



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

INDEBTEDNESS OF BANK CLIENTS IN KOSOVO

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Summary

PUBLISHER © Central Bank of the Republic of Kosovo
Economic Analysis and Financial Stability Department
33 Garibaldi, Prishtina 10 000
Tel: ++381 38 222 055
Fax: ++381 38 243 763

Website www.bqk-kos.org

Email address economic.analysis@bqk-kos.org

EDITOR-IN-CHIEF Arben MUSTAFA

EDITOR Albulena XHELILI

AUTHOR Krenare MALOKU

ASSOCIATE Credit Registry Division of Kosovo (RDK)

TECHNICAL EDITOR Butrint BOJAJ

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1. Purpose of the study

Central Bank of the Republic of Kosovo, in the light of its ongoing efforts to ensure financial stability and more favourable environment for the operation of financial institutions, has commenced implementing a study on the borrowing trends and the indebtedness level of credit clients in Kosovo, which will be published once a year.

With the continuous development of the financial sector and expansion of opportunities for access to credit products, the risk of clients' over-indebtedness has grabbed the attention of the public and policymakers. Over-indebtedness of borrowers, besides the direct risk that it poses to the financial sector stability, it also entails social and psychological consequences for affected clients and the society as a whole.

The main purpose of this study is to analyse the indebtedness level to assess whether credit clients in Kosovo are over-indebted or are at risk of over-indebtedness. In addition, the study aims to identify the borrowing patterns of credit clients, as well as to identify factors that might affect on the capacity of the borrower to settle the credit obligations. Provision of such information in periodic basis creates the basis for discussion about the necessary measures for prevention of possible problems regarding credit risk.

A similar research that studied the issue of indebtedness of credit clients in Kosovo was conducted earlier by the European Fund for Southeast Europe (EFSE). However, in order to ensure the continuity of assessment of indebtedness risk and for the purpose of undertaking appropriate actions to control this risk, which is increasingly getting the attention of EU countries and countries of South-Eastern Europe, CBK pursuant to its mandate and its strategic objectives for maintaining financial stability has taken over to draft this study on periodic basis¹.

On the first study of this nature, CBK was focused on analysing the borrowing trends and the risk of over-indebtedness of clients of 7 (seven) commercial banks,² who had active loans ranging from 5.000 to 50.000 Euros.

The study is structured around two key subjects: a) borrowers, where the emphasis is given to the identification of socio-demographic characteristics of the selected sample of clients, their borrowing patterns as well as the repayment performance and the level of indebtedness, and b) credit contracts, where the focus of analysis is the credit contract and not the borrower. In this section data regarding all active credit contracts of borrowers selected as a sample are analysed, with an emphasis on the main contract characteristics and their interconnectedness with the repayment performance.

Specific objectives of the study or questions intended to be addressed are:

- 1) What are the demographic characteristics of the credit clients in the credit segment from 5,000 – 50,000 euros;
- 2) What are the main borrowing habits of these clients; what are the main features of their credit contracts (for example, credit purpose, duration, collateral, etc.);
- 3) How is the repayment performance of credit contracts, repayment trends and what are the factors affecting the repayment performance;

¹ This study has a similar structure with the previous indebtedness studies conducted by EFSE. However, results are not always comparable because of changes in the sample credit intervals.

² This study project, which will be implemented on a regular basis, aims to include all commercial banks operating in Kosovo, which have sufficient credit history.

- 4) What is the actual state and potential risk of clients' over-indebtedness and what factors affect the indebtedness level.

2. The study methodology

2.1. Data source

The study is based on the data provided from the Credit Registry of Kosovo (CRK) and the data from the Management Information Systems of banks involved in this study. The main data source was the CRK database, where financial institutions report on regular basis the key data on credit clients in Kosovo and their credit history, including participation in the role of guarantor, co-borrowers, etc. However, important data for the study such as the demographic data and the data on borrowers' incomes, which are not complete in CRK, were obtained from the banks included in the study.

2.2. The study sample

The study is focused in analysing the borrowing trends and the indebtedness risk of clients of seven (7) commercial banks,³ with active credit in December 2013 whose approved amount ranging from 5.000 to 50.000 Euros.

The study sample was selected from the population of clients of all banks in Kosovo with active credit as of December 2013 in the segment of credits selected for the study. Data on the total number of clients were taken from CRK. Based on the market share of the institutions involved in the study, the sample represents 93% of the total credit market in terms of number of clients for designated segment.

The sample, which has been selected to ensure a confidence level of 95% and margin of error of 3%, initially included 1,055 clients. However, the initial sample increased by 10% percent, to account for the possibility of multiple draws - sampling of the same client from more than one institution- and the possibility of incomplete data and other data errors. The final study sample included 1,160 clients. The sample distribution was done proportionally reflecting the market share of the respective banks in the selected market segment.

2.3. The sample selection procedure

The sample was selected randomly, in order to be valid and representative of the population. Random selection of the sample was carried out by the banks that were instructed to respect the following procedures:

- To list personal numbers or business registration numbers (IDs) of all clients with loans ranging from 5.000 to 50.000 Euros, which were active at the cut-off point for the study, namely 31 December 2013;
- To randomly select the number of clients in accordance with the sample size set forth for their institution;
- To create codes for selected clients by using the identification number of their institution⁴ and the sequential number;
- To fill in the required data with information from their Management Information System (MIS);

³ The purpose of the study, which will be carried out on a regular basis, is to include all commercial banks that operate in Kosovo, and which have sufficient credit history. At the beginning of the study, only 7 out of the total number of the banks have met this criterion.

⁴ Bank identification number is required to be the same with the one used for reporting of the data to the Credit Registry of Kosovo.

- To submit data to the Credit Registry of Kosovo (CRK), where the additional data from the registry for all selected clients were extracted.

The completed database, encrypted to preserve the confidentiality of clients' personal data, was sent from the CRK to the Department of Economic Analysis and Financial Stability, which has performed data processing, extraction and analysis of results.

2.4. Data type and data limitations

The data⁵ required by banks mainly included demographic data, households' and businesses' gross and net monthly incomes as well as the data on credit contracts of the selected client. From the data on credit contracts, of particular importance were the data which the banks are not obliged to report to the Credit Registry of Kosovo, such as monthly instalments for each credit and the purpose of those credits. Other data, which were extracted from CRK, include detailed credit reports of respective clients, including features of their credit contracts, classification of credit contracts, collateral data, data on clients' engagement in other roles such as guarantor, co-borrower, etc.

However, some data limitations were faced during the compilation or drafting process of this study that might have impacted on potential error bias of the results (over or under-estimation of the study results). These limitations, therefore, should be considered during the interpretation of the findings of this study. The main data limitations include:

Lack of accurate data on credit instalments

The value of monthly credit instalments is not mandatorily required to be reported to the CRK; it is rather done in optional basis. Therefore, the amount of monthly credit instalment for clients involved in this study was obtained from the banks, but only for credits that were issued by those respective banks. The data on the amount of monthly credit instalment that sample clients of a particular bank had from other institutions were neither available in the MIS of that bank, nor they were complete in the CRK; therefore assumptions had to be made to calculate the total amount that the clients pay to settle the active credit contracts.

Calculation of monthly instalments of credit contracts was carried out by assuming equal payments throughout the duration of the loan, and by assuming that the credit contract had an interest rate equal to the average interest rate provided by all banks for the relevant credit product.

Average annual interest rates used for calculation of the monthly instalment, by credit products, is as follows:

- Credit and Leasing: 11.8%
- Overdrafts: 16%
- Credit cards (The punitive monthly rate for the amount delayed): 23.8%

Lack of possession of accurate data on the amount of credit instalment can cause deviation of results because the interest rates vary by institution, type and conditions of the credit, therefore there might be cases when the instalments paid by clients were under-estimated or over-estimated. In addition, the instalments may not be distributed evenly throughout the duration of the contract, and the banks may apply exemption periods from instalment payments, or

⁵ The detailed list of the data required by banks as well as those obtained from the Credit Registry, are found in Annex 2 of the publication.

negotiate a single credit pay-out. In these cases, the evaluation of indebtedness may not suffer from estimation bias.

Subjectivity and potential non-compliance of monthly income

The clients' monthly income data were obtained by the banks, which in most of the cases have obtained this information from the credit files of respective clients. There are some potential problems with this data, which may have been reflected in the findings of the study. One of the potential problems, which is highlighted by the banks, is the discrepancy between different banks, but also within the same bank, on the manner of assessing of the clients' income. This is due to the use of different criteria for assessing incomes as well as the possibility of subjectivity in assessing the expenditures in the case of available net incomes.⁶

The data on available net incomes of households were requested to include the total gross income after deducting the taxes and monthly expenses of the households. In order to be able to calculate the real burden of debt instalment to the net income, it was requested not to include in expenditures the payments for credit instalments, which the client pays to the relevant bank or any other credit institution in Kosovo. However, banks usually get the information about the clients' income at the time when clients report for credit, and the instalments which the clients pay to other institutions are included as expenditures.. Consequently, there may be cases when banks have had difficulties in identifying the expenditures on other credit instalments, and in these cases net incomes also reflect these expenditures, which means that the indebtedness index might be overestimated.

Another problem with the data on monthly net incomes can be the lack of inclusion of expenditures for credit obligations that other family members have. These expenditures may not be reflected in household expenditures, thus leading to higher income levels and possible underestimation of indebtedness.

The time dimension, which means the assumption of steady monthly incomes during the whole credit maturity regardless of possible changes in incomes during this period, may be another problem for the precise assessment of indebtedness level. The client incomes are obtained by the banks at the time of issuance of the credit contract and are assumed to be constant until the loan matures. This affects on the available data not to reflect the potential changes in incomes in the period after credit approval which in turn affect the capacity of borrower to repay the actual credit, as well as other credits issues after the sample credit (because data on incomes were extracted from the files of the sample credit contracts). This issue may pose error bias problems of the results for indebtedness level of clients.

2.5. Definition of over-indebtedness

World literature and different studies about over-indebtedness use various definitions of over-indebtedness and indicators for its assessment (D'Alessio & Iezzi, 2013). Among the most commonly used definitions is the one from United Kingdom which sets the focus on remaining debt (delays) in the payment of regular monthly bills (including credit instalments), where over-indebtedness is considered the situation when families or individuals are late with repayments on structural basis (ongoing delays for several months), or are at a significant risk of entering into the category of structural delays (OXERA, 2004). Another widely used definition is the one in Germany by which the over-indebtedness means a situation where the income of a family, despite lowering of the living standards, is unable to carry out all payment obligations for a

⁶ Variability of criteria and subjectivity in calculation of expenditures relates to the assessment of regular monthly expenses which are reported by clients, what is included in these expenditures, as well as the manner of calculating average monthly expenditures.

longer period of time (Haas, 2006). The European Commission in 2008 carried out a study for setting a more comprehensive and common definition for EU countries, according to which were identified the main criteria for assessing the indebtedness levels. The main elements to be considered are: a) Indebtedness should be assessed at household level and not in individual level, since households resources income and expenditures are pulled together; b) The indicators should include all financial obligations, including all types of credit contracts as well as the payments of regular monthly bills; c) Over-indebtedness means the inability to pay recurring expenses (on monthly basis) therefore it should be considered as a continual rather than temporary problem; d) The problem cannot be solved by getting more debt; and e) The problem requires significant reduction of expenditures or increase of resources or income levels. The definition, although comprehensive, presents practical problems in case of measurement. Main indicators, which respect most of the abovementioned principles and which are used for assessment of indebtedness levels are (BIS, 2010):

- a) Delays in repayment of credit obligations and/or monthly household bills for more than 3 months;
- b) Spending of more than 25% of gross monthly income in unsecured debt repayment;
- c) Spending of more than 50% of gross monthly income in the repayment of total secured and unsecured debt;
- d) Declaration of clients that debt obligations are a heavy burden on their incomes;
- e) Possession of four or more active credit contracts;

In this study, the indebtedness level of clients was assessed by respecting the above principles in order to construct indebtedness indices for which data are available. The main indicator for measuring the level of indebtedness (**index of indebtedness**) is defined as the ratio between **the amounts of monthly instalments of all credit contracts to the monthly net incomes**.

The index is calculated separately for households and businesses. The indebtedness level of borrowers is divided in four classifications, depending on the index value.

- 1) **Not over-indebted (index of indebtedness <0.50)**: borrowers who spend less than 50% of monthly net incomes, or profit after taxes in case of enterprises, on the payment of monthly credit instalments.
- 2) **At risk (index of indebtedness = 0.50 - 0.75)**: borrowers who spend 50% to 75% of monthly net incomes or profit in the payment of monthly credit instalments.
- 3) **At critical phase (index of indebtedness = 0.75 - 1.0)**: borrowers who spend 75% to 100% of net monthly income or profit in the payment of monthly credit instalments.
- 4) **Insolvent (index of indebtedness > 1.0)**: borrowers who spend all monthly net incomes or profit in the payment of monthly credit instalments; monthly instalments exceed the value of their net incomes.

Besides this main index of indebtedness, the study also used other indicators such as the amount of instalments in relation to gross incomes, repayment delays of instalments, as well as the number of active credit contracts of borrowers. Two last indicators are not affected by the above mentioned data restrictions⁷ therefore in combination with the main index of indebtedness they represent a good source of information on the level of indebtedness of borrowers.

⁷ Delays in repayment and the number of credit contracts are well defined data and leave no room for subjectivity, inconsistency and other potential problems noted in relation to the main index of indebtedness.

2.6. Data processing

Data processing and generation of results was conducted by using the data analysis and statistical software – STATA 11.

The relationship between variables was evaluated by using tests such as Pearson's CHI^2 and the t-test. Given that the analysis is carried out on a sample of clients, the results were tested about their statistical significance for the entire population. In almost all the cases, only the results that were statistically significant (where the p-value was $p \leq 0.05$) were interpreted. Other results are reported only in graphical form in Annex 1. It should be noted that the statistical significance of the results in cases when there is correlation between two variables does not necessarily represent cause-effect correlation.

3. Summary of results

This study is focused in identifying clients' indebtedness level, type of debt and the extent to which the indebtedness is related to the problems of debt repayments. The study has also analysed borrowing and loan repayment trends, as well as the characteristics of borrowers to understand if their particular characteristics relate to delays or the level of indebtedness.

Since this is the first study that was conducted by CBK regarding the risk of indebtedness of bank clients in Kosovo, it does not present a comparison of situations of various periods but assesses the situation at the time of data extraction which is 31 December 2013.

More than two-thirds of borrowers involved in the study, specifically 70 percent obtained loans as physical persons, while the other 30 percent borrowed as legal entities (enterprises). The loan sample structure has resulted to be the opposite of the structure of total loans in the economy where the majority of them (70 percent) are loans for enterprises while 30 percent for households. This is suggested to have occurred due to the relatively low upper loan amount limit for loans selected for this study, where households are more likely to borrow loans amounting up to 50,000, whereas legal entities or enterprises obtain credit of larger sizes. The main results of the study, divided by main study themes, are briefly elaborated below.

3.1. Borrowing trends

Most of the borrowers were involved in multiple borrowing: 72 percent of total borrowers had more than one active credit contract. Borrowers on average had 2.6 active contracts and the number of contracts was higher for enterprises compared to individual borrowers.

Borrowers with four or more active credit contracts had significant participation. Almost a quarter of the total borrowers had four or more active credit contracts.

Cross-borrowing from multiple institutions was quite pronounced: 40 per cent of total active borrowers had active credit contracts from multiple institutions. On average, borrowers had active credit issued by 1.5 institutions, while the maximum number of active credit contracts reached 6.

Borrowing from multiple institutions increased with the number of active contracts. Average of crediting institutions for clients with more than four active credits was 2.6 in contrast to the overall average of 1.5.

Loans were the most common credit contracts. More than half of the active credit contracts of borrowers were loans (53 percent) followed by overdrafts and credit cards which represented 22 percent, respectively 21 percent of total active credit contracts. Other types of credit contracts⁸ accounted for only 5 percent of the total credit portfolio.

Less than half of active credit contracts were collateralized with borrowers' own collateral. Only 43 percent of active credit contracts were collateralized with own collateral by the borrower, whereas the information on collateral that others may have placed is not available. The average value of credit contracts with own collateral was higher than those without own collateral.

⁸ In the credit registry, the types of credits are categorized as follows: 1) loans; 2) overdrafts; 3) credit cards; 4) other credit assets; 5) letters of credit; 6) guarantees; 7) other credit obligations; and 8) leasing. For the purposes of facilitating the analysis, the last five categories are grouped into a category referred to as other types of credit contracts.

Co-borrowing was present in 16 percent of cases. In all cases, co-borrowers were individual clients while enterprises were not involved in any co-borrowing. Engagement in co-borrowing was more likely for clients who had own active credit contracts, and this likelihood increased with the increase of the number of active contracts.

A quarter of total borrowers acted also as guarantors for other credit contracts. Borrowers with more than one active credit contract were more likely to be also guarantors of other credit, and this tendency increased with the increase of the number of credit contracts possessed by borrowers.

3.2. Repayment performance

Borrowers who were overdue for more than 30 days in repayment of credit contracts accounted for 11 percent of total borrowers. The majority of overdue clients were overdue in repayment of only one credit contract, while the maximum number of overdue contracts reached 7. On average, clients had 1.6 credit contracts overdue for more than 30 days.

Longer delays in repayment of credit contracts were more frequent. Borrowers overdue in repayment of instalments for more than 90 days accounted for 7.7 percent of total borrowers, while those overdue for more than 180 days constituted 4.9 percent. The majority of borrowers with longer delays were overdue in only one credit contract, and the maximum number of overdue credit contracts for more than 90 days was 7.

Enterprises were more often overdue compared to the individual borrowers. Enterprises were overdue for more than 30 days in credit repayments in 16.4 percent of cases, compared to 8.7 percent of individual borrowers. The type of enterprise activity⁹ was not related to the repayment performance, while the seniority of enterprises resulted to be related, with delays more pronounced in enterprises with longer work experience - over six years.

Repayment performance deteriorated in 2012, after following a stable trend between years 2008 - 2011. The share of overdue repayments for more than 30 days in total repayments made within a year began deterioration in 2012, where this ratio almost doubled compared to the previous year. In 2012, this ratio increased to 4.4 percent from 2.6 percent in 2011 (the average for the years 2008-2011 was 2.5%). The repayment performance deterioration trend accelerated in 2013 where the participation of overdue repayments in total repayments reached 6.4%.

The credit repayment performance trend shows similarities with the trend of economic activity in the country. The rate of economic growth in the country from 2008 until 2011 was close to 4%, whereas in 2012 it deteriorated to an annual growth of 2.8%. This development coincides with the credit repayment performance trend, where 2012 marks the beginning of the period of credit repayment performance deterioration. This suggests that the activity in the real sector of the economy of Kosovo and credit repayment performance are positively correlated, thus the decline of performance of the real sector might impact on the decline of performance of credit payment.

Cross-borrowing from several institutions was correlated with deteriorated credit repayment performance. Borrowers who possessed several active credit contracts issued by various institutions were more often overdue in credit repayments. On the other hand, multiple borrowing from only one institution was not associated with repayment problems.

⁹ Statistics of non-performing loans of the banking sector show the differences in the rate of non-performing loans across various sectors of economy, which means that enterprises differ in delay of loans depending on the sectors where they operate. The reasons why in this study was not found a connection can be the small number of enterprises included in the sample, lack of comprehensive data on the type of activity, as well as the changes in methodology of classification of the type of activity.

Credit contracts that were closer to maturity had poorer repayment performance. Credit contracts which were in the second half of maturity term (50% of the duration of the contract has passed) were overdue for more than a month in 6.7 percent of cases, compared to 4.2 percent of the contracts in the first half of maturity term.

Delays in repayments of co-borrowings¹⁰ were associated with delays in the repayments of other individual credit contracts of the co-borrowing client. Borrowers who were overdue in repayment of co-borrowings had were also overdue in the repayment of their individual credit contracts in 33 percent of cases, compared to only 8 percent for the borrowers with no delays in the repayments of co-borrowings.

Repayment performance was poorer for over-indebted borrowers. Borrowers who on average had a higher level of indebtedness had more frequent cases of delays in repayments for more than a month, especially insolvent borrowers who were overdue with repayments in 19 percent of cases. Indebtedness level is associated with poorer repayment performance also in the case of special review of overdue repayments of more than 3 months, which in itself are considered as an indicator of the borrower's indebtedness.

As a conclusion, the repayment performance of borrowers appears connected with some characteristics of borrowers, borrowing trends, as well as with external factors. Repayment delays were more frequent for enterprises - especially those with longer experience in business; for the borrowers with several credit contracts from different credit institutions; for the borrowers who were overdue in co-borrowings, and for borrowers with higher indebtedness levels. Repayment delays also showed a correlation with economic activity in the country, where the periods of slower economic growth corresponded with the periods of deterioration of repayment performance of credit instalments.

3.3. Indebtedness

Indebtedness is assessed by the main Indebtedness index,¹¹ which is calculated separately for individual clients and for enterprises. The index is calculated as the ratio of the amount of debt (all monthly instalments) of the borrower towards monthly net income. In the case of individuals, the index is calculated by taking into account the monthly incomes of the households, respectively monthly net income after payment of taxes and monthly expenses. Whereas for enterprises,, the index takes account of the net profit.

Besides the main indebtedness index, an alternative indebtedness index is also calculated. The alternative index takes into account gross income instead of net income and is calculated separately for households and enterprises. Borrowers are considered to be over-indebted in cases when the amount of the monthly repayment of credit contracts exceeds 50% of gross monthly income (BIS 2010). It should be noted that the alternative index is used only for assessing the level of indebtedness in general, by not analysing its relation with other factors such as the case of the main index of indebtedness. Also, this indicator has less importance in commenting the results of indebtedness for enterprises due to large variability of gross income and enterprise expenditures¹² as opposed to households which tend to have more stable expenditures.

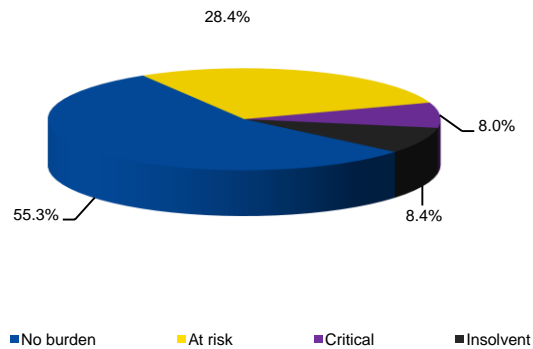
¹⁰ Loans for which the actual client is a co-borrower and not a single borrower.

¹¹ The level of indebtedness according to the main index is categorized as follows: a) The un-indebted, where the ratio of instalment to net income is below 50 percent; b) At risk, when index of indebtedness is between 50 -75 percent; c) At critical phase, when the index is between 75 to 100 percent, and d) insolvent, when the index exceeds 100 percent.

¹² Gross income of enterprises cannot be considered as satisfactory indicator for measuring the indebtedness since the capacity for paying the instalment depends on the profit which is affected by the expenditures. In case of large enterprises, gross income tend to be very high and the enterprise indebtedness may result low (ratio of monthly instalment to gross revenues). However, in these cases, enterprise expenditures can also be very high, and therefore the capacity for credit repayment might be overestimated.

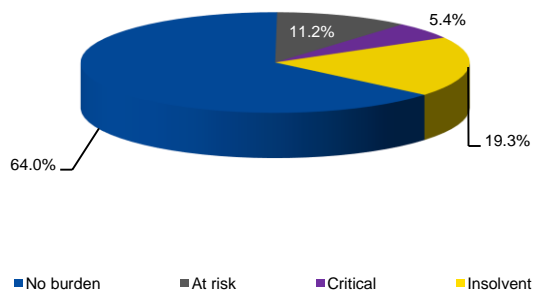
Nearly 40 percent of total borrowers (households and enterprises) have problems with over-indebtedness, where the amount of monthly credit repayments exceeds the value of over 50 percent of net monthly income. Households had more cases of over-indebtedness, where 44.7 percent of them spent more than 50 percent of monthly income for credit repayments (figure 1), compared to the 36 percent of enterprises (figure 2). However, enterprises had more frequent cases of higher level indebtedness, where 19.3 percent of them were insolvent in comparison with only 8.4 percent of households. The study findings on the household indebtedness are also supported by the Household Budget Survey of the Kosovo Statistics Agency, whose results suggest that 44 percent of households in 2013 could not afford the payments of rent, loans, taxes, utilities - bills, regular maintenance, etc.¹³

Figure 1. Dispersion of individual borrowers by index of indebtedness



Source: CBK (2015)

Figure 2. Dispersion of enterprises by index of indebtedness



Source: CBK (2015)

Alternative indebtedness Index based on the monthly credit repayment to gross monthly income ratio suggests that 17.8 percent of households are over-indebted. Out of the total individual borrowers, 82.2 percent spent less than 50% of gross monthly household income on the monthly credit repayment, while the remaining 17.8 percent spent more than 50 percent of their gross monthly income for debt servicing.

Regarding the enterprises, the alternative indebtedness index based on the monthly credit repayments to gross income ratio suggests that 7.85 percent of enterprises are over-indebted. Out of the total enterprises, 91.5 percent spent less than 50% of monthly gross turnover on monthly debt servicing. However, as noted above in this section, the significance of this enterprise indebtedness index in commenting the results is lesser, therefore the results should be interpreted by taking into account the aforementioned limitations.

Over-indebtedness of borrowers and the number of active credit contracts are related. In the case of households, and enterprises, more credit contracts are associated to the indebtedness where the borrowers with more than one credit contract had more cases of over-indebtedness and the problems intensified by increased number of credit contracts. Regarding the households, 35 percent of borrowers with one credit contract had problems with over-indebtedness compared to the 48 percent of those with more than one credit contract; whereas with enterprises, 11 percent of borrowers with one credit contract had problems with over-indebtedness compared to 47 percent of those with more than one credit contract.

¹³ Even though the KAS approach on assessing the non-affordability of payments is more comprehensive and varies from methodology of assessing the over-indebtedness in this study, the indicator of non-affordability of payments for two or more times can be considered as a proxy for measuring households' indebtedness.

Borrowing from more than one institution was associated with enterprise over-indebtedness. Nearly 37 percent of enterprises with multiple active credit contracts from the same institution had problems with indebtedness, in contrast to 56 percent of those with credit contracts from multiple institutions. Insolvency cases were more frequent in borrowings from multiple institutions, where 32 percent of enterprises were insolvent compared to 18 percent of enterprises with multiple loans from the same institution.

Overdrafts and credit cards possession had an impact on the indebtedness level. Individual borrowers with overdrafts in their credit portfolio had more over-indebtedness cases. Active overdraft users - the borrowers had a remaining debt in their overdraft facilities on the date when data was extracted for the this study - had more cases of over-indebtedness. The indebtedness level of enterprises differed quite a lot depending on the fact whether the enterprise possessed overdrafts and / or credit card in their credit portfolio. The indebtedness level was higher in cases of active use of these products. However, due to the specifics of these credit products, where the total credit amount allowed is reported as a remaining debt, the problems of indebtedness may have not been reflected properly by having a tendency for overestimation bias of over-indebtedness.

Borrowers' type of residence was related to the indebtedness. In the case of households, borrowers from urban areas in general had more frequent problems with over-indebtedness compared to the borrowers from rural areas, but the cases of insolvency were more frequent in rural areas. Regarding the enterprises, insolvency cases were more frequent in urban areas.

The borrowers' age was related to the indebtedness level. In general, middle-aged borrowers had more frequent problems with over-indebtedness.

Enterprise indebtedness was also related to the credit history of borrowers. Enterprises who took credit for the first time were less indebted than enterprises with longer credit history, and the level of indebtedness was higher the longer the credit history of the enterprise was.

Loans' collateral was related to the borrowers' level of indebtedness. Borrowers who did not support any of their credit contracts with collateral had lesser tendency towards over-indebtedness, compared to the clients with collateral.

Results of the study suggest that there is a statistically significant correlation between the borrowers' indebtedness level and the fact whether the actual borrower was issued a new credit contract after the credit contract that was taken into account for the study sample selection. Borrowers who have signed another credit contract have more frequent problems with over-indebtedness compared to the borrowers who have not signed other contracts. The same result applies to the analysis conducted separately for individual borrowers and enterprises. This result may be consistent with the findings that the problems with over-indebtedness grow with the increase of number of credit contracts. Nevertheless, there is also the possibility that the over-indebtedness is overestimated due to non-calculation of potential growth of income and borrowing capacity of the borrowers between the time when the contract that served for sample selection and the subsequent contracts were approved.¹⁴

3.4. Correlation between various indebtedness indicators

Clients' indebtedness, as elaborated in the methodology section, has no standard definition and assessment method. Different indicators are used for assessing different aspects of indebtedness,

¹⁴ This is because the information on monthly income is received at the time of obtaining the credit, which served for selection of clients' sample, and are assumed to be constant for the following periods due to the lack of updated information about clients' income. Whereas the information about credit contracts obtained after the sample contract are available in CRK and are included in analysis.

in order to reach a more realistic picture of the problems. In this study, the indebtedness assessment is conducted through several indicators, and their relationship is tested and analysed.

Borrowers' problems in the repayment performance resulted correlated with the higher indebtedness level according to the main index that takes into account the net monthly income. Borrowers who were overdue for more than 30 days had almost twice as many cases of insolvency compared to borrowers without problems in the credit repayment. However, performance did not show correlation to the alternative indebtedness index (which takes into account the gross monthly income), or with multiple borrowing or possession of four or more credit contracts. However, overdue payments of more than 3 months were associated with higher indebtedness level, as well as possession of four or more credit contracts. Lack of correlation of overall repayment performance with other indebtedness indicators is justified because, as noted in section 2.5, only overdue payments for longer than 3 months (structural delays) in repayment of credit obligations are considered as proxy for over-indebtedness..

Indebtedness index by net income indicated high correlation to alternative indebtedness index that takes into account the gross income. The highest indebtedness level, according to both of these indices, was associated with multiple borrowings, in which case the highest indebtedness levels corresponded to borrowers with four or more credit contracts.

As a conclusion, it may be suggested that borrowers' over-indebtedness is associated with weaker repayment performance, as well as possession of multiple active credit contracts. However, the cause-effect relation between these factors is not defined, and causality may run in various directions. Possession of more credit contracts certainly affects the increase of the monthly debt that is due for payment and has an impact on the growth of borrowers' indebtedness level; however, there is also the possibility that borrowers take additional debt to service the existing debt in case of repayment inability, thus further increasing indebtedness. Overdue repayments, on the other hand, not necessarily imply that borrowers' are over-indebted since they can also result from temporary changes in borrowers' incomes and expenditures. In addition, over-indebtedness does not necessarily result in overdue repayments, since borrowers may make use other sources to service monthly debt, such as savings, borrowings from family members, etc.

4. Conclusion

Banking sector in Kosovo has entered the second decade of its operation. The deepening of financial intermediation (crediting) has an important role in financing the economy and supporting the economic development. However, rapid growth might bring problems of over-indebtedness of clients which can negatively reflect on financial sector, and also have economic and social effects on borrowers and the economy as a whole.

Over-indebtedness of clients has no standard definition and assessment method; therefore this study used different indicators to assess different aspects of indebtedness, in order to reach a more comprehensive understanding of the problems. The key indicator is considered to be the main indebtedness index, which is calculated as the ratio of the debt monthly repayments (all monthly instalments) of the borrower to net monthly income. Other alternative measures of indebtedness such as repayment performance, possession of more than four credit contracts, and indebtedness index with gross income have been used.

Findings of the study suggest that approximately 40 percent of the total borrowers (households and enterprises) have problems with over-indebtedness as the value of monthly debt instalments exceeds 50 percent of their net monthly income. Households had more cases of over-indebtedness, where 44.7 percent of them spent more than 50 percent of net monthly income for servicing monthly debt repayments, compared to 36 percent of enterprises. However, enterprises have more frequent cases of highest level indebtedness, with 19.3 percent of them being insolvent (monthly amount of instalment exceeds the net monthly income) compared to 8.4 percent of individual borrowers. The level of over-indebtedness differed among borrowers by some sort of demographic characteristics and borrowers' credit preferences. Among most important is the difference in indebtedness level of groups of borrowers who used overdrafts and credit cards as opposed to those who did not use these credit products. Borrowers who had overdrafts in their credit portfolio, as well as active users of overdrafts and credit cards -implying borrowers that on the data extraction date for this study had outstanding debt in their overdraft and credit card facilities - were more likely to be over-indebted. The difference was more pronounced especially in enterprises, where the indebtedness level was significantly higher in case of active use of these products (only 25 percent of enterprises that did not use overdrafts had problems with over-indebtedness compared to the 50 percent of those that used this product). However, due to the specifications of these credit products, where total allowed amount is reported as one-off outstanding debt obligation, problems with indebtedness in these cases might suffer from overestimation bias.

Over-indebtedness alternative index, which takes as a basis the gross monthly income, suggests that 17.8 percent of households are over-indebted, meaning that they spend more than 50 percent of household gross monthly income for the repayment of monthly debt instalments. Regarding enterprises, the index suggests that 18 percent of them spent more than 30 percent of monthly turnover in the repayment of monthly credit instalments, while 7.9 percent spent more than 50 percent of monthly turnover.

Despite relatively high level of borrowers' over-indebtedness suggested by the main indebtedness index, overdue repayments had lower participation. Borrowers who were overdue for more than 30 days in credit repayment accounted for 11 percent of total borrowers. Overdue repayments were more frequent in enterprises, although individual borrowers had more often problems with over-indebtedness. Such an outcome suggests that over-indebtedness is not necessarily reflect in overdue repayments because the borrowers might ensure debt repayment continuity through other funding sources such as borrowing from relatives, remittances, savings, etc.; in addition, borrowers might also be overdue with other budgetary obligations such as payments of utility

bills, etc. in case when they encounter over-indebtedness challenges. However, it should be emphasized that repayment delays of more than 3 months - which are considered as an indication of borrowers' structural delays that suggest over-indebtedness of clients - were associated with higher indebtedness levels.

Other factors that were associated with the deterioration of repayment performance were the enterprise work experience, which may suggest that banks are more willing to grant higher risk credit to the enterprises with longer work experience, and are more careful with new enterprises. Such a result might also indicate that older enterprises have more credit contracts and longer maturity contracts, thus the credit risk is more difficult to be assessed in these cases. Cross-borrowing from various institutions simultaneously and participation in co-borrowings which face repayment problems were reflected in borrowers' poorer repayment performance. Repayment performance was found to deteriorate in later stages of credit maturity, which reflects the fact that the risk is more unpredictable for longer periods. Ultimately, repayment performance trend indicated correlation with country's economic growth trend, where the periods of slower economic growth coincided with periods of deteriorated repayment performance.

Findings of the study suggest that the main factors associated with higher levels of indebtedness, as assessed by the indebtedness index, include: multiple borrowing, in particular, simultaneous borrowing from multiple institutions; longer client credit history; possession and active use of overdrafts, credit cards and other credit products; availability of collateral, , type of residence (urban or rural), etc.

5.1. Study limitations

The findings of the study might be subject to various data quality limitations. In particular, the calculation of indebtedness index is subject to certain data shortcomings, as well as potential errors in reporting of these data. The data on monthly debt instalments were not available for all active credit contracts, so the calculation was made by using the average interest rate for the respective credit products and assuming equal monthly instalments for the whole credit term. In addition, in cases of some credit products such as overdrafts, credit lines and cash covered credit, the monthly instalment was reported in equal value with the total approved amount of these credit product besides the fact that the period of product maturity was longer, thus suggesting potential overestimation of the indebtedness level.

Another drawback of the index relates to the quality of data on individual and enterprise incomes. This includes the potential inconsistencies between the institutions regarding the method of calculation of available net income of borrowers. Another problem may relate to outdated data on net monthly income, which especially affects cases when the income of borrowers changed in the period between the time when the bank has registered their income (at the time of sample credit disbursement). Therefore, in cases when the borrower has taken additional credit after the credit which was used as a sample for selection of borrowers (which is also the credit when the client income data was registered), a possibility exists that the index of indebtedness was overestimated. . This possibility of overestimation is supported by the fact that the results of the study suggest statistically significant differences between the indebtedness level of borrowers who have not taken another credit after the sample credit and borrowers to whom new credit was issued.. Borrowers who had signed at least another credit contract after the contract which served as basis for selecting the sample of clients of this study were more likely to face over-indebtedness problems.

The study is limited to the presentation of the situation and linkages between various indicators of indebtedness, demographic characteristics and borrowing preferences / trends, in the sense that it does not inform on the cause-effect relation of these variables. Also, the study does not

analyse in details the factors and the consequences of indebtedness, namely it does not employ a comprehensive approach on factors that affect over-indebtedness (incomes and expenditures), and its effect on borrowers wellbeing and the economy as a whole.

5. Recommendations

Indebtedness or the risk of over-indebtedness is a multidimensional and complex problem. Interaction between many factors that influence the over-indebtedness make it rather a difficult task to assess and address over-indebtedness problem. The assessment of the risk of over-indebtedness cannot be reduced to a single indicator as it cannot be deemed a single method to address the risk of over-indebtedness. On the contrary, the problem must be viewed from many aspects, by collecting, assessing and analysing the data from many indicators in order to understand and reflect the situation in entirety. The complex nature of the problem highlights the need for institutional interaction and combination of methods and measures in addressing the issue. The available data is limited and in general requires a higher commitment of all relevant stakeholders in collecting and providing quality data. Some 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:

Continuous application of responsible lending practices

- Application of responsible lending practices by credit institutions, which implies careful assessment of clients' borrowing capacity, is the most typical and direct manner of preventing the problem of over-indebtedness;
- Possession of many credit contracts was positively correlated to over-indebtedness and the risk of over-indebtedness grew with the increase of the number of credit contracts. Moreover, the review of literature and various studies of this field suggest that possession of four or more than four contracts is in itself an indicator of over-indebtedness risk (BIS, 2010) and (D'Alessio & Iezzi 2013). Therefore, credit institutions must take into account this fact and pay more attention to the assessment of repayment capacities of clients involved in multiple borrowing;
- In particular, credit institutions must be cautious and responsible when provisioning new credits to clients who already have problems repaying existing debt obligations. Credit institutions must pay particular attention in assessing the repayment capacities of clients in cases of reviewing the provisioning of new credit 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 borrowers;
- Simultaneous borrowings from various credit institutions have resulted to have a negative impact on the repayment performance and on over-indebtedness. Therefore, financial institutions should be careful in assessing the risk for clients who already have active credits in other credit institutions;
- The main indicator for measuring the level of indebtedness in the study was considered to be the ratio of monthly debt repayment of all credit contracts towards net monthly income. Therefore it is suggested to the credit institutions to ensure that indicators of income adequacy for monthly debt repayments take into account limits to the ratio of the amount of all monthly debt repayments in all credit institutions to net monthly income. Effective observance of such limits by all institutions will help in preventing the risk from over-indebtedness;

Engagement in collection, usage and dissemination of important information

- Credit institutions are suggested to continuously monitor the possible changes in clients' income levels during the whole term of credit repayment, and to register these changes accordingly. Use of information programs for registering clients' data, including incomes, would enable higher precision and easier use of data for assessing the financial state and the risk of clients' over-indebtedness;
- In assessing clients' net income, institutions are encouraged to apply predefined standard procedures, in order to ensure the consistency and comparability of clients' incomes of the same institution. Documentation of gross incomes with contracts, as well as the application of a standard methodology on assessing monthly expenditures would help in providing higher quality data for comparison and analysis of the over-indebtedness;
- Reporting of the monthly credit instalments or effective interest rates to the Credit Registry of Kosovo from credit institutions would help in ensuring more accurate data for assessment of the state of indebtedness. Therefore, credit institutions are encouraged to report such data on regular basis to CRK, as reporting of such data is not mandatory but it is done on voluntary basis;
- In the cases of optional data reporting to the CRK, it is of importance that banks increase the quality of reporting. For illustration purposes, in the case of reporting "purpose of the credit" data, banks have had a satisfactory rate of reporting, but most of the purposes were identified as "other purposes". Therefore, a better quality of reporting through proper categorization and specification of the purpose of credit contracts is encouraged.
- Continuous development and enrichment of CRK database through addition of as many relevant data fields as possible is encouraged, in order to enable the provision of regular and diverse information for market analysis and borrowing trends. Inclusion of the data about payment performance of clients' regular monthly bills, such as payments for electricity bills, utilities, etc. would be of particular importance since it would provide important information for assessing borrowers' credit and indebtedness risk; Various studies suggest towards the effectiveness of financial education in preventing over-indebtedness, as well as the effectiveness of advisory services in helping clients improve their personal financial management. Therefore, all relevant parties are suggested to cooperate in providing financial education programs for clients and advisory services for coping with indebtedness problems.

6. Reference

Kosovo Agency of Statistics (2013), Results of Household Budget Survey.

Central Bank of Kosovo- Department of Statistics (2013 -2014)

Business Innovation and Skills Department of the United Kingdom Government (2010) Over-indebtedness in Britain: Second follow-up report.

Pricing of bank products in Kosovo, official websites of banks included in the study, last retrieved on 24 July 2014.

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

European Commission (2008a), Towards a common operational European definition of over-indebtedness.

European Commission (2010), Over-indebtedness: New evidence from the EU-SILC special module, Research note 4/2010.

European Fund for Southeast Europe (2011), Study on Indebtedness of Microcredit Clients in Kosovo.

European Fund for Southeast Europe (2012), Risk of Over-indebtedness of MSE Clients in Kosovo.

Haas O. J. (2006), Over-indebtedness in Germany, Working Paper No. 44, International Labour Organisation: Geneva.

OXERA (2004)- Are UK households over-indebted? Commissioned by the Association for Payment Clearing Services, British Bankers Association, Consumer Credit Association & Finance and Leasing Association

Credit Registry of Kosovo (2013 -2014)



Street Garibaldi, No.33, Prishtina, Republic of Kosovo

Tel: +381 38 222 055; Fax: +381 38 243 763

Web:www.bqk-kos.org