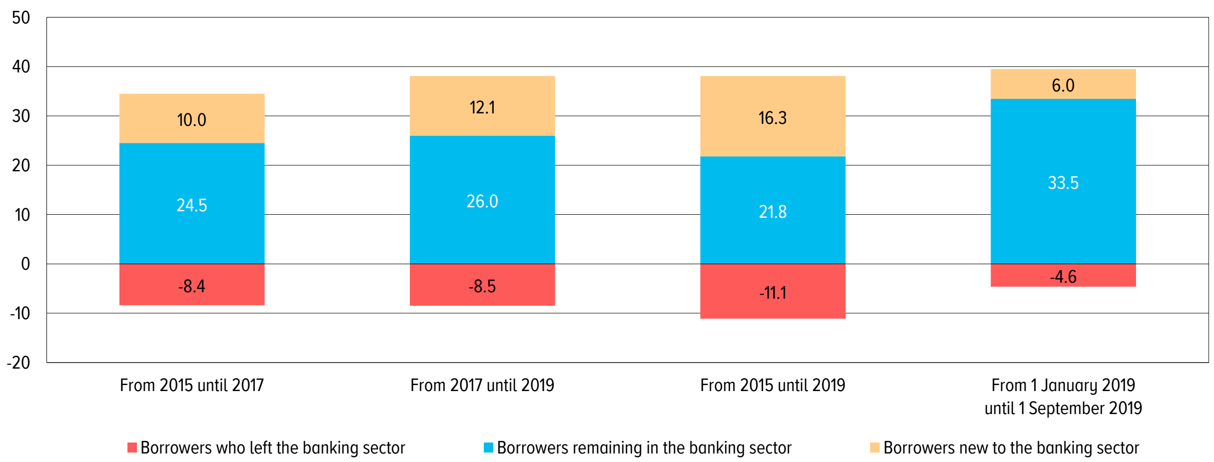
** For borrowers who have loans of several types, each credit product is taken into account.*

Permanently updating banks' customer base is another important trend (Chart 4). A considerable number of borrowers who had loans in early 2017, had no outstanding debts as of the beginning of 2019 (8.5 million borrowers or 25% of total borrowers[4]). This points to a targeted use of loans to purchase goods and services rather than building a so-called 'debt pyramid'. In addition, a sizeable share of borrowers (32% as of 1 January 2019) was new to the banking sector as these customers had no outstanding debt in 2017. As will be shown below, this conclusion refers primarily to unsecured consumer lending (because mortgage loans have longer maturity).

A similar trend held in 2019: 12% of borrowers, who had loans as of the beginning of this year, had no outstanding debts as of 1 September. Meanwhile, 15% of those who were borrowers as of 1 September had no loans in the early 2019.

MOVEMENTS IN THE NUMBER OF BORROWERS
(MILLIONS OF PERSONS)

Chart 4



[4] *This assessment also includes borrowers whose loans were closed by banks after they had written off bad debts and loans sold to debt collection agencies.*

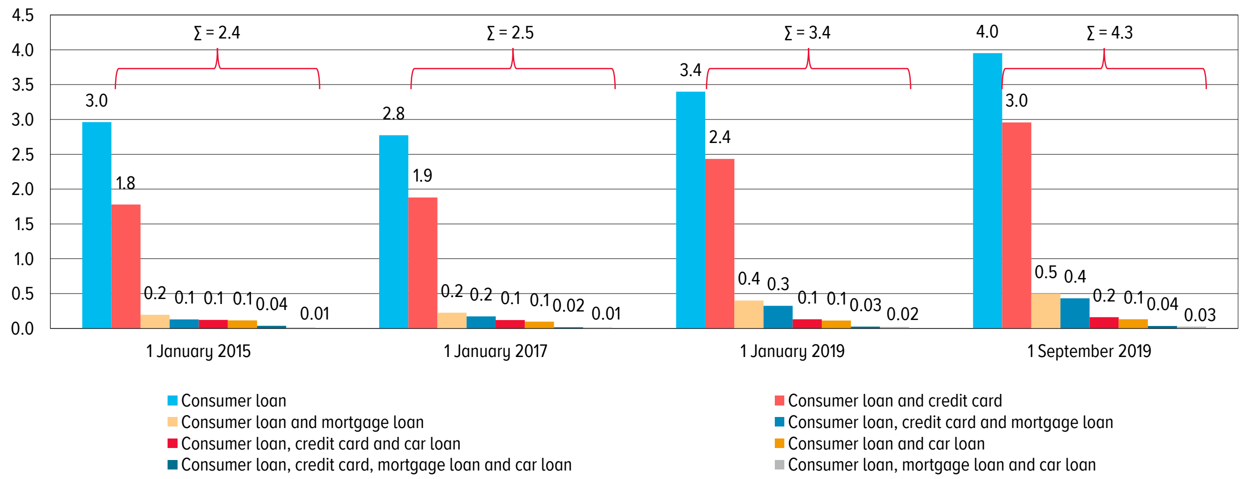
3. UNSECURED CONSUMER LENDING1[1]

According to CHBs' data, two thirds of all borrowers have an outstanding unsecured consumer loan or credit card debt. As of 1 September 2019, the consumer loan portfolio (excluding credit cards) accounted for 42% of total outstanding retail loans.

Growth has been registered in outstanding debt on consumer loans coupled with other credit products (Chart 5). In early 2015, only 34% of borrowers had a consumer loan coupled with another credit product, whereas by 1 September 2019, the share of such borrowers rose to 42% (Chart 6). On the one hand, an increase in the number of various types of loans per borrower raises banks' income through cross-sales of credit products; on the other hand, however, it may lead to growth in a borrower's debt burden and cause the risk of a subsequent cross-default on other liabilities. The

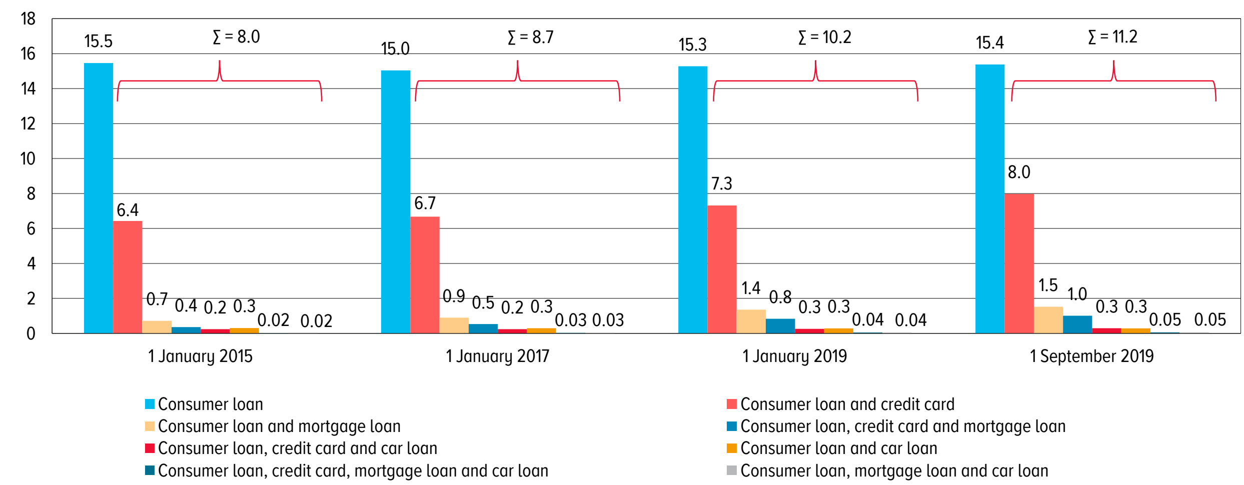
OUTSTANDING CONSUMER LOANS, DISJOINT SETS
(TRILLIONS OF RUBLES)

Chart 5



NUMBER OF BORROWERS, DISJOINT SETS
(MILLIONS OF PERSONS)

Chart 6



[1] *Here and elsewhere, unsecured consumer loans (consumer loans) mean cash loans and POS loans excluding credit cards, unless indicated otherwise.*

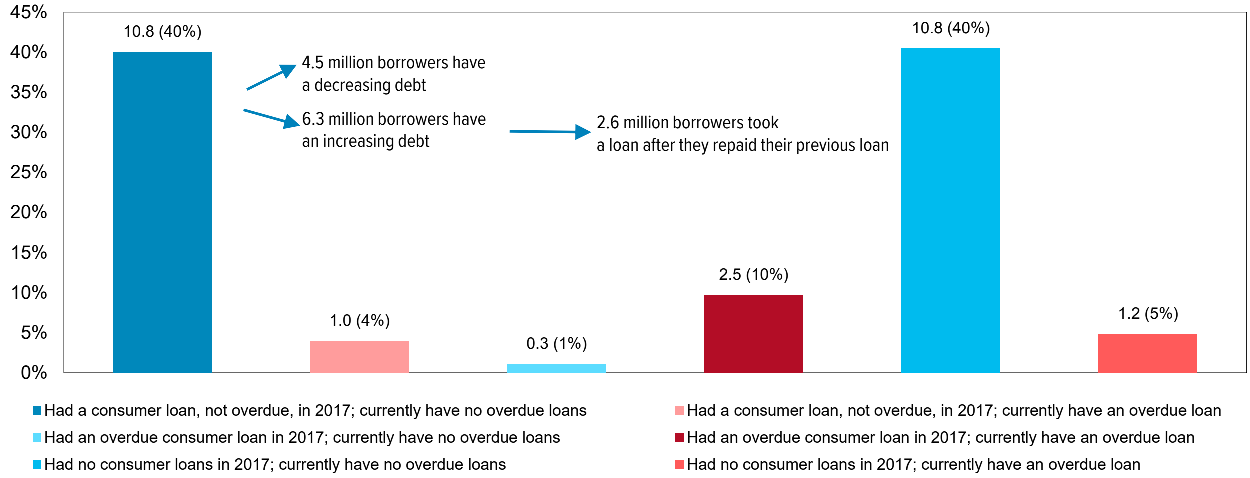
PTI ratio introduced in bank regulation since 1 October 2019 will help limit growth of debt burden. Banks will factor in a borrower's liabilities under all types of loans in its calculation.

As has been mentioned earlier, the structure of unsecured consumer borrowers changes constantly. Since 2017, 9.2 million borrowers (39% of consumer borrowers) have repaid their loans and have not taken new consumer loans. Meanwhile, 12 million borrowers (45% of borrowers) who had a consumer loan as of 1 September 2019 had no outstanding consumer loans in 2017, that is, they are new to the consumer lending sector. Since the beginning of 2019, four million borrowers (16% of borrowers) have repaid their consumer loans and abstained from taking new loans, while 5.6 million people (21% of borrowers) who had no debts as of 1 January 2019, have taken loans.

The current structure of borrowers by the quality of debt servicing is of interest for this analysis. In the current structure, 19% of borrowers have overdue debts (Charts 7 and 8) which account for more than 5% of the initially issued loan. Nearly a half of these borrowers already had overdue debts in 2017. This suggests that the recovery of bad debts takes a long time and leads to the accumulation of overdue debts in the banking system.

DISTRIBUTION BY BORROWERS AS OF 1 SEPTEMBER 2019*
(MILLIONS OF PERSONS)

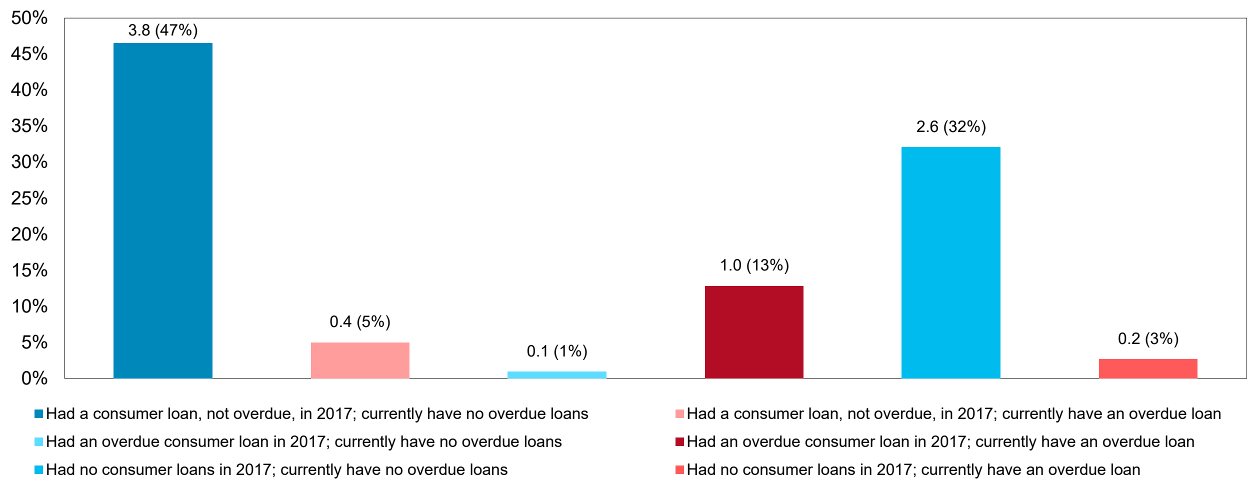
Chart 7



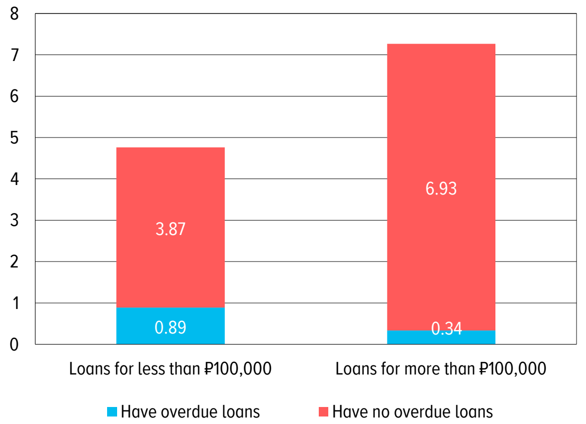
** Loans were considered as overdue if the overdue amount exceeded 5% of the principal amount (to exclude technical overdue).*

DISTRIBUTION BY OUTSTANDING DEBT AS OF 1 SEPTEMBER 2019
(TRILLIONS OF RUBLES)

Chart 8

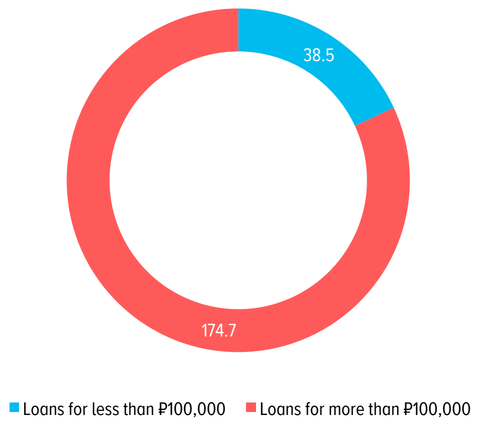


NUMBER OF NEW BORROWERS* AS OF 1 SEPTEMBER 2019 *Chart 9*
(MILLIONS OF PERSONS)



** Had no loans in 2017.*

OUTSTANDING DEBT ON BAD CONSUMER LOANS* AS OF 1 SEPTEMBER 2019 *Chart 10*
(BILLIONS OF RUBLES)



** Borrowers had no loans in 2017.*

The second half of troubled borrowers (9% of total borrowers as of 1 September 2019) includes borrowers whose loans became overdue within the period from 2017 until 1 September 2019. This group comprises in almost equal parts those who had an outstanding loan before 2017 and those who took a loan during the said period. Thus, the quality of debt servicing during this period does not differ considerably between new borrowers and those who had an outstanding loan as of 1 January 2017. The number of new overdue debtors increases annually by 3% to 4%; this is in line with data provided by credit institutions and loan vintage data provided by certain CHBs on the value at risk.[2]

Borrowers often have overdue payments on small loans. Among the borrowers who received a loan after 1 January 2017, 19% of borrowers have overdue payments on loans in the amount of up to ₽100,000 versus 4.6% of those who have overdue payments on loans in the amount of more than ₽100,000 (Chart 9). However, as they account for a small share of the total bank portfolio, bad debt[3] on small loans is lower by a factor of 4.5 (Chart 10). Hence, small loans pose a higher social risk, whereas large loans are more important for stability of individual banks.

Potential risks are posed by a group of borrowers who have extensively accumulated debts since 2017 by raising new loans to repay the old ones. Their number stands at 3.7 million borrowers, and their debt has increased from ₽0.9 trillion to ₽2.2 trillion. This group of borrowers has no overdue loans yet; however, fast debt growth may point to rising solvency risks and confirms the expediency of PTI limitation that went into effect on 1 October 2019.

[2] Calculated as the ratio of 12-month growth in loan loss provisions (adjusted for loan write-offs and sales) to an average maturity of the loan portfolio net of loan loss provisions.

[3] Total overdue loans.

4. MORTGAGE LENDING

Following the decrease in mortgage interest rates to their all-time low since 2015, the relative share of mortgage debts and mortgage borrowers in the loan portfolio of the banking sector has increased. Over the past four years and eight months, the share of such borrowers rose by 7.5 p.p., to 19.5% of total borrowers (Table 2).

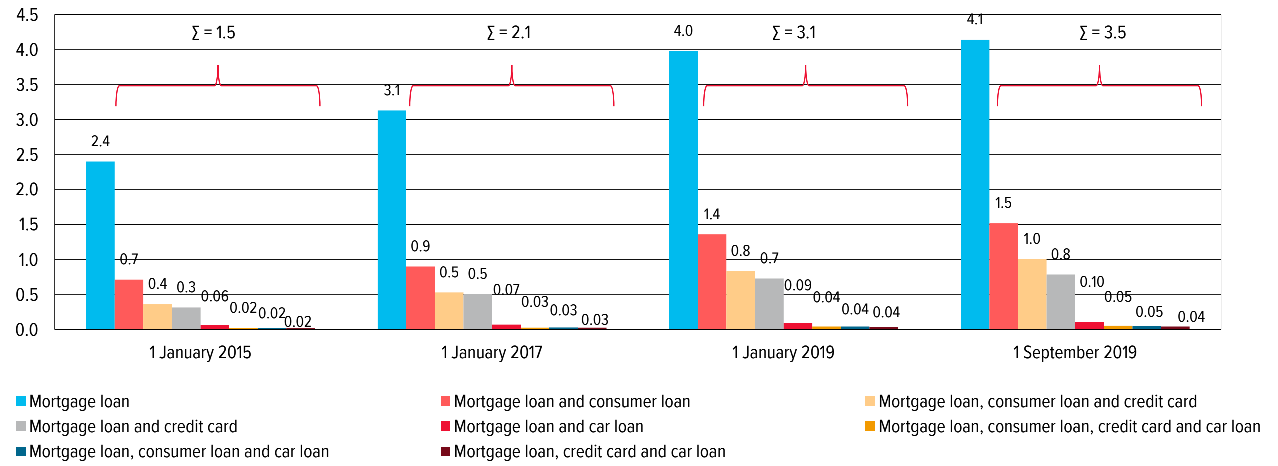
More than a half of mortgage borrowers prefer to be free of other debts. This is one of the reasons for a high credit quality of the mortgage loan portfolio of the banking sector. However, the share of such borrowers is shrinking – from 61% in 2015 to 54% as of 1 September 2019 (56% as of 1 January 2019) (Charts 11 and 12).

As many as 30% of borrowers take an unsecured consumer loan (presumably, for home improvement) within three years after they receive a mortgage loan. Interestingly, nearly two thirds of them choose to take a consumer loan in another bank (Chart 13). This raises risks for the mortgage

SHARE OF MORTGAGE BORROWERS *Table 2*
(%)

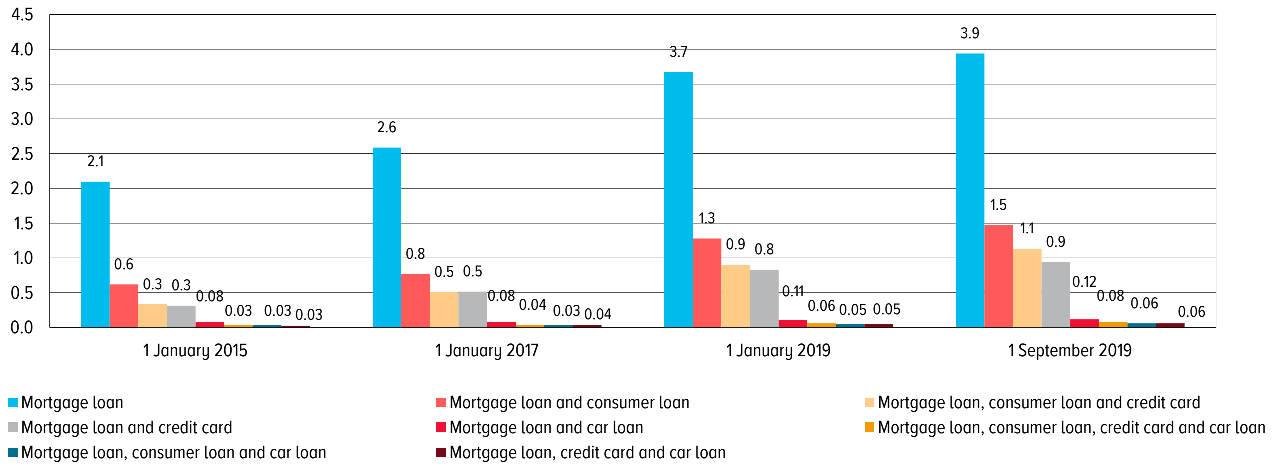
Date	Share of mortgage borrowers	Share of total loan portfolio attributable to mortgage borrowers
01.01.2015	12.0	37.9
01.01.2017	15.2	43.9
01.01.2019	18.8	49.4
01.09.2019	19.5	48.9

NUMBER OF BORROWERS, INCLUDING CO-BORROWERS, DISJOINT SETS *Chart 11*
(MILLIONS OF PERSONS)



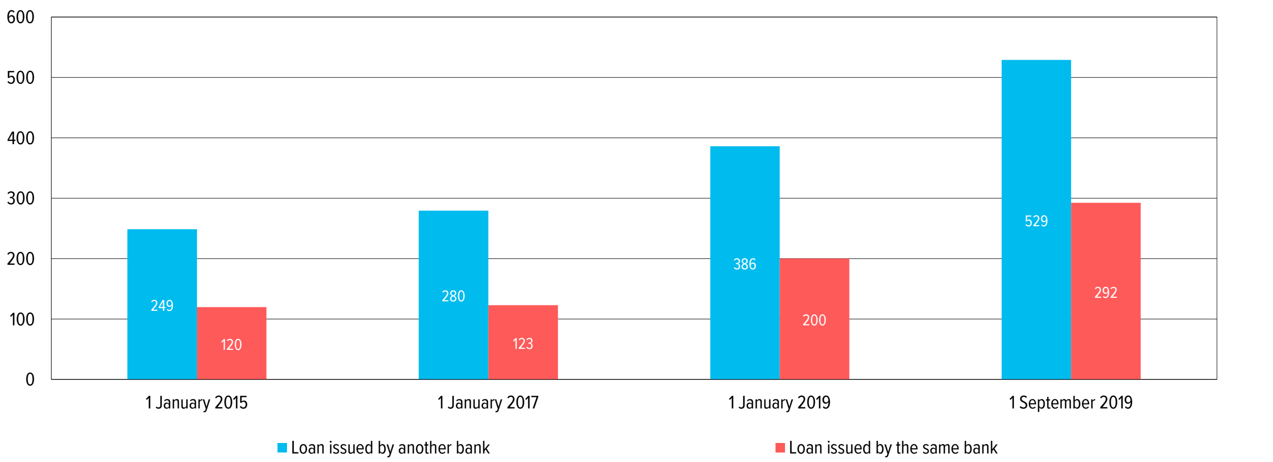
OUTSTANDING MORTGAGE LOANS, DISJOINT SETS
(TRILLIONS OF RUBLES)

Chart 12



NUMBER OF BORROWERS WHO TOOK A CONSUMER LOAN AFTER A MORTGAGE LOAN ISSUED 1–3 YEARS BEFORE THE CUT-OFF DATE THOUSANDS OF PERSONS

Chart 13



SHARE OF MORTGAGE LOANS THE BORROWER OF WHICH RAISED A CONSUMER LOAN FOR MORE THAN ₽100,000 EARLIER

Table 3

Period	Number of mortgage loans issued, thousands	Number of mortgage loans the borrower of which raised a consumer loan* for more than ₽100,000 three months earlier, thousands	Share of mortgage loans coupled with a consumer loan issued three months earlier, %
2014	883.5	32.5	3.7
2016	770.3	26.8	3.5
2018	1445.1	63.4	4.4
The first eight months of 2019	740	36.9	5

** All mortgage loan co-borrowers are checked for consumer loans issued three months before the mortgage loan.*

loan issuer while the bank may be unaware of the increase in the borrower's debt burden. Should the debt burden prove excessive, the borrower will be more likely to default on the consumer loan. The use of PTI ratio in bank regulation will help limit these risks as it discourages lending to highly indebted borrowers. Also, the need may arise in the future to consider requiring banks extending long-term loans to recalculate PTI ratio on a periodic basis (e.g., annually).

However, the reverse situation – raising an unsecured consumer loan before a mortgage loan – may suggest that the borrower uses the consumer loan as a mortgage down payment. This may cause considerable risk growth irrespective of the PTI as it points to the borrower's inability to save. Therefore, we calculated the share of mortgage loans the borrower and (or) co-borrower of which raised a consumer loan for more than ₽100,000 three months earlier.

The share of these loans remains insignificant at 5% over the first eight months of 2019 (Table 3), rising by 1.3 p.p. since 2014. Given that these statistics confirm only indirectly the use of consumer loans for a mortgage down payment and the share of such loans is insignificant, this practice currently poses no threat to financial stability.

5. CONCLUSIONS

The increase in household debt burden since 2017 was largely caused by the fact that banks attracted new borrowers. However, gradual growth is observed in the share of borrowers who have several loan types at a time (e.g., a mortgage and a cash loan). This may lead to an increase in a borrower's debt burden and raise the risk of default. However, banks sometimes lack complete information about their borrowers' outstanding debt, given that customers often borrow from different banks (the majority of mortgage borrowers raise consumer loans in another bank). Macroprudential regulation based on the borrower payment to income ratio will help limit such risks.

In the current market structure, the number of mortgage borrowers is relatively small compared to consumer borrowers: only 10.6% of the employed population have a mortgage loan (including co-borrowers) versus 37% of the employed population having consumer borrowers. This structure is most typical of emerging market economies and will evolve in the future. The mortgage lending segment has a strong growth potential. However, this growth should be balanced and exclude the usage of consumer loans for a mortgage down payment and a substantial increase in the debt burden of mortgage borrowers.