# Potential Benefits of Microfinance to SMEs in Serbia: Sources of Financial Support

By

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**Abstract** 

The thesis aim is to examine a potential for new sources of financial support for small and medium

size enterprises in Serbia. Through evaluation of the microfinance as a consistent source of

financial support for small and medium size enterprises and the investigation of the current system

of finance for enterprises in Serbia. The thesis is proposing a change in policy regulations which

would allow an alternative financial instrument on the market. The change in necessarily due to

the gap in finance, as illustrated in results of the analysis, that financial institutions are more likely

to cooperate with the bigger enterprises, leaving the smaller enterprises vulnerable, without other

sources of financing. Additional, it is visible a driven practice of banks in considering a collateral

of the enterprises as a crucial factor for a loan. Comparing it with microfinance, we can see the

much more flexible approach of microfinance, which does not consider collateral as the main

feature for crediting the enterprise. Concluding that, microfinance and microfinance institutions

are capable of producing a more heterogenic financial market supply.

KEYWORDS: Microfinance, Credit, Banking system, Enterprise, Entrepreneurship, Serbia

JEL classification – G21, G28

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#### **List of Abbreviations**

GDP – Gross Domestic Product

GNS – Gross National Savings

NGO – non-governmental organization

CGAP – the Consultative Group to Assist the Poor

MIX - Microfinance Information Exchange

SMEs – Small and Medium Enterprises

PAR – Portfolio at risk

MFC - Microfinance Center

BiH – Bosnia and Herzegovina

CUs - Credit Unions

OSS – Operational self-sufficiency

NB – National Bank

USD – American dollars

NBCO - Non-Bank Credit Organizations

EMN – European Microfinance Network

#### Introduction

If we image the economy of a country as a car, then we could image that the Ministry of Finance is an "engine", the Banks as a "gearshift", in this economy the SMEs would serve as "tires", as much as we want to travel we cannot move if the tires are deflated. Small and medium enterprises (SMEs) represent the core of a country transformation. Especially, in countries with low Foreign Direct Investment (FDI), transition economy, high poverty index and difficulties in the business sector. The importance of the SMEs can be seen on the employment increase by reducing the labor surplus, state revenues increase, competition creation and standard development. The special role of the SMEs could be seen not just on the economic indicator, but also through the socio-economic factors, such as improvement of standards of living and creation of the sustainability for householders.

"Small and medium-size enterprises (SMEs) and entrepreneurs are the most proficient segment of the economy in almost all countries" (Eric et al., 2012). Therefore, there is a need for an establishment of sustainable SMEs and the accreditation of growth through financing support. The main sector of external financing of SMEs are banks, nevertheless, due to insufficient collateral, the absence of credit history and low interest of banks to provide small credits, many SMEs are struggling with the finance. The commercial banks have a high cost of provision and monitoring of the loans which does not allow them to give small credits. To solve this, the SMEs are usually pressured to find an alternative source of finance. There are several sources of finance which function as an "inclusive financial model" (Inclusive Finance: Challenges and

<sup>&</sup>lt;sup>1</sup> Poverty Gap Index, is measuring the percentage of the population which is below the poverty line

Opportunities, 2016), also known as pre-bank finance. One of them is Microfinance, which by its definition, is a type of finance in business, similar to banks, with the main focus on helping entrepreneurs and small businesses. Microfinance has several categories; source of loans (micro credit), savings (micro savings) and financial service (technical support) to small enterprises (The Grameen Bank, 2016).

In most countries, microfinance has been developed in areas that commercial banks consider as areas with high risk. Those are mostly poor rural settlements within developing industries. Therefore, it is not a surprise that the concept of microfinance started in Bangladesh, a developing country with many settlements away from the mainstream industry. In 2006, the father of the microfinance and Nobel Peace prize winner, Mohammed Yunus, saw it as a core for economic and social development for Bangladesh (The Grameen Bank, 2016, Mohammed Yunus). By establishing the Grameen Bank in 1976 he achieved to make a remarkable change throughout the world (The Grameen Bank, 2016). Microfinance was considered as a panacea in the 1970s, and just in few years, it spread from Asia, through Africa and Latin America, to Europe (The Grameen Bank, 2016).

When referring to microfinance regulations, Eurostat claims that "small and medium-sized enterprises (SMEs) are a focal point in shaping enterprise policy in the European Union (EU)" (Eurostat, 2015). A big promotion of the microcredits in the European Union started in 2006 (Eurostat, 2015). Its goal was to develop the micro-enterprises and encourage self-employment. Furthermore, the European Commission (EC) made strong plans and regulations for the encouragement of the microcredits and micro-enterprises. The reasons for this could be seen in the importance of the microfinance "which include over 90% of all European enterprises" (International 2010). By EC "the microcredit is of particular importance for rural areas and can

play an important role in helping to integrate minorities and immigrants both economically and socially" (EU-Lex, 2007). More can be seen in terms of EU regulation of microcredits through the EU legislation Article 4 of Directive 2006/48/EC, by which the EU makes a supervision of the microcredits and establishes an adequate set of rules for use of micro-credits.

In Serbia, microfinance is relatively new. It started by the initiative of international social investors in 1999 (European Microfinance Network, 2013). Currently, three microfinance institutions are operating on the territory of Serbia namely: Agroinvest, Micro-Development, and MicroFins, all of which work in cooperation with banks (European Microfinance Network, year). The low development of the micro financial sector can be seen as a consequence of the existing laws and regulations. Current laws and regulations of the country do not allow non-banking institutions to lend directly to clients. Furthermore, by the Law of Banks, it is stated that "No other institution, besides banks, can accept deposits. No other institution, besides banks, can give credit and issue pay cards, exception if it is authorized by law" (Law of Banks, 107/2005, Section 5). This legal provision is explicitly limiting the access of external finance to SMEs, besides banks.

The main goal of this research is to provide an assessment of the situation on the financing of SMEs in Serbia and the possibilities for SMEs financing. Furthermore, by the evaluation of the economic environment and the unused sector of microfinance, the research contributes to a better understanding of the possibilities for enterprises with different characteristics in Serbia. Additionally, by analyzing the factors that influence the likelihood to obtain credit from financial institutions, this research will provide a precise picture on the barriers faced by the enterprises in accessing finance.

The macro environment and the legal framework in a large scale determines the access to finance for small entrepreneurs. Therefore, the study tries to answer the question: What is the potential of microfinance in improving entrepreneurship development in Serbia? In answering this question, this study, on the one hand, analyze the potential lack of the bank's credit offers to small and medium size enterprises, and their need for more flexible credit policy. On the other hand, it will take the examples of regional microfinance system, and show the advantages of investing in small and medium size enterprises. The main outcome of the thesis will be focused on giving policy recommendations to the Ministry of Economy in Serbia for the development of a legal framework for microfinance. Considering the current policy of the Ministry toward the MFIs, it will represent the first step for policy platform discussion of policy implementation. An additional goal of the recommendations is to explain the MFIs operation possibilities in Serbia.

### Methodology

To achieve the main purpose of this thesis, I will (1) analyze the background on microfinance as a financial tool, (2) analyze the economic and financial environment in Serbia, with the special focus on entrepreneurship (small and medium-size enterprises) capacity for enhancement, (3) analyze the micro financial institution in neighboring countries with similar economic conditions (depending on the data availability), I will (4) check the probability of obtaining a credit from financial institutions, and lastly, based on the analysis, I will (5) provide several policy recommendations for the development of financial regulation in Serbia.

#### Regression analysis

In order to examine the situation of SMEs in Serbia, in the area of financial support, I will use the data on enterprise financing, compiled by the World Bank's enterprises survey in 2009. The survey on enterprises was conducted by the World Bank in more than 100 countries with a standardized methodology in the last ten years. In order to investigate the factors that influence the probability to obtain credit from financial institutions, a regression analysis is used (OLS and Probit Regression), having as dependent variable whether the company has a loan for some of the financial institution, and as independent variables associated characteristics of the enterprises: size (defined by the number of employees), age of working on the enterprise, productivity (defined as total annual sale) and the education (meaning the number of university graduates employed in enterprises). The results will give the probability for credit records of the enterprises in Serbia. The choice of the variables is related to the financial criteria, more discussed in the model.

## **Chapter 1: Research in Microfinance**

The first chapter will give an important view point on topic of Microfinance and SMEs. Moreover, my goal was to see the important issue areas, as a ice-breakr on this topic. The topic of microfinance raised big attention when it appeared suggesting a positive result, and being presented as a perfect tool for social development. Therefore, many researchers challenged this topic, some of them are: King and Levine (1993), Sebstad and Chen (1996), Gaile and Foster (1996), Levine and Zeros (1998), Beck and Levine (2004), Goldberg (2005), the more recent one are; Armendáriz de Aghion and Morduch (2010), Field and Pande (2008; 2013).

In the opinion of Adams and von Pischke (1991), there might appear certain problems with micro-credits for small businesses. In this publication, the authors mention two problems; one is an "uninformed replication" meaning on using models of the successful projects without adaption on the circumstances of the environment. Second, the risk at innovations. Moreover, by the opinion of authors this can be very dangerous (p. 18). To assist this problem, the author suggests two recommendations: first, is the necessity for developing a strong financial system for operating. Second, in order for innovations to take place long-term relations of the financial institution with clients are necessary (Adams and von Pischke 1991, p. 14).

One of the most known books, the "Economics of Microfinance" by Armendáriz de Aghion and Morduch (2005) describes the theoretical and practical approach, and the impact the of microfinance (microcredits) in developing and developed countries. In the conclusion, the authors emphasize two most important tensions of the microfinance. First, related to the management of design for a better balance between profit and social impact, adequacy in their balance represent the success of the micro financial operation. Making the emphasize on the diminution of the

collaterals. Second, refer to the structural orientation of the loans and the areas of microfinance support (p. 281). Adding, the importance and self-enforcement of the loan officers, emphasizing their role in the organization of microloans (Armendáriz de Aghion and Morduch, 2005).

Field and Pande's research (2013) done with microfinance clients on the probability of loan repayment concluded that clients who are more connected, are less likely to default the repayments of the loan. Furthermore, it gives "evidence on the economic returns to social interaction" (p. 1459) meaning that the group work with clients reduces the risk of loan default (Field and Pande, 2013). A similar result is shown in the work of Augsburg (2015), which shows that microfinance has positive results on self-employment.

Still, the main conclusion could refer to the problem of microfinance evaluation. Some of the authors mentioned difficulties in microfinance evaluation (Armendáriz de Aghion and Morduch (2010); Sebstad and Chen (1996); Adams and von Pischke (1991), due to lack of data, impropriate methodology or high costs of evaluation, therefore, the economic indicator of the microfinance are not "easy" visible, fact which was also noted in Armendáriz de Aghion and Morduch (2010, p.198-229) and Duvendack et al., (2011), the latter in the systematic report "What is the evidence of the impact of microfinance on the well-being of poor people?".

# Chapter 2: Models, trends and contemporary challenges of microfinance

To learn more about microfinance and its role we need to go deeper into its elements. Therefore, in the second chapter, I will focus on the basic concept of the microfinance, its development, and its models and on some most frequent challenges in the microfinance development. Until now, almost all countries throughout the world have had and have some experience with microfinance or with some of the forms of microfinance. Since the conditions for microfinance are not same in all countries, the results and the challenges are also different.

The important part of the microfinance is the micro-financial institutions (MFIs). MFIs are the institutions which are providing the financial support to the clients, with the characteristics which are at the same time similar and different, from banks. In terms of technical approach, human capacity, risk evaluation, and financial investment MFIs have a similar structure as the banks. However, the main differences are in the methods, approach to clients, the conditions for credit, the clients by themselves, the amounts of credits, etc.<sup>2</sup>

Since many MFIs have a different structure, mission and practice, thus appeared different types of microfinance. The most familiar are the Grameen Bank Model, MC2 Model, Village Banking model, the SKS and Non-Banking Finance Company Model (NBFC) (Fotabong, 2011).

<sup>&</sup>lt;sup>2</sup> MFIs are financial institutions specialized in banking, targeting the low-income groups, firms or individuals. A microfinance institution provides account services to small-balance accounts that would not normally be accepted by traditional banks. http://www.investorwords.com/17362/microfinance\_institution.html More: http://www.investorwords.com/17362/microfinance\_institution.html#ixzz49Bo0MU00

#### 2.1 Theoretical background

#### **Definitions**

The definitions of the microfinance come mostly from MFIs, with certain differences related to clients, credits, or conditions (CGAP, 2013). Here is important to notice the difference. For example, GB promotes micro credits without collateral, opposite to CGAP where small collateral is necessary.

Robinson (2001), defines microfinance as "small scale financial services primarily credit and savings provided to people who farm or fish or herd; who operate small enterprises or small business enterprises where goods are produced, recycled, repaired, or sold; who provide services; who work for wages and commissions; who gain income from renting out small amounts of land, vehicles, draft animals, or machinery and tools; and to other individuals and groups at the local levels of developing countries, both rural and urban" (Marakkath, 2014, p. 2).

Furthermore, Schreiner (2004) describes microfinance as formal arrangements considered to improve the well-being of the poor communities through better access to saving services and loans. He suggests services that provide by informal financial sector such as "money lenders, pawn shops, check cashing outlets, and loans among relatives and friends" (Al-Shami et al., 2013, p. 232) are important sources of financing the poor. The above definitions have shown a general understanding on microfinance offered by microfinance institutions. Yet, those definitions have narrowed the scope of microfinance on the financial services only, while non-financial and social services have been excluded (Schreiner 2004).

In contrast, Ledgerwood (1999) provides a quite definition of microfinance, and he states that "the term of microfinance refers to the provision of financial services to low-income clients, including the self-employed. Financial services generally include savings and credit; however, some microfinance organizations provide insurance and payment services. In addition to financial intermediation, many MFIs provide social intermediation services such as group formation, development of self-confidence and training in financial literacy and management capabilities among members of a group. Thus, the definition of microfinance often includes both financial intermediation and social intermediation. Microfinance is not simply banking; it is a developmental tool" (Al-Shami et al., 2013, p. 231)

According to Microfinance Focus (2016) some of the most common activities of microfinance are:

- 1) Lending a small credit mostly as a working capital
- 2) Informal assessment of borrowers and investments
- 3) Collateral substitutes, through a group guarantees and compulsory savings
- 4) Access to repeat and larger loans, based on repayment performance
- 5) Streamlined loan disbursement and monitoring
- 6) Secure saving products.

Those are most common activities, in some cases, the MFI practice all of the activities, giving full support to clients. Still, it might happen that MFI practice one or couple of this activities, depending on the size and capacity of the institution. Therefore, we have different MFIs and different models, some of which will be discussed in the next chapter.

#### 2.2. Models

#### 2.2.1 Grameen Bank Model

As mentioned above, there are several different concepts of microfinance, which also differ in the scales of microfinance development and their impact on entrepreneurs and economy. If we start from the roots of the concept, we should refer to the work of the Grameen Bank.

The Grameen Bank (GB) functions on a principle of small groups of voluntaries which would provide "mutual, morally binding group guarantees in lieu of the collateral required by conventional banks" (Fotabong, 2011) this were mainly groups of women, which would support each other in getting financial support for small businesses or investments in the house. They proved to be very trustworthy borrowers and perceptive entrepreneurs. The groups of the guarantees may be between five and eight, for stable repayment of the loans, and it is created a liability group, with mutual responsibility, as such the whole group loses its validity if one of the members fails in returning the loan. Some additional characteristics of the GB are constant supervision and service with a strong discipline (Fotabong, 2011, p. 4). At Grameen Bank, "credit is a cost effective weapon to fight poverty and it serves as a catalyst for the overall development of socio-economic conditions of the poor who have been kept outside the banking orbit on the ground that they are poor and hence not bankable" (Grameen Bank, 2016). Muhammad Yunus, the Managing Director of GB, reasoned that if financial resources can be available to poor people on terms and conditions that are reasonable and appropriate to them, then" these millions of small people with their millions of small pursuits can add up to create the biggest development wonder" (Grameen Bank, 2016).

This model has spread all around the world and has been used in many different surroundings.

According to Fotabong (2011) some MFIs noticed critiques in some areas:

- The necessity for big initial cost to the setting up of big structure, GB require a big structure with high operation costs
- Connection of the loans, mutual constant borrowing of the clients, making them closed in the circle of loans
- There is constant necessity for donor's funds
- It does not mean the direct reduction of the poverty; it may have a negative outcome on the poverty reduction.
- High-interest rates

Most of this critiques are able of management. By my observation, the Grameen Bank is fully aware of the imperfections of the developed model and try to manage some of them. Still, the new surrounding and new circumstances may influence on the appearance of a new condition. Remaining, that ideal system does not exist.

#### 2.2.2. The MC2 Model

Fotabong (2011) explained that this model is promoted by Dr. Paul K. Fokam, who tried to keep the community values and traditions in microfinance. The model can be explained through the formula:  $VP = M \times C \times C = MC^2$ . Meaning that VP is the possibility if the Mean (M) multiply with Competence (C) and Community (C). Also, the model has two versions: a rural (MC2) and an urban one MUFFA. The MUFFA model is exclusively just for women. The model tries to be the improved version of microfinance by focusing on the investments savings (Fotabong, 2011, p. 5).

Setting up an MC2 micro-bank involves five stages:

- Sensitizing the poor and raising their awareness
- Mobilizing Resources
- Financing Individual income generating activities
- Financing common interest Economic projects
- Carrying out social development projects (Fotabong, 2011, page 5)

The model has some of the very good characteristics such as: operating directives come for the bottom of the enterprise, which is more as "grass-root approach", also the model is focus on sustainability of the individuals and the "social dimension" (p. 10) is very important, keeping the dignity and friendly approach.

Some of the most common weaknesses of the MC2 stand in the fact that it is necessary for several years to establish a platform for MC2 (four years for becoming financially sustainable and four to five more to accumulate resources). For all of this period, the main focus is financial sustainability and a more commercial role, whereas after this period the social factors start to develop. Secondly, the low-interest rate might limit the arability of the credits, which is reducing the supply of the credit. Lastly, the whole model appears to be more a link bank (Fotabong, 2011).

#### 2.2.3 Village Bank Model

This model started in the 1980s in Bolivia by John Hatch (Fotabong, 2011). The difference between GB and this model is that in the Village model there are usually larger groups of workers, with 30-60 members, and it starts to function when the group gets inaugurated. Usually, the process of setting up such a model is short, up to three months. Firstly, initial loans are very small, around \$50 for a period of four months, with a weekly repayment of the loan. The usual interest rate is at

10% with the mandatory 20% of savings of the loan or the repayment, the maximal amount for four months' loan period is up to 300 USD (Fotabong, 2011, p. 7-8).

#### 2.2.4 The SKS and Non-Banking Finance Company Model (NBFC)

This model started in India, and it is exclusively focused on profits. Specificities related to the model are the short term contract which are requiring clients to make the loans repayments weekly. The leaders are using the resources for the capital market and from commercial banks. Some of the critiques of the model refer to its potential to contribute in deepening poverty (Fotabong, 2011, p. 8-9).

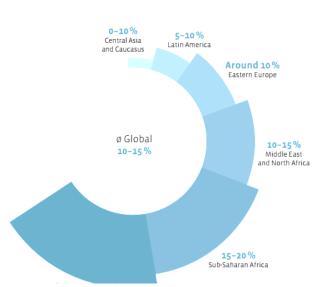
#### 2.3 Most recent events and statistics

Table 1. Statistic on MFIs

- Total number of MFI			3,098	in	2013	(source:	Microcredit	Summit		
				Campaign, report 2015)						
-	Total	number	of	MFI	700 mil	llior	in last	three year	s <sup>3</sup> (source; Wo	orld Bank
borrowers			(2015), The Global Findex Database)							

<sup>&</sup>lt;sup>3</sup> World Bank (2015), The Global Findex Database, according to a World Bank study that compared the number of people who had a savings account in 2011 and 2014. The vast majority of these newly banked adults lives in developing countries.

Taking into account the fact that it started more than 30 years ago (Grameen Bank, year), the microfinance market is developing very fast. Based on this trend, is likely to believe that expected growth the microfinance market in 2016 would be 10-15% (Tischhauser 2016). The IMF predicted a average GDP growth in 15 main microfinance markets in 2016 (Tischhauser,



**WORLD'S MAIN MICROFINANCE MARKETS IN 2016** 

2016). For developed countries the expected Figure 1. Growth trends in 2016

growth is up to 2.2% of GDP growth in 2016 (IMF, 2015) Furthermore, in the forecast, by 2020, is expected that the annual GDP growth of the developed countries will be 1.9% less than the main microfinance markets (Tischhauser, 2016).

Figure 1. shows the expected development and growth in microfinance markets in 2016: 0-10% in Central Asia and Caucuses, 5-10% in Latin America, around 10% in Eastern Europe, 10-15% in Middle East and North Africa, 15-20% in Sub-Saharan Africa, and around 30% in Asian Pacific (Tischhauser, 2016).

In 2011, the Campaign Microfinance Summit reported a number of the institutions: "328 institutions, representing 72,385,972 poorest families: this means that 53 percent of the total poorest reported is both current and verified" (Maes, 2012). Considering that the average family who took a loan (137.5 million) have five members, it could be estimated that the loans indirectly supported 687.7 million people.

Data Point	Finding
Number of MFIs Reporting (data from 12/31/97–12/31/10)	3,652
Number of MFIs Reporting in 2011 (data from 12/31/10)	609
Percent of Poorest Clients Represented by MFIs Reporting in 2011	56.5%
Total Number of Clients (as of 12/31/10)	205,314,502
Total Number of Women (as of 12/31/10)	153,306,542
Total Number of Poorest Clients (as of 12/31/10)	137,547,441
Total Number of Poorest Women (as of 12/31/10)	113,138,652

Source: STATE OF THE MICROCREDIT SUMMIT CAMPAIGN REPORT 2012

### 2.4 Challenges of microfinance

Although, the microfinance showed mostly positive results on the development and increase in socio-economic standards of the not so developed categories of society trough the small-and-medium enterprises, there are some challenges and misleading in this field, all of which bring up a discussion about the negative effects of microfinance, and poses the question of risk and negative effects, and the extent to which they could be higher than the potential benefits.

A recent debate on microfinance in The Economist (2014) on the directions and on the challenges of the microfinance shows that there is a strong negative wave in microfinance, which redirects the focus of microfinance from improving social-economical standards and helping the low developed parts of the society, to the creation of more for-profits with no social changes. Furthermore, some of the critics claim that: "the microcredits are not differing from bank loans" (The Economist, 2014).

One such case is "Compartmos", a Mexican microcredit bank, which made its profit by charging around 100% interest rate on loans. This case got a strong critique from the founder of macro finance Mr. Yunus, who stated that: "Microcredit was created to fight the money lender, not to become the money lender" (Bloomberg, 2007).

The debate was considering the necessity of the Compartmos to have so high-interest rate. After several studies, the results showed that "by cutting rates, Compartamos could earn just as much profit while providing better service to more people" (Bloomberg, 2007). Another study found that there is "no clear evidence that microcredit helped people escape poverty by raising their income" and that there is "no evidence that taking out a loan with an interest rate of 100% a year actually made borrowers worse off on average" (The Economist, 2013).

Another study done by Crépon (2015) examines the impact of a microcredit program in rural Morocco. The authors randomly assigned 162 villages to either the treatment group (given access to microcredit) or the control group (not given access to microcredit). The authors, all of whom are affiliated with the research organization J-PAL (to give its full name, the Abdul Latif Jameel Poverty Action Lab), found that microcredit is not an instrument "that fuels an exit from poverty...at least in the medium run." On average, borrowers invested more in their own businesses, for example by buying cattle. However, since takers of microloans spent less time on wage labor without increasing the time they devoted to self-employment, the introduction of microcredit seems to have decreased the number of hours spent on work. The positive effect on investment, the authors reckon, was consequently offset by a reduction in income from wages. Overall, the J-PAL researchers conclude that access to microcredit did not lead to gains in income, consumption or education.

According to EY<sup>4</sup> publication, the most common challenges of the microfinance are:

- Reporting and its requirements, meaning additional reporting regulations
- Valuation of investments, there is need for more open market activities but still with proper and diligent evaluation on investment
- Transformation in the microfinance entity
- Proper regulatory tax regime on the MFIs
- Less focus on the financial accounting and more on management
- Increase in the risk management
- Flow management need to be more structured ("Challenges in microfinance: an EY perspective", 2014)

Still we can conclude that the microfinance challenges mostly depend on the human factor and that defenses in the surrounding determine the success of the models. Like other financial models, it is exposed on with high risk in non-regulated surroundings. In the countries with appropriate regulations, and good approach can make a significant result.

<sup>&</sup>lt;sup>4</sup> "EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over." http://www.ey.com/Publication/vwLUAssets/EY\_-\_Challenges\_in\_microfinance/\$FILE/ey-challenges-in-microfinance.pdf

## **Chapter 3: Uprising and growth of MFIs in case country**

The next chapter looks at how microfinance is regulated and how it functions in country which is similar to Serbia, the case country of Bosnia and Herzegovina (BiH). BiH is one of the most similar countries to Serbia, considering it socio-economic structure, the position of the entrepreneurs, macroeconomic indicators such as self-employment. In the case of Bosnia and Herzegovina, I will review the results and the impact of microfinance on social-economic changes and economic indicators. An additional reason for selecting Bosnia and Herzegovina is its long tradition of microfinance.

#### 3.1 The case of Bosnia and Herzegovina

After the end of the war in 1995, the conditions for developing a business in Bosnia were very difficult. There was a big struggle for bringing international donors and investors to Bosnia. Some of the first investors to SMEs were the Micro Financial Institutions. the late-2000s, astonishingly, Bosnia was second only to Bangladesh in terms of microfinance 'saturation'" (Bateman, 2012).

The 2014 MixMarket review examines six institutions (EKI-World Vision, Mi-Bospo, Mikrofin, Partner, Prizma and Sunrise) and concluded that the Bosnian microfinance sector as dynamic, with good reaction on the environment, with good effectivity and flexibility on the market. Moreover, they state that "the success in the sector is a model example for other MFIs who begin as a start-up" (Pytkowska, 2014).

#### 3.1.1 Policy regulation

#### Law on Microcredit Organizations

Microfinance and micro crediting came to the Bosnia and Herzegovina through the NGOs; first credits were given to SMEs by the NGOs. In the period after the war, the credit for the NGOs had a high demand (Pytkowska, 2014). Very fast the micro crediting started to grow and develop its structure. Therefore, the legal term Microcredit organizations (MCOs) appeared. MCOs were non-profit legal entities, mainly focused for micro-lending (Client Protection in Bosnia and Herzegovina, 2016).

From these new models of lending developed a strong microfinance sector which impact on the establishment of the first Law on Microcredit Organizations, which was accepted in the period of 2000-2001. ("Client Protection in Bosnia and Herzegovina"). In the first law there was a certain difference between the Federation and Republic of Serbs (RS), and in the second Law on Microcredit Organizations, which came on 30. Augusta 2006 (number 01-02-695/06, published in "Službene novice Federacije BiH", Br. 27/05 and 68/05), those differences were overwhelmed. The regulations related to the function of the Microfinance are defined in the Law on Microcredit Organizations "Official Gazette of the Federation of BiH," No. 59/06. In the article 3., 4. and 5. of this law is noted that teams in which the micro credits are a function, their establishment and the legal procedure of the lending (Law on Microcredit Organizations "Official Gazette of the Federation of BiH", No. 59/06). The additional documents are brought to law for regulations of the requirements for the business operations of the Microcredit organizations and the general

operations in the field of microfinance. Thought, this act we can see some of the key requirements for MCOs in BIH. <sup>5</sup>

According to "Client Protection in Bosnia and Herzegovina", key requirements of the MCO laws contain:

- "MCO laws differentiate between non-profit microcredit foundations (MCFs) and for-profit microcredit companies (MCCs), both of which fall into the general category of MCOs. MCFs are legally authorized to distribute individual microcredits up to 10,000 KM in value (USD \$7,353) while MCCs are legally authorized to distribute individual microcredits up to 50,000 KM in value (USD \$36,765)." ("Client Protection in Bosnia and Herzegovina")
- MCOs cannot accept cash deposits.
- MCOs are required to hold mandatory reserves for the coverage of credit losses. The MCO
  by-laws in each entity prescribe calculations for establishing the appropriate reserve
  amount.
- Both entities' MCO laws state that MCOs must clearly publish the conditions for microlending, including specific "provisions on the method of securing microcredits, i.e. liens over the property or rights of beneficiaries of microcredits."
- Both MCO laws state that "A microcredit organization is obliged to disclose the effective interest rate on microcredits." Associated by-laws in each entity specify the appropriate methods of calculation and disclosure of the effective interest rate.

The regulations are supported by improvement of the conditions, making a better structure, stability and in microfinance sector of BIH. Thought, the discussion on microfinance and MCOs in BIH, held in 2014 ("Profitiraj.ba" 2014, "Public sector in BiH should start with micro level"/"Civil sector u BiH treba početi djelovati od mikro nivoa"), there are several

March 14, 2007, the Management board of the Banking Agency of the Federation of BiH

<sup>&</sup>lt;sup>5</sup> Based on Article 21 of the Law on Microcredit Organizations ("Official Gazette of the Federation of BiH" No. 59/06), Article 4, of the Law on Banking Agency of the Federation of BiH ("Official Gazette of the Federation of BiH" No. 9/96, 27/98, 20/00, 45/00, 58/02, 13/03, 19/03, 47/06 and 59/06) and Article 18 of the Statute of the Banking Agency of the Federation of BiH ("Official Gazette of the Federation of BiH" No. 42/04), on its session held on

recommendations for additional improvement of the conditions, one of them is concerning the united Banking Agency, which would create a better and more flexible functioning of the MFI regulations.

#### 3.1.2 Impact in the period 2000 - 2008

The development of microfinance in Bosnia and Hercegovina achieved a boom in 2000<sup>6</sup>. It is important to see the maximum of the development of the microfinance sector. After the period of 2008 and the financial crisis hit and all sectors got injured especially the finance.

From the early development of the MFIs in Bosnia, most of them showed positive results. According to Pytkowska, in the period of six years, all new established MFI became financially self-sufficient. By the end of 2002, by the report of MBB, the average of financial self-sufficient of MFIs in Bosnia was at the 130%. By 2003, the MFIs in Bosnia reached up to 40,000 active borrowers, what represented 62% of the borrowers, in that period on the territory of Bosnia was operating more than 40 large MFIs (Pytkowska n.d.).

"Still, the average loan size relative to GNP per capita is rather high and has on average increased slightly for the Bosnian MFI's since 2000. The average loan balance as a percentage of per capita income at the end of 1999 was 86% compared to 90% by the end of 2002" (Pytkowska, 2014).

<sup>&</sup>lt;sup>6</sup> The MicroBanking Bulletin (MBB) has become the premier benchmarking source for the microfinance industry. Originally an output of the MicroBanking Standards Project, the MBB is now one of the principal products offered by the MIX (Microfinance Information eXchange). MBB 10 will be disseminated in summer 2004. It is a trends analysis focusing on MFIs that have been contributing to the MBB for more than 4 years.

#### 3.1.3 Literature review on Microfinance in BiH

In the recent publication of the American Economic Journal in the section of the Applied Economy, on the topic of the microfinance, was evaluated the impact of the Microcredits in BIH. The article with the title "The Impacts of Microcredit: Evidence from Bosnia and Hercegovina", 2015 evaluate the impact of microcredit by using the RCT. Providing the evidence on the improvement of the self-employment and the inventories and at the same time the reduction in the incidence of wage work. Also, there are very positive results in the increase of the labor supply for youth (from 16 to 19 years old) in household's business. The research also showed a positive result in an increase in profits and a small reduction in consumption and savings. The researchers were also interested in the effect on the household incomes, but there were no significant results which could claim the increase (Britta Augsburg 2015). In the conclusion of the research, it is noticed, as a recommendation, that the households need to have an increase in the 'lumpy investments by their own funds. Also, a better identification of the business opportunities and possibility should be better managed, what would impact on the poverty and the self-employment quality.

In the opposite to the previous research, there was one of the strong critique to the micro credits in BIH, done in the department of Economy and Tourism in Jura Bobrila Pula University in Croatia, during 2012. This research specifies some of the negative effects of the microcredit in BIH. Some of the strongest critiques refer to the deindustrialization. In the period of the micro credit booming, the 2000s, almost 75% of the enterprises in BIH were registered as micro (0-9 employees) and 17.8% as small (10-49 employees) what by authors opinion had a negative effect. "having many small grocery stores than in most other places in the world is creating a strong competition and low profit…" (Bobrila 2012) Second, the critique on the creation of informal

economy which was increasing and threatening the development. The third critique was referring to the high-interest rate and short repayment periods. Additionally, the author reflects on some practical issues on the problem of microfinance, one of them is the misuse of the microloans, stating that "Bosnians actually used microloans mainly to support consumption spending and other non-business related needs." (Consumption spending as the Min use of microloans, 2012)(page 15)

"Markets (in Bosnia) were flooded with goods after the war; many people were producing bread, growing cows or chickens but did not know where to sell their goods given the large level of available supply and market saturation. Many refugees were selling clothes that had been imported from Hungary and had to sell them for very small margins due to high competition" (Consumption spending as the Min use of microloans, 2012)(p. 19).

In conclusion, we can see that microfinance had some disturbance, which can be overcome by a regulatory framework. The high competition mentioned in the second article is by the opinion of the author due to weak regulations and inappropriate incentive structures. Still, the results in increeas of the domestic production, self employment and youth emmployment in BIH give a good backgroung for futher development of this sector.

#### 3.1.4 Practical examples of Micro credit's clients

In the previous section, we had a two opposite opinions about the microfinance, both of them open a discussion on this topic. To see more about the direct impact, I took some of the examples from the field. Therefore, it will be introduced several examples of customer satisfaction with the microloans in BiH. The clients are form different MFIs, randomly chosen.

Biljana Knezevic is a customer of the of Microcredit foundation "Mikra", three years ago she took a loan for opening a small shop, after the three years she is mention that she is satisfied with her work, and the conditions under which the MCF load her the loan. This business is the only income for her four-member family.

Envera Beganovic is the client of the Microcredit foundation "EKI", fifteen years ago started with cattle breeding. From the early beginning cooperates with microcredit foundation in short term loans. Their farm has around 70 cows and over 70 sheep. Said "it is difficult to start without a loan, today we are making far higher incomes than we could expect," "the key success is in hard work and discipline."

Talic Samir is the client of microcredit foundation "Lider". In 2002 it started a small business of sawmill, in that period, he was employed in the local factory. After some period, he gave up his job in a factory and decided to take a loan and invest in his business. Today, he has fifteen workers and plans to expand his business. In 2014, he took a new loan from the microcredit foundation.

This is just some of the examples try to show the diversity use of the microloans in the small business development. There are variations of the examples for microloan use. I found a big number of the positive examples of MFI clients in BiH, which maybe give a better explanation of the effects of microfinance.

# Chapter 4: Conditions, development, and probability for financial support of enterprises in Serbia

Economic conditions in Serbia are quite similar to the conditions of the transition countries. Some of the 'burning' issues are related to the high unemployment<sup>7</sup> and weak business development<sup>8</sup>, a small number of international investitures, etc. These problems are well-known to the current government, and they are constantly searching for solutions and ideas to improve the current situation. The practical solution could come in targeting the core of the problems.

SMEs represent one of the key factors for economic development and structural growth. Considering the participation of the SMEs in the economy. Before the crisis, by the World Bank data, in 2008 the SMEs were 59.1% of total GDP and 67.2% of total employment (Bank 2015). Also, it was making 66.6% of total turnover, 59.1% of total value added in the now–financial sector, and 58.7% of overall profit. (Hadzic 2012) In the period after 2008, the impact of the SMEs continued to be very influenced. From 2010, the self-employment in Serbia is still high, much higher than in the countries in the region or the EU countries (Table 3).

<sup>&</sup>lt;sup>7</sup> By the data for official page of the statistic office, measuring the unemployment rate for people form 15-64 in the IV quarter of 2015 was above 18.5% measured by the Republican statistic office. http://webrzs.stat.gov.rs/WebSite/Public/PageView.aspx?pKey=2

<sup>&</sup>lt;sup>8</sup> World Bank, by the World Bank indicators of "Doing Business" Serbia is currently ranked as 59<sup>th</sup>, with a positive increase for 9 places from 2015. Still, there was a big decrease in the item "Getting Credit", where the position decrease for 7 positions, http://www.doingbusiness.org/data/exploreeconomies/serbia

SELF-EMPLOYMENT, TOTAL(% OF TOTAL EMPLOYMENT) 2013 [YR2013] ■ 2012 [YR2012] ■ 2011 [YR2011] 2010 [YR2010] European Union Euro area **OECD** members Slovenia Poland Hungary Bosnia and Herzegovina Serbia 5 10 15 20 25 35 30

Table 2. Self-employment, total (% of total employment)

Source: The World Bank data

The self-employment represents one of the important characteristics of the Serbian economy, consider that it 32.4% of the total employment (The World Bank, 2015), which is almost double considering the OECD and EU where the average is at 18.15% (OECD data, 2015). This data tells more about the economic situation on the market in Serbia, where we have a big number of SMEs, which have a high impact on employment and state economy.

This trend of growing self-employment should be seen as the direction in which the economy should enforce and give additional support to this area. Because it represents a positive trend and potential for impact on other sectors and the whole economy.

#### 4.1 Macroeconomic conditions in Serbia

Table 3. Microeconomic indicators in Serbia

Total population:	7,129,428 (2014)
Urban population:	55% (2014)
Population below the poverty line:	9.1% (2013)
Population in a situation of financial exclusion:	27% (2009)
Adults with an account at a formal financial institution:	62% (2012)
% of microenterprises:	86,2% (2012)
Number of microenterprises:	72,995 (2013)

Sources: World Bank, CIA World Factbook, Government of Serbia, EMN Overview 2010-2011, Flash Eurobarometer on SMEs

According to the last report of the National Bank of Serbia, May 2016, by the beginning of the year there were very positive results in Serbian macroeconomic. There is a significant growth of the GDP, 3.5% in the first quarter (Table 4.). The National Bank (NB) refer to it as a result of the positive results in industry and growth of the net export. The unemployment rate was typically higher than the neighbor countries in the past years, in 2015 by the NB it was at 17.7%, the IMF report in 2016 calculated the unemployment rate at 18.69%, predicting the constant growth of the unemployment rate in the next period. The wages in Serbia, are consider one of the lowest in the region, after Macedonia ("Eurostat report, 2015"). Additionally, there is a strong imbalance in comparison to the main cities and region (the salaries in main cities can be two times higher than in region).

The current biggest problem for Serbian economy represents the high external debt. Current debt of Serbia is at 72% (NB 74.8%) or 2,814.377 billion of national currency (IMF report on Serbia, 2016). What is the impact on the ability of national saving, which are currently in 2016, at 12.9% (IMF report on Serbia, 2016). In the report of NB, the positive results are on the decrease

of the budget deficit, which by the significant cutting in 2015, on pensions and administration expects, decreased the deficit for -2.9% in 2015 to -1. % in 2016.

Table 4. Macroeconomic indicators in Serbia

Real GDP growth (in   1.4   -1.0   2.6   -1.8   0.74   3.5							
Unemployment 23.0 23.9 22.1 19,2 17.7  according to the Survey (in %)  Wages 372.5 364.5 388.6 379.3 368.0 353.7  (average for the period, in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0  deficit/surplus (in % of GDP) <sup>4</sup> )  RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8  government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87  rate (period average)		2011	2012	2013	2014	2015	2016 Q1
Unemployment 23.0 23.9 22.1 19,2 17.7  according to the Survey (in %)  Wages 372.5 364.5 388.6 379.3 368.0 353.7  (average for the period, in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0  deficit/surplus (in % of GDP) <sup>4)</sup> RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8  government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87  rate (period average)	Real GDP growth (in	1.4	-1.0	2.6	-1.8	0.74	3.5
according to the Survey (in %)  Wages 372.5 364.5 388.6 379.3 368.0 353.7 (average for the period, in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0 deficit/surplus (in % of GDP) <sup>4)</sup> RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8 government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	$%)^{1)}$						
(in %)  Wages 372.5 364.5 388.6 379.3 368.0 353.7  (average for the period, in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0  deficit/surplus (in % of GDP) <sup>4</sup> )  RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8 government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	Unemployment	23.0	23.9	22.1	19,2	17.7	
Wages 372.5 364.5 388.6 379.3 368.0 353.7 (average for the period, in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0 deficit/surplus (in % of GDP) <sup>4</sup> )  RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8 government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	according to the Survey						
(average for the period, in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0  deficit/surplus (in % of GDP) <sup>4</sup> )  RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8  government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87  rate (period average)	(in %)						
in EUR)  RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0  deficit/surplus (in % of GDP) <sup>4</sup> )  RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8  government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87  rate (period average)	Wages	372.5	364.5	388.6	379.3	368.0	353.7
RS budget -4.0 -5.9 -5.2 -6.3 -2.9 -1.0  deficit/surplus (in % of GDP) <sup>4</sup> )  RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8  government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87  rate (period average)	(average for the period,						
deficit/surplus (in % of GDP) <sup>4)</sup> RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8 government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	in EUR)						
(in % of GDP) <sup>4)</sup> RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8 government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	RS budget	-4.0	-5.9	-5.2	-6.3	-2.9	-1.0
RS public debt, (central 45.4 56.2 59.6 70.4 75.9 74.8 government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	deficit/surplus						
government, in % of GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	(in % of GDP) <sup>4)</sup>						
GDP)  RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	RS public debt, (central	45.4	56.2	59.6	70.4	75.9	74.8
RSD/EUR exchange 101.95 113.13 113.14 117.31 120.73 122.87 rate (period average)	government, in % of						
rate (period average)	GDP)						
(period average)	RSD/EUR exchange	101.95	113.13	113.14	117.31	120.73	122.87
	rate						
GDP (in EUR million) <sup>5)</sup> 33,424 31,683 34,263 33,319 32,908 7.522	(period average)						
	GDP (in EUR million) <sup>5)</sup>	33,424	31,683	34,263	33,319	32,908	7.522

Source: National Bank of Serbia, 2016 report

# 4.2 Policy framework guideline

Policy frameworks on microfinance in EU countries are different; still the differences are minor referring to the certain characteristics of the country. The policy framework is based on a specific law regulation. Most of the countries have a specific law which regulates the microfinance activities such as rules for the institution, processors of operation, tax, etc. The law of EU responds on microfinance as a common financial activity which uses general guidelines of financial law for lending.

According to USAIDs report in 2014, on the potential of the Serbian microfinance development, comment on the legislation, with the introduction a regulation an appropriate regulation in the operations of microfinance institutions, it would allow the development of the microfinance sector and the reduction of the existing gap between supply and demand for microloans. This could be achieved through:

- 1) increasing the portfolio of microfinance institutions in Serbia, and intensive inflow of investor funds;
- 2) intensive involvement of existing and new microfinance institutions in the capacity of partner credit institutions in the implementation of programs financed by EU funds (programs to improve access to finance for SMEs, entrepreneurship development programs, start-up, and innovation);
- 3) access Serbian banking and non-banking institutions programs of the European Commission to provide financial and technical support;
- 4) expanding the activities of existing microfinance networks operating in the Balkans and around the world, through the establishment of microfinance institutions in Serbia and

5) greater involvement of local investors, including commercial banks, and the establishment of new commercial banking institutions with the aim of providing financial services. The development and effective functioning of the microfinance sector caused to diversify the supply of financial services, increasing the availability and lowering the costs of financial products (DOICIU 2014).

In February 2016, the Chamber of Commerce and Industry of Serbia in corporation with the Network of Serbian Business Women discussed together the plan for microfinance development in Serbia. Some of the discussion from the conference was related to the establishment of working group for creation a microfinance platform in Serbia and establishment of new law regulations for better financial support to MFIs. Their conclusion was that "The examples of microfinancing in Europe and in region showed us that Serbia needs to establish a Law for Microfinance, as soon as possible" (Press conference, "Network of Serbian business women," 2016).

## 4.3 The impact of SMEs in Serbia

If we observe the basic characteristics of SMEs in Serbia, by their size, flexibility, ability to innovations and risk and the ability for specialization, we can say that they are much easier to adapt to the demand and market conditions than the large enterprises. In that way, the SMEs are increasing the competition on the market, enhance the quality of the products and services and decreasing the price, improving the implementation of innovations and technologies and enlarging the economic growth of the country. SMEs in Serbia are an important link between the private domestic economy growth and economic stability of the country.

# 4.4 Characteristics of SMEs

According to Hobohm S. (2001), some of the advantages and disadvantages of SMEs include the following:

- Size comparing to the large enterprises the SMEs are much more flexible, due to their size the SMEs can easily specialize and focus on the specifics of the market, accepting the market changes and adapt to them. The negative thing related to the size of the SMEs is the limited resources, meaning small working capital and a low number of working force. Additionally, the problem is also in the lack of the capital, which can limit the opportunities for progress, development, and growth.
- A small number of employees which in some cases limit the specialization of the workers, meaning the lack of the employees demand the employees, even the managers, need to have knowledge outside of their main area of business. Positive effects can be seen in the increased level of commitment, and orientation for long-term results.
- Development of "local" approach with customers and clients which is connecting the costumes to the enterprise and make a long term relation, also its open the possibility for more flexible work and adaptations during the cooperation. Therefore, it may come to the rising a close relationship with customers and business partners which makes a ground for new enterprises and spreading of the enterprise. Some of the negative effects may appear in terms of creating a circle of the business partners and not been open for new cooperation.
- Flexible, informal structure structure of the SMEs is very adaptable and flexible for changes, meaning that it can very fast react to the threats and challenges on the market and adapt to the customer demand, with minimal cost and small lost in the time. The negative effect could be that sometimes this type of structure is not able to operate in more complex businesses.

Some additional characteristics (Hobohm, S. 2001, p. 4):

- If we compare SMEs to the large enterprises in the terms of labor intensively, we could conclude that SMEs have bigger labor intensity which impact on the income distribution in the economy, making it more equally. Additionally, it achieves a significant result in the reduction of unemployment and poverty. The specifics of SMEs, mentioned by the author is the creation of the jobs for people which are unreachable by big enterprises, meaning a sector of the society characteristic as low incomes, long unemployment, social categories such women and youth.
- Observing the role of SMEs in developing countries, it was noted a "more effective allocation of the resources" (p. 4) using the "labor-intensive production methods" (p. 4) that are creating more balance in the workforce and in the capital elocution.
- "SMEs support the building systemic productive capacities." (p. 4). Additional characteristics of the SMEs is the ability of the reproduction of the resources at every level in the same phase of the production.

# 4.5 Sources of financing for SMEs in Serbia

The financing and the source of financing for SMEs is one of the most important decisions, which opens many dilemmas, such as: should we at all borrow money or work with our capital, should we borrow for banks of other sources of financing, what is the amount of which is necessary for investing and what is the smallest interest which we need to pay for it, etc. This is bringing a lot of confusion to the enterprise, additionally the fact that there are limited number of sources for financing with the strong position of several private banks. It concluded with the results of the drastic decrease in lending to enterprises in the past years. By the report of the Central Bank of

Serbia, the actual lending to the enterprises decreased in the first quarter of 2016 for -1.7%, and there is a very visible decrease in the last five years (National Bank of Serbia 2016).

Still, theoretically, there are several sources available for the SMEs, such as commercial banks, leasing companies, business angles, microfinance, institutions and market capital (Erić 2012).

#### 4.5.1 Credit lines of commercial banks

In Serbia, the credit transactions and to grants for loans, for companies and individuals, in accordance with the applicable regulations, may exercise only banks licensed by the National Bank of Serbia (NBS), with an exception for the legal a law authorized organizations (AOFI, Development Fund).

In mid-2012, work permit for loan operations had 30 banks (Appendix 2, Table 1) (Serbia 2015) All these banks grant loans to small and medium-sized enterprises and entrepreneurs under the terms established by its business policy. Balance sheet assets of the banking sector in Serbia, at the end of 2011 was at 2649.9 billion dinars. (Erić 2012) Concerning the importance of the SMEs, the banks try to develop a certain program for targeting them. Some of the banks (ProCredit Bank, Opportunity Bank) are making the segmentation of the enterprises based on the budget annual reports or a number of employees or based on the structure of the enterprise (Erić 2012). Financial inclusion rate is estimated at 73%, with only 43% of the adult population considered as fully banked (able to access insurance, savings, credit and other products) (Boston Consulting Group 2011).

Table 5. Bank rates in Serbia

Bank of Serbia Rates		
Key policy rate	Two-week repo rate	9.50%
Deposit facilities interest rate	Key policy rate minus 2.50%	7.00%
Lending facilities interest rate	Key policy rate plus 2.50%	12.00%
	Liquidity credit overnight loan facility	

Source: National Bank of Serbia, 2012

In the period of financing SMEs, many banks express difficulties in targeting the specifications of the SMEs, in terms of the size, characteristic, specific needs of the enterprises. The results showed by the research refers to same basic problem in financing: 37% of the banks had a problem with indebtedness, 23% the big diversity in goods placements, 13% and non-efficient system of SMEs for debt collection and inadequate collaterals, 7% non-sufficient education of SMEs managers, 3% frequent change in activities (Erić 2012). Still, many SMEs do not know what is the real reason for refusal of the loan request, because the banks are not required to give an explanation for refusal of the loan request.

Usually, the whole process of application for loan to commercial banks is long, and it requires a big number of documents, by the Law of Banks and by the Banks act the necessary documents during application for credit are (Erić 2012):

- From the Republic Agency for Business Registers the decision on registration of business entities
- Excerpt from the company's register,
- Memorandum of Association and Articles of Organization
- Certificate of registration with PIB
- Decision on classification of legal entity (small, medium, large)
- Decision on tax indebtedness and paid taxes in the past year, data on the business flow

- Financial statements for the last year before the loan approval in all accounting periods until complete settlement of approved loan
- Balance sheet, income statement, cash flow statement
- Notes to the annual financial statement (for medium-sized enterprises)
- Statement of Cash Flows (for medium-sized enterprises)
- Statement of changes in equity (for medium and corporate)
- Auditor's report and
- Agreement for the provision of the report on liabilities and timely settlement of obligations of the client. (Erić 2012)

Besides this, the enterprises need to have a clearly and sustainable business plan, in which the bank can see (Erić 2012):

- The current position of the potential borrower:
  - the legal status and ownership structure,
  - the character of the activities of the borrower
  - board members
  - the financial position of the company
- Target goal after implementation of the project for which the loan
- Assumptions used in the preparation of a business plan
- Resources that are proposed in order to achieve the target position
- Resources, including financial resources that are necessary for the implementation of the project,
  - Return on investment to be based on a projection of the borrower for the bank

Although the SMEs need to enfold a big number of documents, and detailed and long procedure, many of them get rejected, without alternative solutions. By the research of Dejan D. Eric, 2012, in the survey of the banks, 36% of banks are accepting between 10% to 25% of the applications for credit to SMEs, what is a very low percentage of accepted credits. By same

research on the question for the complaints on the denied credits, the interviewed banks said that the rejection on complaints is from 5% - 10%, and the clients that are up to 30% (p. 95).

# 4.5.2 Leasing companies

Leasing companies are getting the license for work for the National Bank of Serbia (NBS), and their work is regulated through the law for financial leasing. Although, in many European countries there are no regulations on the operation of the leasing companies, in Serbia they are strictly regulated by the law (Law on financial leasing, Sl. glasnik RS, br.55/2003, 61/2005 and 31/2011). The monitoring of the leasing companies is under the authority of the NBS. The role of the leasing companies is to create appropriate financial conditions of buying for SMEs enterprises and entrepreneurs. There are different types of leasing, the two basic types of leasing: financial and operational leasing, depending on whether you finance the purchase or use of the lease. In Serbia is currently operating 17 leasing companies. The leasing clients are the costumes which get rights for using the property of leasing house, by paying the fees to lease companies.

According to law regulations in 2011 (Erić 2012), the subjects of the leasing companies can be;

- A mobile, durable good (equipment, mobile facility, vehicles) and
- A non-mobile, durable good (land, business space, offices)

The most important characteristic of leasing loan (Erić 2012):

- The loan is always approved just for the specific object of the loan
- The object of the loan is determined by the client, and the buying of the object is by leasing company
- The leasing company is the only owner of the object during the time of the contract

- The ownership rights can be transferred to the client when the contract expire
- The client can buy the object after the contract expires by the price expressed in the contract
- The period of the contract needs to correspond to the period of the object amortization
- Usually are no other sources of collateral, just the object
- The leasing company is fully insured on the object, in the case of damage to object
- In the case that the client is not fulfilling the contract responsibility, the leasing company is able to take the object from client

## 4.5.3 "Business angels"

SMEs can use the help in financing the business activities through the so-called. Business Angels. It is a very convenient source of financing for companies that are not financially strong to attract more investors. Therefore, this type of financing can be very useful for the new companies and small enterprises which are not capable of finding resources. Still this type of financial support is unknown to the enterprises in Serbia. In Serbia, the concept of business angels is totally not familiar with 39% of enterprises, 24% have heard about it but do not know much about it, 20% is partially familiar, 15% is mostly familiar, and only 2% fully aware of this concept as a source of financing (Erić 2012).

Comparing with the USA where is registered more than 260000 of this institutions and in Europe is operating 75000 institutions with the yearly investment fund around 4 billion euros (page 132) It can be easily seen the week development of this institutions in Serbia.

The "Business angels" is the concept where individual investors support the small enterprise with financial or technical support, expecting a high returns and growth of the enterprises. The most common cases are in IT companies.

## 4.5.4 Factoring

Factoring is a service provided by commercial banks and factoring companies, which is based on factoring contracts. This form of financing is dedicated to companies that have signed contracts and long-term cooperation with its customers / debtors, a need for additional working capital, which are not provided in the traditional manner, through loans, but through the purchase of receivables. Factoring is a modern financial instrument, which has an extremely widely used in developed market economies. Practically meaning, the purchase of the foreign (already sold) receivables, moreover, a financing through factoring is a specific type of getting a financial support by selling the receivables.

Factoring, as a form of short-term financing of working capital, is very useful for small and medium enterprises, which have a difficulty in accessing the bank loans, and have a chronic shortage of working capital. The problem is that in Serbia mostly the bank are able to support factoring, and it increases the price of loan for 1.5- 2.5% (Erić 2012) (p. 127)

#### 4.5.5 Microfinance

The term "microcredit" is often used in a narrow sense and refers to micro-credit for small, informal entrepreneurs. Microloans primarily mean providing financial services to individuals with lower incomes, particularly the poor population that is trying to start his own business and be economically independent and strengthened (Nations n.d.) (Building Inclusive Financial Sectors for Development, United Nations, 2006). One of the key barriers to more intensive use of microfinance relates to the lack of awareness of SMEs and entrepreneurs with this form of financing. In Serbia, according to the results of the research, 36% of the surveyed companies are not familiar, while 20% are generally not familiar with the concept of microfinance. With these

concepts in part are not familiar 29% of the respondents, 10% is mostly familiar, and only 5% is fully aware (Erić 2012).

First microfinance credits appeared in Serbia ten years ago, by the support of international investitures and donors. (Network 2013) Currently in Serbia operate three non-bank microcredit institutions: AgroInvest, Micro-Development and MicroFinS, that cooperate with local banks; they were founded during the 1999-2002 period with emerging funding from donors (UNHCR, ICRC a.o.) or international NGOs (World Vision) in order to cope with the post-conflict economic depression of the year 2007 and after. Beside them, there are two micro financial instructions which have a legal status of banks: Opportunity Bank Serbia (OBS) and ProCredit Bank Serbia.

From 2005, the law requirements controlled the work of microfinance sector; their work was obligated with the partnership of the banks, according to the Law on Banks. This restriction on the work of the MFIs was a type of the security measures for achieving a financial control of the economy (ENVIRONMENT AND DEMAND FOR MICROCREDIT IN SERBIA,2010) How much it impacted the economy could be seen through the current position of the SMEs in Serbia. The professor Mirodljub Hadzic from Singidunum University, in 2012 said: "SMEs in Serbia are well behind other transition economies and the EU, especially with respect to efficiency" (Miroljub 2012) Also, there were other implications on the negative position of the SMEs in Serbia, and the necessity for the financial support (Ivan Stošić 2012).

According to research of the Chamber of Commerce and Industry of Serbia, in 2016, during the last five years to SMEs received around 32000 microcredits, with the average amount of 1409 euro per credit. In the countries of EU for last two years, it was given 390000 microfinancing credits, with the average amount of 8500 euros per credit. The biggest part of the Microloans when to the sector of production, agriculture, and service, through it was open 53000 new work positions.

Around 55% of the loans are given to the enterprises whit the conditions for repayment (by average) of 22 months.

The microcredits in Serbia have a high repayment rate, and usually, there are very strict criteria for loan authorization; MFIs generally give assistance to their clients, helping them to repay over a long period of time. Some of the MFIs have training and education of the clients, considering the accounting support. "Serbia is also the first beneficiary of EFSE funds, having received 21% of the outstanding investment portfolio in 2012. During Q1 2013, Serbia received again 21% from the EFSE, through nine Partner Lending Institutions. Serbia represents a key country where outreach to small and micro enterprises is being maximized." ("European Microfinance Network")

Most of the investitures were from EU and USA between which many projects of social inclusion. Such projects are especially important for countries such Serbia. "Microfinance is one of the most important questions for reduction of the unemployment and poverty. Also, the foreign investments would be much higher when it would be established a law regulation on this segment of investment. Microcredits are Serbia could be more effective by adequate Law for Microfinance; it would bring more security, and the risk costs would be lower." (Dr. Aleksandar Granac, coordinator of the forum on SMEs, Chamber of Commerce and Industry of Serbia)

In EU countries, in last period started with the global promotion of this type of financing SMEs. Some of the members of the EU created a special program to help the new enterprises, the model which they are using are the models of microfinance. In practice, there are many investing funds, which are following this model. The total amount of EU investment through the microfinance in up to 1.5 million euros in last two years, which was available for 121270 SMEs. Furthermore, just in England after the period of crisis started new 3.5 million SMEs, most of them

were the young entrepreneurs, the smaller part of the entrepreneurs where the older citizens without a job. Most of this new businesses use the microfinance for their enterprise financial support (Chamber of Commerce and Industry of Serbia 2016).

Table 6. Microcredit Institutions in Serbia

	Year	of Status	Gross	Deposits	Number
	implementa	ation	Loan		of active
			Portfolio		borrowers
ProCredit	2001	Bank	618.4	461.6	85'889
Serbia					
OBS	2002	Bank	43	27.7	9'145
AgroInvest	1999	NBFI	15.7	0	15'577
MDF	2001	NGO	3.8	0	2'227
MicroFinS		No data a	vailable (smai	ller than MDF)	
DBS					

Source: Mixmarket

Banks are legally constrained to lend only to registered activities and people with official income or collateral: otherwise, they must provision 100% of loans they provide. They have a large geographical coverage with a small in-depth outreach. Banks are reluctant to downscale to poor and very poor households: very high transaction costs coupled with small transaction size makes it very difficult for them to cover their costs in rural and remote areas where borrowers are seen as very risky profile. Today, only two commercial banks are active in the microfinance sector: ProCredit Serbia (more on SMEs and private individuals: 7.5 k USD average outstanding loan) and Opportunity Bank Serbia – OBS (micro and SME lending: 4.7 k USD average outstanding loan). As a comparison, AgroInvest average outstanding loan is 1 k USD and MDF 1.7 k USD (CoopEst 2012).

The microfinance market remains underserved as AgroInvest is far the first MFI in the country; it evaluates the potential gross loan portfolio to 355 M EUR on about 350'000 clients (CoopEst 2012). MFIs are seen as close to their clients, providing them training, education, and support, devoting a fixed percentage of their income to social programs (children, schools, hospitals, disabled people, communities, etc.). They bear the currency risk by putting no foreign exchange clause in their contracts with clients.

"MFIs are not regulated or supervised, and there is no dedicated microfinance regulation in Serbia" (CoopEst 2012), in same report it is mentioned that only banks are allowed to provide credit and MFIs must only lend through their single partner banks. The three existing MFIs thus signed a partnership with the same bank: PBB<sup>9</sup>. MFIs sign deposits with their partner bank equivalent to the amount of portfolio lent by the bank. The role of partner banks is limited to providing loans; MFIs keep the operational relationship with their clients.

Following the report of AgroInvest, in 2010, the total potential number of borrowers would be 347 454 and related gross loan portfolio around 355 million EUR. What shows a strong need for that is still unfulfilled by banks and microfinance companies, particularly in rural and periurban areas.

In the same report, the agricultural sector employs 17% of the total population for 9.5% of GDP (decreasing from 13% in 2002). Livestock agriculture represents 43% of agriculture, farming 42% and fruit & wine 12% (Agroinvest 2012). Agricultural production increases slowly because of a lack of investment in knowledge and technology transfer, a market still dominated by small

<sup>&</sup>lt;sup>9</sup> AgroInvest is actually planning to change from PBB to Société Générale. Discussions are ongoing and the expected advantages for AgroInvest are lower costs and better geographical coverage and outreach.

farms, the absence of common and international standards and procedures for health food safety (AgroInvest BP, 2016).

## 4.6 Data description

To get more information about the enterprise in Serbia we used the Survey data from the World Bank data survey. The survey on enterprises was conducted by the World Bank in more than 100 countries with a standardized methodology in the last 10 years. The survey provides information on enterprise in Serbia, between January 2013 and August 2013 as part of the fifth round of the Business Environment and Enterprise Performance Survey (BEEPS V), a joint initiative of the World Bank Group ("WB") and the European Bank for Reconstruction and Development ("EBRD").

The survey can more precisely explain the Serbian's firm position, their potential for growth and environment in which they currently operate. This is the fourth time of this type of survey in Serbia, most of the participant in the survey are well-known with the survey, and it purpose (The World Bank, 2014). In this survey are interviewed firms from four regions in Serbia (Belgrade, Sumadija, and western Serbia, southern and Eastern Serbia, Vojvodina) the biggest number of the observed firm are working in the area of manufacturing and service sectors. In our analysis, we will use the data for the last survey year (2013). The objective of this survey was to collecting information and estimations about the business environment in Serbia. The data collected in the survey is a help to "develop new policies and programs that enhance employment and economic growth." (The World Bank, 2014)

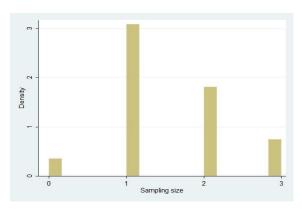
The information in which I was mainly interested is related to the size of the enterprise and the ability to obtain credit from a financial institution. The dataset contains the information on

micro, small, medium and large enterprises (Appendix 1, Table 1). Also, wanted to see the number of the enterprises which are getting financially supported, through some type of the financial institution (private bank, state-owned bank, etc.) (Appendix 1, Table 2). By the information from the dataset we got that, just 195 enterprises from 360 observed get a loan from the financial institution. The number of 162 enterprises do not get a loan from any financial institution, trough dataset we could see some reason for not having a financial support. (Appendix 1, Table 2) Furthermore, through the survey, we could see the opinion of the enterprises about the importance of the financial support for their work. (Appendix 1, Table 3)

The regression on the data set will show the correlation between the existing credit or loan of the enterprise and the size of the enterprise, average collateral needed to obtain credit, the age of the enterprises, etc.

Table 7. Size of the enterprises

Sampling size	Freq.	Percent	Cum.
Micro<5	22	6.11	6.11
Small >=5 and <=19	182	50.56	56.67
Medium >=20 and <=99	109	30.28	86.94
Large >=100	47	13.06	100.00
Total	360	100.00	



# 4.7 Analysis Model

In order to investigate the factors that influence the probability of obtaining a credit from financial institutions, it will be used a linear regression analysis (OLS) and Probit analysis. The dependent variable which will take into account whether the company has a loan for some of the financial institution, and as independent variable it will be used the number of performers associated with the characteristics of the enterprises, the conditions for lending and other variables that will result from the theoretical framework of the survey. In consideration of the variables for the regression, are used the most common criteria of the financial institutions during the evaluation of the enterprise ability for credit repayment. During the assessment of the "Capital rules for commercial banks" (p. 29), most of the banks are checking for:

- Size of the enterprise (meaning the number of employees, revenues, etc.)
- Work experience of the enterprise
- Productivity of the enterprise, yearly amounts of production and efficiency
- Human resources, meaning the potential capacity of the workers, their education, and experience

Besides those characteristics, the financial institutions also evaluate the potential collateral of the clients, as an insurance due to fall in repayment, and the need of the client for the loan, which is checked by the appropriate business plan of the enterprise. In the regression model, it will be included all does variables. Building three independent models. In the first model, we will be able to see the correlation of the loan (as a dummy variable) and the characteristics of the enterprises such as Size (log number of employees), experience (Age of working of the enterprise) and productivity (total annual sale of the enterprise). In the second model, we will be able to see the

same variables in Probit model; the Probit model<sup>10</sup> will help as to see the binary outcomes of the variables. The third model will show the correlation and the significance of the variables, such as need (how much the entrepreneurs consider the lack of credit as an obstacle for the enterprise) and the collateral (the requirement of collateral for a loan).

- 1. OLS: Loan =  $\alpha + \beta 1 \log \text{Size} + \beta 2 \text{ Age of working} + \beta 3 \log \text{Sale} + \beta 4 \text{ Education}$
- 2. Probit: Loan =  $\alpha + \beta 1 \log \text{Size} + \beta 2 \text{ Age of working} + \beta 3 \log \text{Sale} + \beta 4 \text{ Education} + \epsilon$
- 3. OLS: Loan =  $\alpha + \beta 1$  log Size +  $\beta 2$  Potential need for credit +  $\beta 3$  log age of working +  $\beta 4$  collateral

*Credit/Loan* – Dependent variable used to show the probability of getting (having) a loan from a financial institution. Using the survey question "At this time, does this establishment have a line of credit or a loan from a financial institution?" (The world Bank Enterprise Survey, 2013). We could get the number of companies which had a loan. I have been interested to see does the probability that the company has or has not a loan. Therefore, I created a dummy on the regression, with the values 0 – no loan record and 1- a loan record. Dropping the observations which did not have an answer (Appendix 1, Table 2.).

**Log\_Size** - To define the size of the enterprise we used the question related to the number of employees of a company. "At the end of the fiscal year 2012, how many permanent, full-time individuals worked in this establishment, labeled as Permanent, full-time workers end of last fiscal year" (The world Bank Enterprise Survey, 2013). At first, it was not a normal distribution on the valuable, and the results on distribution were much better by using the log (Appendix 1, Table 4).

<sup>&</sup>lt;sup>10</sup> IDRE, "Probit regression, also called a probit model, is used to model dichotomous or binary outcome variables. In the probit model, the inverse standard normal distribution of the probability is modeled as a linear combination of the predictors.", http://www.ats.ucla.edu/stat/mult\_pkg/faq/general/log\_transformed\_regression.htm

Age of working – conserving that the experience of the firm is important for its credit history, we wanted to see does the impact of the companies "years of working" on the probability of obtaining the credit. In the survey the enterprises are asked the question: "in what year was the establishment formally restarted?" (The world Bank Enterprise Survey, 2013). I used this variable in our regression as an independent variable. Before using it in regression, we dropped the unknown answers and decreased the number of the enterprise establishment for the year of survey, and we got the exact real number of the operating years of the enterprises (age of working=2013-year of registration). Surprisingly, the regression showed a negative coefficient of correlation between credit/loan and age of working, meaning that the older companies have a lower probability of having a credit record. To check does it refer to limited age of the companies, we used square on the variable, still the results was negative and significant at 1%.

Log\_Productivity – this variable represents the productivity of the enterprises. By the survey question "In the fiscal year 2008, what were this establishment's total annual sales for all products and services?" (The World Bank Enterprise Survey, 2013) the enterprises could replay by a support of financial reports, and the answers are experts in total numbers. The question related to the productivity of the companies in some cases might be manipulative, due to tax avoidance and evasion<sup>11</sup>. In our data, we could see a big number of companies reporting very small amounts of their annual sale. To avoid this data, it was used a Log on the variable, after which we had a normal distribution.

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<sup>&</sup>lt;sup>11</sup> Tax Avoidance and Evasion, "– Tax evasion: not reporting all of one's income. – Tax avoidance: complying with tax laws, but working hard to reduce one's tax burden within the constraints of the law (i.e. exploiting loopholes)" http://web.uvic.ca/~mfarnham/temp\_pdfs/T10\_taxevasion%20copy.pdf

The two additional variables used in third regression:

Dummy\_Need of loan – this is a category variable, which explains the opinion of the entrepreneurs on the financial obstacle. The question "To what degree is access to finance an obstacle to the current operations of this establishment?" (The world Bank Enterprise Survey, 2013). The entrepreneurs ranked their opinion by categories, with values; 0- no obstacle, 1- minor obstacle, 2- moderate obstacle, 3- major obstacle, 4 – very severe obstacle. In the regression, on this variable, I created a dummy variable, with two categories. Putting the answers 0, 1 and 2 as a "no obstacle", and 3 and 4 as "obstacles". Under assumption: if the entrepreneur concludes that lack of finance is an obstacle for its business, then the entrepreneur feels a need for financial support. Furthermore, it can be concluded the entrepreneur in the case of applying for financial support at a financial institution would show his need for financial support (Appendix 1, Table 3.).

*Dummy\_collateral* – this variable explains the relation of the collateral and financial support. Furthermore, it is showing the number of the clients who needed a collateral to absorption a financial support. In the survey question "Referring only to this most recent loan or line of credit, did the financing require collateral?" (The World Bank Enterprise Survey, 2013). During the survey in 195 observations, 112 answered with "yes," 82 answers was "no" and 1 with "don't know." In regression, the variable was used as a dummy variable. Dropping the answers "don't know" (Appendix 1, Table 5.).

# 4.8 Regression Results

In this section, I will interpret the results for the models described above, the additional models with additional control variables could be seen in Appendix 1, Table 4. The regression results in the tables below will answer the question of the enterprise probability for loan. The main

focus is set on the correlation between loan record as a dependent variable and size of enterprise as an independent variable.

Table 8. Regression results

	(1)	(2)
	Linear regression	Probit
VARIABLES	Loan/Credit	Loan/Credit
Log_Size	0.070**	0.073**
	(0.029)	(0.030)
Age of working	-0.004***	-0.004***
	(0.001)	(0.001)
Log_Productivity	0.020	0.022
	(0.020)	(0.020)
Education	0.048	0.022
	(0.117)	(0.121)
Constant	0.177	
	(0.293)	
Observations	287	287
R-squared	0.090	
Standard errors in p	parentheses	
*** p<0.01, ** p<0	.05, * p<0.1	

# **Interpretations:**

The interpretation of the results for Table 8. In Probit regression (estimation of marginal effect at mean):

- If we compare two enterprises, which are same in the terms of; the age of working (experience of work), the amount of total annual sale of products or services, and the number of high educated employees. But differed in the terms of the number of full-time employees. The enterprise which increases the number of employees for 1%, of the total number of full-time employees, is associated with 0.073 percentage points increase in probability of obtaining a credit/loan from a financial institution. With significance level at 5%.
- If we compare two enterprises, which are same in the terms of; the number of full-time employees, the amount of total annual sale of products or services, and the number of high educated employees. But differed in the terms of age of the working of the enterprise. The enterprise which has for 1 year more experience, is associated with -0.4 percentage point decrease in probability of obtaining a credit/loan from a financial institution. With significance level at 1%.
- The other variables showed a non-significant result in the model.

If we look back on the model, we could see the positive correlation of the credit/loan for a financial institution and the number of employees; this could means that the enterprise which is bigger have a higher probability of obtaining a credit, what confirmed our claim that the smaller enterprises are less likely to obtain a loan than larger companies. Regarding the small coefficient,

let image a company with 10 workers, the increase in the work force for 100% would just double the size of the company meaning that the company would have 20 workers. The company would still stay in SMEs sector (Appendix 1, Table 7). Nevertheless, the size of the coefficient is experts with 1% increase of labor force, which is not meaningful increase.

Concerning the dependent variables, in model I included two of them. In appendix 1, Table 7, are the models which include more controlled variables, after introducing more variables the model is losing a significance level. In my opinion, to this problem maybe came because of the small data sample, or interruptions during the survey, knowing that the surveys are easier to do with the large companies.

Another surprising result came with the negative coefficient on the experience of the enterprise. It would be expected that the enterprises are more likely to obtain a credit if they are working longer, due to sustainability and long-term strategy. Still, the negative correlation, in my opinion, could have two implications; this can be a good indicator of the credit history of the enterprises in Serbia, meaning that the enterprises which are working longer have a problematic credit history which decreases their probability of obtaining an additional loan. Another explanation may come from the fact that on the market have been introduced several policies for stimulating the finance of new enterprises. Still, as much as this two claim sound possible, we cannot be sure on them, considering the size of data, and the very small coefficient. Also, there might be other implications, such, that more experience companies are more cautious in involving the bank's contracts. In Table 10. Are also presented the results of the OLS regression which is similar to Probit regression.

	(6)
	Linear regression
VARIABLES	Credit/Loan
Log_Size	0.043***
	(0.016)
Dummy_Need for loan	0.116**
	(0.045)
Age of working	-0.002*
	(0.001)
Dummy_collateral	0.472***
	(0.042)
Constant	0.317***
	(0.067)
Observations	300
R-squared	0.372
Robust standard errors in parenth	neses
*** p<0.01, ** p<0.05, * p<0.1	

The interpretation of the results for Table 9.

- If we compare two enterprises, which are same in the terms of; their need for loans, the age of working (experience), and the amount of collateral necessary for financial support. But differed in the terms of the number of full-time employees. The enterprise which increases the number of employees for 1% of the total number of employees, is associated with 0.043

percentage point higher probability of obtaining a credit/loan from a financial institution. With significance level at 1%.

- If we compare two enterprises, which are same in the terms of; the number of full-time employees, the age of working (experience), and the amount of collateral necessary for financial support. But differed in the need for a loan. The enterprise which has a higher need for a loan by 1%, is associated with 11.6 percentage point higher probability of obtaining a credit/loan from a financial institution. With significance level at 5%.
- If we compare two enterprises, which are same in the terms of; the number of full-time employees, their need for loans, and the amount of collateral necessary for financial support. But differed in the terms of age of the working of the enterprise. The enterprise which has the experiance higher for 1 year, is associated with -0.2 percentage points decrease in the probability of obtaining a credit/loan from a financial institution. With significance level at 10%.
- If we compare two enterprises, which are same in the terms of; the number of full-time employees, their need for loans, and age of working (experience). But differed in the terms of the amount of collateral necessary for financial support. The enterprise which has higher collateral by 1%, is associated with 47.2 percentage point higher probability of obtaining a credit/loan from a financial institution. With significance level at 1%.

In this model, we can see some similarities with the previous model, the coefficient on the  $log\_size$  is very similar as in previous regression. Furthermore, we can see a strong positive correlation between the variable of collateral; this is supporting the claim of the necessity of collateral for a credit application. Furthermore, in Appendix 1, table 7, in all models, the variables

of collateral showed positive significant results on the probability of getting a loan, what imply the strong correlation of those variables.

### 4.9 Evaluation

Concerning the above regressions, we could see a probability of the enterprises for credit record in Serbia during the year 2013. We saw that the companies are more likely to obtain credit with a bigger number of workers. Basically meaning, if we compare two companies which are same in all other indicators by one of them have a higher number of permanent, full-time employees for 1%, this enterprise is expected to have a higher probability to get a loan from the financial institution. The coefficient stayed significant even with some control variables.

# Conclusion

The financial support for SMEs is a major factor for sustainability, development and growth of the enterprise sector in Serbia. The sector is well spared and has a significant influence on the other areas of the economy. Therefore, the financial support to this sector should be easily approachable, equally distributed and flexible for changes into the market. Currently, the sources of the financial support are very limited and restrictive to certain conditions of the enterprises. The homogeneity on the market is imputed by the law regulations in 2006, giving to bank sector an exclusive power in controlling the investments into the enterprise sector. By the regression results we saw that the banks are more genial to cooperate with the bigger enterprises, creating a gap in the sector, and leaving the SMEs vulnerable without other sources of finance. Additional, results of the analysis showed a single-minded practice of the bank in considering a collateral of the enterprises as a crucial factor for a loan. Comparing with the microfinance which has a much more flexible approach and does not consider collateral as the main factor for crediting the enterprise.

From the examples of Bosnia and Herzegovina we had a chance to see how the microfinance work in the neighbor country, its regulations and results. Some of the evaluated results from microfinance in BIH are the; increase in the self-employment, increase of the labor supply for youth, increase in profits of households, from the socio-economic perspective the increase in the standard of leaving is crucial.

Considering that conditions in Serbia are very similar to the conditions in BIH. Currently, the main challenges the Serbian economy are the high unemployment, weak business development and lack of investments in the business sector. The microfinance is targeting this indicator, and it could significantly influence the economy, such as; increase in the portfolio of the MFI would

increase the investment flow, the attraction for new EU and international funds for microfinance, additional technical support for "less developed" sectors, expanding the sector thought the international cooperation.

In conclusion, the potential for economic growth should be in the variety of opportunities toward all subjects of the economy, not just towards the selective group. Considering all countries even the most powerful ones "Entrepreneurs and their small enterprises are responsible for almost all the economic growth in the United States." (Entrepreneur 2016) Quotation of American president Ronald Reagan (1981-1989), in the period of biggest economic boom in the US.

# **Policy recommendations**

Microfinance as a financial model has a long sustainable background. Since its inception, it changed and adapted and today is well-known to researchers, policy-makers and clients. It has a good theoretical and practical background, which can be used for building sustainable financial tools for financial support in Serbia. The conditions in Serbia are in favor of microfinance, considering the high self-employment and socio-economic structure. Also, the enterprises are in need of new sources of finance, due to the gap in the supply of the financial support. Banks, as the only source of finance, underestimate the potential of SMEs. However, if we considering the big number of SMEs (86% of the industry) and their influence on unemployment, revenues and domestic production, which are also challenges of the Serbian economy, the additional finance could create economic prosperity. For reaching this goal, the following recommendations should be considered:

- 1. *Understanding the environment:* The policy makers should be aware of the potential of microfinance in the Serbian market. The number and the uniqueness of the small enterprises makes the financial market specific and with great potential for the overall devlopment. The current typical financial sources are not properly considering the uncharacteristic system of SMEs.
- 2. **Reflect on the loss:** On one hand, the country currently creates a significant budget loss on expenditures for social security on unemployment and social project for raising the employment rate. On another hand, the opportunity loss of neglecting the SMEs is vital for the economy. The country is losing a significant amount from extra revenues for taxes, investment flow, and domestic industry production.

- 3. *Follow the European trend:* Considering that microfinance is in the strategic plan of the EU and that almost all countries in the region are engaged in the development of microfinance. Serbia could be put on the map of the microfinance development and create an opportunity for collaboration with the region.
- 1. Strategic development of the sector: Involvement of the policy makers into the market through research, analyses and discussion with entrepreneurs, would give a more precise picture of the enterprise situation in Serbia, which will create a possibility for a long-term strategic plan in the enterprise sector.

All those activities should contribute to the implementation of a new Law on Microfinance and on modification in the current Law regulations, which would allow independent work of the MFIs. In this way, the law would give to micro-entrepreneurship a new source of finical support. Similar policy change we saw in case country (BIH), which resulted in a positive outcome such; increase in the self-employment, an increase of the labor supply for youth, increase in profits of households, and improvement in the life standard. Considering that Serbia already has developed high self-employment the demand for microfinance is much higher, thereby the effect will be expected to be more significant.

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# Appendix 1

Table 1.

Sampling size	Freq.	Percent	Cum.
Micro<5 Small >=5 and <=19	22	6.11 50.56	6.11
Medium >=20 and <=99 Large >=100	109 47	30.28 13.06	86.94 100.00
Total	360	100.00	

# Table 2.

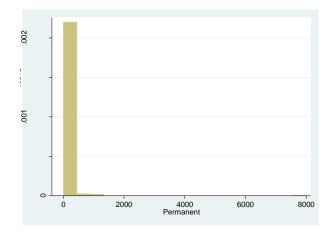
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Line of			
credit or a			
loan from a			
financial			
institution			
?	Freq.	Percent	Cum.
Don't know	3	0.83	0.83
Yes	195	54.17	55.00
No	162	45.00	100.00

Table 3.

Access to finance - obstacle to current operations	Freq.	Percent	Cum.
Don't know	2	0.56	0.56
No obstacle	149	41.39	41.94
Minor obstacle	73	20.28	62.22
Moderate obstacle	7 4	20.56	82.78
Major obstacle	45	12.50	95.28
Very severe obstacle	17	4.72	100.00
Total	360	100.00	

# Table 4.



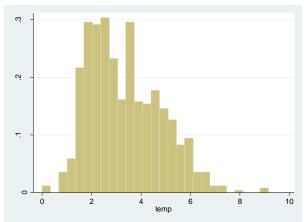


Table 5.

Collateral required for the most recent line of credit/loan			
?	Freq.	Percent	Cum.
Refused Yes No	1 112 82	0.51 57.44 42.05	0.51 57.95 100.00
Total	195	100.00	

# Table 6.

. tab k9

	Type of financial institution the			
	granted the most recent line	of		
	credit	/lo Fr	eq.	Percent
>	Cum.	I		
> -		T		
	Private commercial bas	nks	179	91.79
>	91.79			
Sta	ate-owned banks or government age:	гсу	10	5.13
>	96.92			
	Non-bank financial institution	ons	2	1.03
>	97.95			
	Otl	ner	4	2.05
>	100.00	1		
> -				
	То	:al	195	100.00

Table 7.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
VARIABLES	credit	credit mfx dydx	credit	credit	credit	credit	credit	credit	credit	credit mfx dydx
										<i>a. y a.</i> 12
Log_Size	0.069**	0.073**	0.067***	0.066***	0.091***	0.043***	0.019	0.020	0.019	0.040
	(0.030)	(0.031)	(0.017)	(0.017)	(0.017)	(0.016)	(0.025)	(0.026)	(0.026)	(0.047)
Dummy_Need for loan				0.194***	0.206***	0.116**	0.116**	0.115**	0.112**	0.213**
				(0.053)	(0.052)	(0.045)	(0.046)	(0.046)	(0.046)	(0.083)
Age of working	-0.004***	-0.004***			-0.004***	-0.002*	-0.002**	-0.002**	-0.001	-0.005**
	(0.001)	(0.001)			(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.002)
Dummy_collateral						0.472***	0.455***	0.455***	0.455***	
						(0.042)	(0.043)	(0.043)	(0.043)	
Log_Productivity	0.022	0.024					0.024	0.024	0.024	0.051
	(0.021)	(0.021)					(0.017)	(0.017)	(0.017)	(0.031)
Education	0.053	0.028						0.026	0.025	-0.009
	(0.114)	(0.113)						(0.095)	(0.096)	(0.184)
Sq_age									-0.000	
									(0.000)	
Constant	0.150		0.455***	0.347***	0.338***	0.317***	-0.020	-0.016	-0.040	
	(0.312)		(0.075)	(0.080)	(0.078)	(0.067)	(0.252)	(0.253)	(0.259)	
Observations	Collection 84	284	300	300	300	300	284	284	284	150
R-squared	€.092		0.052	0.097	0.130	0.372	0.371	0.372	0.372	

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## **Appendix 2**

Table 1. Banks in Serbia

Number of banks registered by the National Bank (03/2015): 30

## 1. AGROINDUSTRIJSKO KOMERCIJALNA BANKA AIK BANKA AKCIONARSKO DRUŠTVO, BEOGRAD Adresa: Beograd, Bulevar Mihaila Pupina 115 đ Telefon: (381)011/202-9050 Fax: (381) 011/3129-787 Predsednik Izvršnog Jelena Galić od bora: Dozvola za rad: Rešenje NBJ O. br. 194 od 28.6.1993. godine 2. ALPHA BANK SRBIJA AD BEOGRAD (VRAČAR) Adresa: Kralja Milana 11, 11000 Beograd Telefon: (381) 011/3302-782, 011/3409-545 Fax: (381) 011/3243-516 Predsednik Izvršnog Georgios Papanastasiou odbora: Dozvola za rad: Rešenje NBJ O. br. 210 od 3.7.1991. godine 3. BANCA INTESA AKCIONARSKO DRUŠTVO BEOGRAD (NOVI BEOGRAD) Adresa: Milentija Popovića 7b, 11000 Beograd Telefon: (381) 011/2011-200 Fax: (381) 011/2011-207

Predsednik Izvršnog odbora:	Draginja Đurić
Dozvola za rad:	Rešenje NBJ O.br. 274 od 19.9.1991. godine
4. <u>BANKA POŠTANS</u>	SKA ŠTEDIONICA AKCIONARSKO DRUŠTVO, BEOGRAD
(PALILULA)	
Adresa:	Kraljice Marije 3, 11000 Beograd
Telefon:	(381) 011/2020-292
Fax:	(381) 011/3376-777
Predsednik Izvršnog	Srđan Cekić
odbora:	
Dozvola za rad:	Rešenje NBJ G.br. 5012 od 21.11.2002.godine
5. CREDIT AGRICOL	LE BANKA SRBIJA AKCIONARSKO DRUŠTVO NOVI SAD
Adresa:	Braće Ribnikar 4-6, 21000 Novi Sad
Telefon:	(381) 021/4876-876
Fax:	(381) 021/4876-976
Predsednik Izvršnog	Carlos de Cordoue
odbora:	
Dozvola za rad:	Rešenje NBJ O. br. 36 od 10.12.1991. godine
6. ERSTE BANK AKO	CIONARSKO DRUŠTVO, NOVI SAD
Adresa:	Bulevar oslobođenja 5, 21000 Novi Sad
Telefon:	0800/201-201; (381) 011/2015-005
Fax:	(381) 021/4809-700

Predsednik Izvršnog	Slavko Carić
odbora:	
Dozvola za rad:	Rešenje NBJ O. br. 202 od 20.12.1989. godine
7. Eurobank akcionars	ko društvo Beograd
Adresa:	Vuka Karadžića 10, 11000 Beograd
11010001	valia izaradzioa 10, 11000 Boograd
Telefon:	0800/111-144, (381) 011/2065-881
Fax·	(381) 011/3027-536
I ax.	(301) 011/3027-330
Predsednik Izvršnog	Filippos Karamanolis
odbora:	
Dozvola za rad:	Rešenje NBJ G.br. 633 od 21.10.1997. godine
8. <u>FINDOMESTIC BA</u>	ANKA AD BEOGRAD (NOVI BEOGRAD)
Adresa:	Bulevar Mihaila Pupina 115a, 11000 Beograd
	-
Telefon:	(381) 011/3331-733
Fax:	(381) 011/3331-766
2 44.1	(651) 611/6661 7 66
Predsednik Izvršnog	Ljiljana Petrov
odbora:	
	D x : ND x G1
Dozvola za rad:	Rešenje NBJ G.br. 474 od 22.5.1995.godine
O HALIZDANIZ -1.	maraka denyétnya Dagaran
9. HALKBANK akcio	narsko društvo Beograd
Adresa:	Bulevar Milutina Milankovića 9ž, 11000 Beograd
Telefon:	(381) 011/2041-800
Fax:	(381) 011/2041-800

Predsednik Izvršnog odbora:	Kenan Bozkurt
Dozvola za rad:	Rešenje NBJ O. br. 328 od 26.12.1990. godine
22.10.2015. godin	e, Čačanska banka a.d. Čačak je promenila svoje poslovno ime u
	HALKBANK akcionarsko društvo Beograd
10. HYPO ALPE-ADE	RIA-BANK AD BEOGRAD
Adresa:	Bulevar Mihajla Pupina 6, Beograd
Telefon:	(381) 011/2226-000
Fax:	(381) 011/2226-555
Predsednik Izvršnog	Zoran Vojnović
odbora:	
Dozvola za rad:	Rešenje NBJ O.br. 38 od 27.02.1991.godine
11. JUBMES BANKA	AD BEOGRAD (NOVI BEOGRAD)
Adresa:	Bulevar Zorana Đinđića 121, 11070 Novi Beograd
Telefon:	(381) 011/2205-500
Fax:	(381) 011/3110-217
Predsednik Izvršnog	Miloš Vujnović
odbora:	
Dozvola za rad:	Rešenje NBJ G. br. 628 od 20.10.1997. godine
12. JUGOBANKA JU	GBANKA AD KOSOVSKA MITROVICA
Adresa:	Kralja Petra I 165, 28000 Kosovska Mitrovica
Telefon:	(381) 028/425-454
Fax:	(381) 028/425-452

Predsednik Izvršnog	Draško Knežević
odbora:	
Dozvola za rad:	Rešenje NBJ O. br. 82 od 3.4.1991. godine
13. KBM BANKA AK	CCIONARSKO DRUŠTVO, KRAGUJEVAC
Adresa:	Kralja Petra I 26, 34000 Kragujevac
Telefon:	(381) 034/335-617
Fax:	(381) 034/336-175
Predsednik Izvršnog	Dragan Lazarević
odbora:	
odboru.	
Dozvola za rad:	Rešenje NBJ O br. 209 od 03.07.1991. godine
14. KOMERCIJALNA	A BANKA AD, BEOGRAD (VRAČAR)
Adresa:	Svetog Save 14, 11000 Beograd
Telefon:	(381) 011/3080- 100
Fax:	(381) 011/3441-335
Predsednik Izvršnog	Alexander Picker
odbora:	
Dozvola za rad:	Rešenje NBJ O.br. 206 od 3.7.1991. godine
15. MARFIN BANK	AKCIONARSKO DRUŠTVO, BEOGRAD (PALILULA)
Adresa:	Dalmatinska 22, 11000 Beograd
Telefon:	(381) 011/3306-300; 011/3306-461
Fax:	(381) 011/3241-448

Predsednik Izvršnog odbora:	Borislav Strugarević		
Dozvola za rad:	Rešenje NBJ O.br. 269 od 12.11.1990. godine		
16. Mirabank akcionar	sko društvo Beograd-Novi Beograd		
Adresa:	Španskih boraca 1		
Telefon:	(381) 011 63 55 400		
Fax:	(381) 011 63 55 404		
Predsednik Izvršnog odbora:	Ilinca Rosetti		
Dozvola za rad:	Rešenje NBS IO br. 58 od 16.12. 2014. godine		
Banka je upisana u	Banka je upisana u Registar privrednih subjekata Rešenjem APR BD 8779 od 5.2.2015.		
	godine.		
17. mts banka akciona	rsko društvo, Beograd		
Adresa:	Bulevar Franše D Eperea 88, 11000 Beograd		
Telefon:	(381) 011/6557-338		
Fax:	(381) 011/3657-006		
Predsednik Izvršnog odbora:	Dejan Marković		
Dozvola za rad:	Rešenje NBJ O. br. 329 od 26.12.1990. godine		
18.5.2015. godine, Dunav banka a.d. Beograd je promenila svoje poslovno ime u mts banka			
akcionarsko društvo, Beograd.			
18. NLB BANKA AD	18. NLB BANKA AD, BEOGRAD		
Adresa:	Bulevar Mihaila Pupina br. 165v, 11000 Beograd		
Telefon:	(381) 011/2225-100		
Fax:	(381) 011/2225-194		

Predsednik Izvršnog	Branko Greganović
odbora:	
<b>D</b> 1 1	D v : NDv 0.1 105 100 05 1001
Dozvola za rad:	Rešenje NBJ O.br. 197 od 03.07.1991.godine
19. OPPORTUNITY I	BANKA AD, NOVI SAD
Adresa:	Bulevar oslobođenja 2a, 21000 Novi Sad
Telefon:	(381) 021/530-111
Fax:	(381) 021/4893-101
Predsednik Izvršnog	Vladimir Vukotić
odbora:	
Dozvola za rad:	Rešenje NBS G.br. 2683 od 7.02.2007. godine
20. OTP BANKA SRE	BIJA AKCIONARSKO DRUŠTVO, NOVI SAD
Adresa:	Bulevar oslobođenja 80, 21000 Novi Sad
Telefon:	(381) 021/4800-000
Fax:	(381) 021/4800-032
Predsednik Izvršnog	Imre Bertalan
odbora:	
Dozvola za rad:	Rešenje NBJ G.br. 415 od 5.5.1995. godine
21. PIRAEUS BANK	AKCIONARSKO DRUŠTVO BEOGRAD (NOVI BEOGRAD)
Adresa:	Milentija Popovića 5b, 11000 Beograd
Telefon:	(381) 011/3024-000
Fax:	(381) 011/3024-040

Predsednik Izvršnog	Vojislav Lazarević
odbora:	
Dozvola za rad:	Rešenje NBJ G.br. 792 od 1.09.1995 godine
22. PROCREDIT BAN	NK AD, BEOGRAD (NOVI BEOGRAD)
Adresa:	Milutina Milankovića 17, 11000 Beograd
Telefon:	(381) 011/2077-906
Fax:	(381) 011/2077-905
Predsednik Izvršnog	Svetlana Tolmačeva Dingarac
odbora:	
Dozvola za rad:	Rešenje NBJ G.br. 538 od 05.04.2001.godine
23. RAIFFEISEN BAI	NKA AD BEOGRAD
Adresa:	Đorđa Stanojevića 16, 11070 Novi Beograd
Telefon:	(381) 011/3202-100
Fax:	(381) 011/3346-033
Predsednik Izvršnog	Zoran Petrović
odbora:	
Dozvola za rad:	Rešenje NBJ G.br. 318 od 09.03.2001. godine
24. Sberbank Srbija a.	d. Beograd
Adresa:	Bul. Mihajla Pupina 165g, 11000 Beograd
Telefon:	(381) 011/2013-200
Fax:	(381) 011/2017-056

Predsednik Izvršnog odbora:	Valeriy Ovsyannikov
Dozvola za rad:	Rešenje NBJ O. br. 352 od 17.12.1991.godine
25. SOCIETE GENER	ALE BANKA SRBIJA AD, BEOGRAD
Adresa:	Bulevar Zorana Đinđića 50a/b, 11070 Novi Beograd
Telefon:	(381) 011/3011-400
Fax:	(381) 011/3132-885
Predsednik Izvršnog	Maria Rousseva
odbora:	
Dozvola za rad:	Rešenje NBJ O. br. 293 od 14.12.1990. godine
26. <u>SRPSKA BANKA</u>	AD BEOGRAD (SAVSKI VENAC)
Adresa:	Savska 25, 11000 Beograd
Telefon:	(381) 011/3607-2 00, 011/3607-337
Fax:	(381) 011/2646-855
Predsednik Izvršnog	Vesna Jokanović
odbora:	
Dozvola za rad:	Rešenje NBJ G. br. 920 od 4.11.1996. godine
27. TELENOR BANK	A AD BEOGRAD (NOVI BEOGRAD)
Adresa:	Omladinskih brigada 90v, 11000 Beograd
Telefon:	(381) 011/4409-670
Fax:	(381) 011/4409-650

Predsednik Izvršnog	Martin Navratil		
odbora:			
D 1 1	D x : NDLC1 246 12441006 1:		
Dozvola za rad:	Rešenje NBJ G.br. 346 od 24.4.1996.godine		
Od 9.5.2014. godine,	Od 9.5.2014. godine, KBC Banka a.d. Beograd je promenila svoje poslovno ime u Telenor		
	banka a.d. Beograd.		
28. <u>UNICREDIT BAN</u>	IK SRBIJA A.D., BEOGRAD (STARI GRAD)		
Adresa:	Rajićeva 27-29, 11000 Beograd		
Telefon:	(381) 011/3204- 500, 011/3777-888		
Fax:	(381) 011/3342-200		
Predsednik Izvršnog	Alen Dobrić		
odbora:			
Dozvola za rad:	Rešenje NBJ G.br. 1437 od 2.7.2001.godine		
29. <u>VOJVOĐANSKA</u>	BANKA AKCIONARSKO DRUŠTVO NOVI SAD		
Adresa:	Trg slobode 7, 21000 Novi Sad		
Telefon:	(381) 021/4886-600, 011/2228-481		
Fax:	(381) 021/6624-859		
Predsednik Izvršnog	Marinos Vathis		
odbora:			
Dozvola za rad:	Rešenje NBJ O. br. 218 od 20.12.1989. godine		
30. VTB Banka akcior	narsko društvo Beograd		
Adresa:	Balkanska 2, 11000 Beograd		
Telefon:	(381) 011/3952-213		
Fax:	(381) 011/3952-240		

Predsednik Izvršnog	Markus Ferstl
odbora:	
Dozvola za rad:	Rešenje NBS G. br. 4164 od 13.5.2008. godine