

# BORROWING OF THE REAL SECTOR IN THE FUNCTION OF ECONOMIC DEVELOPMENT OF THE REPUBLIC OF SRPSKA

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## ABSTRACT

The availability of funds for lending in the economy under favourable conditions is the fundamental and most important function provided by the banking sector, even though its role is crucial in executing payment transactions as well as in providing security in savings products. As per expectations, quantitative analysis shows a very high level of correlation between the changes in the volume of bank loans and the changes in the gross domestic product in the Republic of Srpska. The research of the indebtedness of the real sector in the function of economic development of the Republic of Srpska was conducted on the basis of a representative sample comprising of 188 large companies out of 343 in total. By using the data obtained from the financial statements of the companies, we investigated the extent to which the channeling of bank credit funds affects the financial stability and operations of companies in the Republic of Srpska. The results obtained indicate a high level of use of bank loans for the purpose of ensuring current liquidity and maintaining fixed assets necessary for regular operations. Companies that are more indebted to banks fail to operate more successfully even to the slightest extent. The conducted research indicates a significant volume of loans placed with the aim of providing current liquidity and maintenance of fixed assets and equipment. However, it is particularly significant to alter the credit policy of banks, which would direct a larger volume of bank credit funds to investments.

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## **1. INTRODUCTION**

Unadjusted credit policy, as an important part of the real sector borrowing process, is a limiting factor that hinders the banking sector from stimulating investments and development of economic entities. In addition, an important element is the capability of the banking sector to provide sources of financing under the most favourable conditions. The interest of the economy is to have the banks acting in the direction of increasing competitiveness and adapting the credit policy to the needs of business entities.

This paper is based on the empirical research performed on a representative sample of large enterprises operating in the Republic of Srpska. The data required for the analysis of financial indicators have been generated from the financial statements, more precisely - from the balance sheets and income statements of the companies assessed. Statistical data processing was performed by using the SPSS statistical software suite. In the course of data processing and for the purpose of testing the given hypothesis, the statistical methods of regression analysis and correlation were applied.

Given the vast importance of bank loans for the companies' business operations, the fundamental research problem to be considered in this paper relates to the effects of real sector borrowing on the business performance of the companies. This issue is assessed in the context of the analysis of the relationship between the volume of use of bank loans and certain financial performance indicators in large business organizations in the Republic of Srpska.

The purpose of this paper and the research conducted is to obtain new knowledge about the intensity and nature of the connection between the borrowing of the real sector of the Republic of Srpska and certain financial performance indicators of the development of economic entities. Likewise, this paper shall attempt to point out the effects of borrowing of the real sector of the economy in the conditions of the existing credit policy of banks.

### **1.1. The Role of Banks Credit Policy in Real Sector Borrowing**

Credit policy is usually defined as a set of principles followed by the bank's managerial structures in the course of deciding on credit placements (Muratović, 2013). It is "a segment and the most important part of the bank's business policy, aimed at achieving the expected profit rate with an acceptable risk level". The credit policies of banks represent an important foundation both for the indebtedness of enterprises and the economy on the one hand, and for the operations of banks on the other. Banks obtain the highest revenues from the active interest

rates and through defining an adequate credit policy with respect to the conditions existing in the economic environment, which can make their operations more secure and profitable. Such policy should be based on the assumption that at the time of approving a loan, a bank should respect the market criteria in the process of classifying clients to the ones able and capable of doing business and those without a healthy business perspective.

The credit policy should be viewed not only from the perspective of obtaining short-term benefits, but also from a considerably broader standpoint, i.e. it is necessary to establish long-term goals (Jurman, 2007). From the aspect of banking operations, it is necessary to adapt the bank's credit policy to the capabilities of its own credit potential and liquidity (Miletić & Bingulac, 2016). The research (Hamid, 2012) found that banks with a lower "capital adequacy ratio", poor liquidity, higher active interest rates (which indicated a more liberal credit policy) and a higher "loans placed to assets ratio" failed to overcome the conditions of the crisis. Likewise, the liberal policy of lending to the clients with poor credit standing proved to be profitable in the short term, but in the long run, highly unfavourable for the banking and overall financial system. The research (Okirika, 2011) suggested that such practice is common in developing countries and that it particularly involves medium-sized and small banks.

It is evident that credit policy must be based on numerous aspects that affect the business of a company, since most financial and accounting information is subject to a certain risk of actually being less than a credible presentation of what they claim to represent (Jahić, 2008). A superior and more comprehensive assessment of the client's financial situation and the risks to which he/she is exposed to is obtained through the International harmonization of banking control and supervision aimed at introducing a unique set of accounting standards for the purpose of improving the transparency and mutual comparability of financial information in order to ensure their quality, sufficiency and timely deliverance (Bašić, 2012).

The research (Emuwa, 2015) found that the introduction of specific credit analysis methods that emphasize factors of the business environment, specialized staff, specific organizational units and more detailed monitoring which includes regular visits to clients, may significantly increase the bank's loan portfolio and income.

## **1.2. Properties of the Banking Sector of the Republic of Srpska**

The ownership structure of the capital of banks operating in the Republic of Srpska is dominated by the participation of foreign private ownership, includ-

ing foreign state ownership. A high level of legal and regulatory compliance has been established, whereby the banking sector of the Republic of Srpska can be classified as conservative banking with deposits as the main source of business and loans as their fundamental product. All the banks have a certificate of membership in the Deposit Insurance Program of Bosnia and Herzegovina.

Fundamental indicators of banking sector operations as of 31 December 2018 are (Banking Agency of the Republic of Srpska, 2019, pp. 2-4):

- The banking sector of the Republic of Srpska consists of 8 banks with a total of 2,965 employees which operate in the territory of the Republic of Srpska through a network of 132 branches and 160 other organizational units;
- Total assets of the banking sector as of 31 December 2018 amounts to 8,781.8 million BAM with a growth rate of 9% compared to the end of 2017, and consists of balance sheet assets in the amount of 7,760.1 million BAM with a growth rate of 10% compared to the year before and off-balance sheet assets in the total amount of 1,021.7 million BAM with a decrease of 2% compared to the end of 2017;
- Cash assets (2,023.8 million BAM) accounted for 25% of total balance sheet assets with a growth rate of 29% compared to the end of the year before (significant impact of growth of deposits, especially household deposits, as well as deposits of private companies and corporations). In the cash assets structure, the largest share belongs to the funds of the reserve account with the Central Bank of Bosnia and Herzegovina in the amount of 1,413.6 million BAM or 70% of the total cash assets with a growth rate of 25%;
- Investments in securities for trading amount to 762.5 million BAM, which is 9% of total assets and compared to the end of 2017, an increase of 145.5 million BAM or 24% was achieved, which for the significant part includes bonds of the Republic of Srpska;
- Total gross loans (5,005.9 million BAM) accounted for 61% of gross balance sheet assets with a growth rate of 3% compared to the end of 2017 (4,869.9 million BAM), whereby their share in gross assets decreased by 4 percentage points. Lending activities of the banking sector of the Republic of Srpska in 2018 were mainly focused on the retail sector and the sector of private enterprises and companies, which together have a share of 83% in total loans. The share of loans of individual sectors in total loans did not change significantly compared to the situation from 31 December 2017, so the most significant share is still comprised of personal loans (46% of total loans), followed by the private enterprises and companies sector

- (37% of total loans), government and government institutions (11%) and public and state enterprises (5% of total loans);
- Non-performing loans (loans classified in several risk categories as “C”, “D” and “E”) amounted to 477.5 million BAM and were lower by 11% or 61.8 million BAM compared to the end of 2017. The share of non-performing loans in total loans (9.54%) recorded a decreasing trend (by 1.53 percentage points) compared to the end of 2017 (which then amounted to 11.07%). The share of non-performing corporate loans in total corporate loans was 11.39% (as of 31 December 2017 it was 13.35%), while the share of non-performing retail loans in total retail loans was 7.36% (on 31 December 2017 it was 8.27%);
  - The coverage rate of total non-performing loans with reserves, according to the regulatory requirement was 69% and was improved compared to 31 December 2017, when it amounted to 65.73%, while the coverage rate of non-performing loans with value adjustments amounted to 69.39% and also increased;
  - Deposits, as the main source of financing operations of banks, with a share in the structure of liabilities of banks’ balance sheets of 78%, amount to 6,050 million BAM and are higher by 668.8 million BAM, thus recording a growth rate of 12%. According to the sectoral structure, retail deposits have a share of 56% with a growth of 310.8 million BAM or at a rate of 10%, and deposits of private enterprises and companies have a share of 15% with a growth of 201 million BAM or at a rate of 27%. Likewise, there was an increase in deposits of government and its institutions by 18%, public and state enterprises by 13%, and non-profit organizations by 15%;
  - The growth trend of total savings of citizens, including current accounts of citizens, continued during this reporting period (as of 31 December 2018 they amounted to 3,207.7 million BAM) at a growth rate of 10% compared to the end of 2017 (2,908.6 million BAM);
  - The total balance sheet capital of banks amounted to 965.5 million BAM and accounted for 12% of total liabilities and recorded an increase of 1% compared to 31 December 2017, while the regulatory capital as of 31 December 2018 amounted to 879.4 million BAM and is higher by 96.2 million BAM, thus registering a growth of 12% compared to 2017;
  - Regulatory capital rate of the banking sector of the Republic of Srpska as of 31 December 2018 amounted to 17.66% and is higher by 5.66 percentage points compared to the specified regulatory capital minimum rate of 12%. Other capital ratios (core capital ratio and regular core capital ratio) are also significantly higher than the specified minimum;

- The banking sector of the Republic of Srpska met the predefined conditions for maintaining liquidity in the period from January to December 2018;
- The total average effective interest rate on loans for 2018 was 5.66% and it was lower by 0.38 percentage points compared to 2017;
- The weighted average effective interest rate on deposits of banks in the Republic of Srpska in 2018 amounted to 0.63% and it was lower by 0.26 percentage points compared to the average in 2017 (0.89%);
- At the level of the banking sector of the Republic of Srpska in 2018, the net profit (seven banks) in the total amount of 85 million BAM was reported and was lower by 12% compared to 2017, when all eight banks reported a net profit in the amount of 96.2 million BAM. In 2018, one of the banks reported a loss of 10.8 million BAM;
- There are 51 organizational units operating in the Republic of Srpska, which are part of 7 banks headquartered in the Federation of Bosnia and Herzegovina, and they placed loans in the amount of 1,372.6 million BAM or 22% of total loans placed in the Republic of Srpska with a growth rate of 10% compared to the end of 2017. These organizational units collected a total of deposits in the Republic of Srpska in the amount of 768.8 million BAM or 11% of total deposits with a growth rate of 7%.

Taking into account the above indicators on the banks' operations, it can be stated that the banking system of the Republic of Srpska maintained its stability, adequate capitalization, satisfactory liquidity and profitability.

## 2. MATERIALS AND METHODS

Given that the banking sector has a multidimensional impact on the development of a national economy and that it played a very unpredictable and significant role during the global economic crisis, the interest in studying and elucidating the nature of the relationship between bank credit policy indebtedness and financial parameters of loan users within the national economy has grown. Quantitative analysis showed that in the Republic of Srpska, as expected, there is a very high level of correlation between the change in the volume of bank loans and the change in gross domestic product. One of the issues of the research conducted in this paper is the question of the impact of the purpose and scope of borrowing of the banking sector on the national economy performance. The subject of the research are large enterprises in the Republic of Srpska, assessment of the theoretically defined relations between lending policies within the banking sector, financial indicators of economic performance, as well as determining the nature of

the relationship between corporate borrowing and financial performance of economic entities. The aim of the research is to determine the cause-and-effect relationship and the intensity of the relationship between the credit borrowing and the efficiency of the financial performance of the economy. The basic hypothesis is directly derived from the problem the research is focused on and, therefore, it reads: “Adequate volume and structure of borrowing of economic entities contribute to the financial stability of the economy of the Republic of Srpska.” On the basis of the amount and manner of borrowing in the banking sector and its impact on the financial performance of the economy, we shall explain the necessity to adjust credit policy to the economic environment in order to increase financial stability and competitiveness of the domestic economic system.

The research of the volume and structure of indebtedness of economic entities in the Republic of Srpska was performed on the basis of a representative sample which includes 188 large companies, 343 of them in total. The provisions of the Law on Accounting and Auditing of the Republic of Srpska (Official Gazette of the Republic of Srpska, no. 94/15) were used as sorting criteria on the basis of volume. Using the data from the financial statements, we investigated the extent to which the direction of bank credit funds affects the financial stability and operations of companies in the Republic of Srpska.

### 3. RESULTS

The analysis of the financial statements of the companies from the representative sample indicates that a large portion of the companies does not feature satisfactory financial indicators. The amounts of certain balance sheet items in these companies are outside of the scope of the reference values that would indicate a stable and successful operation of the company. We classified financial indicators into five groups: liquidity, leverage, activity, efficiency and profitability indicators (or ratios). The results of the analysis are shown in the following table.

**Table 1.** Financial Indicators Analysis Results

|                           | Number of companies for which the financial indicator meets and does not meet the reference value |       |                         |       |
|---------------------------|---|-------|-------------------------|-------|
|                           | Meets the value   | %     | Does not meet the value | %     |
| Liquidity Indicators      |   |       |                         |       |
| Current Liquidity Ratio   | 130   | 69.15 | 58                      | 30.85 |
| Quick Liquidity Ratio     | 75  | 39.89 | 113                     | 60.11 |
| Cash Ratio                | 62  | 32.98 | 126                     | 67.02 |
| Financial Stability Ratio | 126   | 67.02 | 62                      | 32.98 |

|                                     | Number of companies for which the financial indicator meets and does not meet the reference value |       |                         |       |
|-------------------------------------|---|-------|-------------------------|-------|
|                                     | Meets the value   | %     | Does not meet the value | %     |
| <b>Leverage indicators</b>          |   |       |                         |       |
| Debt to Assets Ratio                | 91  | 48.40 | 97                      | 51.60 |
| Equity to Assets Ratio              | 81  | 43.09 | 107                     | 56.91 |
| Debt to Equity Ratio                | 85  | 45.21 | 103                     | 54.79 |
| Times-Interest-Earned Ratio         | 172   | 91.49 | 16                      | 8.51  |
| Coverage Ratio I                    | 86  | 45.74 | 102                     | 54.26 |
| Coverage Ratio II                   | 127   | 67.55 | 61                      | 32.45 |
| <b>Activity Indicators</b>          |   |       |                         |       |
| Total Assets Turnover Ratio         | 103   | 54.79 | 85                      | 45.21 |
| Current Assets Turnover Ratio       | 175   | 93.09 | 13                      | 6.91  |
| Fixed Assets Turnover Ratio         | 141   | 75.00 | 47                      | 25.00 |
| Accounts Receivables Turnover Ratio | 39  | 20.74 | 149                     | 79.26 |
| Days Sales Outstanding (DSO)        | 39  | 20.74 | 149                     | 79.26 |
| <b>Efficiency Indicators</b>        |   |       |                         |       |
| Total Activity Ratio                | 172   | 91.49 | 16                      | 8.51  |
| Operating Activity Ratio            | 171   | 90.96 | 17                      | 9.04  |
| Financial Activity Ratio            | 64  | 34.04 | 124                     | 65.96 |
| Extraordinary Activity Ratio        | 79  | 42.02 | 109                     | 57.98 |
| <b>Profitability Indicators</b>     |   |       |                         |       |
| Net Profit Margin Ratio             | 29  | 15.43 | 159                     | 84.57 |
| Gross Profit Margin Ratio           | 16  | 8.51  | 172                     | 91.49 |
| ROA (Return on (total*) Assets)     | 108   | 57.45 | 80                      | 42.55 |
| ROE (Return on (total*) Equity)     | 91  | 48.40 | 97                      | 51.60 |
| Average number of companies         | 98.35   | 52.31 | 89.65                   | 47.69 |

Source: Data processing performed by the authors

By using regression and correlation analysis, we strived to assess, on the basis of the data from the financial statements, the extent to which the use of short-term and long-term loans contributes to the improvement of financial indicators of companies from the representative sample. As an independent variable, we used the relative share of short-term and long-term loans in short-term and long-term liabilities, respectively. As dependent variables, we used financial indicators obtained by analyzing the companies' balance sheets. The following table contains the results obtained.



**Table 2.** Correlation Analysis Results of Financial Indicators

| Independent variable                                | Dependent variable                  | Correlation coefficient |
|---|-------------------------------------|-------------------------|
| Share of total loans in total liabilities           | Net profit margin                   | 0.06262                 |
| Share of total loans in total liabilities           | ROA (Return on (total*) Assets)     | -0.07021                |
| Share of total loans in total liabilities           | ROE (Return on (total*) Equity)     | 0.04748                 |
| Share of short-term loans in short-term liabilities | Current Liquidity Ratio             | -0.09736                |
| Share of short-term loans in short-term liabilities | Quick Liquidity Ratio               | -0.08850                |
| Share of short-term loans in short-term liabilities | Cash Ratio                          | -0.08117                |
| Share of long-term loans in long-term liabilities   | Financial Stability Ratio           | -0.05300                |
| Share of total loans in total liabilities           | Total Assets Turnover Ratio         | -0.05110                |
| Share of total loans in total liabilities           | Current Assets Turnover Ratio       | 0.02233                 |
| Share of total loans in total liabilities           | Fixed Assets Turnover Ratio         | -0.11385                |
| Share of total loans in total liabilities           | Accounts Receivables Turnover Ratio | 0.09803                 |
| Share of total loans in total liabilities           | Days Sales Outstanding (DSO)        | -0.01492                |
| Share of total loans in total liabilities           | Total Activity Ratio                | -0.06569                |

Source: Data processing performed by the authors

In the analysis of financial indicators from the table above, we individually assessed three independent variables, i.e. in addition to the share of total loans in total liabilities, we singled out the share of short-term loans in short-term liabilities and the share of long-term loans in long-term liabilities. The values of each of the independent variables were then analyzed together with the corresponding financial indicators. In this section, the important role of the analysis of financial statements is particularly emphasized, as their fundamental task is to provide the information basis necessary for making decisions that ensure more successful and secure operations. As in the case of independent variables, we also separated the dependent variables depending on their sensitivity to certain types of sources of funding, i.e. to the maturity of the provided sources of financing. Thus, we analyzed the use of short-term loans with liquidity indicators, the use of long-term loans with financial stability indicators, while the total credit indebtedness of companies was analyzed using the efficiency and profitability indicators. In each of these three cases, very low values of correlation coefficients were obtained, amounting to approximately 0. On that basis, it was found that the results of correlation analysis of financial indicators did not indicate the interconnectedness and conditionality of bank loans, on the one hand, and the quality of business operations of sampled companies, on the other hand.

In addition to the above, a correlation model was formed in which the coefficient of participation of total loans in total liabilities of the companies was used as an independent variable, while the number of financial indicators of the companies

that fall within acceptable reference values was used as a dependent variable. Similar to the previous model, in doing so we attempted to establish a link between the volume of use of bank loans and the financial performance of the companies. The results of the correlation analysis are shown in the following table.

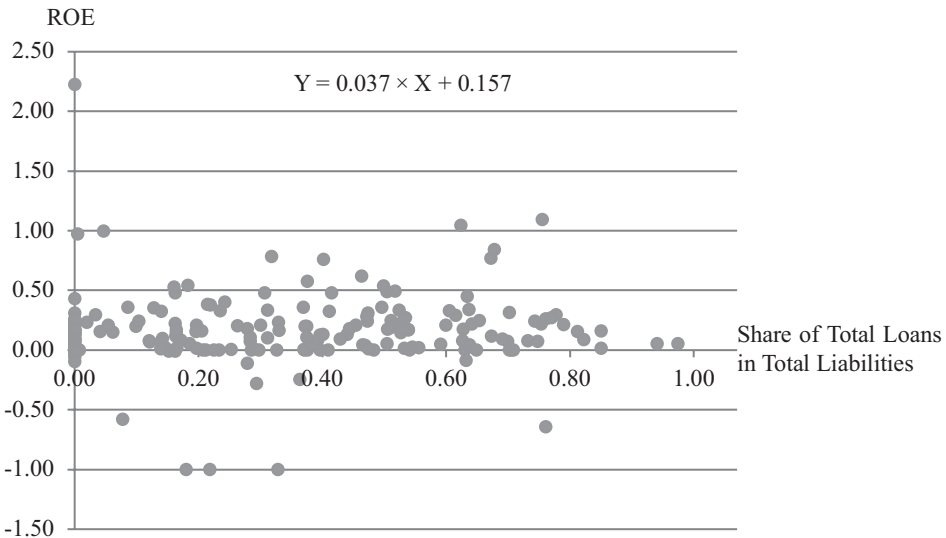
**Table 3.** Results of Correlation Analysis of the Sampled Companies (188 companies)

| Independent variable                      | Dependent variable                                    | Correlation coefficient |
|---|---|-------------------------|
| Share of total loans in total liabilities | Financial indicators that meet the reference criteria | -0.22508                |

Source: Data processing performed by the authors

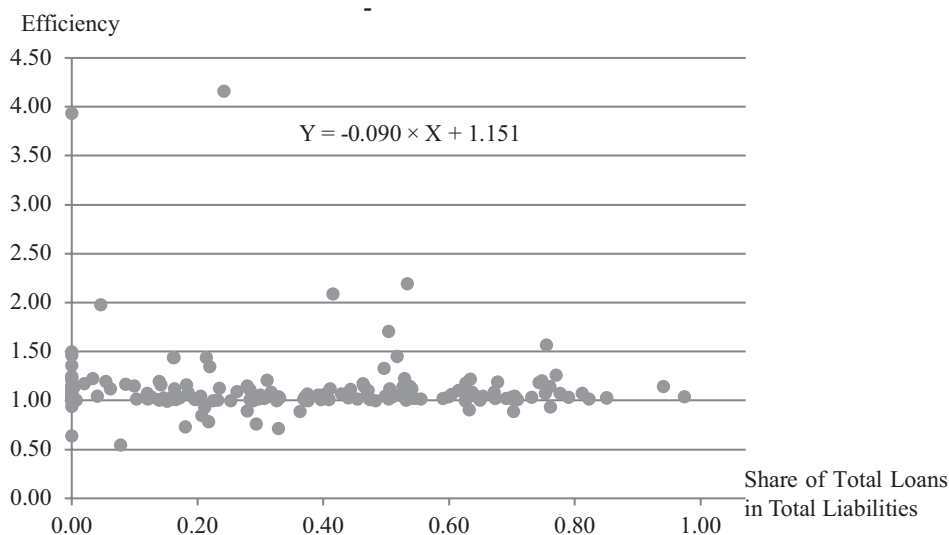
The results obtained in this case indicate a very weak negative conditionality between the volume of use of bank loans and the number of financial indicators with values that are within satisfactory reference limits. The negative value of the ratio, which amounts to -0.22508, indicates the conclusion that companies that are more indebted to banks have, in all aspects of the financial indicators analysis, a lower operational quality and less successful business than less indebted companies.

Previously obtained results are confirmed by regression analysis of the indicators used. Regression analysis results are shown in the following charts.

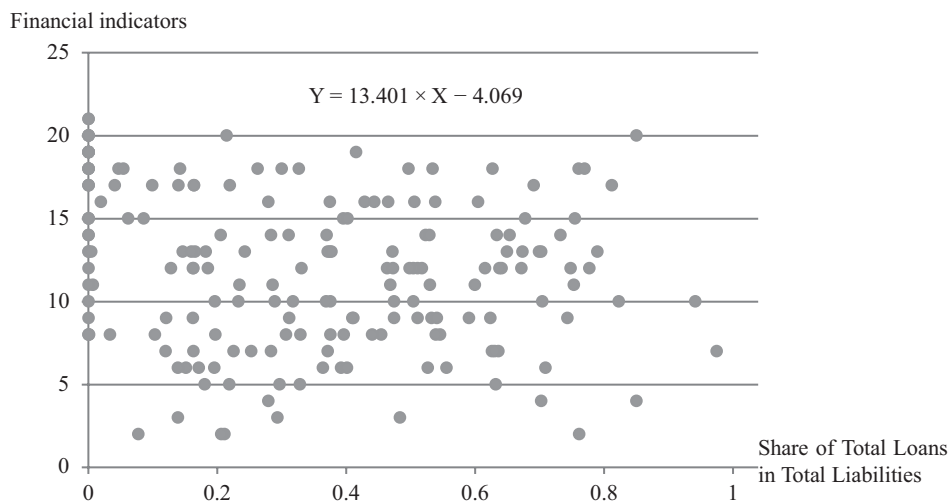


**Chart 1.** Results of Regression Analysis of Loan Share in Liabilities and ROE

Source: Data processing performed by the authors



**Chart 2.** Results of Regression Analysis of Loan Share in Liabilities and Total Activity  
Source: Data processing performed by the authors



**Chart 3.** Results of Regression Analysis of Loan Share in Liabilities and Financial Indicators  
Source: Data processing performed by the authors

The results obtained from the regression and correlation analysis indicate a high level of use of bank loans for the purpose of ensuring current liquidity and maintaining fixed assets necessary for regular operations. Companies that are more

indebted to banks fail to operate more successfully even to the slightest extent. In addition, in the case of the analysis in which the share of total loans in total liabilities and the number of financial indicators with satisfactory values were observed, the result indicated a very weak negative conditionality of the stated values. This indicates that most companies use bank loans only when they run into financial difficulties, i.e. when having an insufficient level of liquidity and solvency to settle current business liabilities.

If we were to observe the companies' operations from a long-term aspect, the results obtained indicate a lack of special-purpose loans approved by the banks whose purpose is to finance projects that enable more successful business operations. Unlike loans intended for settling current business liabilities and maintaining fixed assets, the existence of investment loans approved on the basis of good quality project documentation creates greater preconditions for improving the value of all financial indicators of the companies (Aralica, Račić, & Šišinački, 2007). The results of the financial analysis indicate an insufficient number of such loans, i.e. a lack of project financing of companies.

#### 4. DISCUSSIONS

Credit borrowing is an important element in the operations of large enterprises and their financing, particularly if we take into account demanding development projects where the emphasis is on ensuring market viability and sustainability. On the other hand, the credit policy of banks needs to be adjusted as much as possible to the economic environment, whereby special attention should be paid not only to project financing, but also to other forms of corporate financing. In doing so, banks would create preconditions for the development of the real sector, as well as a greater degree of harmonization between the real and financial sectors, which is one of the key factors of financial stability of the national economy (Krnić & Radošević, 2014).

Insufficient financial discipline within the entire economic system of the Republic of Srpska is the reason why banks are more exposed to credit risk. The missing funds in the budget of the Republic of Srpska, as well as in the budgets of local self-government units, have been compensated for many years by borrowing from commercial banks. There are situations where cities and municipalities find it difficult to meet their obligations to commercial banks since their expenditures are significantly higher than budget revenues (Supreme Office for Public Sector Auditing of the Republic of Srpska, 2015). Loans to the Government and government institutions in 2016 amounted to 576 million BAM, which

is 18% less than in 2015 when they amounted to 706 million BAM. Similarly, the decline in 2015 compared to 2014 (when the loans amounted to 765 million BAM) was 8%. The decline in lending to public and state-owned enterprises in 2016 is also evident (10% compared to 2015). This trend is the reason why banks in the Republic of Srpska, when creating their own credit policy, place less and less emphasis on lending to the government and government institutions, which additionally emphasizes the role of the real sector in increasing the volume of credit placements and increasing the quality of the loan portfolio.

It is necessary for banks to make a greater effort to manage credit risk by a more detailed analysis of project documentation and the overall business of an enterprise, as well as by macroeconomic research of the industry within which the enterprise operates. As for the project financing model, the related project development is financed by a loan that is to be repaid from the revenues generated by the project, while assets whose value increases with the level of project implementation are used as a collateral to secure collection. The credit policy of banks, within which an adequate analysis of project documentation and an appropriate financing structure of large companies would allow the stimulation of project financing to a greater extent, should further create preconditions for increasing the volume of investment loans, on the one hand, and for enterprise and real sector development, on the other. A quantitative study (Yang, 2016) indicates the possibilities of applying the credit risk assessment model to the assessment of other types of risks in other sectors of the economy. Similarly, the study (Falan-gis, 2013) focused on the creation of mathematical models aimed at assessing the eligibility of clients for funding and it was successfully comparatively tested with other selection methods. Through a quality selection of development projects and favorable sources of financing, the banks direct economic flows in the area of the economy in which it remains most competitive. This further creates the preconditions for new investments and development opportunities.

A greater focus of banks' credit funds on investments is of particular importance. The conducted research indicates a significant volume of loans placed with the aim of providing current liquidity and maintenance of fixed assets and equipment. Such placements do not enable the growth and development of companies and do not lead to the improvement of the companies' business performance. If we were to take into account the relationship between the financial and real sectors within the national economy, we can conclude that the development and volume of investments in the real sector represents an important factor for the functioning of banks and the basis for the placement of their credit potential.

The development of the real sector generates a feedback effect that further creates preconditions for the banking sector for more efficient placement of credit potential, as well as for increasing the volume and quality of the loan portfolio. By analyzing the financial indicators of the companies from the representative sample, we did not establish that the companies' credit indebtedness has any positive effects on their growth and development, but only on fulfilling the conditions regarding current liquidity and maintenance of equipment and fixed assets. By directing credit indebtedness of companies towards a larger share of investment loans approved on the basis of project documentation, the conditions would be created for a higher level of justification of using bank loans, i.e. more indebted companies would have higher presumptions for better financial indicators compared to the companies not using bank loans. In addition, opportunities would be created for the positive effects of the feedback that would be generated as a result of investment effects within the real sector to stimulate further development and improvement of operations in the banking sector.

## 5. CONCLUSIONS

Nowadays, loans are emerging as one of the most important instruments for the development of the overall economic activities of any country. It is precisely the banking sector that plays a key role in the process of securing sources of financing for the purpose of economic growth and social development. Quantitative analysis has shown that the Republic of Srpska is expected to achieve a very strong positive link between the changes in the volume of bank loans and the change in the gross domestic product. In addition, quantitative analysis also indicates a significant correlation between production volumes and the volume of indebtedness by certain industries.

Insufficient financial discipline within the entire economic system of the Republic of Srpska is the reason why banks are more exposed to credit risk. The missing funds in the budget of the Republic of Srpska, as well as in the budgets of local self-government units, have been compensated for many years by borrowing from commercial banks. This trend is the reason why banks in the Republic of Srpska, when creating their own credit policy, place less and less emphasis on lending to the government and government institutions, which additionally emphasizes the role of the real sector in increasing the volume of credit placements and increasing the quality of the loan portfolio.

The analysis of the financial statements of the companies from the representative sample indicates that a large portion of the companies does not feature satisfac-

tory financial indicators. The amounts of certain balance sheet items in these companies are outside the scope of the reference values that would indicate a stable and successful operation of the company. The results of correlation analysis of financial indicators do not indicate the interconnectedness and conditionality of bank loans, on the one hand, and the quality of business operations of sampled companies, on the other hand. In other words, corporate borrowing and utilization of short-term and long-term loans do not contribute to the improvement of financial indicators of companies from the representative sample. This indicates that most companies use bank loans only when they run into financial difficulties, i.e. when they have an insufficient level of liquidity and solvency to settle current business liabilities.

The conducted research indicates a significant volume of loans placed with the aim of providing current liquidity and maintenance of fixed assets and equipment. If we were to observe the operations of companies from a long-term aspect, the results obtained indicate a lack of special-purpose loans approved by the banks whose purpose is to finance projects that enable more successful business operations. Borrowing is an important element in the operations of large enterprises and their financing, particularly if we take into account demanding development projects where the emphasis is on ensuring market viability and sustainability. On the other hand, it is necessary for banks to make a greater effort to manage credit risk by a more detailed analysis of project documentation and the overall business of an enterprise, as well as by macroeconomic research of the industry within which the enterprise operates. The credit policy of banks, within which an adequate analysis of project documentation and an appropriate financing structure of large companies would allow the stimulation of project financing to a greater extent, should further create preconditions for increasing the volume of investment loans, on the one hand, and for enterprise and real sector development, on the other.

### **Conflict of Interest**

The authors declare there is no conflict of interest.

### **REFERENCES**

- Banking Agency of the Republic of Srpska (2017). *Report on the Situation in the Banking System of the Republic of Srpska*.
- Banking Agency of the Republic of Srpska (2017). *Results of the study of the quantitative impact of the introduction of liquidity coverage ratio (LCR)*.

- Aralica, Z., Račić, D. & Šišinački, J. (2007). *Project Financing of Infrastructure*. Zagreb, Croatia: Economic Trends and Economic Policy
- Bašić, D. (2012). *Savremeno bankarstvo (eng. Contemporary Banking)* Banja Luka, Bosnia and Herzegovina: Faculty of Economics
- Emuwa, A. (2015). *Barriers to SME Lending in Nigeria: Finding Context and Specific Solutions*. Nottingham, UK: The Nottingham Trent University.
- Jahić, M. (2008). *Finansijsko računovodstvo: MSFI-MRS-PDV (eng. Financial Accounting: IFRS-IAS-VAT)*. Sarajevo, Bosnia and Herzegovina: Association of Auditors of Federation of Bosnia and Herzegovina.
- Krnić, B., & Radošević, D. (2014). *Macroeconomic Unbalances in the Economy of Croatia: Duality between financial and real sector*. Zagreb, Croatia: *Ekonomski Pregled (Economic Review)*
- Mikerević, D. (2010). *Napredni strateški finansijski menadžment, 2nd Ed. (eng. Advanced Strategic Financial Management, Second Revised Edition)* Banja Luka, Bosnia and Herzegovina: Faculty of Economics and Finrar.
- Mikerević, D. (2011). *Finansijski menadžment, 4th Ed. (eng. Financial Management, Fourth, Revised Edition)* Banja Luka, Bosnia and Herzegovina: Faculty of Economics Finrar.
- Miletić, V. & Bingulac, Z. (2016). *Savremene finansije. 2nd Ed. (eng. Modern Finance, Second Edition)*. Novi Sad, Serbia: Prometej.
- Muratović, H. 2013 *Poslovno bankarstvo (eng. Business Banking)* Gradiška, Bosnia and Herzegovina: Primus College.
- Okirika, T. (2011). *Investigation into Credit Risk Management Practices in Nigerian Banks*. Buckingham, UK: Buckingham Business School. University of Buckingham.
- Standard & Poor's (2017). *S&P Global Ratings Definitions*. Downloaded on 22 December 2017 from: [https://www.standardandpoors.com/en\\_US/web/guest/article/-/view/sourceId/504352](https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352)
- Supreme Office for Public Sector Auditing of Republic of Srpska (2016). *Report for Units of Local Self-Governance and Beneficiaries of Budget Revenues of Local Self-Governance Units*.
- The International Monetary Fund (2017). *Bosnia and Herzegovina: Transactions with the Fund*. Downloaded on 22 December 2017 from: [http://www.imf.org/external/np/fin/tad/extrans1.aspx?memberKey1=75&endDate=2017%2D01%2D21&finposition\\_flag=YES](http://www.imf.org/external/np/fin/tad/extrans1.aspx?memberKey1=75&endDate=2017%2D01%2D21&finposition_flag=YES)
- Ćurić, P. (2020). *Establishing Credit Policy of Banks in the Function of Financial Stability of the Economy of the Republic of Srpska*. Doctoral dissertation. Banja Luka, Bosnia and Herzegovina: Faculty of Economics.
- Falangis, K. (2013). *Mathematical programming models for classification problems with applications to credit scoring*. Edinburgh, UK: University of Edinburgh.
- Hamid, F. S. (2012). *Essays on Liquidity Risk and Banking Fragility, Dynamic Depositor Discipline and Information*. Exeter, UK: University of Exeter.
- Yang, Z. (2016). *Empirical Essays in Quantitative Risk Management*. Glasgow, UK: University of Glasgow.



## ЗАДУЖИВАЊЕ РЕАЛНОГ СЕКТОРА У ФУНКЦИЈИ РАЗВОЈА ПРИВРЕДЕ РЕПУБЛИКЕ СРПСКЕ

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### САЖЕТАК

Расположивост фондова за кредитирање привреде по повољним условима јесте основна и најважнија функција коју осигурава банкарски сектор, иако је његова улога важна и у обављању функције платног промета, као и у пружању сигурности у штедне производе. Квантитативна анализа показује да се у Републици Српској очекивано остварује веома висок степен корелације између промјене обима банкарских кредита и промјене бруто домаћег производа. Истраживање задужености реалног сектора у функцији развоја привреде Републике Српске обављено је на основу репрезентативног узорка који обухвата 188 великих предузећа од њих укупно 343. Користећи се подацима из финансијских извјештаја предузећа, истражили смо у којој мјери усмјеравање кредитних фондова банака утиче на финансијску стабилност и пословање предузећа у Републици Српској. Добијени резултати упућују на висок ниво кориштења банкарских кредита у сврху обезбјеђивања текуће ликвидности и одржавања основних средстава неопходних за редовно пословање. Предузећа која су задуженија код банака не биљеже успјешније пословање ни у најмањој мјери. Сprovedено истраживање указује на значајан обим кредита пласираних са циљем обезбјеђења текуће ликвидности и одржавања основних средстава и опреме. Међутим, од посебног је значаја измјена кредитне политике банака којом би се већи обим кредитних фондова банака усмјеравао у инвестиције.

**Кључне ријечи:** *банкарски сектор, задуженост, кредитна политика, финансијски показатељи, анализа биланса, кредитни ризик.*

