



BANKA QENDRORE E REPUBLIKËS SË KOSOVËS  
CENTRALNA BANKA REPUBLIKE KOSOVA  
CENTRAL BANK OF THE REPUBLIC OF KOSOVO

# Household Indebtedness in Kosovo

Krenare MALOKU BAKIJA and Arta NUSHI

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## 1. Introduction

The persistent lending growth, especially the higher growth of lending to households in the recent decade, as well as the expansion and increase in the use of credit products such as credit cards and overdrafts, has raised concerns regarding the risk of household over-indebtedness. The issue of increasing household indebtedness has attracted the attention of scholars and policymakers, as it poses a direct risk to the debt sustainability of households and the stability of the financial system as a whole. Furthermore, the excessive accumulation of debt could lead to wider socio-economic consequences, thus increasing the vulnerability towards poverty and social exclusion.

The Central Bank of Kosovo (CBK), in order to maintain a favorable environment for the growth and development of the financial system, as well as to ensure financial stability, has conducted the second study that assess household borrowers indebtedness level, thus contributing/informing policy and decision-making. Similar studies assessing indebtedness issues have been conducted previously by the CBK and EFSE (in 2012 and 2015), but they focused only on the indebtedness at the level of individual borrowers or enterprises, and addressed only specific lending segments.

In this study, the CBK has for the first time expanded to include all lending institutions in Kosovo (9 banks and 9 microfinance institutions), as well as to include the entire spectrum of lending products for the household sector. The main purpose of this study is to assess the indebtedness level of individual credit clients and their respective household unit. In addition, the study aims to identify lending trends, differences in these trends according to socio-demographic and socio-economic characteristics, as well as borrowing patterns such as multiple and cross-borrowing across institutions and sectors, and their association with over-indebtedness problems.

Given that the study was conducted in the period after the outbreak of the COVID-19 pandemic, it will also attempt to measure the possible effects of the COVID-19 pandemic crisis on household income, indebtedness dynamics and solvency.

The study is structured into the following chapters: 3) Study methodology, which elaborates the sample selection and accompanying constraints; 4) Interpretation of results, which first elaborates on borrowers' socio-demographic and socio-economic characteristics, then borrowing patterns (types and characteristics of credit contracts), payment performance, and finally, indebtedness; 5) Conclusion, which summarizes the findings of the study, including its limitations, and 6) Recommendations, which outlines measures that could be taken by stakeholders to address the identified issues related to indebtedness assessment, particularly at household level.

The specific goals that the study aims to address are as follows:

- Socio-demographic and socio-economic characteristics of borrowers with active loans in banking and microfinance institutions;
- Main borrowing patterns (type and purpose of loans, approved loan values, duration, use of collateral, co-borrowing, multiple and cross-borrowing from several institutions and sectors);
- Repayment performance characteristics and potential influencing factors;
- Indebtedness level of individual borrowers and their respective households';
- Impact of the outbreak of the COVID-19 pandemic crisis on borrowers'/household income and indebtedness levels.



## 2. Summary of the main results

Over-indebtedness has no common definition and hence no common measurement method. A set of various indicators were used by scholars to assess specific aspects of over-indebtedness in order to achieve a more comprehensive picture of the issue. In this study, over-indebtedness was assessed through a set of several indicators, whose association was tested and analyzed (Table 1).

**Table 1. Results of objective and subjective household indebtedness**

Category	Indicator	Assessment/Indicator	Results
Cost of debt servicing: Debt to income ratio	Households spending more than 50% of their gross monthly income on total debt payment (secured and unsecured debt)	a) <i>Indebtedness Index (amount of monthly loan installments =&gt;50% of borrower gross monthly income)</i>	27.4% of borrowers use over 50% of their income to pay their loan installments
		b) <i>Indebtedness Index (amount of monthly loan installments =&gt; 50% of household gross monthly income)</i>	11.7% of borrowers use over 50% of their income to pay their installments
	Households spending more than 50% of their gross monthly income on total debt payment (secured and unsecured debt)	<i>Households survey (sample of 1068 households)</i>	a) 60.3% of households do not have outstanding loans at all, while only 1.9% use more than 50% of their income on their credit repayment, while 4.7% have not responded. b) Within households with outstanding credit, 4.8% spent more than 50% of their monthly household income on monthly credit repayments, while 11.7% of respondents did not respond.
Arrears	Households are in arrears for more than 2 months in paying credit contracts	<i>Borrowers are in arrears for more than 60 days (sample 1,984)</i>	8.5% of borrowers are in arrears for more than two months on paying credit installments. Most of them (74.4%) are in arrears for over 2 months in only one credit contract
	Households are in arrears for more than 2 months on payment of regular monthly obligations for utility expenses (water, electricity, waste, property tax),	<i>Households survey (sample of 1.068 households)</i>	9% of households are often in arrears for longer than 2 months on the payment of these obligations; while 45.7%, stated that they are sometimes in arrears
Number of credit contracts	Households=>4 outstanding credit contracts	<i>Borrowers=&gt;4 outstanding credit contracts (sample 1,984)</i>	17.7% of borrowers have 4 or more than 4 outstanding credit contracts

Source: CBK.

**Loan over-indebtedness<sup>1</sup> varies from 27.4 percent, when considering only the individual borrower's monthly income, to 11.7 percent, when considering the monthly income of the entire household unit.** Indebtedness assessment based only on the borrower's income may reflect an overestimation of the over-indebtedness situation, as it does not account for co-borrowings and the fact that households pool their income -to cover expenses. On the other hand, in assessing indebtedness taking into account household income, due to the lack of information on the potential borrowings of other family members, we may have an underestimated picture of the household over-indebtedness level. Therefore, over-indebtedness results should not be interpreted in absolute terms, but rather as an indication of the approximate level of household loan indebtedness in the financial sector in Kosovo, which is considered to be in the interval between the above results by both indicators (the indicator measuring over-indebtedness with borrower's income and the indicator considering the entire household unit's income).

**In the first phase of over-indebtedness - at risk of over-indebtedness, because the monthly loan installment accounts for 50 to 75 percent of monthly income- are 21.8 percent of borrowers.** Whereas, when taking into account the income of the whole household, 8.2 percent of households are at risk of over-indebtedness. **At a critical stage- with debt-to-**

<sup>1</sup> Loan over-indebtedness includes cases where the level of monthly debt repayments on loans only (the amount of monthly loan installments, not including other credit products such as overdrafts and credit cards) exceeds 50 percent of monthly income.

**income ratio in the range of 75 to 100 percent-** are 3.8 percent of borrowers and 2.0 percent of households. Cases when borrower's monthly loan installments exceed gross monthly income – **Insolvency cases** - appear in 1.8 percent of the sample of borrowers and 1.4 percent of households.

**Over-indebtedness is associated with multiple borrowing, in particular with cross-borrowing from different institutions.** Borrowers with multiple active contracts from different institutions had almost twice as many cases of over-indebtedness, respectively 40.5 percent of them (22.2% of households) were over-indebted, compared to 24.2 percent of borrowers with multiple active contracts from the same institution (7.5 % for households). The probability of being at the critical indebtedness phase and the insolvent phase was also significantly higher for multiple borrowers engaged in cross-borrowing across different institutions (average ratio of 85:15, implying that out of the total borrowers in the respective over-indebtedness phases, 85 percent are borrowers with multiple contracts from different institutions).

**Borrowers and households with active loans only in the banking sector have a higher over-indebtedness incidence than borrowers with active loans only in the microfinance sector.** Whereas, the probability of over-indebtedness is the highest in borrowers and households with active loans in both sectors. Banking sector clients/borrowers were over-indebted in 25.7 percent of cases (9.7% of households), compared to 15.6 percent of microfinance borrowers (6.2% of households). Also, insolvency cases were higher in the group of banking sector clients, in 1.7 percent of cases, compared to only 0.3 percent of for microfinance clients. However, when considering household income, the insolvency rate for banking sector borrowers drops at a lower level than the microfinance sector (0.6 percent and 0.8 percent, respectively).

**In assessing the issue of over-indebtedness, the installments of other credit products such as credit-cards and overdrafts have been excluded, due to difficulties in quantifying their actual monthly repayments.**<sup>2</sup> These products, although they can be a persistent source of debt for borrowers with a potentially significant effect on increasing their over-indebtedness, may also reflect a temporary debt situation as they may represent a one-off usage of the product. In the absence of information on the actual credit-card and overdraft installments, the indebtedness assessment when including payments on these credit products had to be done under the assumption that the total outstanding debt is a monthly installment. Due to this conservative assumption (since the outstanding amount for credit cards is mainly paid in several installments and not in one installment as assumed here, whereas the overdraft outstanding balance is paid only at maturity), the rate of over-indebted borrowers turns out to be much higher, and is considered overstated. Therefore, indebtedness results including the debt payments on these products are only briefly reported in the results section.

**Repayment performance problems were associated with higher level of indebtedness.** Borrowers in arrears had almost twice as many cases of over-indebtedness, namely 40.0 percent of borrowers in arrears (21.6% of households) were over-indebted, compared to 26.1 percent of borrowers who had regular payment performance (10.6 % for households). Also, debt insolvency cases were more common among borrowers in arrears, with 2.3 percent of borrowers in arrears (4.1% of households) being insolvent compared to only 1.7 percent of borrowers with timely repayments (1.1% households).

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<sup>2</sup> Credit card is a credit product with different payment terms. The payment of the utilised debt can be paid in full or spread over time, according to the conditions set by the banks and the preferences of the users. Overdraft is a credit product that allows the client to use the funds when his account has reached zero. The client pays interest on the amount used of the permitted overdraft limit, depending on the utilization, while the return of the total overdraft debt is made only at maturity.

**Repayment problems were highest among borrowers with multiple contracts, but from different institutions.** About a quarter of borrowers with multiple contracts issued from several institutions were in arrears, compared to only 2.0 percent of borrowers with multiple contracts but with the same institution. The share of borrowers in arrears of more than 2 months was 8.5 percent, most of whom (74.4%) were in arrears on only one credit contract. The likelihood of borrowers' repayment performance problems increased with the increase in the number of active credit contracts, hence borrowers with four or more than four credit contracts had the highest incidence of repayment delays.

**Borrowers and households' indebtedness levels appeared = higher in the post COVID-19 outbreak period.** The indebtedness index after the outbreak of the COVID-19 pandemic is on average higher by 2 percentage points for each of the indebtedness categories. However, these results do not fully reflect the impact of the pandemic and should generally be taken with caution due to the inconsistency of the time period reflected by the data.<sup>3</sup> Also, post pandemic data on credit installments are not complete<sup>4</sup>, and in many cases are collected in the form of a survey, which creates space for subjectivity.

**According to the net household indebtedness index<sup>5</sup>, the rate of insolvent households results high, which is in part through to reflect data quality limitations .** Specifically, for 13.7 percent of households, the monthly debt value (loan installments) is higher than their remaining monthly income after deductions for regular monthly living expenses. However, in 1.9 percent of cases, regular monthly expenses were reported to be higher than gross household income. This fact, as well as the high share of insolvent borrowers suggest a limitation expressed in the reported data, which is considered to have influenced the overestimation of the over-indebtedness situation.

**Household over-indebtedness, assessed alternatively through a survey commissioned directly by the CBK, but on another random sample of households, r lower.** The results of the household survey suggest that 60.3 percent of households do not poses active loans at all. Over-indebtedness, i.e. spending of more than 50 percent of household income in servicing monthly credit installments, was present in only 1.9 percent of cases. Whereas, within households that had active loans, only 4.8 percent spent more than 50 percent of household income in monthly credit repayments.

**Survey results suggest that 9 percent of households are often in delay for more than 2 months in the payment of their regular monthly utility bills (water, electricity, waste, property tax).** A high percentage, 45.7 percent, stated that they are sometimes delayed, while 28.5 percent said that they rarely have such delays. **According to the survey, the outbreak of the COVID-19 pandemic had a mixed effect on household income.** One third of households, respectively 35.6 percent, stated that household income has not changed as a result of the outbreak of the COVID-19 pandemic. On the other hand, slightly lower share, 31.1 percent, stated that their family income has declined. The remaining 27.8 percent of respondents said that there was a temporary decline in income which returned to the its previous level shortly, while 5.5 percent stated that household income has increased.

<sup>3</sup> The timing of recording of pre-pandemic income is not consistent between financial institutions. While some of them reported data in the last month before the outbreak of the pandemic, others reported borrowers' income as of the date of credit origination.

<sup>4</sup> Changes in credit installments, i.e. restructurings, are not complete. Restructured installments as a result of COVID-19 were taken from Financial Institutions for active loans of their clients (clients selected as a sample for the respective institution). However, for the calculation of the total debt of the client, respectively the household, data on installments of all active credit products of each client were acquired from the CRK, but they did not reflect fully the information on all restructured loans..

<sup>5</sup> The net household indebtedness index represents the ratio of the sum of borrower's monthly credit installments to the net household's monthly income (gross monthly income deducted for regular household's monthly utility and living expenses).

In conclusion, several different indicators were used to assess different aspects of over-indebtedness, which taken altogether provide important information on the level of household indebtedness in Kosovo. The results suggest that over-indebtedness is associated with multiple borrowing, in particular cross-borrowing from several different institutions, and with poorer repayment performance. However, it should be noted that the cause-and-effect relationship between these factors is not established, as causality can flow in both directions: the possession of more credit contracts affects the increase of monthly debt repayment and has an impact on the increase of borrowers' indebtedness level; however, there is a possibility that borrowers may acquire additional debt to service their existing debt, and thus lead to over-indebtedness. Also, repayment delays do not necessarily imply borrowers' over-indebtedness, as they may represent temporary changes in borrowers' income and/or expenses. On the other hand, over-indebted borrowers may not always end with repayment delays, as they can use other sources of income - savings, family borrowings, etc. - for their debt repayment.

### 3. Study methodology

#### 3.1. Source of data

The study tends to measure the indebtedness level of individual credit borrowers and their respective households, through the use of data from the Credit Registry of Kosovo (CRK) and the data of the Information Management System of banks and microfinance institutions. The main data source is the CRK, a platform on which all lending financial institutions report on a regular basis. However, since CRK only poses financial information (income data) of the individual credit borrowers, the provision of financial information (income and expenses) at the household level of the respective credit borrowers was obtained from financial institutions participating in the study.

Financial institutions also provided some additional borrower and loan-specific data which complemented the CRK database, but also served as a good basis for data quality checks. Financial institutions were required to provide data on monthly household income and expenses separately for the period before and after the outbreak of COVID-19 pandemic, to enable the analysis of possible effects of the crisis on income and indebtedness. Within the loan-specific data requested from financial institutions, data on loan restructuring as a result of the COVID-19 pandemic were of particular importance since such information were not complete in the CRK.

**Table 2. Data sources**

	CRK	Financial institutions
<b>Socio-demographic data</b>	Region, gender, age, occupation	Number of household members
<b>Borrowing patterns</b>	Types of loans, data on the approved and outstanding amount on all credit contracts, the date of approval and maturity of loans.	The same data required in the CRK (for the purpose of complementing each other), including the purpose of the loan.
<b>Scope of cross-indebtedness</b>	Source of credit contracts (institutions from which the loan was issued) and characteristics of credit contracts	-
<b>Guarantors and co-borrower status</b>	Engagement in guarantor or co-debtor provision in other contracts	-
<b>Repayment performance</b>	Credit repayment classification for all credit contracts.	Only for credit contracts originating from the respective institution: credit classification, number of days in arrears and the value of overdue outstanding amount.
<b>Indebtedness level</b>	Monthly income  Monthly credit installment	Individual borrower's income (for the purpose of verifying income data in the CRK and complementing/updating them in accordance with the information received from FIs)  Monthly installment (in the absence of the information in the CRK)  Household income  Household living expenses, including food, utilities and energy payments

Source: CBK.

Information on the household unit was not available in most cases even from the financial institutions themselves (in the Information Management System or in the Borrowers' Credit Records, financial institutions have data only on the borrower and potential co-borrower / guarantor), therefore this information was obtained specifically for the purposes of this study. The data provision method was left at the discretion of financial institutions, most of which have conducted written surveys with their borrowers.

In the final database for the analysis of credit contracts, priority was given to CRK data, while in the final database at the level of the borrower/household, priority was given to the data from financial institutions, assuming that they were more up-to-date. In case of missing data from the priority source, the other data source was used to complete the final databases given that the information was available. Data sources are disclosed in (Table 2):

An additional source of information for assessing the household indebtedness is a household indebtedness survey commissioned by the CBK, and conducted by Ubo Consulting<sup>6</sup>, through their public opinion research product 'Omnibus'.

This survey includes questions aimed at obtaining information for the assessment of the indebtedness in aspects that are not covered through the analysis drawing on CRK and financial institution data, but also questions that assess the same aspects, which altogether serve as additional information for a more holistic assessment of households' indebtedness. The sample of households is different, however, it is considered that the results of the survey are informational for assessing the overall issue of indebtedness for the purposes of credit risk assessment and policy-making.

### 3.2. Study sample

The overall sample of the study was selected from the population of individual clients of all banking and microfinance institutions in Kosovo, having at least one active credit contract at the CRK at the end of March 2021. Data on the total number of individual clients with at least one active credit contract for each of the lending financial institution were obtained from the CRK. All banks and banking branches in Kosovo which lend to the household sector, regardless of share in this segment, were included in the study<sup>7</sup> While in terms of microfinance lending institutions, the study included only institutions with a share in this market segment higher than 0.22 percent (at least 5 clients).<sup>8</sup> The final study sample includes individual clients of nine commercial banks and nine microfinance institutions,<sup>9</sup> with active loans as of March 2021. Based on the market reach of the institutions included in the study in March 2021, the sample represents 99.4% of the total credit market in terms of the number of customers for the given segment.

The sample, which was selected adhering to the confidence level of 99% and the 3% error margin, initially included 1,841 clients. This initial sample was increased by 10.0% to account for the possibility of multiple draws - sampling of the same client by more than one institution -, and to account for missing data and data errors (observations with extensive missing data or reporting errors). After these adjustments, the final study sample included 1,991 individual clients with 10,738 credit contracts (of which 5,014 active credit contracts). However, the sample varies for the

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<sup>6</sup> UBO Consulting is a local market research and business consulting company, which is a member of the European Society for Opinion and Marketing Research (ESOMAR), the World Association for Public Opinion, Market and Social Research.

<sup>7</sup> Credins Bank, as of the sampling date, had no active household loans.

<sup>8</sup> Monego and IuteCredit are not included due to their operating license revocation.

different indebtedness indicators, depending on the information available, so the sample number is reported alongside each indicator.

The sample distribution for the participating financial institutions was done in proportion to their share in the household lending market.

### **3.2.1 Selection procedure of study sample**

In order for the sample to be valid and representative of the population, it was randomly selected by the study authors who are senior analysts in the Economic Analysis and Financial Stability Department (EAFSD) of the CBK. To ensure client data confidentiality, the lists of clients with active loans in financial institutions were initially coded by the CRK with unique client codes which were subsequently sent to EAFSD for random selection of clients. The sample of selected clients was passed back to CRK to add their corresponding identification number and forward them to the financial institutions for data completion. For the same sample of clients, CRK extracted the requested data from their database, and after coding, they were sent to the EAFSD for processing.

### **3.2.2. Sample of household survey**

The sample for the household survey conducted by Ubo Consulting is 1,068 households. The sample is stratified by ethnicities as well as balanced in terms of gender and type of settlement. More specifically, the gender representation of the sample is 50.4% men and 49.6% women. While the representation in terms of settlement is: urban 44.4% and 55.6% rural.

The sample has a margin of error of  $\pm 3\%$  and a 95% confidence interval. The sample was selected through systematic random method, and the survey was conducted with the household member over 18 years of age with the first nearest birthday. The survey was conducted between 15 - 23 March 2021.

## **3.3. Data limitations**

The process of compiling this study has faced many challenges in terms of data provision, as well as limitations in their quality. These limitations are reflected in the over / under estimation of certain results, so it is recommended that the interpretation of the findings of this study is done taking into account the relevant data limitations and the underlying assumptions.

### **3.3.1. Data quality**

Information on monthly household income and living expenses was provided by financial institutions specifically for the purposes of this study. The data were obtained either through written surveys or individual contact with borrowers. This process of obtaining data, for which there is no regulatory framework that mandates their reporting, nor any mechanism for its documentation (employment contract or bank statements), creates room for skepticism in the accuracy of the obtained information. In many cases, borrowers refused to disclose household income and expenses, which led to changes in the initial sample - additional borrowers have been selected for the respective institutions, in order to obtain the required minimum number of the sample of borrowers with information on these key variables of interest-. However, even when data was obtained, the lack of mechanisms for its confirmation points to potential data subjectivity (over or under estimation / statement of income and expenses).

The skepticism in data quality issues mentioned above are confirmed by the fact that in many cases:

- a) Monthly income of the individual borrower is reported the same as the income of the entire household, despite the fact that more than one employee in the household unit is reported;
- b) Household monthly income is reported to be lower than borrowers' income;
- c) Monthly household expenses, which includes cost of living expenses excluding credit installments, were reported to be higher than entire household income;

Despite the corrections for technical mistakes done in cooperation with the relevant financial institutions, concerns about the quality of information provided by borrowers remain. This concern about accuracy, also emphasized by the financial institutions themselves, should be taken into account in interpreting the results of the household indebtedness.

Another issue for the assessment of household indebtedness, which that may lead to underestimation of the over-indebtedness, is the lack of information on household debt. In the absence of debt information of all household members, the borrower's debt (the amount of the borrower's credit installments in all financial institutions, obtained through the credit register) is considered as household debt. Due to the fact that the income includes the declared income at the household level, while the debt includes only the borrower's debt, the indebtedness index tends to be underestimated.

In the case of the net indebtedness index which also takes into account the data of regular monthly household expenses, there is also doubt about the accuracy of the data on expenses. In 1.9 percent of cases, the monthly household expenses (after possible corrections) are found to be higher than the household income.

Therefore, while household indebtedness results should be interpreted with caution, it is considered that the results of individual borrowers' indebtedness reflect a more objective assessment of the situation. Data on borrowers' monthly income are the data that lending institutions mainly have documented through employment contracts or bank statements of the monthly income. This information, in most cases, is completed by financial institutions at the time of loan issuance and stored in the respective borrowers' loan files.

Even in the case of borrowers' income, there are some aspects of information quality that need to be emphasized:

- a) The time dimension, which means the time of recording the borrowers' monthly income and their possible change over the period of the credit contract extension. Income for the borrowers are collected by the lending institutions at the time of loan issuance and are not updated on a regular basis throughout the term of the loan contract. This leads to the possibility that the available data will not reflect possible changes in income in the post-loan approval period, which affects the borrower's capacity to repay the debt. This issue of income that are not up to date may have an impact on over or under estimation of results for the indebtedness level. Under assumption that income have not been updated since the issuance of credit contracts, financial institutions were required to submit updated data following the outbreak of the COVID-19 pandemic. However, due to the potential change in income from the time the contract was issued, the pre- and post-pandemic COVID-19 revenue comparison may not fully reflect the pandemic effect but these possible updates.
- b) Inconsistency of borrowers' data between the two databases, respectively the CRK and information submitted by financial institutions, which may be the result of the above issue of time dimension, or possible reporting errors. The most significant discrepancies resulted in the cases of loan installments (16.1 percent of total loans), the outstanding amount (17.8



percent), the purpose of the loan (7.95 percent), the profession (21.9 percent), the municipality (15.7 percent). In case of discrepancies, the information submitted by the financial institutions is retained, due to the assumption that they are more up to date.

### 3.3.2. Lack of accurate data on loan installments

The loan installment amount, although already a variable that is required to be reported to the Credit Registry, in many cases is missing for credit products, such as overdrafts (installment missing at 79.7 percent of active overdrafts) and credit cards (installment missing at 98.5 percent of active credit cards). The installment amount of these credit products for the borrowers included in the study was taken from the data of financial institutions, but only in cases when these products were issued by the same institutions. Whereas in the case when the borrowers in the sample have loan products from other financial institutions, and in the absence of the installment amount of these products, assumptions had to be made to calculate the total amount that customers pay to repay these debts.

In the case of credit cards, in the absence of information on the possible division of active debt into loan installments, it is assumed that the total debt outstanding is a monthly loan installment. In cases where there was a delay in payment, a punitive interest was also applied.

Whereas, for overdrafts and loans, in case of lack of installment information (only 1.7 percent of loans and active leasing had missing credit installments), the calculation was made initially using information on the total cost of the loan and the effective interest rate, reported in the Credit Registry of Kosovo (CRK). For overdrafts, the total amount owed is considered as a monthly installment while for loans, the monthly installment is calculated under the assumption of equal payments throughout the duration of the loan. The installment calculation is done assuming that the credit contract has an interest rate equal to the average interest rate offered by all institutions (especially for banks and microfinance) for the respective credit product.

The average annual interest rates used to calculate the installment, broken down by credit products and sectors are as follows:

- Loans<sup>10</sup> and leasing:
  - a) Banking sector: 6.24 %
  - b) Microfinance sector: 21.83%
- Overdraft in the banking sector: 14.97%
- Credit card (Monthly penalty rate for overdue amount): 32.0%

Lack of accurate data on the loan installment amount can cause results to deviate because interest rates vary according to the institution, type and terms of the loan, so there may be times when the installments paid by customers are underestimated or overestimated. Also, the installments may not be evenly distributed throughout the duration of the contract, where financial institutions may apply installment payment exemption periods, or negotiate one-off loan payments. The main problem lies in the case of credit cards, the outstanding amount of which can be structured for payment in several installments. In these cases, it is estimated that the level of indebtedness when credit cards are included, has a high degree of doubt of accuracy, respectively high probability of overestimation. Even in the case of overdrafts, the assumption of payment of the total outstanding

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<sup>10</sup> Loan means the classic credit product, respectively loans with maturity and respective interest rate that the borrower is obliged to pay to the lending institution for the use of the loan for the entire maturity period. The loan is repaid in (usually equal credit installments. In this study, the term credit, or credit contract, refers to all credit products, including loans, leasing, credit cards, overdrafts, etc. While with the term borrower, we refer to the general phenomenon of borrowing (including all types of credit).

amount is estimated to cause an overestimation of the indebtedness, as customers on a monthly basis usually pay only interest on the amount of the overdraft limit used, while payment of the full amount of the overdraft is required only at the termination / maturity of the contract.

### 3.4. Definition of over-indebtedness

In the world literature, respectively in various studies on indebtedness there is no consensus regarding the definition and method of assessing indebtedness/over-indebtedness. Researchers from different countries use different definitions, namely different indebtedness assessment indicators (D'Alessio & Iezzi, 2013). Among the most widely used definitions is the one used in the UK which focuses on outstanding debt (arrears) in paying regular bills (including credit installments), where indebtedness is considered the situation where families or individuals are in arrears on a structural basis (continuous delays for several months), or are at significant risk of falling into the category of structural arrears (OXERA, 2004). Another most commonly used definition is that used in Germany, whereby over-indebtedness has been defined as a situation where household income “in spite of a reduction of the living standard, is insufficient to discharge all payment obligations over a long period of time (Haas, 2006). The European Commission in 2010 re-emphasized the main criteria for assessing the indebtedness, pre-defined in 2008 through a study to define a more comprehensive and common definition of indebtedness for EU countries. The criteria, which must be met by the indicators of the assessment of the level of indebtedness, include: a) The indebtedness must be assessed at the level of the household and not at the level of the individual, because households combine resources - income and expenses; b) Indicators must include all financial obligations, including all types of credit contracts but also regular monthly bill payments; c) Over-indebtedness means the inability to pay recurring expenses (every month) therefore it must be considered as a permanent and not temporary problem; c) The problem cannot be solved by taking more debt; and d) The problem requires a significant reduction in expenses or an increase in resources and the level of income.

D'Alessio & Iezzi (2013) suggest that recent studies have shown trends of compliance towards key indicators for indebtedness measurement, always emphasizing the lack of consensus on the ‘best’ indicator for assessing over-indebtedness. The most used indicators, which adhere to most of the above principles, reflect four aspects of the indebtedness such as: high debt-to-income ratio, late payment, frequent use of credit, and the subjective aspect of considering debt as a severe burden (Table 3).

**Table 3. Common indebtedness indicators**

Category	Indicator
Cost of debt servicing: Debt to income ratio	Households spending over 30 % (or 50%) of their gross monthly income to pay secured and unsecured debt
	Households spending over 25 % of their gross monthly income to pay unsecured debt
	Households whose spending on total debt repayments takes them below the poverty line
Arrears	Households with more than 2 months in arrears on paying their credit contracts or household bills
Number of credit contracts	Households with 4 or more than 4 outstanding credit contracts
Subjective perception of debt	Clients declaring that debt obligations are “heavy burdens” for their income

Source: D'Alessio, G. and S. Iezzi, (2013) *Household Over-Indebtedness. Definition and Measurements with Italian Data*. Bank of Italy.

The authors point out that since the above indicators present different aspects of indebtedness, each of them constitutes important information for assessment, but that neither of them has an advantage over the other. Moreover, Disney et al. (2008) argue that different indicators tend to

estimate the indebtedness for different groups of households, at different stages of the life cycle. The challenge remains in finding the combination of indicators that measure the indebtedness for the same group of households, especially due to the lack of available data.

In this study, it is initially attempted to estimate the indebtedness of the same group of households through indicators that assess the first three aspects of indebtedness. However, in the absence of complete information on the household through the CRK channel and information received from financial institutions, the assessment will be more objective on the level of indebtedness of individuals.

The main indicator for measuring the level of indebtedness (**indebtedness index**) is defined as the ratio between **the amount of monthly loan installments<sup>11</sup> and monthly income**. The index was also calculated for all credit products, but its correlation with other variables was not analyzed due to the above-mentioned data limitations and conservative assumptions in its calculation.

The indebtedness index is calculated separately for individual borrowers and their respective households. For the individual borrowers' indebtedness index, the calculation is based on the monthly income (net of taxes and pension contributions) of the borrower, while for the household indebtedness index, the calculation is based on the entire household income. In both cases, the debt represents only the debt of the individual (all monthly installments only of the borrower, in the absence of information about the debt of other family members). Based on the values of the indebtedness index, borrowers/households were classified into four indebtedness categories:

- 1) **Not indebted (indebtedness index < 0.50):** borrowers / households which spend less than 50% of monthly income (net of taxes only), in servicing monthly loan installments.
- 2) **At risk (indebtedness index = 0.50 - 0.75):** borrowers / households which spend 50% to 75% of their monthly income in servicing monthly loan installments.
- 3) **At the critical stage (indebtedness index = 0.75 - 1.0):** borrowers / households which spend 75% to 100% of their monthly income in servicing monthly loan installments.
- 4) **Insolvent (indebtedness index > 1.0):** borrowers / households which spend all their monthly income in servicing monthly loan installments; thus, monthly installments exceeds monthly income.

In the case of household indebtedness, **the net indebtedness index** is calculated, based on the available monthly income, minus regular monthly household expenses (cost of living expenses, excluding credit installment payments).

Indebtedness categories according to the **net indebtedness** index for households were classified as follows:

- 1) **Not indebted**, when the installment to net income ratio is below 70 percent;
- 2) **Over-indebted**, when the indebtedness index is in the range 70 -100 percent.;
- 3) **Insolvent**, when the index exceeds the value 100 percent.

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<sup>11</sup> The main Indebtedness index in this study is considered the index based only on installments of loans with regular payments. This is due to the fact that the index aims to estimate the monthly indebtedness (monthly debt to monthly income) and the inclusion of loans with irregular installments and credit products such as credit cards and overdrafts, overestimate the indebtedness due to lack of accurate information on monthly installments or even the characteristic of irregular payment.

It should be noted that the net index was used only to estimate the level of indebtedness in general, not analyzing its correlation with other factors as in the case of the main indebtedness index.

Indebtedness indices are calculated with data on income and credit installments which were recorded in the period before the outbreak of COVID-19, as well as with data recorded after the outbreak of the pandemic (in the first half of 2021, when income information has been collected) to assess any possible changes in income and debt, respectively the indebtedness, before and after the pandemic outbreak period.

Indebtedness assessment from the aspect of arrears and the number of credit contracts is done only at the individual borrower level, through the indicator of arrears of more than 2 months in the payment of credit contracts and the number of credit contracts of borrowers. These two indicators are not affected by the above limitations in the data,<sup>12</sup> therefore in combination with the main indebtedness index they represent an objective source of information on the level of indebtedness of borrowers.

Due to the limitation in the data for the household unit for the assessment of the indebtedness within the framework of this study, a household survey was commissioned to be conducted as an additional assessment.

The questions asked through the survey are:

- 1) What percentage of monthly household income do you spend on repayment of loan/loans?
- 2) How often are you in arrears longer than 2 months on the payment of utility bills (water, electricity, waste, property tax)?
- 3) How did the pandemic crisis affect your household income?
- 4) What percentage of monthly household income do you spend on consumption (food, hygiene, clothes) and utilities (water, electricity, waste, property tax)?
- 5) What are your household income expectations for the next 3 months?

### 3.5. Data processing

Data processing of the study and obtaining of results is done with the statistics and data analysis program - STATA 15.1

The relation between the variables was assessed using tests such as Pearson's  $\chi^2$  as well as the t-test. Given that the analysis is done on a sample of clients, the results are tested for their statistical significance. In almost all cases, only the results that have statistical significance at the level of 1 and 5% (when the value  $p \leq 0.05$ ) are interpreted. It should be noted that the statistical significance of the results in cases where there is a correlation between the two variables does not necessarily represent a cause-and-effect correlation.

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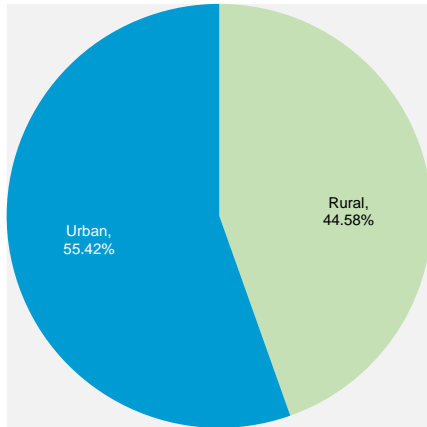
<sup>12</sup> Arrears and the number of credit contracts are well-defined data that leave no room for subjectivity, inconsistency and other potential problems highlighted in relation to the indebtedness index.

## 4. Results

### 4.1. Socio-demographic and socio-economic characteristics of the borrowers

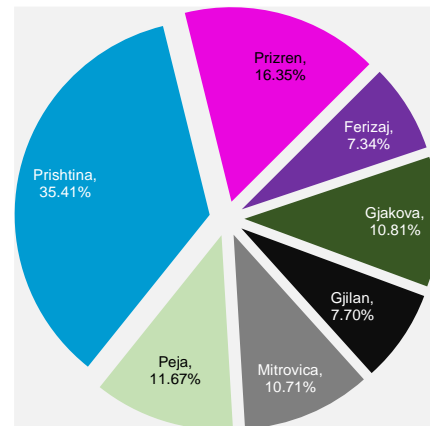
Most of the borrowers of the selected sample, respectively 71 percent are men, in the 30-40 years of age group. Over 70 percent of total borrowers are married (Table 4).

Chart 1. Type of residence



Source: CBK.

Chart 2. Share of borrowers, by regions

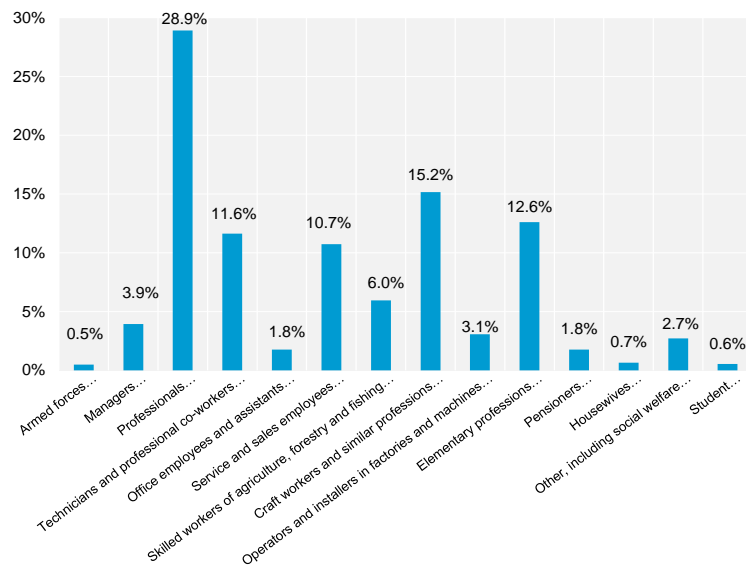


Source: CBK.

About 55 percent of borrowers live in urban areas (Chart 1). More than a third are from the region of Prishtina, while the region with the smallest number of borrowers is Ferizaj (Chart 2).

Nearly one-third of borrowers are categorized as Professionals<sup>13</sup>, according to the International Standard Classification of Occupations (ISCO) (Chart 3). Most borrowers have stated over 10 years of work experience. Households with two employed members have the highest share in the selected sample of borrowers, followed by households with only one employed member that make up almost one third of the sample.

Chart 3. Distribution of borrowers, by professions



Source: CBK.

<sup>13</sup> Science and engineering professionals; Health professionals; Teaching professionals; Business and administration professionals; Information and communication technology professionals; Legal, social and cultural professionals [Classification of Occupations in Kosovo - ISCO KS \(rks.gov.net\)](https://www.rks.gov.net)

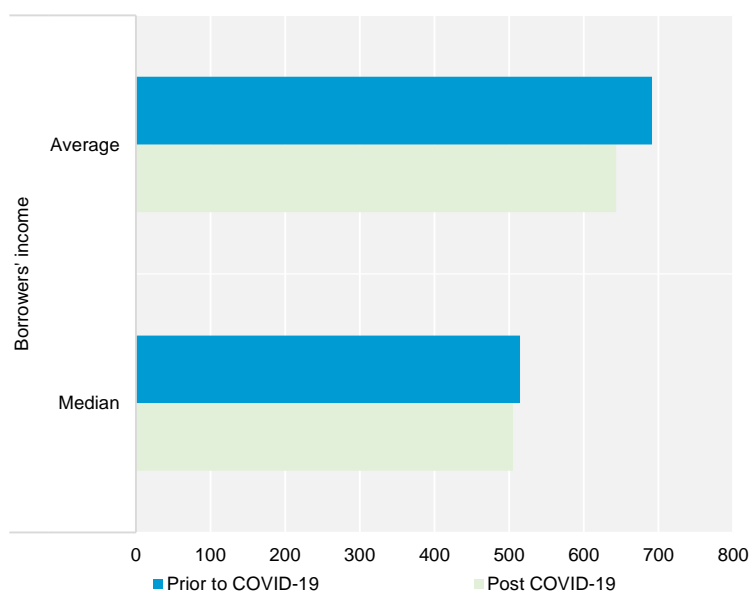
**Table 4. Borrowers' socio-demographic characteristics**

Characteristics		Share (%)	Number / Frequency
<b>Age</b>	< 30 years of age	17.33	341
	30 - 40 years of age	29.32	577
	40 - 50 years of age	24.49	482
	50- 60 years of age	20.17	397
	> 60 years of age	8.69	171
<b>Gender</b>	Man	70.75	1405
	Woman	29.25	581
<b>Status</b>	Not married	28.19	548
	Married	71.19	1384
	Divorced	0.62	12
<b>Work experience</b>	0-5 work experience	27.01	437
	6-10 years	27.13	439
	Over 10 years	45.86	742
<b>Number of employees in the respective household</b>	1 (only the borrower)	34.31	586
	2 employees	42.86	732
	3-5 employees	20.37	348
	Over 5 employees	2.46	42

Source: CBK.

#### 4.1.1 Monthly income of borrowers

The average income of borrowers<sup>14</sup> was EUR 643 per month. The median of income was EUR 505, which suggests that half of the clients had net income below EUR 505 per month (Chart 4). Significant differences in income were observed according to some socio-demographic characteristics. Monthly income for women borrowers, on average, were EUR 151 lower. Borrowers residing in urban areas had income, on average, EUR 120 higher than borrowers in rural areas.

**Chart 4. Borrowers' monthly income**

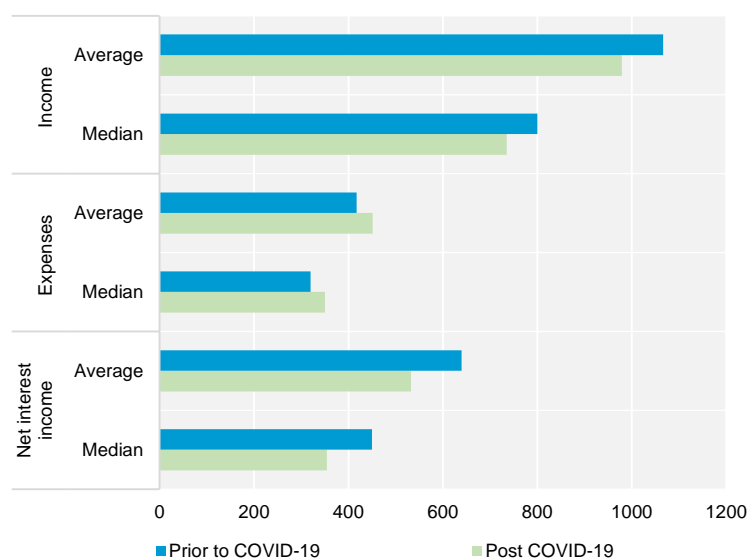
Source: CBK.

Regarding the breakdown by regions, income in the Prishtina region were higher, but the differences were not statistically significant.

<sup>14</sup> Monthly income include monthly income after taxes.

Significant differences, in line with expectations, were found among groups of different ages, professions, and borrowers' work experience. The age group younger than 30 years of age as well as the one older than 60 years of age, on average, had lower income. The age group 41-50 had the highest income. Professions with the highest level of required skills had higher monthly salaries. The differences are statistically significant only between the group of managers and almost all other professions, as well as professionals and craft workers and elementary professions. According to work experience, income is higher in groups of clients with higher work experience.

Chart 5. Household net monthly expenses and income



Source: CBK.

The average monthly income did not differ significantly between the group of bank customers and those of microfinance institutions. However, the differences are highlighted in individual comparisons between institutions, especially for three institutions (two banks and one microfinance institution), which on average have the highest income. The reason may be related to the specific strategy of these institutions in offering to customers higher loan amounts, which respectively corresponds to higher income. This is also supported by the fact that, on average, the clients of both of these institutions have turned out to have a higher value of active loans at the time of disbursement. Given the pandemic circumstances and their impact on the overall economic situation, the study attempted to measure the potential effect of the COVID-19 pandemic on borrowers' income. The average monthly income of borrowers, in contrast to general expectations, is higher after the COVID-19 pandemic. This result is mainly influenced by the income of the borrowers of the two banking institutions, who, on average, have higher income after the pandemic. According to the professions, there are the skilled workers in agriculture, forestry and fisheries, service and sales employees; operators and installers in factories and machines, as well as the elementary professions that result in a decrease in income following the COVID-19 pandemic, while other professions result in increases.

The standard income deviation after the pandemic is higher, which suggests that the result was more influenced by more extreme observations. However, the change in borrowers' income before and after the COVID-19 pandemic cannot be considered to fully reflect the impact of the pandemic because pre-pandemic data in many cases were recorded at the time the lending was granted by the institutions, and possible changes in Borrowers' income from the time of loan issuance to the time of obtaining data for the purposes of this study are not reflected in all cases. Therefore, the change, in this case the increase, may also reflect the gradual increase in borrowers' income, regardless of the pandemic effect.

**Table 5. Descriptive statistics of household net income**

Socio-demographic characteristics of households	Prior to COVID-19		Post COVID-19	
	Average	Median	Average	Median
Man	1102	802	1002	720
Woman	980	800	924	758
Not married	1077	800	1022	760
Married	1061	800	955	728
Divorced	1741	1040	1828	859
Urban	1174	900	1092	800
Rural	931	736	835	650
Ferizaj	931	800	796	693
Gjakovë	970	770	879	700
Gjilan	818	730	767	672
Mitrovica	975	700	872	644
Peja	1021	800	910	641
Prishtina	1240	940	1177	840
Prizren	1045	810	940	700
Armed forces	754	700	734	700
Managers	1687	1000	1563	800
Professionals	1302	1000	1218	950
Technicians and professional co-workers	1106	893	1063	785
Office employees and assistants	858	650	774	500
Service and sales employees	922	797	813	666
Skilled workers of agriculture, forestry and fishing	945	820	809	700
Craft workers and similar professions	899	720	776	680
Operators and installers in factories and machines	810	700	827	700
Elementary professions	862	673	775	620
Pensioners	617	570	574	470
Housewives	864	800	699	500
Other, including social welfare	1267	681	1270	678
Student	955	926	787	699
< 30 years of age	984	800	931	750
30 - 40 years of age	1150	868	1048	770
40 - 50 years of age	1131	795	1042	700
50- 60 years of age	981	797	864	700
> 60 years of age	952	765	917	700
1 (only the borrower)	750	591	693	536
2 employees	1117	900	1006	800
3-5 employees	1524	1257	1384	1051
Over 5 employees	1607	1300	1335	1066
Banks	1097	800	1035	750
Microfinance	991	808	849	700

Source: CBK.

#### 4.1.2 Monthly household income

Households, on average, had a monthly income of EUR 1,084. The median monthly income was lower, respectively EUR 830.5. Income in households with more employed members was higher, but the differences generally narrow down with the increase in the number of the employees. On average, income increase by EUR 350 with the increase of one employed member, up to four employed members. In households with five or more employed members, which have a low share in the total study sample, income show higher variance and do not increase further.

The differences in average household income by demographic characteristics are found to be similar to the differences appearing in borrowers' income, with some exceptions. Households where the borrower is woman turn out to have EUR 122.3 less monthly income than households where the borrower is man. Households in the Prishtina region have the highest household income, while those in the Gjilan region have the lowest income. Household income in urban areas are higher than in rural areas.

In contrast to the income of individual borrowers which were similar by type of institution (bank or microfinance), the household income of the borrowers of the banking sector, on average, were higher than those of the borrowers of the microfinance sector.



Unlike the income of individual borrowers which increased in the post-pandemic period, household income, on average, fell in the post COVID-19 period by EUR 87.5, to EUR 978.8. The median income for households after COVID-19 is EUR 735. These results suggest that the decline in the household budget of borrowers has been influenced by the decline in income of other members of the borrower's family. The decline in household income is mainly influenced by the household income of clients of microfinance institutions, which on average have experienced a more pronounced decline during the pandemic (Table 5).

#### 4.1.3 Monthly household expenses

Regular monthly household expenses (monthly bills for energy, water, waste, utilities and internet, as well as other living expenses, not including credit installments) on average appear to be EUR 417.2. The median of monthly expenses is lower, respectively EUR 320 (Chart 5). Expenses, as well as income, are highest in the Prishtina region and lowest in the Gjilan region. Household expenses in urban settlements are higher. The households of the borrowers of the banking sector have, on average, higher expenses than the borrowers of the microfinance sector. Expenses result higher in the households of married borrowers. Similar to income, expenses increase as the number of employed family members increases. But, in terms of expenses, the increase is highest from the group with one employed member to two employed members, EUR 132 on average, and this increase narrows with the increase in the number of employed members.

The net monthly income of households (after deducting the reported expenses) results, on average, at EUR 640.0.

Monthly household expenses after the COVID-19 pandemic increased by an average of EUR 33.8. Consequently, the net household income after the pandemic decreased by EUR 107.6, which was influenced by both the decrease in income and the increase in expenses (Appendix 2).

## 4.2. Borrowing models

### 4.2.1 Type of loan

Half of the borrowers' active credit contracts were loans (50.4 percent), followed by overdrafts and credit cards which represented 19 percent and 30 percent of active contracts, respectively. Other types of credit contracts<sup>15</sup> accounted for only 0.6 percent of the total loan portfolio (Chart 6).

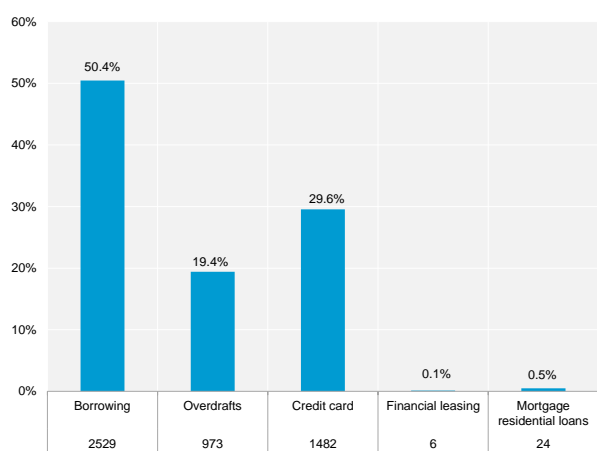
The above distribution of loan-dominated credit contracts is influenced by the microfinance sector, which operates almost exclusively with loans (99.6 percent of active contracts in the microfinance sector are loans and only 0.6 percent financial leasing). Whereas, within the banking sector, the distribution of credit contracts by credit product is more equal (Chart 7). This distribution has significant differences within the banking sector institutions, which reflects the different strategies of banks to focus on certain credit products.

The use of different credit products results in statistically significant differences according to socio-demographic characteristics. Credit cards are used in a higher percentage in urban settlements, where 71.6 percent of urban borrowers are their users compared to 50.7 percent of borrowers in rural areas. The highest share of credit card users was in the Prishtina region, 73 percent of borrowers as opposed to the average of 63.6 percent of all regions. Ferizaj was the region with the

<sup>15</sup> In the Kosovo Credit Registry, types of loans are categorized as follows: 1) loans; 2) overdrafts; 3) credit cards; 4) other credit assets; 5) letters of credit; 6) guarantees; and 7) leasing. For the purpose of facilitating analysis, the last four categories are grouped into one category which we refer to as other types of credit contracts.

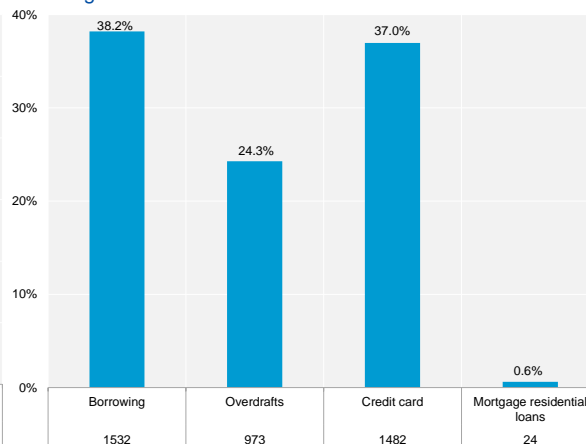
lowest number of users. Borrowers in the age group of 31-40 were the most frequent users of the credit card, while the rarest users were the age group over 60 and up to 30 years of age.

Chart 6. Distribution of active contracts, by credit product



Source: CBK.

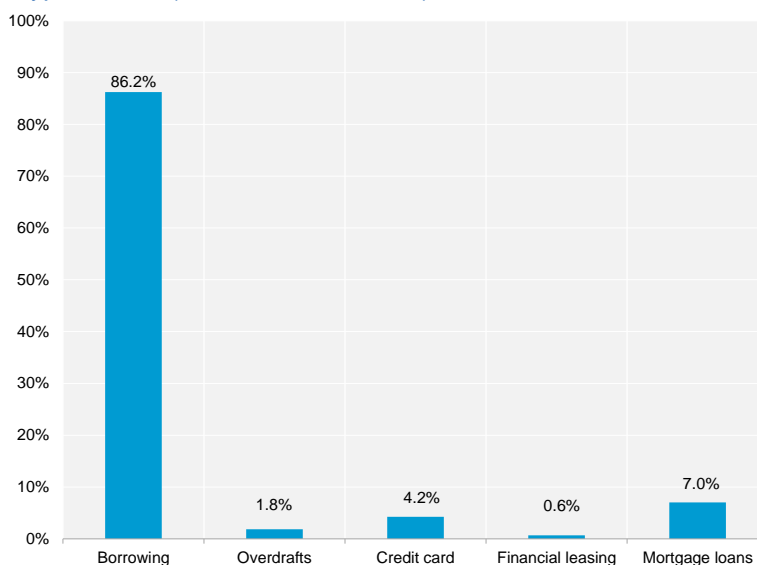
Chart 7. Distribution of active contracts by credit product, banking sector



Source: CBK.

Women were the largest users of credit cards, with 49.9 percent of women having a positive credit card balance compared to 44.8 percent of men. By profession, the most frequent users were mainly professions with higher qualifications such as professionals, technicians and professional associates, but also the professions of the armed forces and students. Credit cards were used more in households with two employed family members, while less in those with only one employed member and with more than four employed members. Borrowers with credit contracts in more than one financial institution were the largest users of credit cards. Borrowers that did not have active loans had slightly higher tendencies to use credit cards. Whereas, the tendencies of using credit cards were much higher among the borrowers who used overdrafts.

Chart 8. Distribution of approved value of active loans, by type of loan (as % to total amount)



Source: CBK.

The most frequent users of credit cards were borrowers who had restructured active loans (74.3 percent compared to 62.1 percent of borrowers without restructured loans).

Overdrafts turned out to be more frequently used by borrowers who also have loans, of whom 49.0 percent also use overdrafts as opposed to 39.2 percent of overdraft users who do not have loans. Borrowers who also had credit cards showed a much higher tendency to use overdrafts (69.0 percent compared to 11.9 percent of non-credit card users).

Consequently, borrowers with more than one credit contract, i.e. three or more, were the largest users of overdrafts. Tendencies to use overdrafts were higher for customers with active contracts with a single institution (50.2 percent compared to 44.1 percent for customers with active contracts

with different institutions), which suggests that customers prefer to use overdrafts at the same bank where they have another credit contract (respectively loan or credit card).

Even in overdrafts, the most frequent users with active debt in overdrafts were those with restructured active loans (25.7 percent compared to 16.2 percent of borrowers without restructured loans).

The use of overdrafts also shows statistically significant differences according to some socio-demographic characteristics. Overdrafts are used to a higher degree by borrowers in urban settlements, at 56.2 percent compared to 36.5 percent of users coming from rural areas. The most frequent users of overdrafts are borrowers

from the Prishtina region, 55.6 percent of whom were users, compared to the average of 48.3 percent of all regions. Ferizaj was the region with the lowest number of users, similar to credit cards.

Borrowers in the age group 31-40 and 51-60 were the most frequent users of overdrafts, while the rarest users were persons in the age group over 60 and up to 30. According to the profession, the most frequent users were the highly qualified professions such as professionals, technicians and professional associates, and the professions of the armed forces.

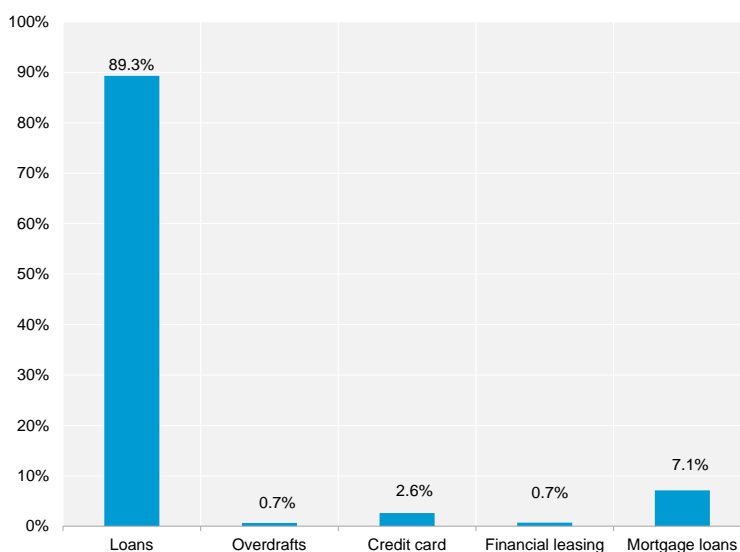
Overdrafts were used more in households with two or four employed family members, while the rarest users compared to other groups were households with more than five employed members.

The distribution of loan types according to the approved value of the active credit contracts of the borrowers included in the sample is dominated by loans, with 86.2 percent share in the total credit portfolio (Chart 8). Overdrafts and credit cards, although in large numbers, accounted for only 1.8 percent, respectively 4.2 percent of the total value of the credit portfolio, which suggests the low average amount of these credit products. Whereas, mortgage loans, despite the small number, had a share of 7.0 percent in the total approved value of the credit portfolio due to the much higher approved amount than other loan categories. The residual value of active credit products had distributions similar to the approved value (Chart 9).

#### 4.2.2 Average loan value

The average approved amount of total loans was EUR 5.4 thousand, with a maximum approved value of EUR 562.5 thousand (Chart 10). Loans, as the main product, had an average value of the approved amount of EUR 9.2 thousand (Table 6). However, there were large differences between the amount of loans where the maximum value reached up to EUR 364.5 thousand. Half of the active loans had an approved value of EUR 5.0 thousand. The average outstanding amount for the active loans, as of March 2021, was close to EUR 6.2 thousand (Table 7).

Chart 9. Distribution of the outstanding value of active loans by type of loan (as % to total amount)



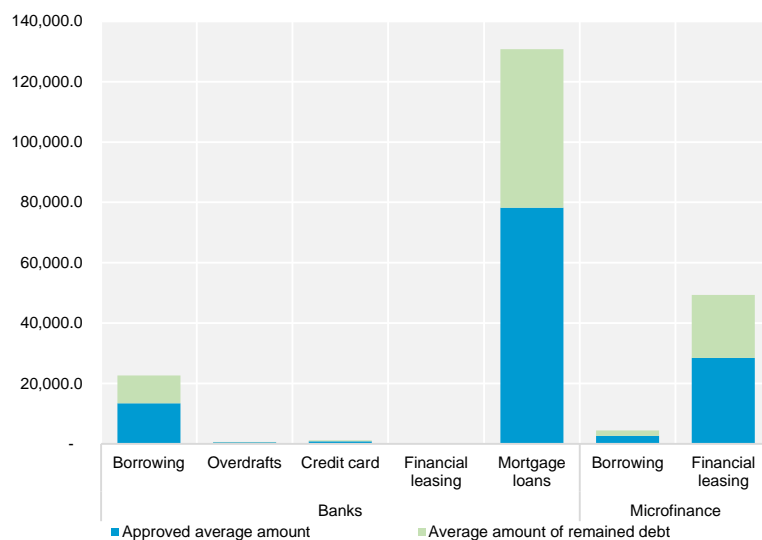
Source: CBK.

The average amount of approved loans of the banking sector was higher, EUR 13.4 thousand, compared to the average of EUR 2.6 thousand in the microfinance sector. There were significant differences in the average loan amount even within the institutions of the banking group, in which case the largest banks in the market have a higher average of the approved loan amount, although there are also two smaller banks that have a small number of customers but with high amounts.

Similarly, there were differences within microfinance institutions, reflecting the different lending strategies of institutions.

Overdrafts and credit cards had a low average value: half of them were worth less than 400 and EUR 500, respectively. The average outstanding value for overdrafts was EUR 120, while for credit cards EUR 316. The differences between the institutions in the average approved value of these two products were statistically significant. In the case of overdrafts, two of the banks had higher averages, especially compared to the bank with the lowest average. In credit cards, the average of one bank was significantly higher than the rest of the banks.

Chart 10. Average of approved and outstanding debt, by type of loan



Source: CBK.

Table 6. Descriptive statistics of the approved amount of active credit contracts, in EUR

Credit products	Average	Median	Minimum	Maximum
Borrowings	9,180	5,000	18	364,500
Overdrafts	500	400	-	5,200
Credit card	769	500	100	12,000
Financial leasing	28,433	26,952	6,000	50,000
Mortgage loans	78,230	53,000	577	562,500
<b>Total</b>	<b>5,363</b>	<b>1,000</b>	<b>-</b>	<b>562,500</b>

Source: CBK.

Other credit contracts such as mortgage loans and financial leasing, although fewer in number (24 and 6 observations respectively), had the highest average approved value as well as the outstanding value (Tables 6 and 7). In mortgage loans, the average approved amount is influenced by only one banking institution that has the highest average value.

Table 7. Descriptive statistics of the outstanding amount of active loans, in EUR

Credit products	Average	Median	Minimum	Maximum
Borrowings	6,228	2,490	-	356,339
Overdrafts	120	-	-	4,065
Credit card	316	143	-	9,921
Financial leasing	20,869	21,469	4,215	43,925
Mortgage loans	52,533	40,884	530	279,593
<b>Total</b>	<b>3,534</b>	<b>498</b>	<b>-</b>	<b>356,339</b>

Source: CBK.

### 4.2.3 Duration

The average duration of all active credit contracts was 5 years and 5 months. Mortgage loans, on average, had the longest term of 12 years and 3 months, followed by financial leasing of 11 years and 8 months. Overdrafts on average had a maturity of 7 years and 6 months, while credit cards 6 years and 4 months (Table 8).

**Table 8. Duration of active loans, in years**

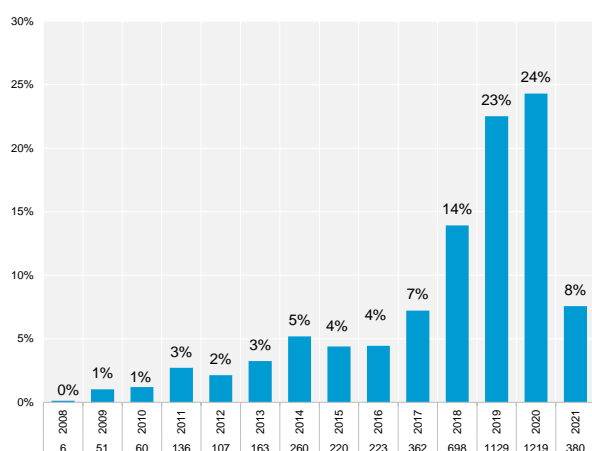
Description	Average	Median	Maximum	Minimum
<b>Borrowings</b>	4.2	3.0	25.0	0.1
Banks	5.5	5.0	25.0	0.8
Microfinance	2.1	2.0	5.3	0.1
<b>Overdrafts</b>				
Banks	7.6	6.0	22.4	0.5
<b>Credit card</b>				
Banks	6.4	5.0	16.5	1.3
<b>Financial leasing</b>				
Microfinance	11.8	11.1	20.2	3.2
<b>Mortgage loans</b>				
Banks	12.3	11.3	25.3	5.2
<b>Total</b>	5.5	4.9	25.3	0.1
Banks	6.4	5.0	25.3	0.5
Microfinance	2.1	2.0	20.2	0.1

Source: CBK.

Loans, on average, had the shortest duration of 4 years and 2 months, but with significant differences within the category where the minimum duration is 1 month and the maximum 25 years. The average duration of loans in the banking sector was higher, 5 years and 5 months, compared to that in the microfinance sector of 2 years and 1 month.

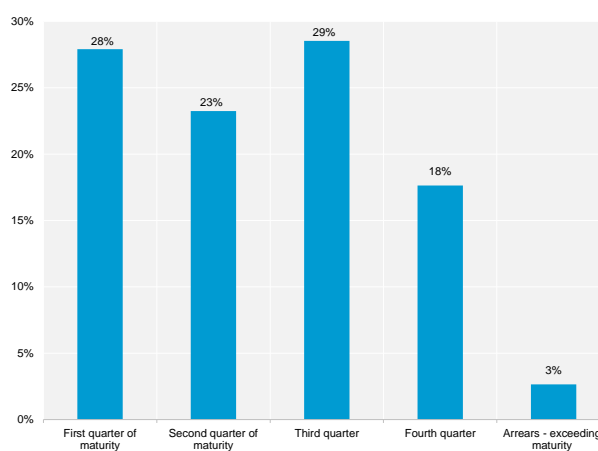
Out of a total of 5,014 active contracts, close to half of them were approved in 2019 and 2020. In 2021, 8 percent of credit contracts were issued (Chart 11). Most contracts have not passed half of the maturity time, which means that they are in the first and second stage of payment (Chart 12).

Chart 11. Distribution of active loans by year of loan approval (in % of credit contracts)



Source: CBK.

Chart 12. Distribution of active loans, by maturity

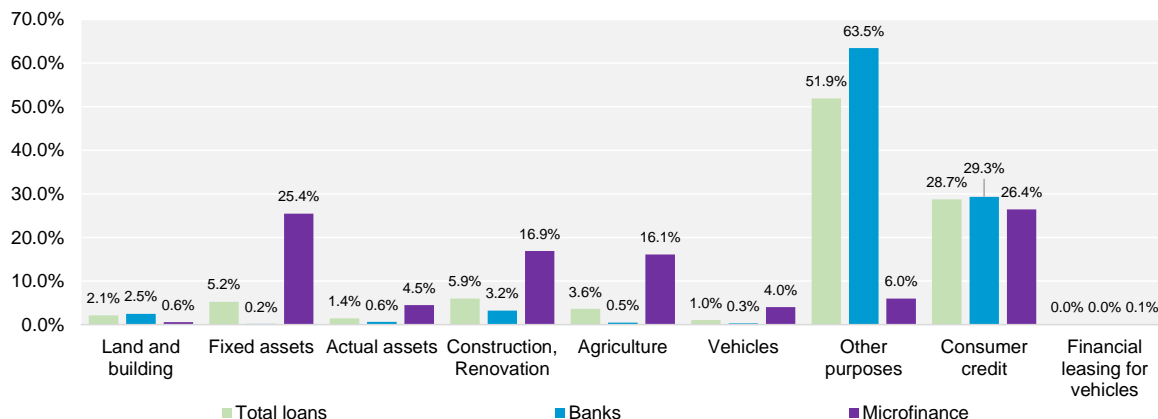


Source: CBK.

#### 4.2.4 Purpose of the loan

Active credit contracts, in most cases, respectively in 51.9 percent of cases, did not have a specified purpose (Chart 13).

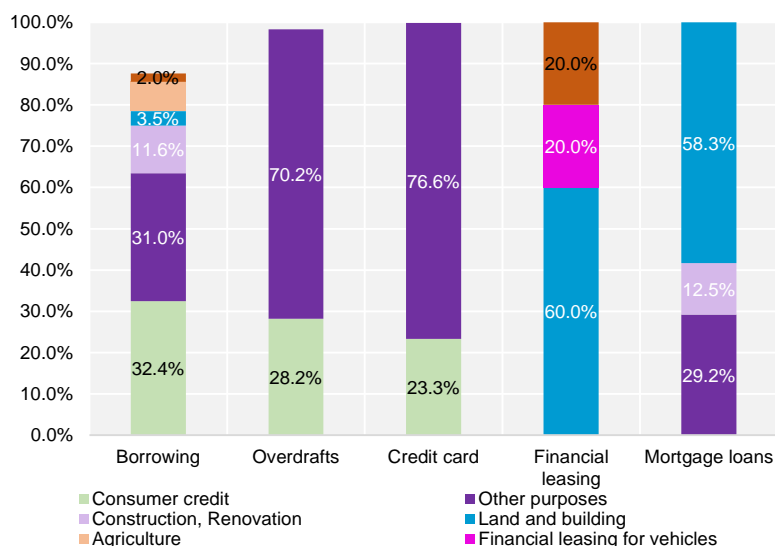
Chart 13. Distribution of active credit contracts by purpose and financial institutions (% of loans to loans of respective institutions)



Source: CBK.

This phenomenon is particularly pronounced in the banking sector, where 63.5 percent of loans issued had no specified purpose compared to only 6.0 percent in the microfinance sector. The difference between the sectors is explained by the high share in the banking sector of products such as credit cards and overdrafts, which have small amounts and the purpose of use is usually not specified: in 76.6 percent of cases of credit card usage and 70.2 percent of overdrafts the purpose is not specified (Chart 14).

Chart 14. Distribution of active credit contracts by credit products and by their purposes



Source: CBK.

Differences in the distribution of loans by purpose are also pronounced within banking institutions, also influenced by the share of credit products, where of the total loans with no specified purpose, 80.7 percent of loans are issued by only one bank.

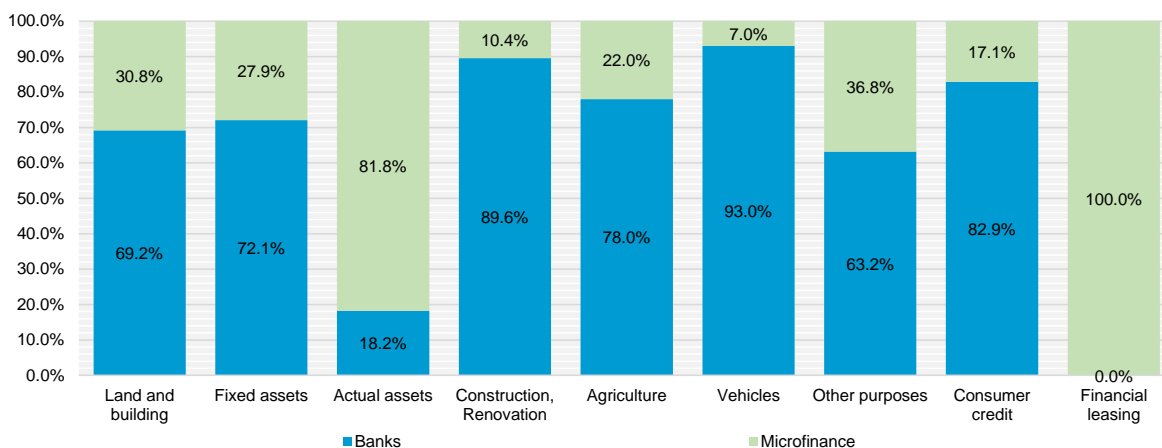
In case of non-inclusion of credit cards and overdrafts, the share of loans for other purposes in the total active credit contracts drops from 51.9 percent to 30.9 percent. Credit contracts for consumption purposes had the highest share of 28.8 percent, a result also influenced by the high share of credit cards and overdrafts which were mainly used for consumption purposes (Chart 14).

The highest approved and outstanding amounts are under loans for construction and housing purposes, due to the higher average value and longer maturity of these loans (on average this category has a maturity of 10 years compared to an average of 5.5 years of all credit contracts). Whereas, consumer credit, on average, have the lowest approved amount, EUR 3.9 thousand.

Loans approved for other purposes, which are almost double the number of consumer credit, had an approved amount of close to EUR 3.8 thousand.

Chart 15 presents the loan purpose by type of financial institution based on the outstanding amount, in which case it is seen that on average banks constitute the largest part of almost each category.

Chart 15. The amount of outstanding debt, on average, by purpose of loan and institutions



Source: CBK.

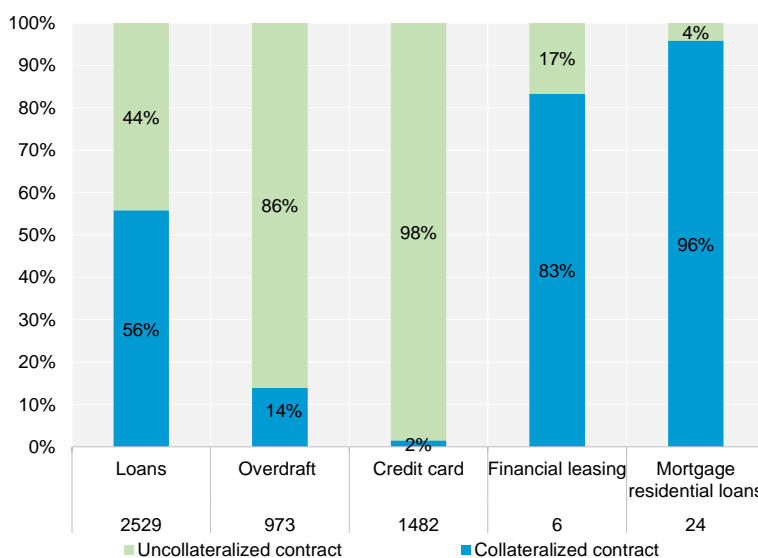
#### 4.2.5 Collateral

Less than one third (31.9 percent) of active credit contracts are collateralized with borrowers' own collateral.<sup>16</sup> The collateralization rate for all credit contracts is higher in the microfinance sector, 47.8 percent compared to 27.9 percent in the banking sector. This is due to the fact that in the banking sector are included credit cards, which are numerous in number and are uncollateralized credit product (Chart 16).

Mortgages and financial leasing, which are collateral-backed credit products (the value of the asset purchased serves as collateral), are almost completely collateralized. More than half of the loans are collateralized, while overdrafts have a relatively low collateralization rate of 14 percent. Analyzed by purpose, loan contracts for vehicles, land and building and fixed asset loans were most often collateralized. Consumer credit had a collateralization rate of 43.5 percent (Chart 17).

Collateralized credit contracts had a significantly higher

Chart 16. Distribution of active loans by type of loan and collateral



Source: CBK.

<sup>16</sup> Information on collateral or other forms of security that others may have made available for these sample borrower credit contracts was not available.

average value, respectively EUR 12 thousand compared to the value of EUR 2.2 thousand of non-collateralized contracts. Differences in value were more pronounced within uncollateralized contracts, half of which were below EUR 600. Banking sector, despite the lower degree of loan collateralization, has a low average value of non-collateralized loans, half of which are below the value of EUR 500 (Table 9).

**Table 9. Approved value of active credit contracts, by collateralization and sector, in EUR**

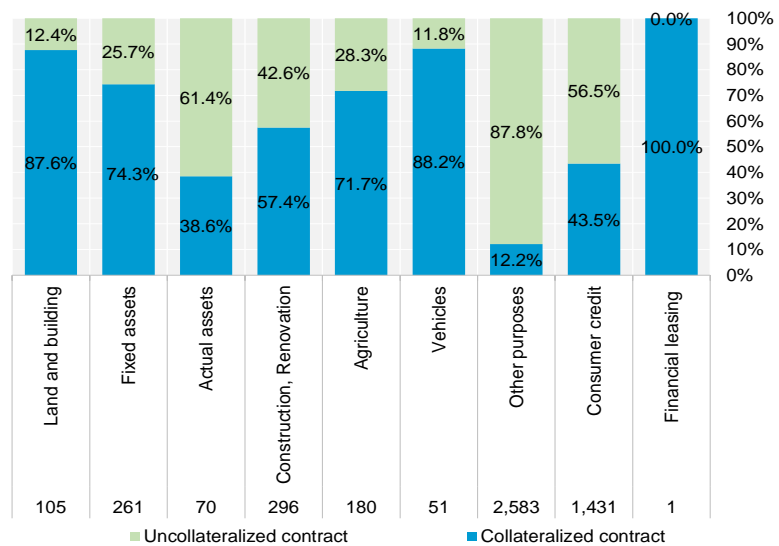
Description	Total		Banks		Microfinance	
	Collateralized	Uncollateralized	Collateralized	Uncollateralized	Collateralized	Uncollateralized
Average	12,011	2,256	15,513	2,336	3,837	1,815
Median	2,256	600	10,000	500	3,000	1,000
Maximum	562,500	90,750	562,500	90,750	50,000	25,000

Source: CBK.

The number of collateral units per credit contract, on average, was 1.3 (Table 10). Over 80 percent of collateralized contracts had 1 unit of collateral, while the maximum number of units per contract was 20. Among collateral-backed credit contracts, the highest probability of support with more than 1 unit of collateral was agricultural loans and those for vehicles.

The coverage ratio (value of collateral to approved loan value) of all collateralized credit contracts was on average 1.3.<sup>17</sup>

**Chart 17. Distribution of active loans by purpose of the loan and collateral**



Source: CBK.

**Table 10. Credit contract to collateral coverage ratio and number of collateral units, by sectors**

Description	Number of units of collateral for a credit contract	Credit contract to collateral coverage ratio	Number of units of collateral for a credit contract	Credit contract to collateral coverage ratio	Number of units of collateral for a credit contract	Credit contract to collateral coverage ratio
Average	1.32	1.33	1.19	1.15	1.62	1.7
Median	1.0	1.0	1.0	0.8	1.0	1.3
Maximum	20.0	78.7	20.0	0.0	12.0	0.0
Minimum	1	0.000013	1	78.7	1	33.3

Source: CBK.

The median of the collateral loan coverage ratio was 1.0, which suggests that for half of the credit contracts the value of the collateral is the same as the approved value of the loan. The number of collateral units as well as the coverage ratio was higher in the microfinance sector, whose credit products have a lower value. The collateral coverage ratio of loans also had significant differences

<sup>17</sup> Corrected for extreme values.



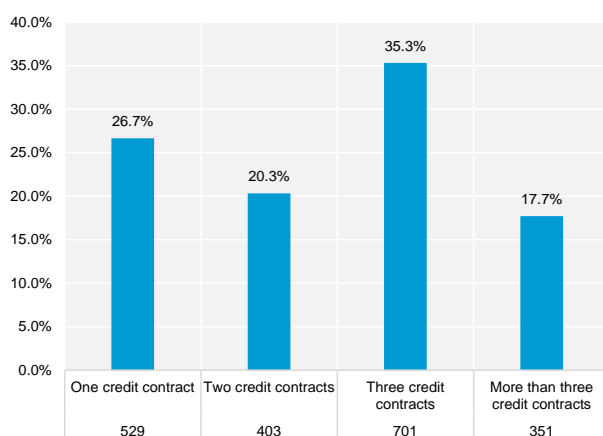
depending on the purpose of the credit contracts where vehicle loans stood out with the highest collateral ratio relative to the loan value of 3.5 whereas construction and renovation loans with the lowest ratio of 0.6.

#### 4.2.6 Borrowers and the use of credit

The majority of borrowers, or 73.3 percent, were multiple borrowers - borrowers with several active loan contracts. Borrowers with three credit contracts had the highest share within the total borrowers (Chart 18).

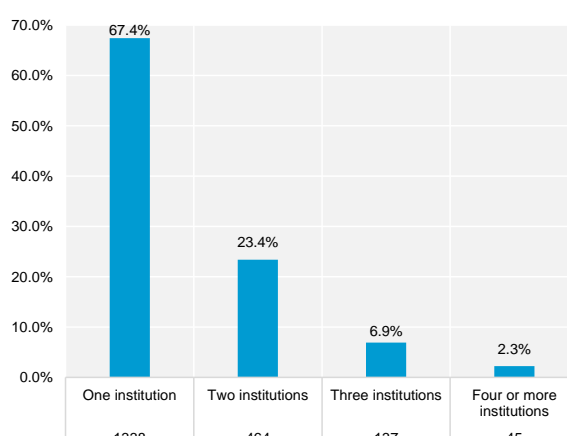
On average, the number of active credit contracts per borrower was 2.6, while the maximum number of active contracts that a borrower had was 9 (nine).

Chart 18. Distribution of borrowers by number of credit contracts



Source: CBK.

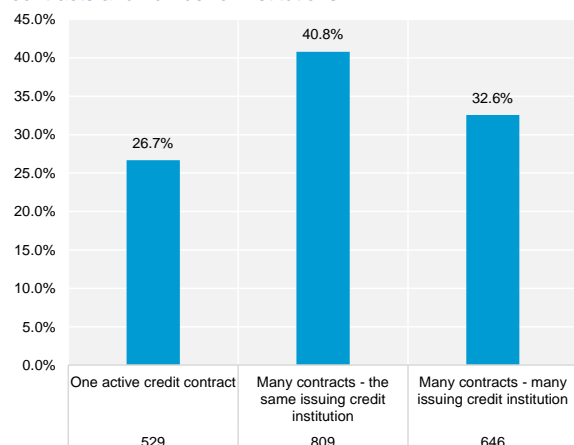
Chart 19. Distribution of borrowers, by number of institutions with which the credit contracts have been achieved



Source: CBK.

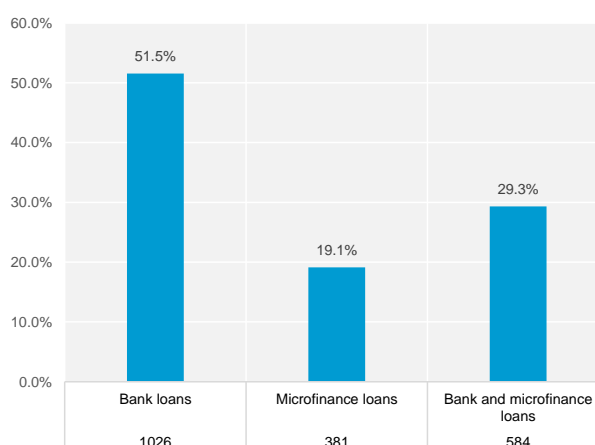
Nearly one third of the borrowers were clients in several institutions (two or more institutions) (Chart 19 and Chart 20). As expected, borrowers with the largest number of credit contracts were more likely to be clients of various institutions and the average number of institutions from which the borrower received loans increases with the number of loans. On average, a borrower had a credit contract with 1.44 lending institutions, while the maximum number of institutions from which a borrower had received a loan was 6. Of the total borrowers who were clients of more than one institution, 43.8 percent had 3 (three) or more active credit contracts, as opposed to only 5.1 percent for clients of one institution.

Chart 20. Distribution of borrowers, by number of active credit contracts and number of institutions



Source: CBK.

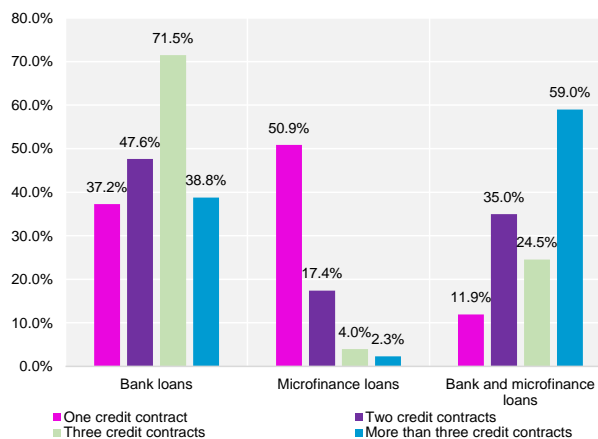
Chart 21. Distribution of borrowers, by type of institutions



Source: CBK.

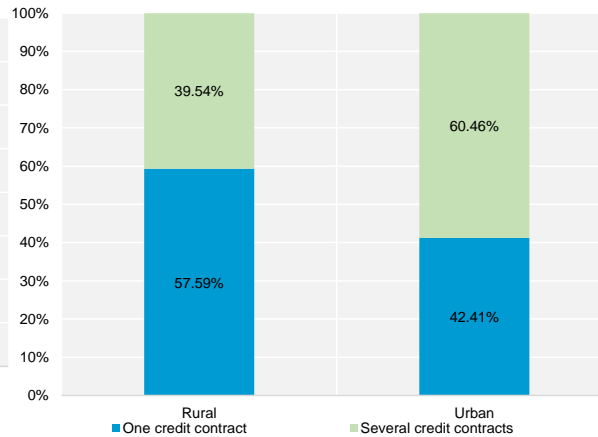
More than half of the borrowers, or 51.5 percent, had credit contracts only in banks, while 19.1 percent only in microfinance institutions. The rest are joint clients of the banking and microfinance sector (Chart 21). Banking sector customers had a higher tendency for multiple borrowing (Chart 22).

Chart 22. Distribution of borrowers, by number of active credit contracts and number of institutions



Source: CBK.

Chart 23. Distribution of borrowers, by number of active credit contracts and type of residence

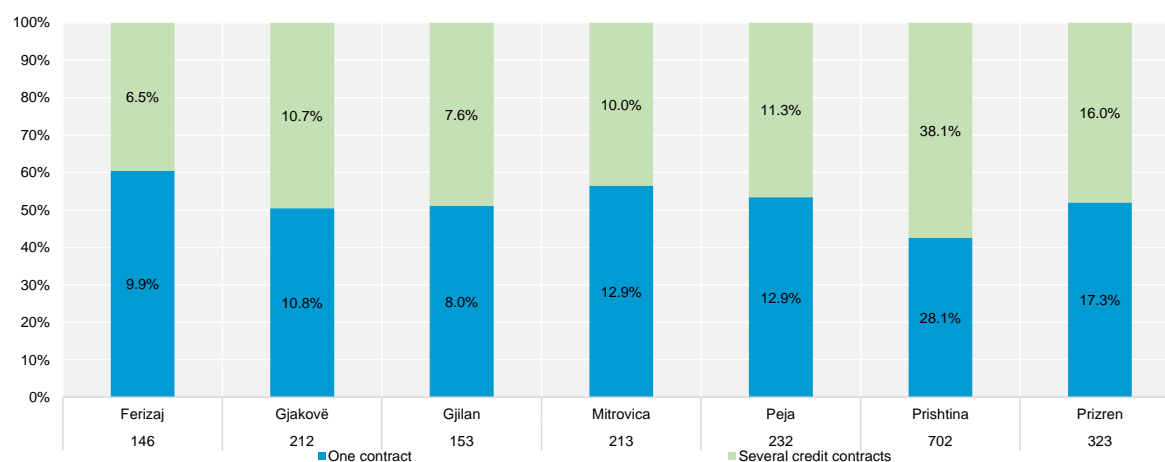


Source: CBK.

High share of borrowers, 80.9 percent, are borrowers with credit history, respectively are "old borrowers" who have closed credit contracts. More than half of the borrowers with credit history had 1 to 3 closed credit contracts, while the maximum number of closed contracts was 26. The average years of experience / involvement in borrowing for borrowers with credit history is 6.3 years (maximum 20 years and 9 months), compared to 3.5 years for borrowers who have only active contracts (maximum 12 years and 2 months). Borrowers with credit histories had a higher tendency for multiple borrowing: 78.4 percent of them possess more than one active contract compared to 56.3 percent of borrowers without credit history. Of the borrowers with credit history, 20.6 had more than three active contracts compared to only 5.2 percent of borrowers without credit history.

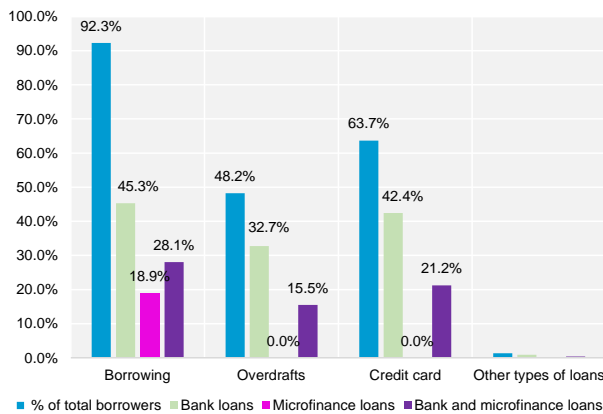
Multiple borrowing was more pronounced in urban areas (Chart 23). The regions with the largest number of borrowers with more than one active credit contract turned out to be Prishtina and Prizren, followed by Peja (Chart 24).

Chart 24. Distribution of borrowers, by number of credit contracts and region



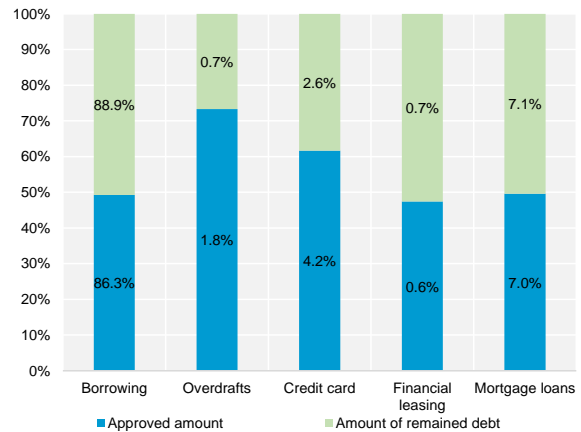
Source: CBK.

Chart 25. Distribution of borrowers, by type of loan and group of lending institutions (as % of total borrowers)



Source: CBK.

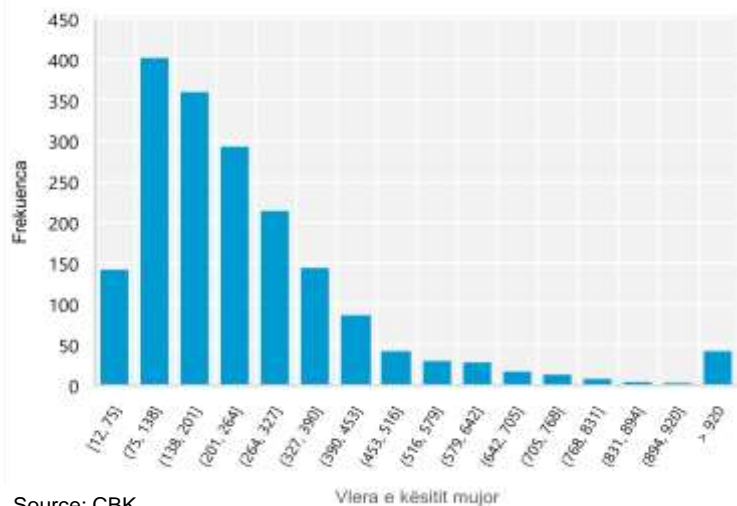
Chart 26. Share of the value of loan types in the total borrower's loan portfolio



Source: CBK.

The distribution of borrowers by type of loan shows that 92.3 percent of customers had active loans in their loan portfolio. Credit cards were the next most common credit product, with 63.7 percent of customers using this product. Whereas, from the entire sample of borrowings, 48.2 percent of borrowers turn out to have overdrafts (Chart 25).

Chart 27. Distribution of monthly installments, by value



Source: CBK.

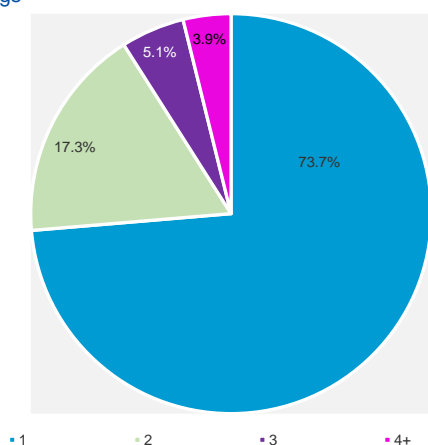
The share of outstanding loan debt in the total outstanding value of the borrower's portfolio<sup>18</sup> was 88.9 percent. Whereas, the share of the outstanding value of overdrafts in the total portfolio of borrowers was low, 0.7 percent. This is mainly due to the lower value of overdrafts, as well as due to the zero balance of many active overdrafts. It was similar with credit cards, the value of which accounted for only 2.6 percent of the total value of the borrowers' portfolio. The share of mortgage loans in the total loan portfolio was 7.1 percent (Chart 26). The average value of the monthly debt per borrower, respectively the average amount of the monthly installments of all active loans, was EUR 257.0. The median was EUR 201.5, which means that half of the borrowers had a credit installment for loans worth up to EUR 200 (Chart 27). Whereas, the average installment amount for all credit products, based on the assumption that the total amount owed for other products such as credit cards and overdrafts is a monthly installment, is twice as high, EUR 572.8, and the median is EUR 323.4.

#### 4.2.7 Co-borrowing

Nearly a quarter of borrowers, namely 23.5 percent, were involved in co-borrowing, most of whom had a co-borrowing role in only one credit contract (Chart 28). The maximum number of co-borrowing contracts amounted to 29.

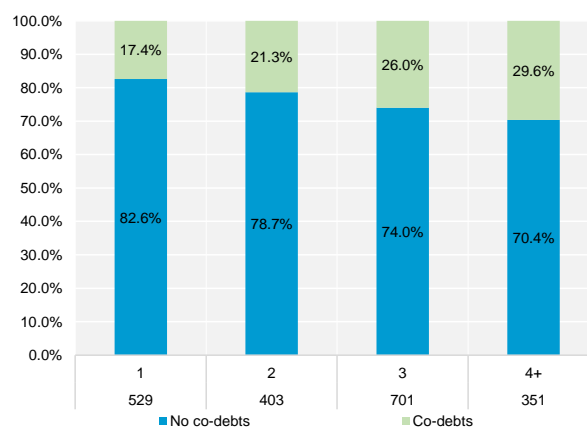
<sup>18</sup> Borrower portfolio means the sum of the value of all the borrower's active credit products.

Chart 28. Distribution of co-borrowers by number of co-borrowings



Source: CBK.

Chart 29. Distribution of co-borrowers by number of active credit contracts



Source: CBK.

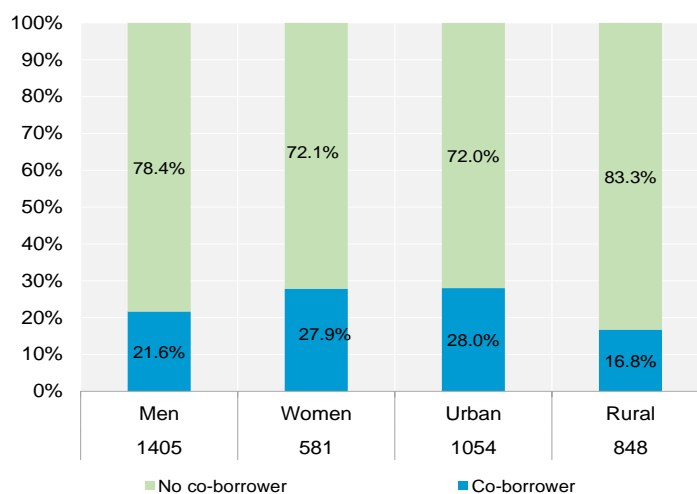
Multiple borrowers - with more than one active credit contract - were more likely to engage in co-borrowing, 25.6 percent of whom were co-borrowers compared to 17.4 percent of those with an active credit contract. Also, the probability of involvement in co-borrowing rose with the increase in the number of active credit contracts (Chart 29).

Borrowers with active loans from more than one lending institution were relatively more likely to be involved in co-borrowing, compared to the customers of one institution.<sup>19</sup>

Differences in the probability of co-borrowing were more pronounced between borrowers with loans only in the banking sector and those in the microfinance sector. The latter had a lower probability of co-borrowing (17.06 percent compared to 24.9 percent for bank customers, as well as 25.0 percent for joint bank and microfinance customers).

Tendencies for involvement in co-borrowing differed according to some socio-demographic characteristics. Women were more often involved in co-borrowing compared to men, as well as borrowers in urban areas had more frequent tendencies to engage in co-borrowing compared to borrowers from rural areas (Chart 30). By region, borrowers from Prishtina were most often involved in co-borrowing (27.2 percent of them), while borrowers from the Gjilan region were least frequently involved in co-borrowing (15 percent).

Chart 30. Distribution in co-borrowing of clients, by gender and place of residence



Source: CBK.

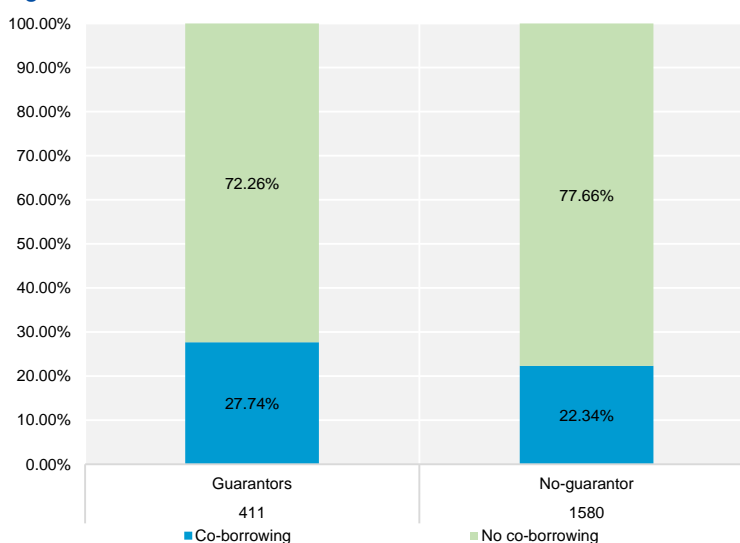
The average income of co-borrowers was EUR 160 higher than that of borrowers who were not involved in co-borrowing. Even the household income of co-borrowers were found to be higher than that of non-co-borrowers. Managers, as well as borrowers in high-skill occupations, such as professionals, who also have a higher salary, had a higher probability of co-borrowing.

<sup>19</sup> The difference is statistically significant at only 10 percent significance level.

Of the total borrowers, 38.4 percent were involved in the role of guarantor or co-borrower, while 5.7 percent in both roles simultaneously. Co-borrowers tended to be more often guarantors in other credit contracts (Chart 31).

In terms of the type of credit contract, co-borrowers were more often users of credit cards and overdrafts than non-co-borrowers. Borrowers with credit histories had higher involvement in co-borrowing. Whereas, about 3.0 percent of the total co-borrowers were involved in co-borrowing with more than 30 days overdue.

Chart 31. Distribution of borrowers, by co-borrower and guarantor's role

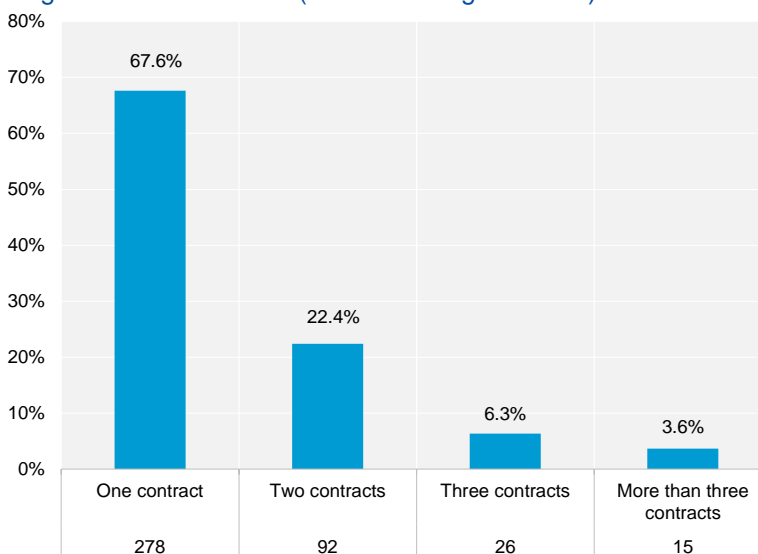


Source: CBK.

#### 4.2.8 Guarantees for other customers

The role of guarantor for other credit contracts was exercised by 20.6 percent of borrowers, most of whom were guarantors under a credit contract (Chart 32). The maximum number of guaranteed contracts was 15. Multiple borrowers - with more than one active credit contract - had a higher tendency to participate in guarantees, a tendency which increased with the increase in the number of credit contracts (Chart 33). Also, borrowers who had credit contracts with various lending institutions were the borrowers most often involved in guarantees. Customers with active loans in the banking sector were more often guarantors compared to customers with loans only in the microfinance sector (Chart 34).

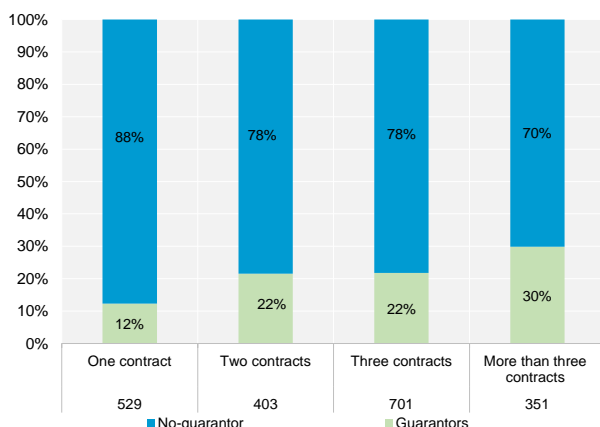
Chart 32. Distribution of borrowers, by number of guaranteed contracts (as % of total guarantors)



Source: CBK.

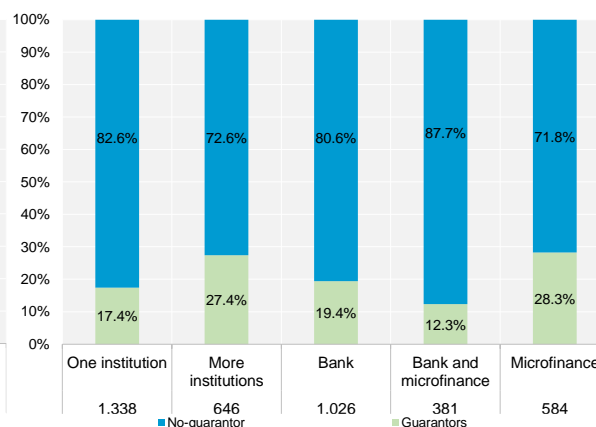
On a gender basis, men turn out to be more often guarantors than women (22.7 percent compared to 15.8 percent women guarantors). Whereas, the involvement in the guarantees did not show significant differences by place of residence and regions. By profession, the probability of being involved in guarantees was higher among office workers and assistants, as well as sales staff. The guarantee tendencies were higher among borrowers with more than 6 years of work experience, and among those at a later age (respectively age groups 41-50 and 51-60).

Chart 33. Borrowers' participation in guarantees by number of their credit contracts (as % of total borrowers)



Source: CBK.

Chart 34. Borrowers' participation in guarantees, by number and type of institution (as % of total borrowers)



Source: CBK.

The average salary of borrowers who acted as guarantors for others was higher by EUR 188.3, while the average salary of households of guarantor borrowers turned out to be higher. As with co-borrowing, customers with credit histories had higher involvement in guarantees. Regarding the type of active credit contracts, guarantors were found to be more frequent users of credit cards, overdrafts and other credit products. About 5.1 percent of guarantors were involved in guaranteeing credit contracts in arrears of more than 30 days.

### 4.3. Debt repayment performance

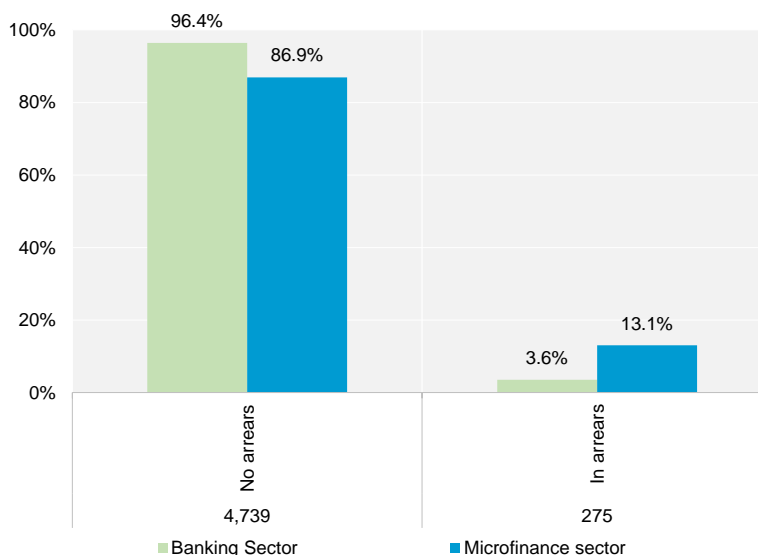
#### 4.3.1 Repayment performance of active credit contracts

Of the total active contracts, 94.0 percent had good payment performance, while 5.5 percent of them in arrears more than 30 days on payment. The share of contracts in arrears was higher in the microfinance sector, 13.1 percent, compared to 3.6 percent in the banking sector (Chart 35). However, differences in the degree of delays between institutions were significant.

In the banking sector, the maximum rate of overdue loans was 8.8 percent from one bank. Whereas, in the microfinance

sector, the rate of loan arrears drops to 4.7 percent when loans issued by the two institutions whose operating licenses have been revoked are excluded<sup>20</sup>, one of which has a high rate of arrears of 83 percent. The maximum rate of arrears (loans more than 30 days overdue in relation to the active loans of the respective institution) among microfinance institutions with active licenses reaches 45.5 percent.

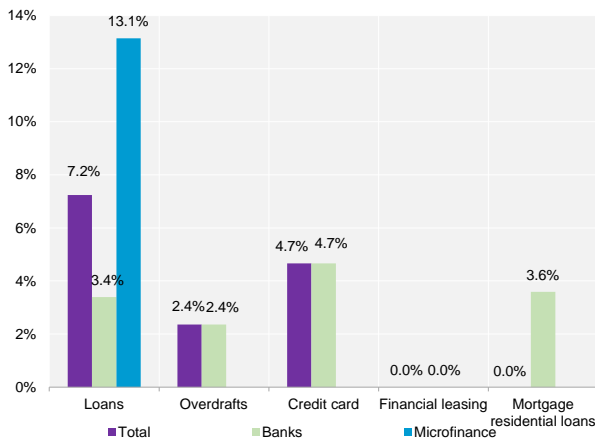
Chart 35. Distribution of credit contracts in arrears (&gt;30 days) by sectors



Source: CBK.

<sup>20</sup> Monego and Iute Credit.

Chart 36. Distribution of credit contracts in arrears (> 30 days), by type of contract and sector

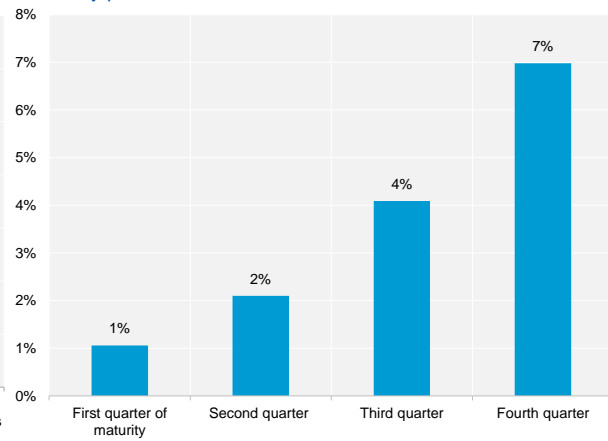


Source: CBK.

Loans are found to be the credit products with the highest percentage of arrears, influenced by the microfinance sector, respectively loans of one of the microfinance institutions whose operating license has been revoked. In the banking sector, credit cards are the product with the most cases of arrears, followed by loans (Chart 36).

Payment performance shows correlation with the maturity stage in which credit contracts are found. Credit contracts that were in the last quarter of the maturity period had the highest share of arrears (Chart 37). In general, it can be said that the

Chart 37. Share of credit contracts in arrears (> 30 days), by maturity phase

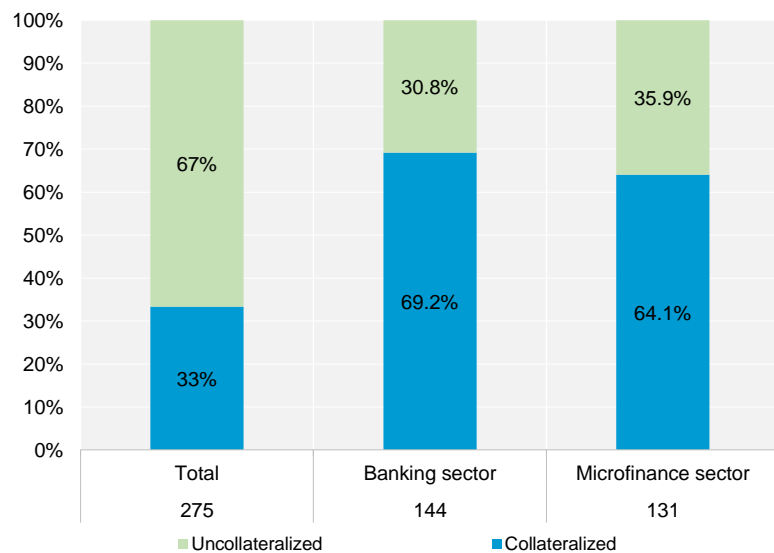


Source: CBK.

problems with overdue payments were much more pronounced in the second half of the contract maturity (when the credit contract has completed half the maturity time), which coincides with the fact that payment capacity is more difficult to predict for longer periods. However, contrary to expectations in relation to the straight relationship between risk and the duration of credit contracts, the average duration of contracts with arrears of more than 30 days was shorter (42 months) than that of contracts with good repayment performance (68 months).

In the banking sector, the difference between the duration of contracts with and without arrears is reduced almost completely when only loans are analyzed, while with the inclusion of credit cards and overdrafts the difference increases (the duration of contracts without arrears increases compared to contracts with arrears).

Chart 38. Overdue loans (<30 days) and collateralization

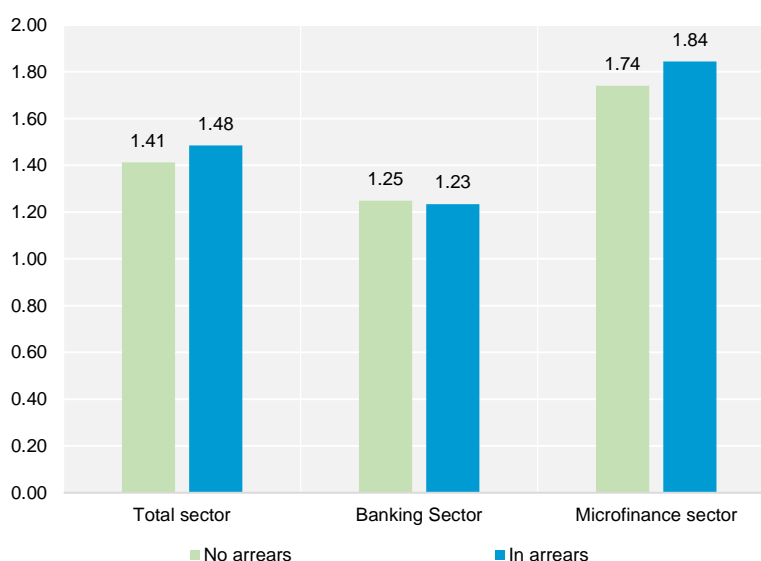


Source: CBK.

In the microfinance sector, loans in arrears have a shorter maturity (average 16.8 months) compared to loans without arrears 26.3 months. These results may suggest that borrowers with higher risk are issued loans with shorter maturities, precisely because of the higher repayment risk.

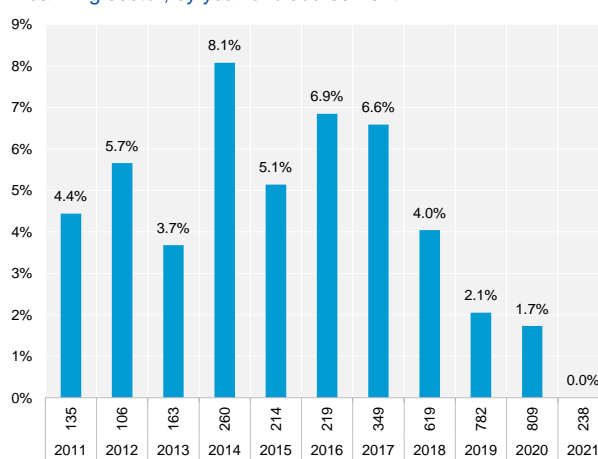
Credit contracts in arrears result in much lower averages – in general as well as analyzed by different credit products - which suggests that financial institutions approve credit contracts with shorter maturity and value for borrowers with higher probability of repayment problems.

Chart 39. Collateral value to loan value ratio



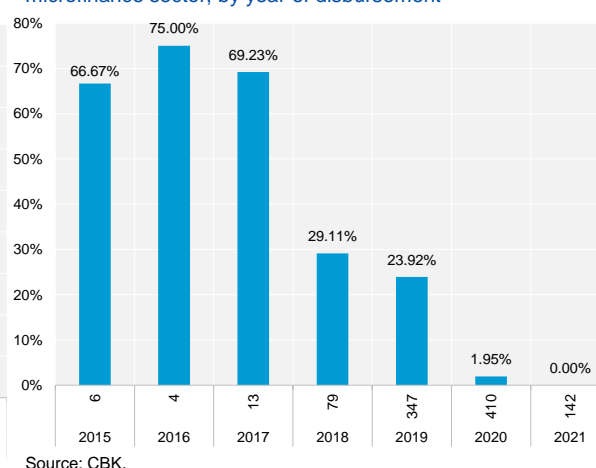
Source: CBK.

Chart 40a. Credit contracts in arrears (> 30 days) in the banking sector, by year of disbursement



Source: CBK.

Chart 40b. Credit contracts in arrears (> 30 days) in the microfinance sector, by year of disbursement



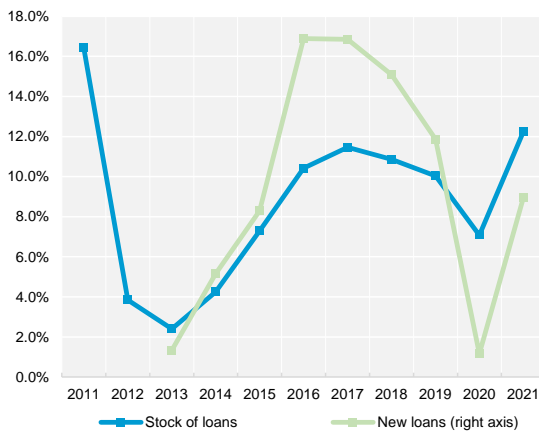
Source: CBK.

High share of 75 percent of credit contracts in arrears has not resulted to be collateralized, both in the banking and microfinance sectors (70.1 percent in the banking sector and 80.9 percent in the microfinance sector). In the microfinance sector, which has mainly loans, with the exclusion of the two institutions whose operating licenses have been revoked, the share of overdue loans that are not collateralized drops significantly to 35.9 percent. While in the banking sector, the share of credit contracts in arrears that have not been collateralized drops significantly to 44.0 percent with the removal of credit cards, as a product with a high share but which is non-collateralized. If only banking sector loans are considered (excluding overdrafts and other types of credit products), the share falls further to 30.8 percent (Chart 39).

The coverage with collateral of all credit products in arrears was 0.33 percent, compared to an average of 0.42 for total active loans. Whereas, the coverage with collateral for all overdue but collateralized credit products was 1.33 percent, similar to the average for total active loans. Collateral coverage increases to 1.48, when only collateralized loans are considered but which are in arrears (Chart 40). In the banking sector the collateral coverage of overdue loans is lower than in the microfinance sector, 1.23 and 1.84 percent, respectively.

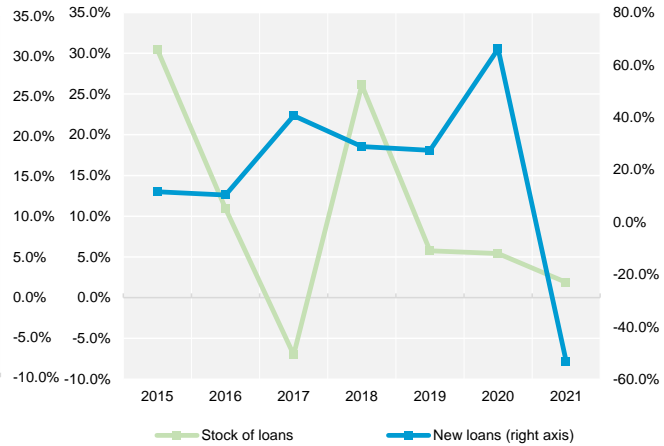


Chart 41a. Annual change of lending, banking sector



Source: CBK.

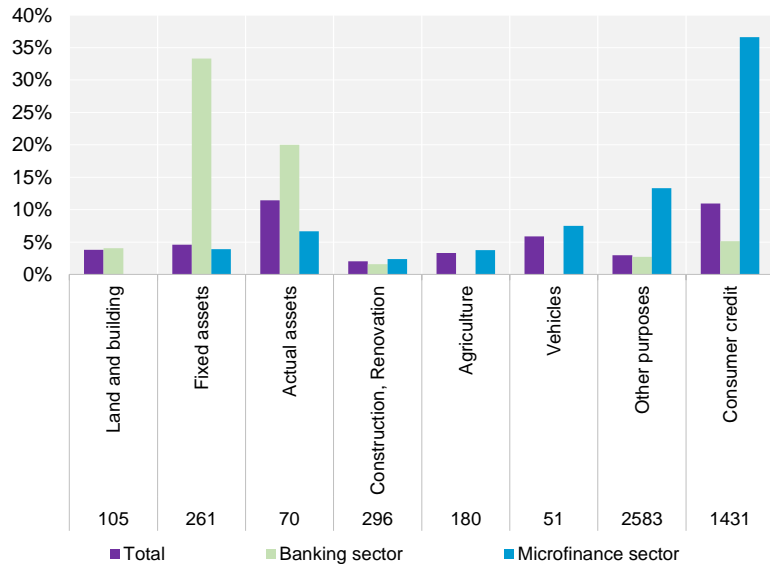
Chart 41b. Annual change of lending, microfinance sector



Source: CBK.

Credit contracts issued in 2017 and 2019 had the most cases of arrears (8.8 percent). Separately by sectors, contracts issued by banks in the period before 2019 had a higher rate of arrears, while from 2019 onwards the rate of arrears decreases (Chart 40a). Even in the microfinance sector we have a decrease in the rate of arrears of contract issued in the recent years (Chart 40b). This result, in addition to being related to the earlier finding that credit contracts have a higher probability of arrears in the second half of maturity, can also suggest an overall increase in risk assessment capabilities in recent years. Furthermore, higher arrears of loans issued in 2014-2017 may be related to higher growth in lending (Chart 41a and 41b) and easing of credit standards and conditions (also suggested by the results of the bank lending survey), which may mean that access to loans may also be available to lower quality borrowers.

Chart 42. Credit contracts in arrears (> 30 days), by purpose and sectors



Source: CBK.

Differences by institutions are also important in the distribution of overdue loans by year of issue, in which case the highest rate of overdue loans of the banking sector, issued in 2014, is almost completely influenced by 2 institutions. In the microfinance sector, with the exception of two institutions whose licenses have been revoked, the rate of loans in arrears by year of disbursement falls significantly in 2018 and 2019 (11.5 percent and 3.54 percent).

According to the purpose for which the credit product is used, the most frequent arrears were found with credit contracts for current assets as well as those for consumption (Chart 42). Arrears in consumer loans are mainly affected by the microfinance sector, respectively by the arrears of two institutions with revoked licenses, the exclusion of which reduces the rate of arrears for consumer credit to 5.4 percent for the total sector. Construction and renovation and other purpose contracts had the lowest share of arrears.

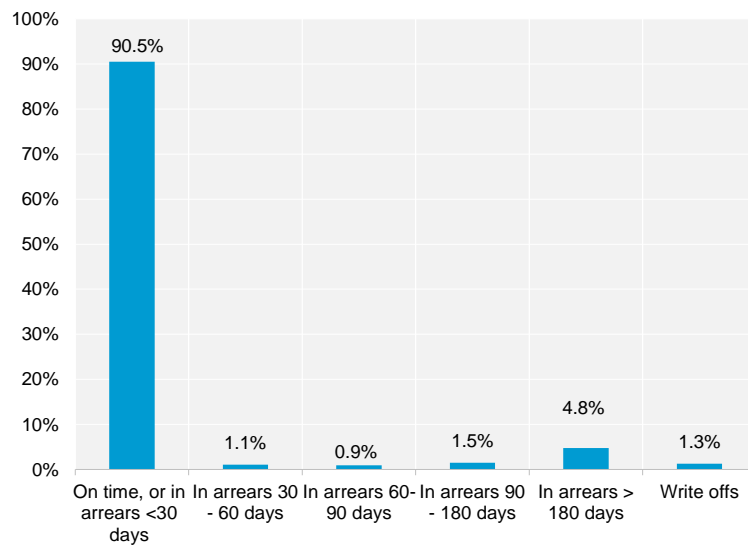
### 4.3.2 Borrower repayment performance

Of the total borrowers, 9.5 percent had credit installments in arrears for more than 30 days (Chart 43). Within the arrears, the arrears of more than 180 days had the highest share.

Multiple borrowers tended to have the highest arrears, but from different institutions (Chart 44). The rate of arrears of borrowers increases significantly in cases when borrowers have active loans in several institutions, respectively 22.4 percent of these borrowers are in arrears, compared to only 2.0 percent of multiple borrowers but from the same institution. This result confirms the expectations

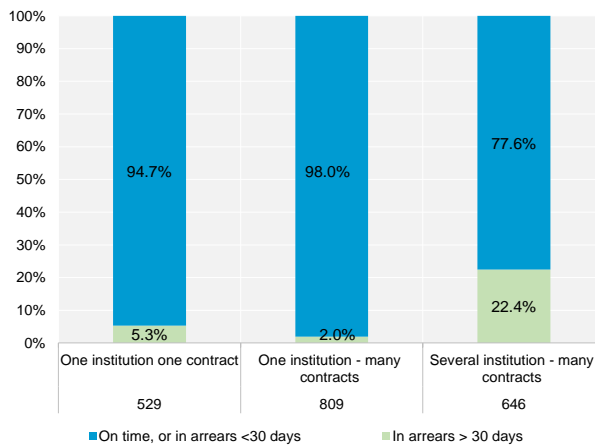
that the assessment of current payment performance and future payment capacity, for borrowers who are clients in several institutions at the same time, is more difficult, compared to borrowers who have several loans but from the same institution. Longer customer relationship with one institution reduces the asymmetry of information on customer behavior and income performance, placing it in a more favorable position for more adequate risk assessment.

Chart 43. Distribution of borrowers by time of contracts in arrears (as % of total guarantors)



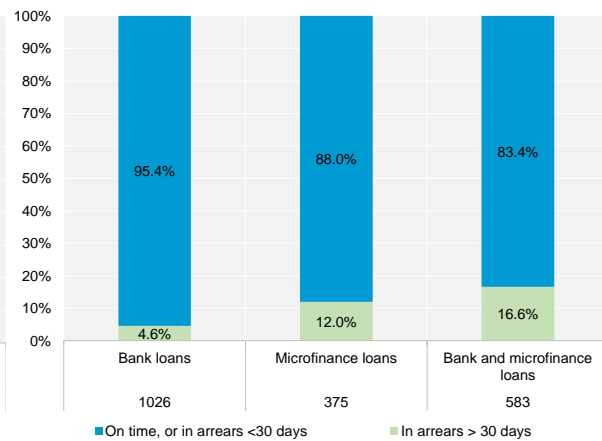
Source: CBK.

Chart 44. Payment performance by number of institutions and contracts



Source: CBK.

Chart 45. Borrowers' payment performance, by type of institutions of the client



Source: CBK.

Arrears were more frequent in the group of borrowers who had loans in the banking and microfinance sector at the same time, 16 percent of whom were in arrears compared to only 4.6 percent of customers only in banks and 12 percent of those only in microfinance (Chart 45). About 72 percent of the value of overdue loans belonged to borrowers with loans in banks and microfinance at the same time (Chart 46). Despite the higher number of arrears of customers only in microfinance compared to those only in banks, the share of amount of overdue loans was higher for bank customers due to the higher amount of overdue loans.

Chart 46. Client's outstanding debt by by arrears and type of institution (as % of the remaining amount in the respective categories in arrears)

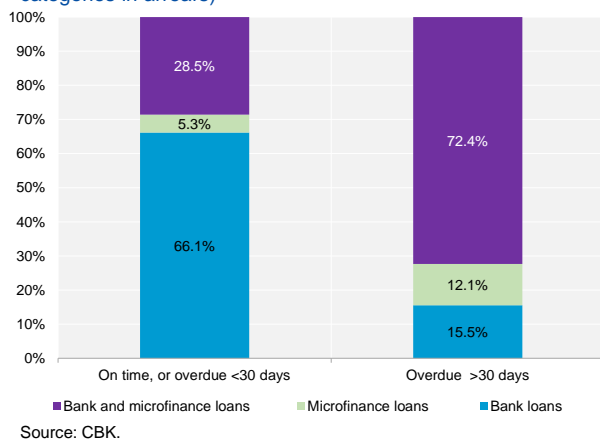
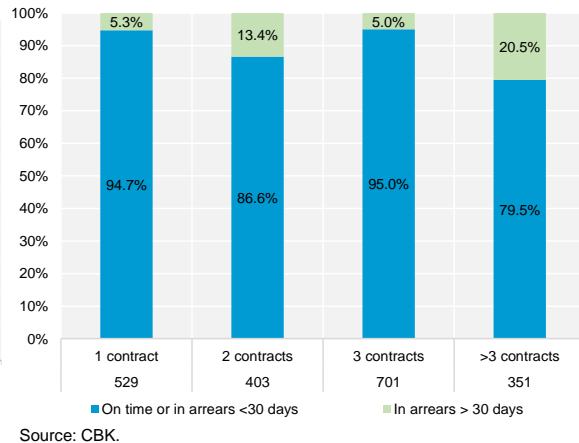
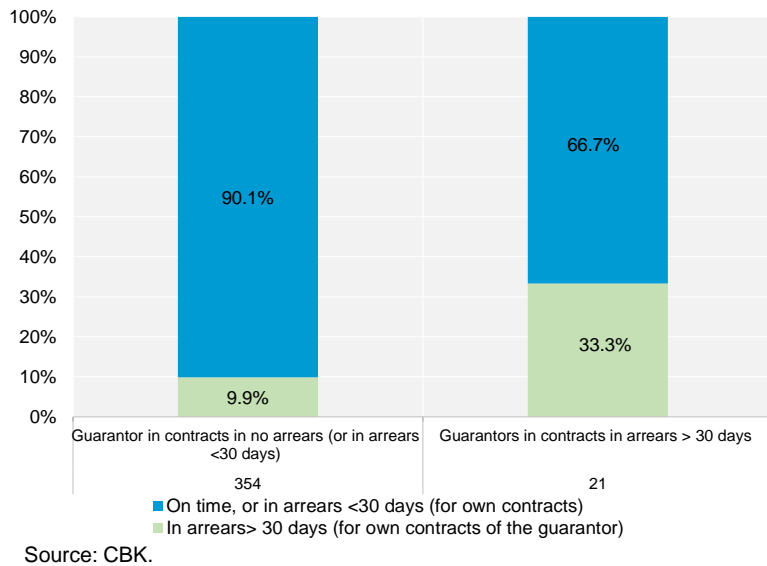


Chart 47. Distribution of borrowers by number of credit contracts and arrears



The probability of borrowers' arrears generally increased with the increase in the number of credit contracts, with borrowers with more than three credit contracts having the most arrears (Chart 47). Men had more loan arrears than women (Chart A1, Annex 3). Payment performance did not differ significantly according to credit history or other socio-demographic characteristics such as status, type of residence, region or number of those employed in the household. Differences were pronounced between borrowers of different occupations: the rate of arrears was higher among borrowers in lower-skilled occupations, which are also characterized by job instability, lower income and/or irregular income (Chart 48).

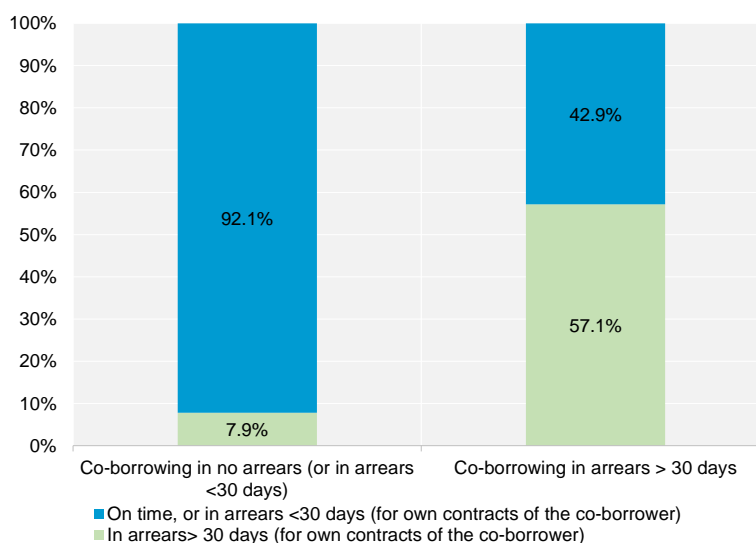
Chart 48. Clients' payment performance by performance of the contracts performance as guarantors (as % of the borrowers)



The payment performance of co-borrowing contracts and guarantees turned out to be correlated with the payment performance of borrowers under their credit contracts. The share of arrears among borrowers who were guarantors in credit contracts in arrears was higher, respectively 33.3 percent compared to 9.9 percent of borrowers who guaranteed contracts that had no arrears (Chart 48).

Arrears were even higher for borrowers who were co-borrowers in contracts in arrears, in which case 57.1 percent of them were in arrears on their credit contracts compared to only 7.9 percent of borrowers involved in co-borrowing without arrears (Chart 49). This result is expected due to the fact that in the case of co-borrowing, contract payment commitments are shared and problems in paying the installment in co-borrowing may signal that the client is having financial difficulties which may also be reflected in the repayment of his individual loan, and vice versa.

Chart 49. Clients' payment performance by performance of the contracts as co-borrowers (as % of the borrowers)



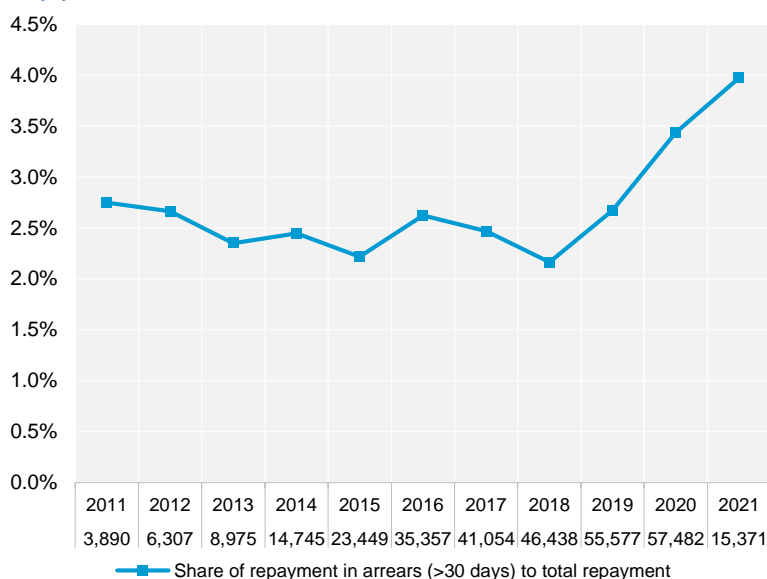
Source: CBK.

#### 4.3.3 Credit repayment trends

The share of all payments with more than 30 days in arrears in the total number of credit installment payments made during the respective year shows a steady trend of an average of 2.7 percent in the last ten years, although with an upward trend from 2018 (Chart 50). The years after the COVID-19 pandemic mark the highest rate of arrears, at 3.4 percent in 2020 and 4.0 percent in 2021.

The payments in arrears according to the time in arrears (credit ratings by days in arrears) show that arrears for shorter periods had the most

Chart 50. Share of repayment in arrears to total repayments, by years



Source: CBK.

stable trend with small oscillations over the years. While the longest delays, respectively over 90 days, had a stable trend until 2018, when their share started to increase.

In almost all years, the most frequent arrears were in duration of more than 180 days. However, a small proportion of these credit contracts result in losses, as depicted in Chart 51 where the share of losses was low, at 0.1 percent on average. Despite the increase in the share of arrears in the years after the COVID-19 pandemic crisis, the share of repayments has decreased, due to easing measures and credit restructuring.

Chart 52 shows the share of overdue payments by year of loan disbursement. Loans issued in 2012 and 2015 result in the highest share of arrears, compared to the average of 2.5 percent for the last ten years.

Chart 51. Average share of payments in arrears, by time of arrears (% of total payments for the respective year)

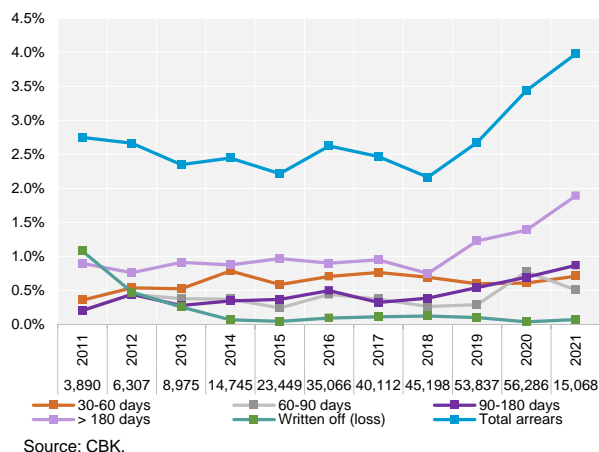
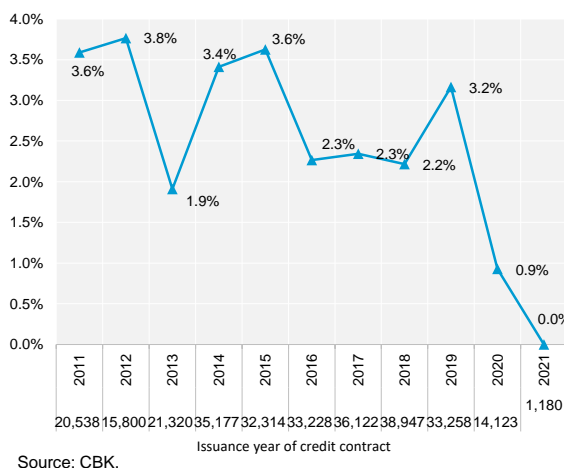


Chart 52. Average share of payments in arrears (>30 days) by year of loan issuance

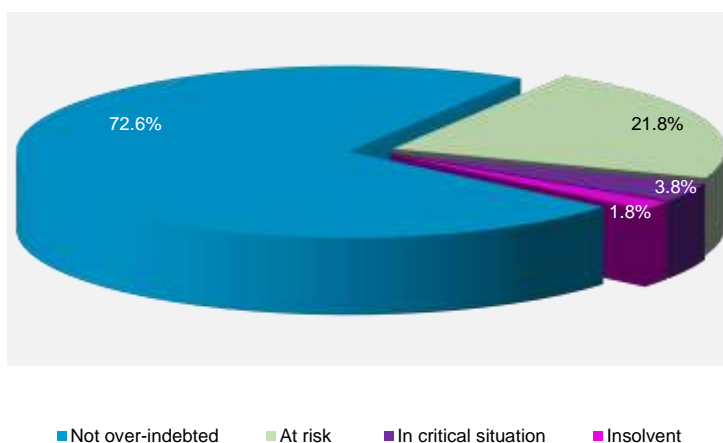


#### 4.4. Indebtedness level

##### 4.4.1 | Borrowers' indebtedness

According to the main indebtedness index<sup>21</sup> which is based only on regular payment loan installments<sup>22</sup>, over-indebted borrowers- whose loan installment amount is higher than 50 percent of their gross monthly income – are 27.4 percent of borrowers. More specifically, 21.8 percent of borrowers are considered as at risk of over-indebtedness, because the share of debt to income ratio extends in the range of 50-75 percent. At the critical stage are 3.8 percent of borrowers, whose monthly debt exceeds 75 percent of income. Whereas, 1.8 percent of borrowers are insolvent since the amount of all installments of their active loans exceeds monthly income (Chart 53).

Chart 53. Distribution of borrowers by main indebtedness index



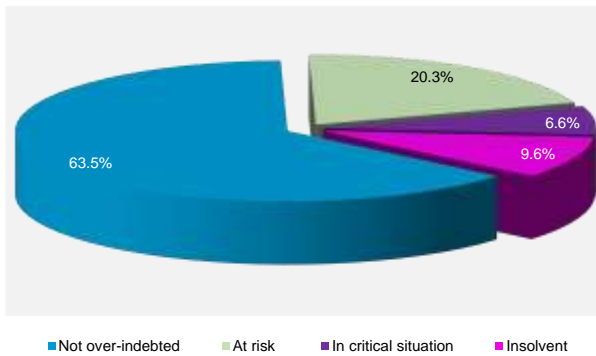
In case of inclusion of all credit products for the calculation of the indebtedness, the share of over-indebted borrowers is higher and is considered overestimated. This is due to the fact that the

<sup>21</sup> The indebtedness index for the individual borrower is calculated for 90.7 percent of the clients of the selected sample, respectively for 1,805 observations.

<sup>22</sup> Loans with irregular payment installments are excluded from the calculation because they are negotiated in such a way that the installment payment is made in several periods, which usually coincide with the collection of irregular income (mainly include Agro loans granted to individuals, which are characterized by seasonality in the collection of income and the installment payment is adjusted to these periods).

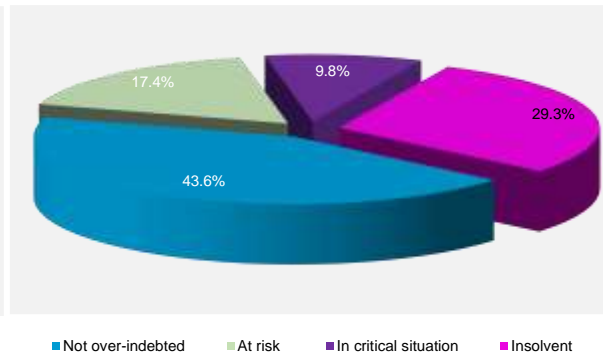
monthly installment includes the total debt outstanding on the credit card/overdraft - in the absence of information but also due to the difficulty of identifying the number of installments for the repayment of the debt for these products - while the repayment of the debt for these products is usually done in installments (credit cards) or upon the maturity of the contract (overdrafts). The indebtedness results for all credit products, based on the above conservative assumptions, are presented in Charts 53a and 53b.

Chart 53a. Distribution of borrowers by indebtedness index for loans and overdrafts



Source: CBK.

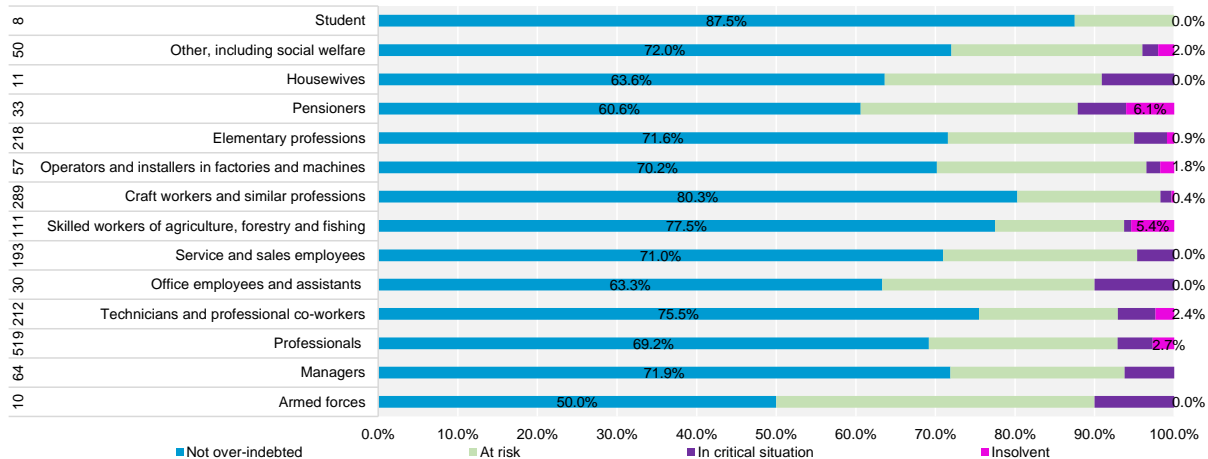
Chart 53b. Distribution of borrowers by indebtedness index for all credit products, (borrowing, overdrafts and credit card)



Source: CBK.

Whereas, the following analysis of the indebtedness level correlations with demographic characteristics and borrowing patterns is based on the main indebtedness index based only on loan debt. The level of indebtedness did not have statistically significant differences<sup>23</sup> according to most socio-demographic characteristics, namely gender, marital status, age, years of work experience, type of residence and region. The differences are highlighted analyzed by borrowers' occupations, and the level of monthly income.

Chart 54. Level of borrowers' indebtedness, by professions



Source: CBK.

Retirees, office workers and assistants were the groups with the highest share of over-indebted borrowers. Retirees also had the highest share in the group of insolvent borrowers (debt higher than income), followed by trained workers in agriculture, forestry and fisheries (Chart 54).

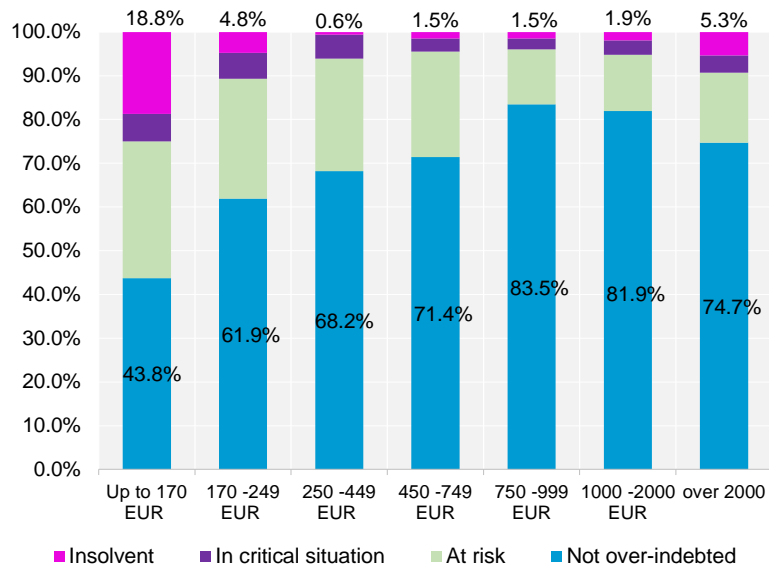
<sup>23</sup> Statistical significance was considered only for 1% and 5% confidence level

The level of indebtedness is related to the level of income generated by different professions, in which case lower-income professions as well as those with higher seasonal income, such as agricultural workers, are found to be more over-indebted.

The group of lower income borrowers (up to EUR 170) were more over-indebted. A higher level of income of borrowers is associated with a lower level of over-indebtedness for groups with income up to EUR 1,000 (Chart 55).

The higher over-indebtedness in groups with income over EUR 1,000, compared to the group with income of EUR 750-999 which also has the lowest level of over-indebtedness, is explained to a large extent by the fact that these groups include individual borrowers with unregistered businesses, who work in the agricultural sector, and who generate irregular income but have high monthly installments. The other reason for the high level of insolvency that results in groups of high-income borrowers is multiple borrowing (high monthly installments). It should be noted that the payment

**Chart 55. Level of borrowers' indebtedness, by monthly income**



Source: CBK.

capacity of all groups of borrowers may have been strengthened by the involvement of co-borrowers, which is not reflected in these results due to lack of information.<sup>24</sup>

The monthly installment value was on average lower for borrowers who do not have debt problems, while the increase in the installment value is associated with an increase in the borrower's indebtedness. Also, the amount of approved value for active loans as well as the amount of outstanding debt were on average lower for borrowers who did not have problems with over-indebtedness and their level was progressively higher with higher indebtedness level (Table 11).

**Table 11. Indebtedness level and monthly income, monthly installment, approved value and loan outstanding value (in EUR)**

Nivelet e ngarkesës	Borrower's net monthly average income	Installment average value of borrowings	Approved average value of outstanding borrowings	Remained approved value of outstanding borrowings
Not over-indebted	740.5	200.0	8,814.2	5,834.9
At risk	649.6	356.1	22,085.6	15,063.2
In critical situation	632.3	492.2	36,876.6	27,546.2
Insolvent	837.7	876.8	53,551.3	35,546.1

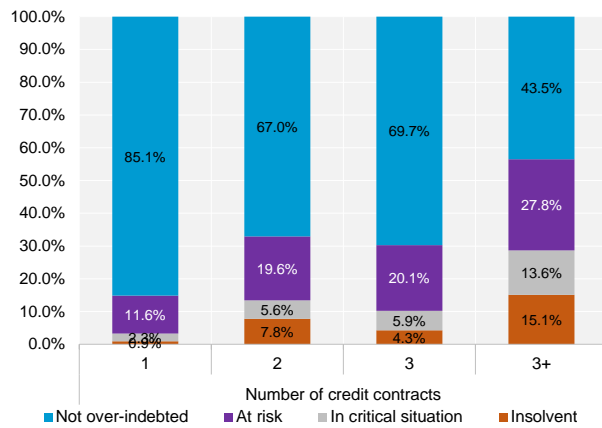
Source: CBK.

Over-indebtedness was more pronounced in multiple borrowers, namely the group with three or more active credit contracts (Chart 56). The over-indebtedness rate was almost twice as high for multiple borrowers with contracts from different institutions compared to borrowers with several

<sup>24</sup> In assessing the repayment capacity of the loan/indebtedness of the individual, we do not have information whether there are co-borrowers involved in his/her loans. Therefore, the non-inclusion of co-borrowers, ie the income of co-borrowers, may affect the overestimation of the indebtedness of individuals.

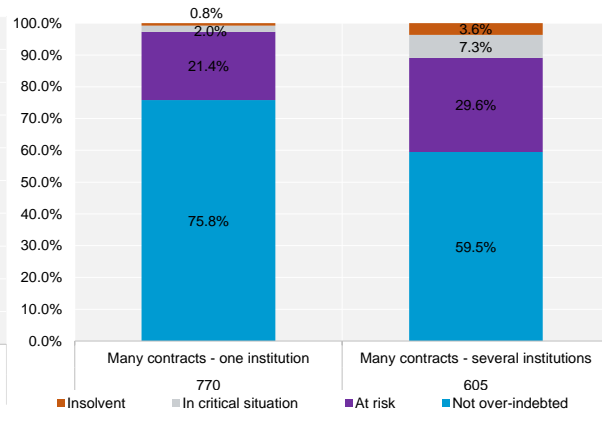
active loans but from the same institution: 40.5 percent and 24.2 percent, respectively. Non-solvency was also significantly higher among multiple borrowers with loans in several institutions, 3.6 percent, as opposed to 0.8 percent among those with several loans but from the same institution (Chart 57).

Chart 56. Level of borrowers' indebtedness, by number of credit contracts



Source: CBK.

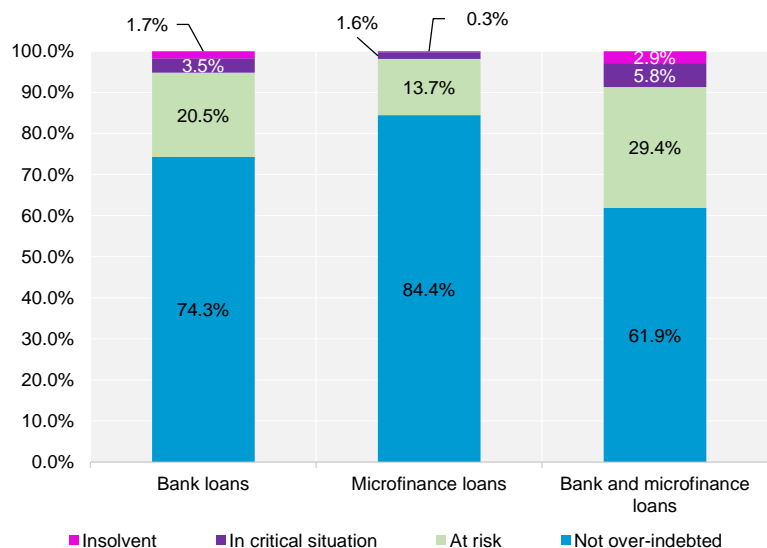
Chart 57. Level of multiple borrowers' indebtedness, by number of lending institutions



Source: CBK.

Multiple borrowers, with parallel loans in the two lending sectors (banking and microfinance) were among the most over-indebted. Analyzed separately by sectors, borrowers with credit contracts only in the banking sector have a higher degree of indebtedness compared to those of the microfinance sector, 25.7 percent compared to 15.6 percent. The rate of insolvent borrowers is also significantly higher among borrowers with loans only in the banking sector: 1.7 percent compared to only 0.3 percent (Chart 58).

Chart 58. Level of borrowers' indebtedness, by type of institutions

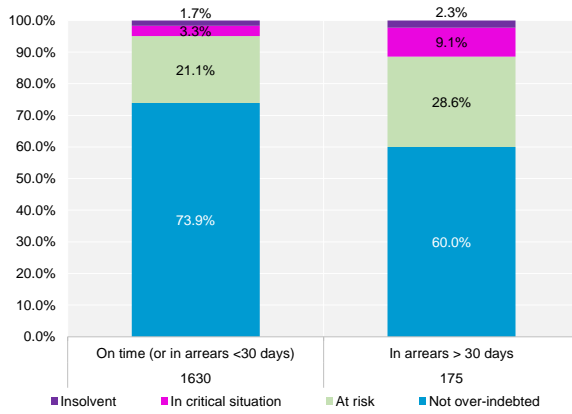


Source: CBK.

Arrears on loan installment payment showed positive correlation with higher indebtedness level. Overdue borrowers were over-indebted in 40.0 percent of cases, compared to 26.1 percent of borrowers without arrears. Also, cases of insolvency were more frequent among borrowers in arrears, of which 2.3 percent were insolvent compared to 1.7 percent of borrowers with regular payment performance (Chart 59).

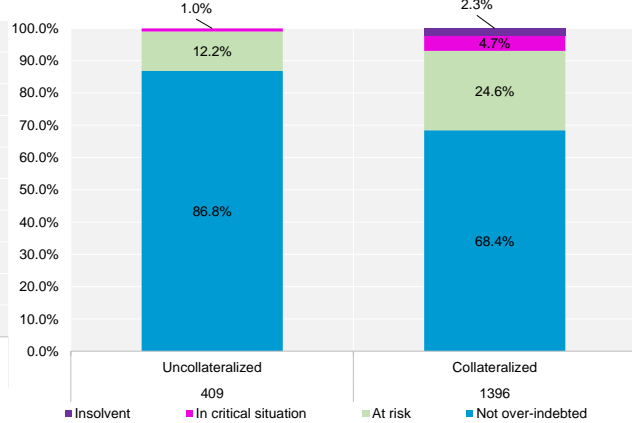


Chart 59. Level of borrowers' indebtedness, by credit classification



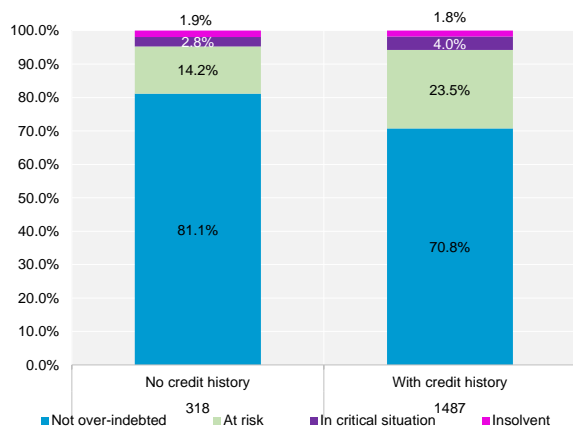
Source: CBK.

Chart 60. Level of borrowers' over-indebtedness, by loan collateral status



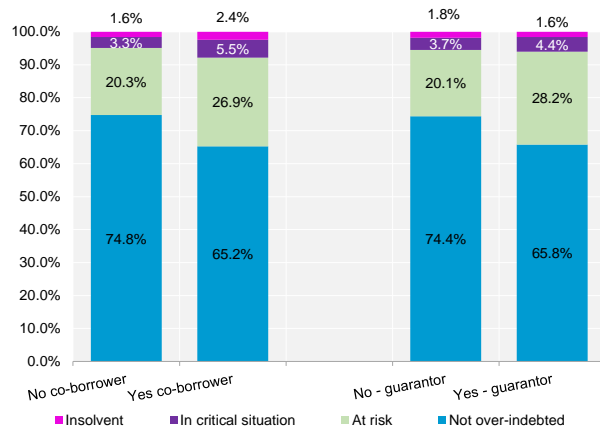
Source: CBK.

Chart 61. Level of borrowers' indebtedness, by borrower's history



Source: CBK.

Chart 62. Level of borrowers' indebtedness, by co-borrower/guarantor role

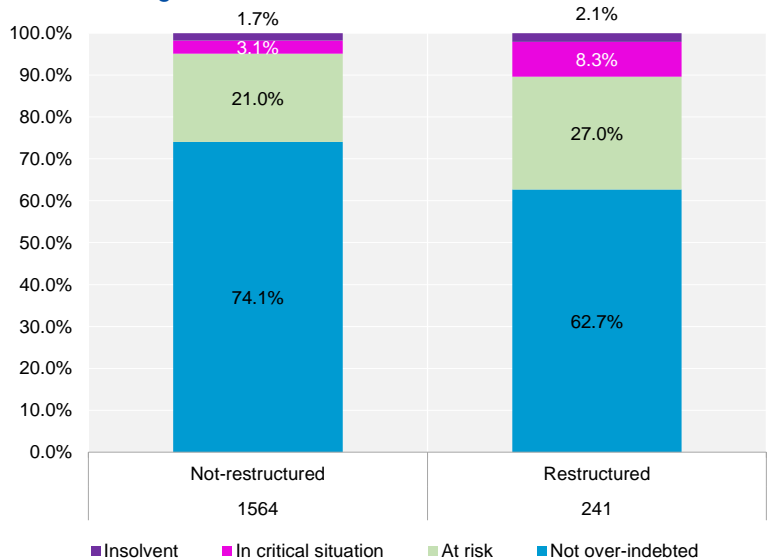


Source: CBK.

The level of indebtedness was higher for borrowers with collateralized loans, in which case 32 percent of them were over-indebted, compared to 13 percent of borrowers who had not supported loans with collateral (Chart 60).

This result is related to the fact that uncollateralized loans have a much lower value than average collateralized loans (EUR 5,419, respectively EUR 12,159), therefore the installment for payment is lower (lower indebtedness). Also, this result may suggest that financial institutions have a more conservative approach to lending to borrowers with lower payment capacity (higher debt-to-income ratio) in cases where collateral is not presented as support.

Chart 63. Level of borrowers' indebtedness, by loan restructuring status



Source: CBK.

Borrowers with credit history (liquidated credit contracts) were more likely to be over-indebted (Chart 61). This may be related to the fact that financial institutions are more conservative (tolerate higher debt-to-income ratio) in lending to new customers, due to the higher probability of information asymmetry.

Borrowers who were co-borrowers or guarantors in other credit contracts were more indebted (Chart 62). Respectively, the borrowers involved in co-borrowing and guarantees at the same time, had a higher degree of over-indebtedness.

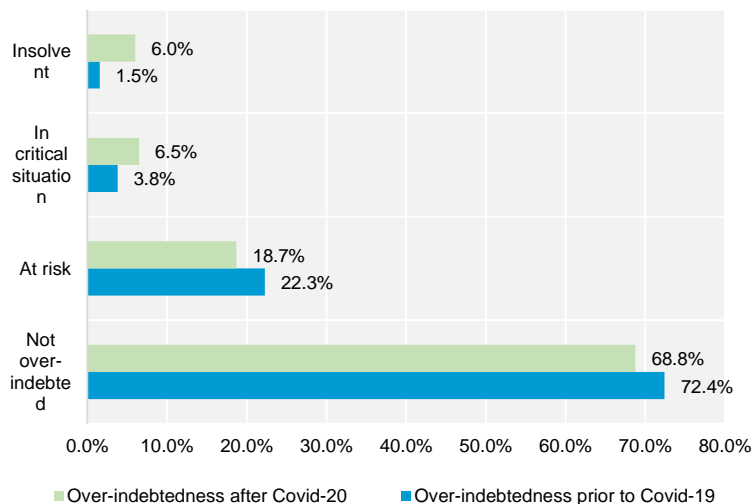
Borrowers with restructured loans, in line with expectations, are more over-indebted (Chart 63).<sup>25</sup>

Indebtedness of borrowers is higher in the period after the COVID-19 pandemic (Chart 64). However, these results do not fully reflect the impact of the pandemic and should generally be taken with caution, due to the inconsistency of the time period that the data reflect.<sup>26</sup>

#### 4.4.2 Indebtedness of households

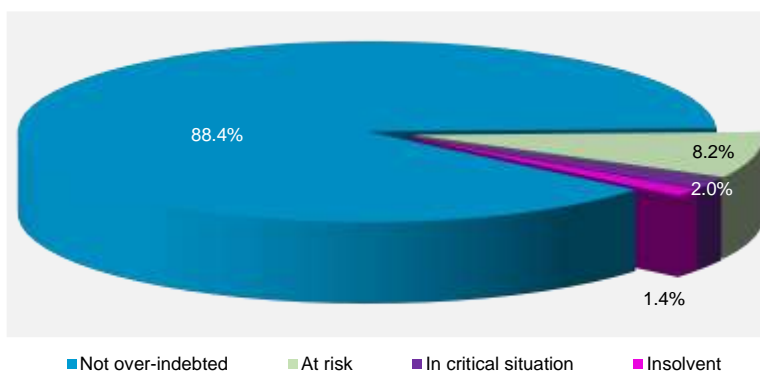
The main indebtedness index for households is calculated for 87.9 percent of the sample of borrowers, respectively 1,751 observations. From this sample of households, 28.2 percent of them have resulted in equal income to that of the borrower. Most of these cases with equal income, 56.3 percent, have declared only one member employed in the respective household, which means that the indebtedness of the borrower simultaneously reflects the indebtedness of the family. For 24.1 percent of observations with the same income of

Chart 64. Borrower's indebtedness before and after COVID-19 (same clients for whom information is available for the period before and after the outbreak of the pandemic)



Source: CBK.

Chart 65. Distribution of households, by main indebtedness index



Source: CBK.

<sup>25</sup> Information on restructured installments following the outbreak of the COVID-19 pandemic may not be complete. Financial institutions have submitted restructured installment information on loans that borrowers had in their institutions, but information on other borrowers' loans has been obtained from the CRK, where changes in installments as a result of the restructuring may not have been updated and reflected.

<sup>26</sup> The time of recording of pre-pandemic income is not consistent between financial institutions. While some of them reported data in the last month before the pandemic outbreak, others reported borrowers' income as of the loan grant / approval date. Also, the data after the pandemic are incomplete (missing) and in many cases are collected in the form of a survey, which creates space for subjectivity.

the individual and the household, data on the number of employed members are missing. Whereas, 19.6 percent have declared more than one employed member, but their income is not reflected in the monthly family budget (Table 12).

**Table 12. Observations of the borrower with equal income and the respective household, by number of employed members**

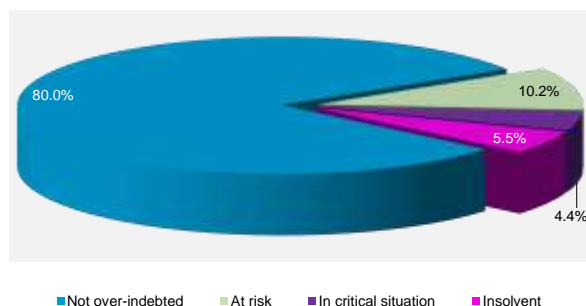
Number of household employees	Number of observations with the same income for the borrower and the household	Number of observations with the same income for the borrower and the household (in % of total observations)
1	278	56.3%
2	66	13.4%
3	17	3.4%
4	4	0.8%
5	5	1.0%
6	1	0.2%
7	4	0.8%
Mungojnë	119	24.1%
Total	494	100.0%

Source: CBK.

According to the indebtedness index, which includes only loans, 11.6 percent of households are over-indebted. At risk of over-indebtedness, are 8.2 percent of households, while 2.0 percent are at a critical stage. The share of insolvent households, which have lower income than debts, turned out to be 1.4 percent (Chart 65).

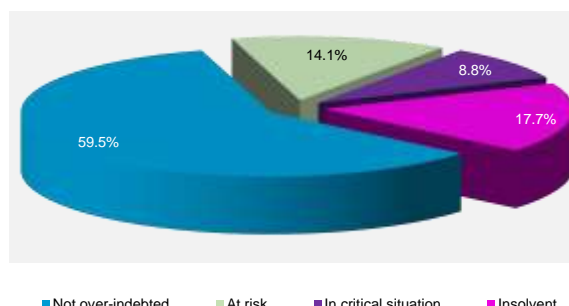
As in the case of the indebtedness of individual borrowers, the share of over-indebted households is significantly higher when all credit products are included (Chart 65a and 65b), but for the reasons already elaborated above, we will only refer to the loan indebtedness.

**Chart 65a. Distribution of households, by indebtedness index for loans and overdrafts**



Source: CBK.

**Chart 65b. Distribution of households, by indebtedness index for all credit products, (borrowing, overdrafts and credit card)**



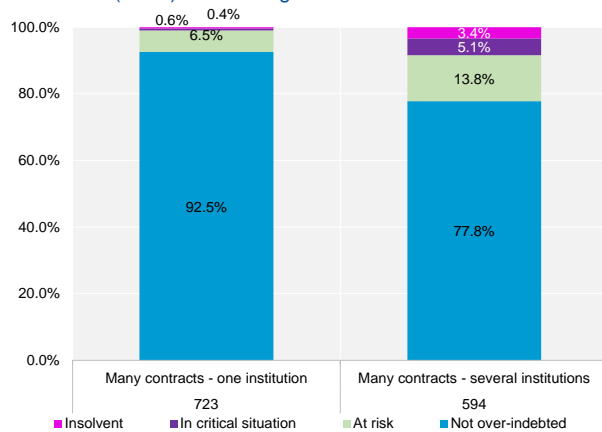
Source: CBK.

The households of borrowers with several active loans, as well as issued by several different institutions, had higher probability and over-indebtedness level (Chart 66).

Problems with over-indebtedness became more frequent with the increase in the number of credit contracts, in which case the households of borrowers with more than three active credit contracts had the most cases of over-indebtedness (Chart 67).

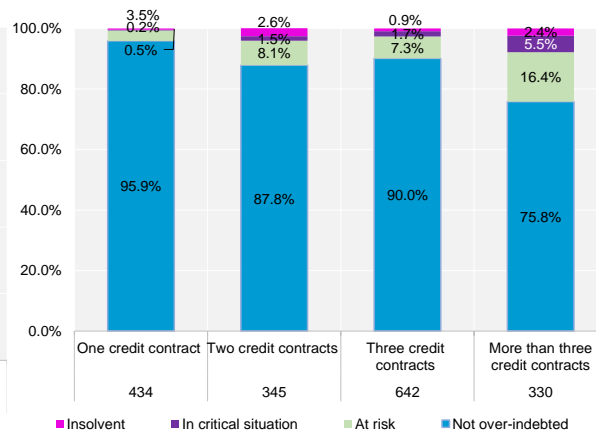
The share of over-indebted households as well as the level of over-indebtedness was higher in the households of borrowers with active credit contracts with the banking and microfinance sector at the same time.

Chart 66. Household indebtedness level, by number of contracts (loans) and lending institutions



Source: CBK.

Chart 67. Household indebtedness level, by number of credit contracts

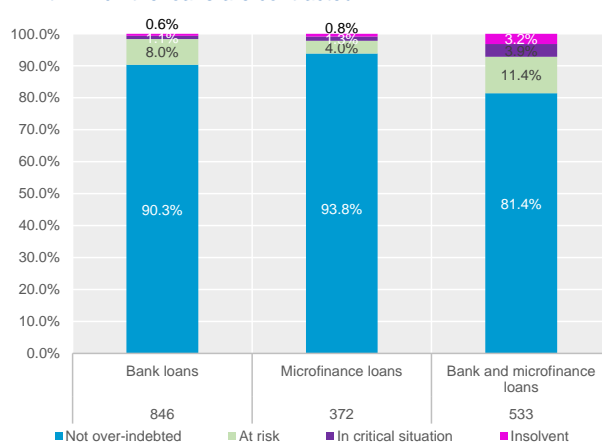


Source: CBK.

Analyzed separately by sectors, households of borrowers with credit contracts only in the banking sector had a higher tendency to over-indebtedness, compared to those of the microfinance sector (Chart 68).

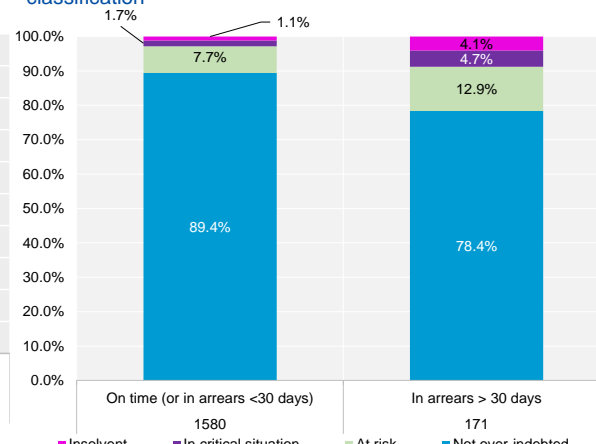
The level of indebtedness is related to the payment performance. Households of borrowers with overdue credit installments were twice as likely to experience over-indebtedness. Also, insolvency cases were much higher in the group of households' borrowers with delays, respectively in 4.1 percent of cases compared to 1.1 percent of households of borrowers without delays (Chart 69).

Chart 68. Household indebtedness level, by type of institution with which the loans are contracted



Source: CBK.

Chart 69. Household indebtedness level, by credit classification



Source: CBK.

While the individual borrower indebtedness did not differ significantly according to most socio-demographic characteristics, some of these differences are highlighted when considering the total household indebtedness. The level of indebtedness was highest in households where borrowers were separated, followed by households where the borrower was married (Chart A2, Annex 3). This result is influenced by the higher average monthly debt of separated borrowers despite higher income. While married borrowers turn out to be more over-indebted compared to unmarried ones, due to the higher installment despite similar income.

The households' level of indebtedness also differs according to the age group of the borrower, in which case the most over-indebted age group is over 60, followed by the age group 41-50 (Chart A3, Annex 3). Significant differences in the level of household indebtedness were marked also by regions, where the most over-indebted region is the region of Mitrovica (Chart A4, Annex 3).

Chart 70. Household indebtedness level, by number of employed family members

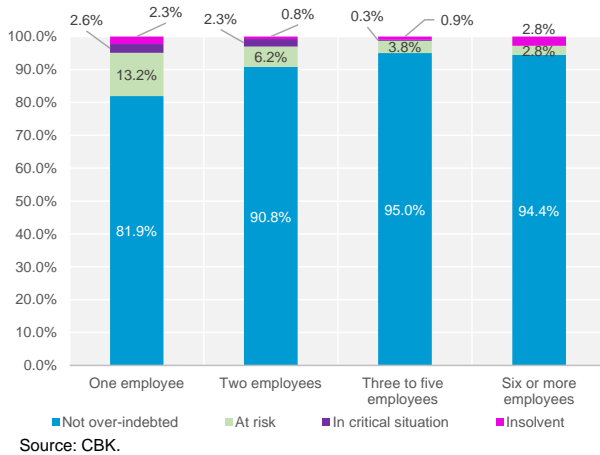
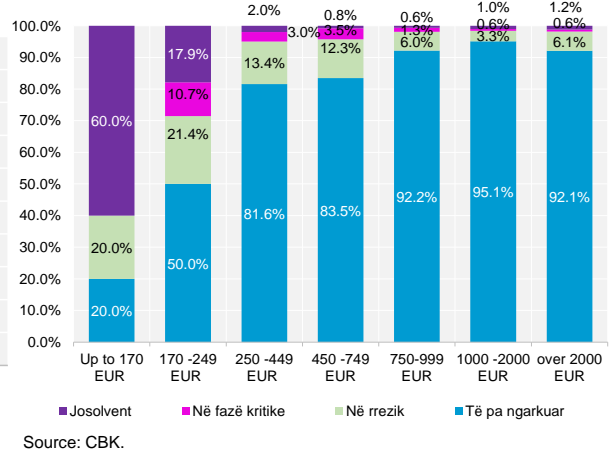


Chart 71. Household indebtedness level, by monthly household income



According to the professions of borrowers, the differences are similar to the case of indebtedness of individual borrowers, where the households of pensioners, office workers, and assistants are the most over-indebted (Chart A5, Annex 3).

The share of over-indebted households decreased with the increase in the number of employed members in the household. Respectively, households with one employed member had the highest indebtedness level, and the indebtedness rate generally decreased with the increasing number of employed members (Chart 71).

Chart 72. Household indebtedness level, by loan collateralization status

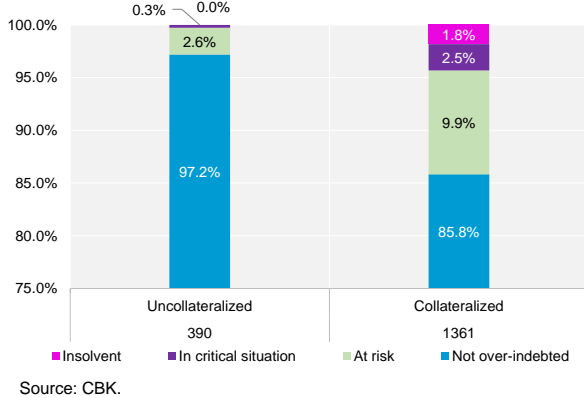
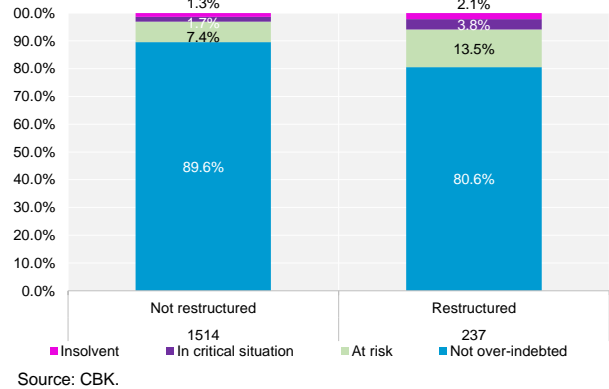


Chart 73. Household indebtedness level, by loan restructuring status



Also, the share of over-indebted households decreased with increasing income level (Chart 72). However, unlike individual borrowers, in households, the average and median of income decreases progressively with increasing indebtedness levels.

However, the average value of the monthly installment, the approved amount, and the outstanding loan amount, the same as for individuals, is higher at the higher levels of over-indebtedness (Table 13).

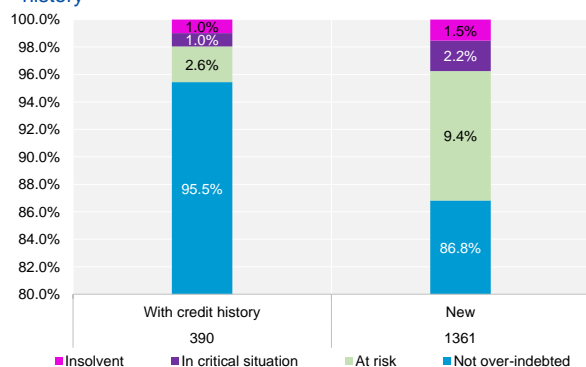
The indebtedness was very pronounced in the households of the collateralized borrowers. Only 2.8 percent of households with uncollateralized loans were over-indebted, and there was no case of insolvency. While 14.2 percent of households with collateralized loans were over-indebted (Chart 72). Also, the share of over-indebted households was higher in the group that had restructured loans (Chart 73).

**Table 13. Monthly income, monthly installment, approved value of active credit contracts, and outstanding value (in EUR), by household indebtedness rate**

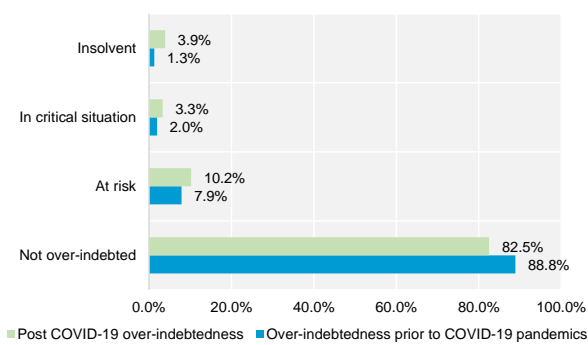
Over-indebtedness levels	Average monthly income of household	Installment average value of borrowings	Approved average value of outstanding borrowings	Remained approved value of outstanding borrowings
Not over-indebted	1,094.8	225.6	10,698.7	7,242.2
At risk	909.7	550.3	33,341.8	21,831.8
In critical situation	638.4	545.8	32,380.6	25,657.7
Insolvent	681.4	1,499.1	40,272.2	30,183.4

Source: CBK.

In the case of indebtedness of individuals, despite the fact that over-indebtedness, was generally higher for borrowers with credit histories, insolvency cases were more common among the group of new borrowers. Whereas in the case of households, over-indebtedness, as well as the level of insolvency, are higher for the group of households where the borrower had an earlier credit history (Chart 74). The Indebtedness of households results higher in the period after the onset of the COVID-19 pandemic. Index of Indebtedness is higher on average by 2 percentage points for each of the indebtedness categories.

**Chart 74. Household indebtedness level, by borrower's credit history**

Source: CBK.

**Chart 75. Household indebtedness before and after COVID-19 pandemic (the same clients for whom information is available for the period before and after the outbreak of the pandemic)**

Source: CBK.

However, the post-pandemic indebtedness may not reflect all the changes in credit installments, respectively restructurings, due to the lack of complete information on restructured installments (Chart 75).<sup>27</sup>

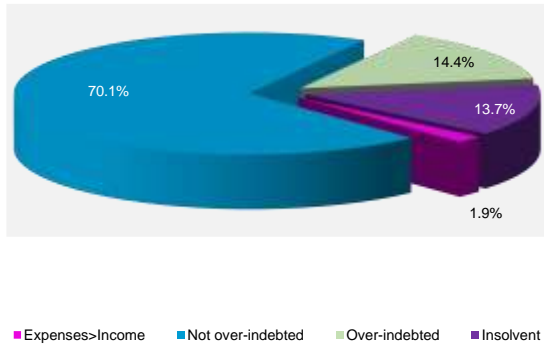
#### 4.4.2 Net indebtedness index

According to the net household indebtedness index<sup>28</sup>, the level of debt insolvency is high. Respectively, 13.7 percent of households are insolvent - debt value higher than net income from regular monthly expenses.

<sup>27</sup> The restructured installments as a result of COVID-19 have been accepted by the Financial Institutions for the active loans of their clients (clients selected as a sample for the respective institution). However, for the calculation of the total debt of the client, respectively the household, are taken (collected) all installments of active loans that have appeared in the CRK. Therefore, other restructuring that borrowers may have had in other financial institutions may not have been reflected in the CRK.

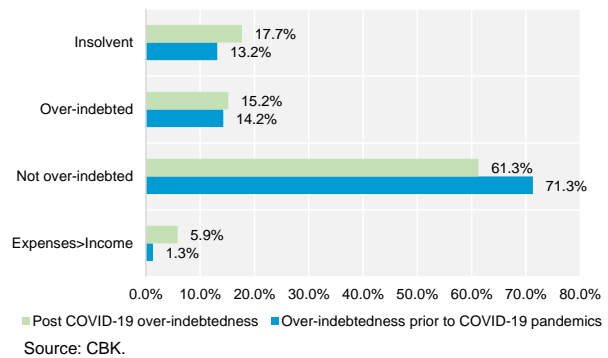
<sup>28</sup> The net household indebtedness index represents the ratio of the sum of the borrower's monthly installments to the net monthly household income (gross monthly income deducted for the regular monthly household living expenses, not including credit installments).

Chart 76. Distribution of households, by net indebtedness index



Source: CBK.

Chart 77. Net household indebtedness index before and after the outbreak of the COVID-19 pandemic (the same clients for whom information is available for the period before and after the outbreak of the pandemic)



Source: CBK.

In 1.9 percent of cases, regular monthly expenses were reported to be higher than gross household income. The share of not over-indebted borrowers (amount of installments lower than 70 percent of net income) is at 70.1 percent (Chart 76). Similar to the case of the main index with gross income, even according to the net index, the level of indebtedness increases in the period after the outbreak of COVID-19 pandemic (for the same group of households for which we have pre- and post-pandemic data). The share of households with a debt level that exceeds net income increases to 17.7 percent, compared to 13.2 percent before the pandemic (Chart 77).

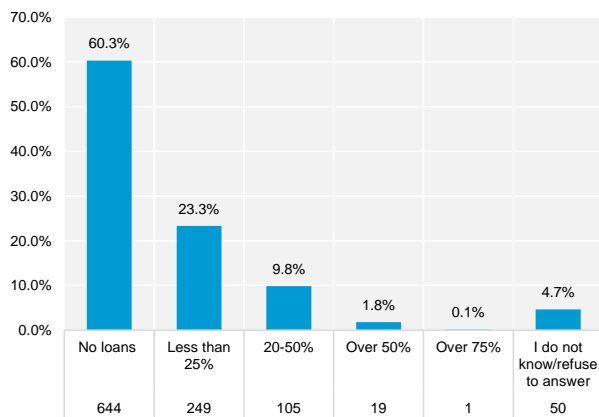
The results of the net indebtedness index are believed to be significantly affected by the quality of the data, respectively the statement of expenses, but also household income, for which we do not have reliable mechanisms to prove them.

#### 4.4.3 Indebtedness according to the household survey

Results of the household survey suggest that 60.3 percent of households do not have active loans. Over-indebtedness, respectively the use of more than 50 percent of household income in the payment of credit installments, was present in only 1.9 percent of cases. Whereas, 23.3 percent use less than 25 percent of household income in debt servicing. The share of households that use 20-50 percent of income in the payment of credit installments was 9.8 percent. Of the total respondents, 4.7 percent did not answer (Chart 78).

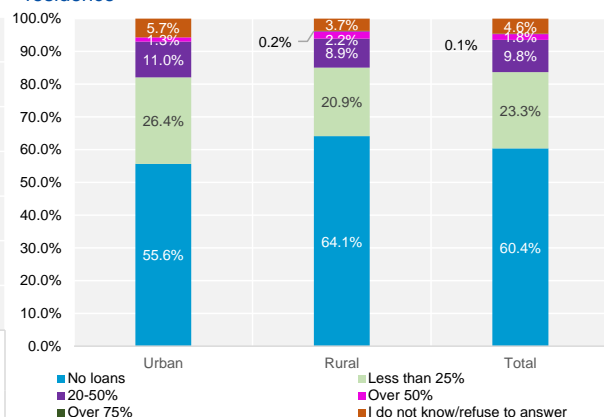
The share of households with no loans at all was higher in rural areas, but cases of over-indebtedness were also more frequent (Chart 79). The share of borrowers who have no loan was highest in the lowest income group. Whereas, the indebtedness level was higher in the group with monthly household income of EUR 151-300 (Chart 80).

Chart 78. Credit installment to household income ratio



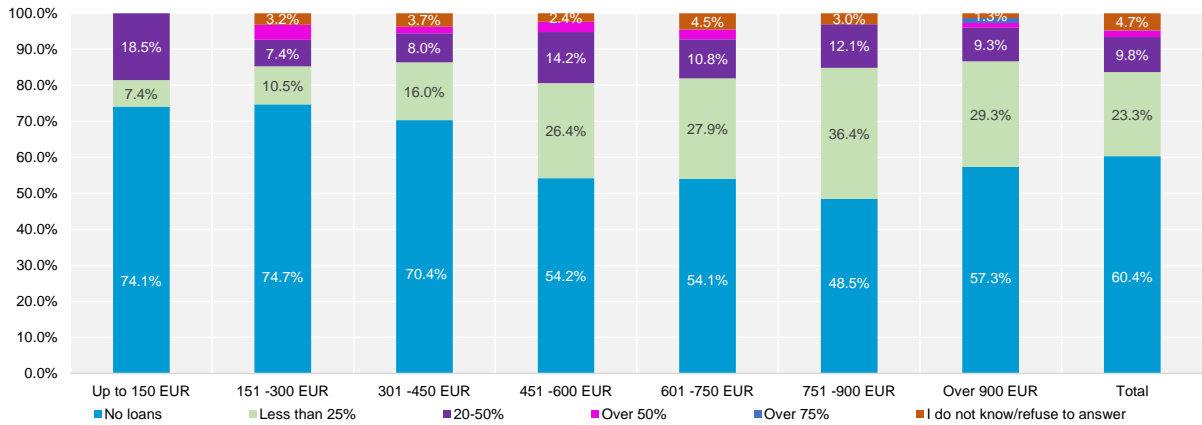
Source: CBK.

Chart 79. Credit installment to household income ratio, by residence



Source: CBK.

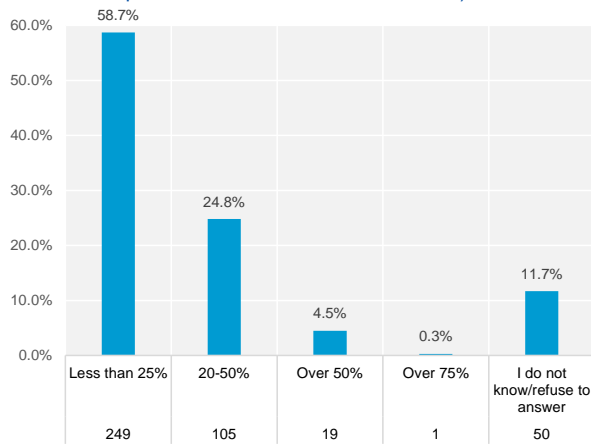
Chart 80. Credit installment to household income ratio, by level of household income



Source: CBK.

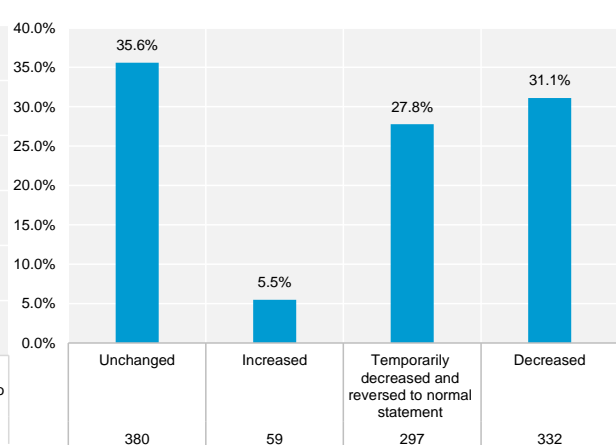
Within households that had active loans, 4.8 percent of them were over-indebted. The share of households using less than 25 percent of household income in debt servicing was 58.7 percent, while that of those using 20-50 percent of income in the payment of credit installments was 24.8 percent.

Chart 81. Credit installment to household income ratio (only for the sample of households which have loans)



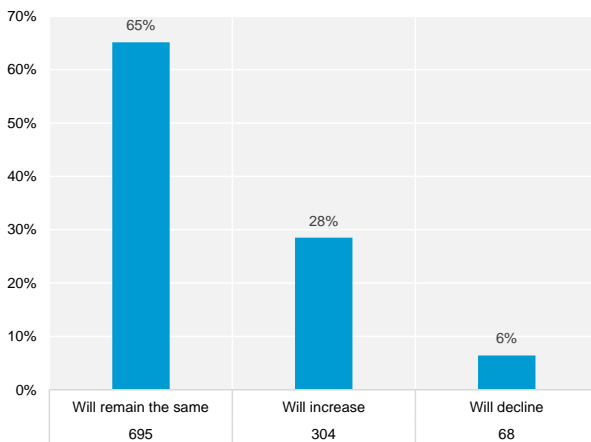
Source: CBK.

Chart 82. Impact of COVID-19 pandemic crises on household income



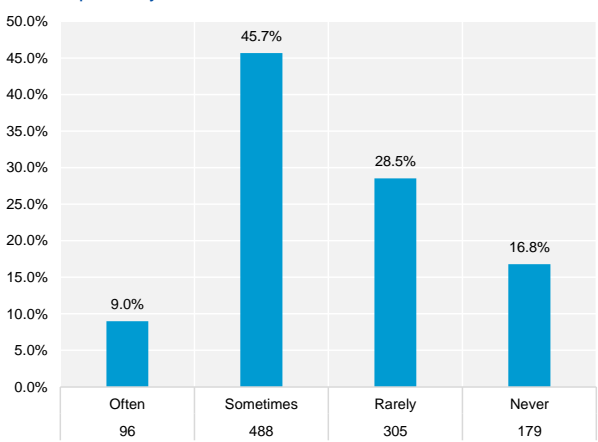
Source: CBK.

Chart 83. Expectations on household income in the next 3 months



Source: CBK.

Chart 84. Frequency of arrears of over two months with municipal utility bills



Source: CBK.

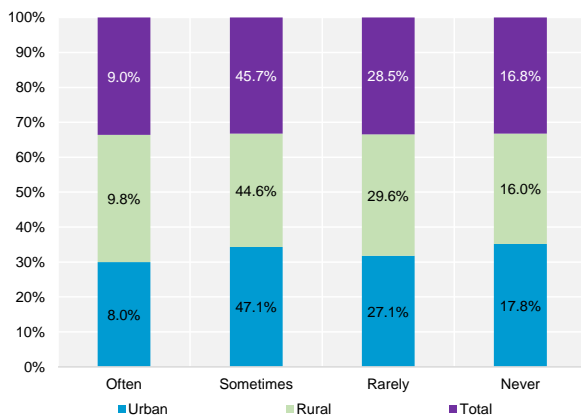
A high percentage of households with active loans, 11.7 percent, did not respond regarding the ratio of installment to income (Chart 81). Households were also asked about the potential effect of



the COVID-19 pandemic outbreak on household income level. One third, respectively 35.6 percent, stated that household income have not changed. On the other hand, slightly lower share - 31.1 percent - stated that their family income have decreased.

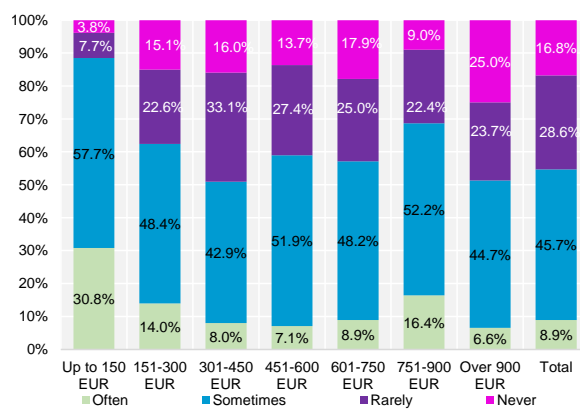
The remaining 27.8 percent said that there was a temporary decrease in income which recovered to the previous state, while 5.5 percent stated that household income increased (Chart 82). Moreover, when asked about the expectations for the level of their income in the next three months, 65.1 percent stated that they do not expect changes. The remaining 28.5 percent said they expect an increase in household income, while only 6.4 percent said they expect a decrease (Chart 83). Regarding the aspect of delays in the payment of regular monthly obligations for utility expenses (water, electricity, waste, property tax), the survey results suggest that 9 percent of households often have arrears of over 2 months in payment of these obligations.

Chart 85. Frequency in arrears of over 2 months with municipal utility bills, by household residency



Source: CBK.

Chart 86. Frequency in arrears of over 2 months with municipal utility bills, by household monthly income



Source: CBK.

A high percentage, 45.7 percent, stated that they are sometimes in arrears, while 28.5 percent said that they rarely have such arrears. The remaining 16.8 percent have stated to be regular payers, respectively they are never more than 2 months in arrears in paying such obligations (Chart 84). In terms of place of residence, households in rural areas had the highest share of frequent arrears (Chart 85). The lower the household is income, the higher the share of frequent delays are (Chart 86).

## 5. Conclusion

Lending in Kosovo has grown at an accelerated pace in recent years, with an average annual growth of 10 percent for banks in the five years before the outbreak of the COVID-19 pandemic and 23 percent for micro-finance institutions. The increase of financial intermediation and the continuous developments in the credit market are enabled by the favorable macroeconomic conditions, the abundant financing assets (favorable liquidity), and increased competition in the financial sector. However, the double-digit increase of loans, especially lending to households, has also raised the issue of the potential indebtedness of borrowers. Over-indebtedness of borrowers, in addition to the direct risk it poses to the stability of the financial sector, also has social and psychological consequences for affected customers and society as a whole. Moreover, in the face of the challenges of the COVID-19 pandemic in Kosovo, the role of lending as a mechanism to support economic recovery increased further. However, the rapid growth of lending even at this stage may further increase the indebtedness on borrowers, with potential consequences in the medium-term.

In this study, an attempt was made to measure the indebtedness of borrowers and their households, as well as the possible effects of the COVID-19 pandemic on the financial condition of borrowers/households. Borrowers' indebtedness does not have a standard definition and way of assessment, so in this study, a combination of indicators were used to assess different aspects of the indebtedness, in order to achieve a more realistic picture of the problem. The key indicator is considered to be the indebtedness index, which is calculated as the ratio of the debt amount for the monthly payment (all monthly loan installments) of the borrower to the monthly income. Alternative indebtedness indicators are delays over 2 months in the payment of credit obligations, possession of more than four credit contracts, as well as the indebtedness index with net income. In addition to the study with data from lending financial institutions in Kosovo and the Credit Registry of Kosovo, the conducting of a short household survey was commissioned, for an alternative assessment of the debt situation.

The findings of the study suggest that the share of over-indebted households<sup>29</sup> lies in the range between 27.4 percent when only the borrower's income are taken into account, and 11.7 percent when the whole household income are taken as a basis. The assessment of the indebtedness level based only on the borrowers' income may reflect an overestimation of the indebtedness situation, due to the not-including of co-borrowers income. On the other hand, in assessing the level of indebtedness with household income, due to the lack of information on the potential debt of other family members, we may have an underestimated picture of the level of indebtedness. Therefore, for the above reasons related to the lack of data but also the quality of data received through the survey, it cannot be suggested for a specific level of over-indebtedness, but it is suggested that the degree of households loan over-indebtedness extend in the interval between the results of the borrower index of indebtedness and the household index of indebtedness. The share of borrowers' at risk of over-indebtedness- the monthly loan installment accounts for 50 to 75 percent of monthly income- is suggested to be in the range of 21.8 percent (only with borrower income) and 8.2 percent (household income). At the critical stage - with a debt to income ratio of 75-100 percent - are 3.8 percent (only borrowers' income), respectively 2.0 percent (household income). Cases where borrower installment expenses completely exceed gross monthly income by passing into the insolvent state are presented in 1.8 percent of the borrower sample and 1.4 percent of households.

However, the results of the household survey conducted in different household samples give a lower level of household indebtedness. Of the surveyed households, 60.3 percent stated that they do not have active loans at all and only 1.9 percent spend more than 50 percent of household income on

<sup>29</sup> The amount of monthly installments for loans exceeds 50 percent of monthly income.

loan installments. The share of over-indebted households increases to 4.8 percent when only households with active loans are considered.

The study suggests that the COVID-19 pandemic crisis has increased household indebtedness. The indebtedness index is higher after the outbreak of the pandemic by an average of 2 percentage points for each of the indebtedness categories. The effect of the pandemic outbreak on the decline in household income is also supported by a household survey, which suggests that income have decreased in about one third of respondents, while 27.8 percent of respondents have reported a temporary decline in household income which have been restored to the previous state.

The study suggests that over-indebtedness is associated with multiple borrowing and poorer payment performance. Over-indebtedness tendencies were higher for borrowers' households with late payment of credit installments. Problems with payment performance as well as over-indebtedness also became more frequent with multiple borrowing, especially from different institutions. The highest levels of indebtedness, critical and insolvency cases, were in almost 90 percent of cases expressed among multiple borrowers from different institutions. Analyzed separately by sectors, the share of overdue borrowers was higher in the microfinance sector, while the over-indebtedness was more pronounced in the borrowers of the banking sector.

The study also attempted to measure the correlations between borrowing models, namely socio-demographic and socio-economic characteristics with over-indebtedness, respectively payment performance. For many socio-demographic characteristics, there were no significant (statistically significant) differences in the tendencies for over-indebtedness or late payment of loans. But some characteristics such as occupation, age group, and income level, consistently turned out to be related to over-indebtedness and payment performance. Within the borrowing models, collateralization, credit restructuring, credit history, as well as roles as co-borrowers and guarantors were important.

However, it should be re-emphasized that the study does not present an influential correlation of these factors in the various indicators of over-indebtedness, but only a comparative association of the level of over-indebtedness between groups of borrowers according to socio-demographic, socio-economic characteristics and contractual specifics (borrowing models).

### 5.1. Study Limitations

The results of the study are subject to some limitations in terms of the quality of available data and assumptions made in accordance with the shortcomings encountered. Relevant limitations have been taken into account in the interpretation of the results, and depending on the judgment of their impact on the quality of the results, the importance of the interpretation of the indicators has been determined.

Consequently, the main indebtedness index is considered the index based only on regular payment loan installments.<sup>30</sup> In the case of inclusion of all credit products, the indebtedness is higher and is considered over-estimated. This is due to the fact that the monthly installment includes the total debt owed on the credit card/overdrafts - in the absence of information for determining the monthly installments - while the outstanding debt is usually structured in installments (credit card) or paid only at product maturity (overdrafts).

The interpretation of the indebtedness results according to the borrower's income is suggested to be supplemented with results based on the data of the whole household unit, and not to be interpreted in isolation. This is due to data limitations for both indicators.

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<sup>30</sup> Loans include: various purpose loans, mortgage loans and financial leasing.

In the case of the borrower, there are several aspects of data quality that need to be noted: the lack of information on co-borrowings and the possible inconsistency of the time of reporting / updating data on the borrower. Regarding co-borrowing, there are no cases when the loan is co-borrowed and it is not known whether the co-borrowers income are included in the income reporting to the CRK. In case of inconsistency, the borrower's income are recorded by the financial institutions at the time of loan disbursement, and if they are not updated throughout the duration of the loan, then they do not reflect any changes in income at the time of providing study information, which is consequently an issue that affects the underestimation or overestimation of the indebtedness.

In the case of the household, there is a lack of information on the potential debt of other members of the household, which may be reflected in the underestimation of the over-indebtedness. Furthermore, financial institutions have expressed doubts about the quality of household data received from customers, in the absence of mandatory mechanisms for reporting this data, as well as mechanisms for their confirmation (unlike the case with data/income of borrowers who are obliged to document them by contract in the case of loan application and are easily confirmable through the bank balance). Based on the above suspicions, contradictions have been encountered in the data reported for households such as the case of discrepancy between household income and the number of employees in the household (household income is reported to be the same as that of borrowers, despite the fact that more than one employed member in the household unit has been reported). Furthermore, the monthly household living expenses in 1.9 percent of cases have exceeded the gross monthly household income, regardless of the level of income, and therefore create uncertainty in the interpretation of the indebtedness results according to the net index.

The above data dilemmas are also reflected in the assessment of the indebtedness following the outbreak of the COVID-19 pandemic. Due to the lack of information on the time when income were updated and the lack of restructured installments, it was assumed that income remained unchanged from the time of disbursement and the installments are the same. However, in cases where this assumption does not stand, the comparison before and after the COVID-19 pandemic may not reflect the effect of the pandemic, but of previous changes in the financial condition of borrowers.

The study is also limited in the possibility of correlation between different indebtedness indicators. The study does not inform on the cause-and-effect relationship of variables, but only on the comparative interpretation of payment performance and the level of indebtedness between certain groups according to socio-demographic characteristics and characteristics of credit contracts. Furthermore, the methodological and sample differences between the indebtedness index of the study and the household survey commissioned by the CBK, although complementary, limit the comparison between them.

## 6. Recommendations

Indebtedness of households is a multidimensional and complex concept. The many factors that influence the indebtedness and the interrelationship between them makes the assessment process challenging. The risk of household over-indebtedness should be assessed from many aspects, collecting, processing and analyzing the data from many indicators in order to understand and reflect the situation entirely. The complex nature of the problem, but also the many limitations in the data for the household unit, emphasize the need for interaction of institutions, respectively the engagement of all relevant stakeholders in collecting and providing quality data.

Recommendations regarding the possible measures that can be taken by stakeholders, which arise naturally from the findings of the study, as well as from consultations of materials and relevant parties, are presented below:

### **- Enhancing the regulatory framework for narrowing the data gap and improving quality**

Indebtedness at the household level is an aspect of national interest. Therefore, it is recommended to initiate an inter-institutional discussion on possible modalities of providing qualitative information on the debt and income of the household unit. Furthermore, it is recommended to discuss the creation of a national database on the payment performance of regular municipal expenses (water, municipal taxes, electricity) of households, information that is important in assessing the credit risk and the risk of over-indebtedness of households.

### **- Increasing access to finance and ongoing financial education**

Financial education is considered as a factor with high effectiveness in preventing over-indebtedness, helping clients to improve financial management and increasing access to finance. The results of the household debt survey commissioned by the CBK suggest a high share of households with no loan. Therefore, all stakeholders should be engaged in removing barriers to access to finance through continuing financial education and the adoption of non-exclusive policies.

### **- Continuous application of responsible lending practices**

Pursuing responsible lending practices, respectively responsibly assessing the repayment capacity of borrowers represents the most typical and direct manner of preventing the problem of over-indebtedness. Financial institutions are recommended to be responsible in applying, documenting and monitoring the Debt-to-Income (DTI) ratio, Debt- Service-to-Income (DSTI) ratio and Loan-to-Value (LTV) ratio indicators, adhering to internationally standardized methodologies for calculating these indicators in order to ensure consistency and comparability between periods and institutions.

### **- Active approach of financial institutions in preventing and addressing over-indebtedness from multiple borrowing**

The literature recommends that borrowing debt to pay off / ease the existing indebtedness is not the solution to the problem of over-indebtedness. The results of the study suggest that the possession of several active credit contracts, as well as multiple borrowing from different institutions (banks and microfinance) is associated with higher indebtedness levels and poorer payment performance. Lending institutions must pay particular attention in assessing the repayment capacities of clients in cases of reviewing the new credit applications (including products like credit cards) to enable the repayment of existing debts, since this practice, although in certain cases can help borrowers to overcome the temporary financial problems, it

can also worsen the financial situation and the overall debt repayment capacity of the borrowers.

#### **- Application of standard methods of registering and documenting the information**

In assessing income of the borrowers by an institution, the application of predefined standard procedures is encouraged. Documentation of gross income with contracts, as well as the application of a standard methodology on assessing of additional income and income of co-borrowers would help in providing higher quality data for comparison and analysis of the over-indebtedness situation. It is also suggested that lending institutions monitor any possible changes in customer income on a regular basis over the duration of the loan contract and report these changes to the CRK.

#### **- Continuous commitment to improving data quality**

Credit institutions as well as the CRK to be continuously engaged in increasing the quality of data and possible expansion to include as many data fields and additional information. In line with this, adequate classification of data and their coding is recommended in order to enable their analysis, as is the case with the field of professions of borrowers. Also, the coding / classification should be carefully examined to reflect the real needs of the use, as well as to avoid the bypassing of information in the relevant code / classification (in the field of credit purpose, there is a high participation of non-specification, respectively classification into 'other').

#### **- Adaptation of reporting quality control practices**

The study identifies a high degree of discrepancy between certain data between the two databases, namely the CRK and the information sent by financial institutions. To some extent, this may be the result of a time dimension problem (different reporting times), but it is largely suggested to be a consequence of reporting errors. The most significant discrepancies resulted in the cases of credit installments, the outstanding amount, the borrower's income, the purpose of the loan, the profession and the municipality. Therefore, to avoid these problems, more frequent or rigorous quality controls are recommended.

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## Annexes

### Annex 1. Monthly income of borrowers, disaggregated by socio-demographic and socio-economic characteristics

Socio-demographic characteristics of individual borrower	Prior to COVID-19		Post COVID-19	
	Average	Median	Average	Median
Man	687	531	726	537
Woman	536	470	605	478
Not married	590	491	642	500
Married	664	530	706	531
Divorced	1,051	629	1,150	629
Urban	695	535	788	570
Rural	576	488	570	481
Prishtina	726	560	829	600
Mitrovica	655	500	681	550
Prizren	619	500	658	500
Ferizaj	560	470	574	500
Gjilan	543	500	576	483
Gjakovë	560	474	574	474
Peja	613	509	609	500
Armed forces	462	430	566	503
Managers	1,068	616	1,123	650
Professionals	745	565	874	600
Technicians and professional co-workers	662	499	768	563
Office employees and assistants	531	420	556	471
Service and sales employees	574	512	573	511
Skilled workers of agriculture, forestry and fishing	704	567	614	524
Craft workers and similar professions	580	500	605	500
Operators and installers in factories and machines	556	500	552	500
Elementary professions	483	400	479	400
Pensioners	321	268	339	310
Housewives	589	434	516	290
Other, including social welfare	609	500	624	485
Student	550	476	608	550
< 30 years of age	537	432	570	450
30 - 40 years of age	661	516	733	526
40 - 50 years of age	740	550	789	537
50- 60 years of age	625	520	650	530
> 60 years of age	560	522	592	514
0-5 work experience	494.5	425	549	450
6-10 years	661.4	508	707	504
Over 10 years	704.3	563	789	580
Banks	633	501	725	534
Microfinance	669	520	609	500

Source: CBK.



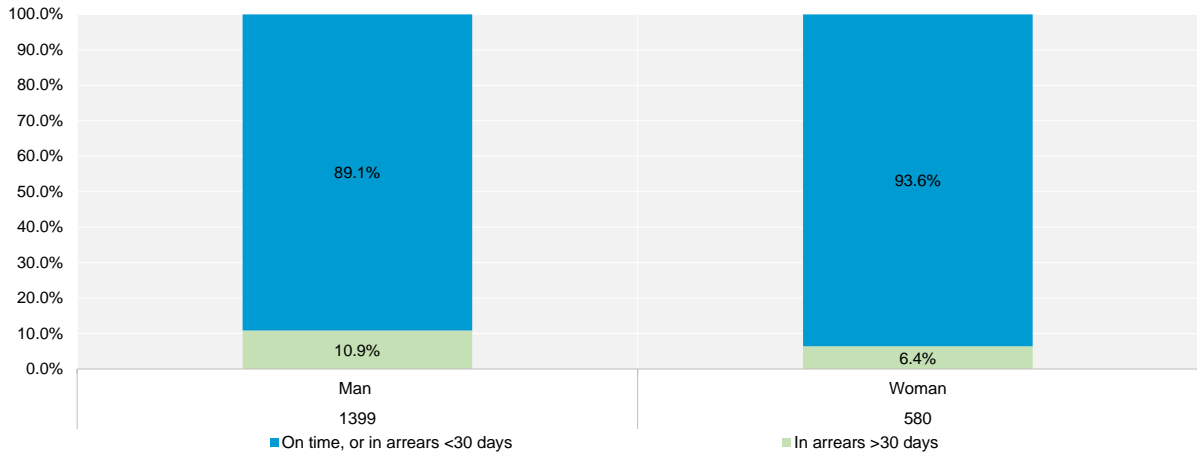
## Annex 2. Monthly household expenses, disaggregated by socio-demographic and socio-economic characteristics

Description	Prior to COVID-19		Post COVID-19	
	Average	Median	Average	Median
Man	422	325	455	350
Woman	404	300	441	350
Not married	413	310	449	350
Married	420	320	452	350
Divorced	342	265	411	400
Urban	466	350	508	400
Rural	358	300	376	300
Prishtina	482	392	537	400
Mitrovica	364	295	402	300
Prizren	419	300	440	350
Ferizaj	399	350	415	350
Gjilan	345	300	370	350
Gjakovë	355	300	354	300
Peja	393	300	430	320
1 (only the borrower)	311	274	340	300
2 employees	442	365	479	400
3-5 employees	587	486	634	500
Over 5 employees	536	450	538	450
Banks	452	350	497	400
Microfinance	333	300	340	300

Source: CBK.

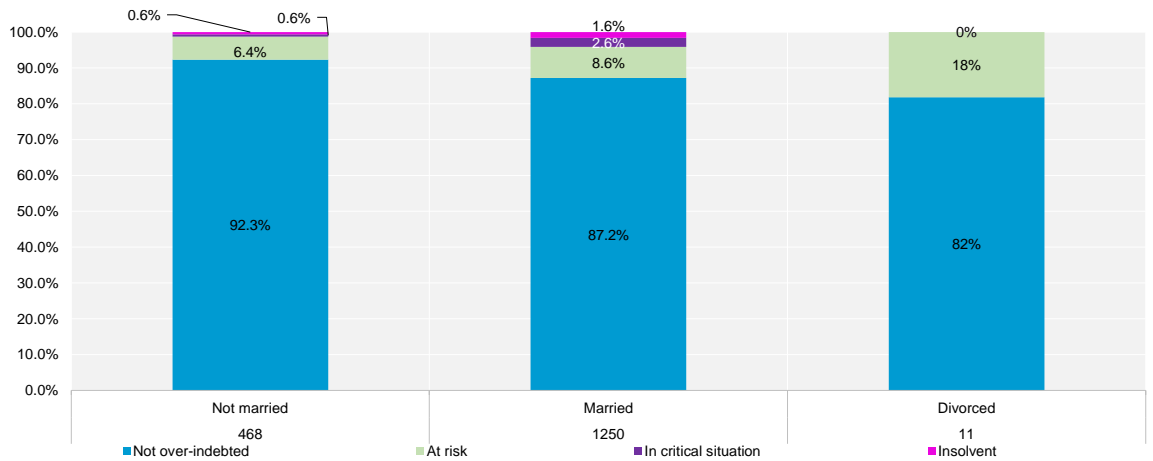
**Annex 3. Additional charts**

**Chart A1. Borrowers' payment performance, by gender**



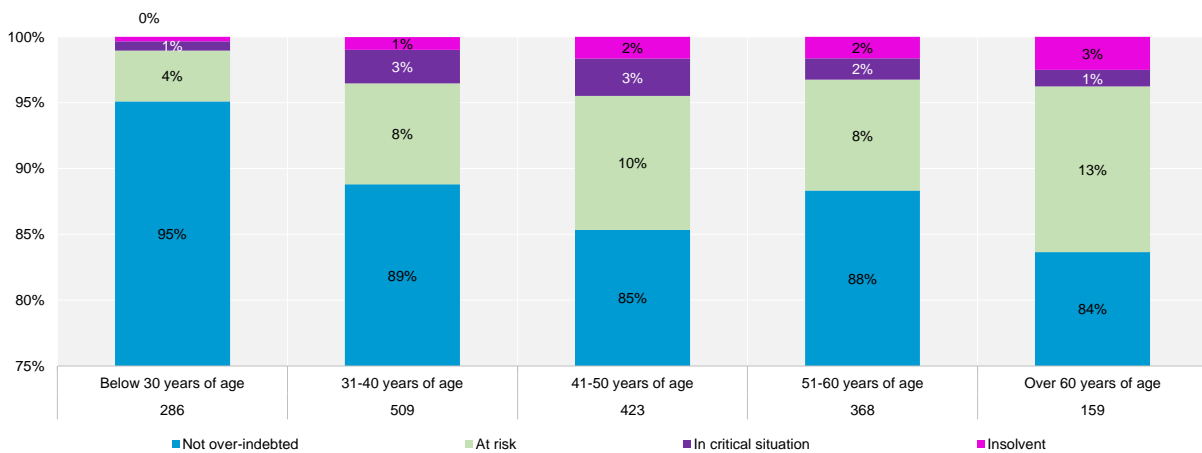
Source: CBK.

**Chart A2. Distribution of households by over-indebtedness index and borrower's status**



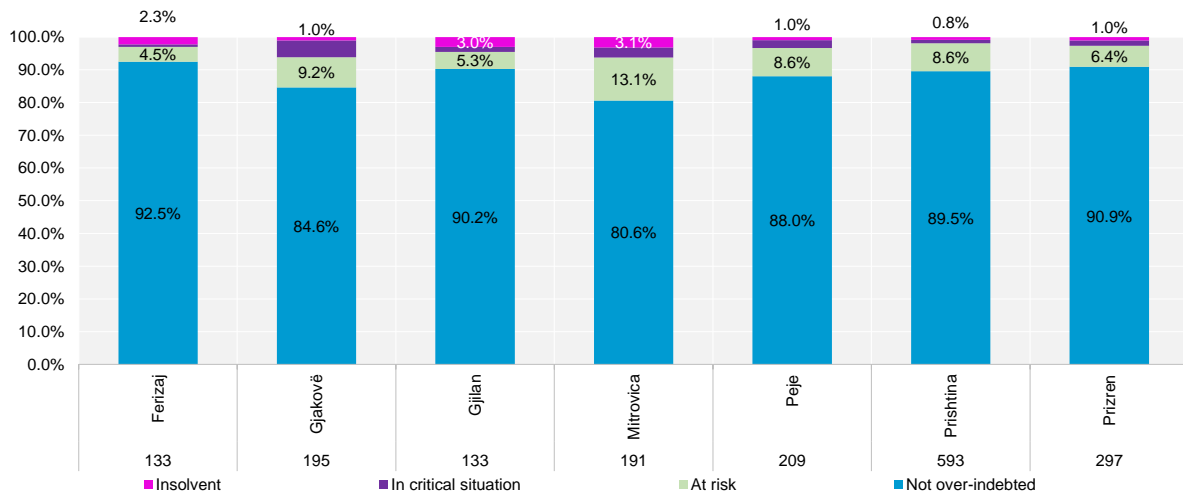
Source: CBK.

**Chart A3. Distribution of households by over-indebtedness index and borrower's age**



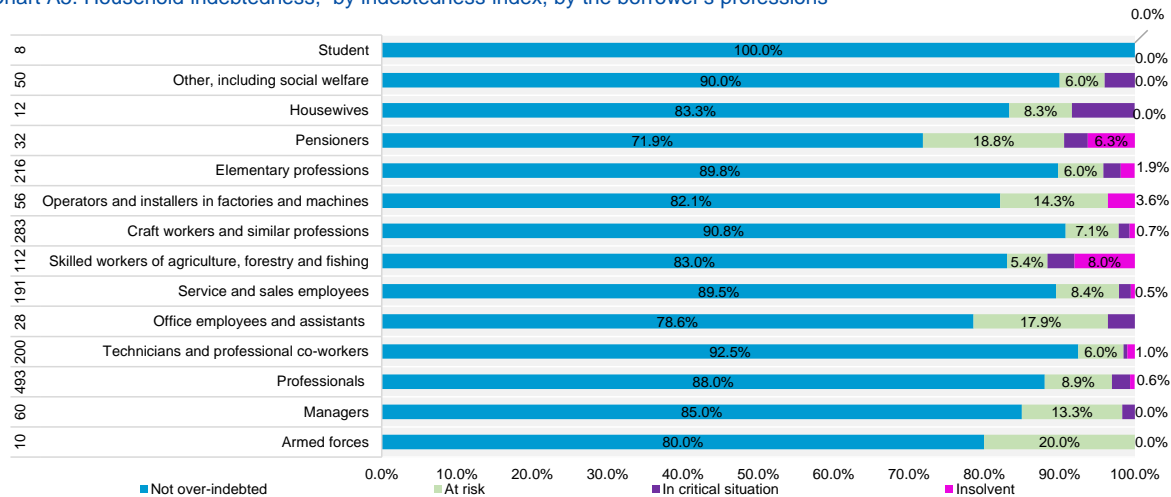
Source: CBK.

Chart A4. Distribution of households by over-indebtedness index, by the region of the borrower



Source: CBK.

Chart A5. Household indebtedness, by indebtedness index, by the borrower's professions



Source: CBK.



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