Impact of the Financial Structure on the Efficiency of Entrepreneurs in Serbia

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ABSTRACT

The development of entrepreneurship has been very important for the economic growth of most countries in the world, in the recent years. However, starting up new business and its development to a successful stable organization is faced with a number of problems and limitations. Financing is a very serious problem for the countries in transitions. Surveys, conducted in Serbia by the National Agency for Regional Development, have shown that Serbian entrepreneurs have been faced with a number of financial problems which have directly affected their efficiency. This paper investigated whether the problems in financial management (especially problems that depend on the changes to financial structure) had a major impact on the efficiency of entrepreneurs in Serbia. The aim of this paper was to identify the key financial problems that entrepreneurs in Serbia were facing with in the previous period and propose actions whose implementation may lead to their reduction or elimination in the future. Using a sample of more than 13000 entrepreneurs in Serbia (based on the data from the Serbian Business Registers Agency) in the period from 2004 to 2014, we found that extremely large impact on the efficiency of entrepreneurs in Serbia had big financial expenses and a high level of financial risk. Applying the correlation analysis we showed that the growth of long-term debt and related financial expenses caused the reduction of efficiency of entrepreneurs in Serbia. Regression analysis showed that the increase in indebtedness significantly contributed to the increase in inefficiency and bankruptcy of large number of entrepreneurs in Serbia.

INTRODUCTION

Entrepreneurship, as the bringer of technological changes, new products and services, is one of the key driving forces for the global economy development. However, the development of entrepreneurship is not easy. Starting up a new business and its development to a successful stable organization is faced with a number of problems and limitations.
Except a certain number of general restrictions, every economic environment is characterized by a number of specific problems. This is particularly specific for the countries in transition, such as Serbia. Potential entrepreneurs are faced with a number of problems when they start a business, such as: difficulties in securing financial resources, a large number of administrative barriers, lack of skilled labor, lack of information about markets and technologies, etc. (Republic Agency for SME Development, 2012). Also, Serbia is characterized by an extremely high level of systemic risk (conditioned by political and legal instability), presence of gray market and emphasized corruption in all spheres of society, which create a huge number of problems (difficulty or inability to collect receivables, non-compliance with deadlines and other contractual obligations between business partners, non-compliance of raw material quality with the standards, presence of unfair competition etc.) for entrepreneurs (NARD, 2013). Unfavorable economic indicators, linked to the high rate of inflation, unstable exchange rate of domestic currency - dinar, low standard of living, additionally complicate entrepreneurial business, and reduce their competitiveness in domestic and foreign markets.

These and many other macroeconomic problems and the effects of the global economic crisis are severe limitations to the development of entrepreneurship in Serbia. However, a deeper analysis of running a business of entrepreneurs in the previous period shows that a large number of internal factors had the negative impact on the development of this sector. This primarily relates to wrong decisions that entrepreneurs have made in the previous period, which often resulted in the deterioration of performance of entrepreneurs or in the destruction of their business. The Results of the survey of entrepreneurs in Serbia show that the problems in financial management, caused by the characteristics of the financial structure, are identified as one of the key group of problems of entrepreneurs in Serbia for a number of years (Reports of the National Agency for Regional Development from 2010 to 2014). For these reasons, the characteristics of financial structure and its impact on efficiency of Serbian entrepreneurs in the period from 2004 to 2014 will be analyzed in this paper, in order to identify the key financial problems that entrepreneurs in Serbia were facing with in the previous period and to propose measures for their elimination in the future.

The paper will first give an overview of literature. The third part will explain the methodology, information base and research question. The fourth part will focus on discussion of results. The final part of the paper will present concluding remarks and recommendations for macroeconomic policy makers.

1. LITERATURE REVIEW

The development of entrepreneurship has a great importance for developed, and developing countries and transition economies. However, starting up new businesses and their development to a successful stable organization is faced with a number of problems and limitations. A large number of scientists have studied problems that entrepreneurs have been faced with, and critical success factors of entrepreneurs and SMEs (Bartlett and Bukvic, 2001, McMillian and Woodruff, 2002). According to the scientists, some of the most common problems when starting a business, are: the provision of seed capital (Arthur, 2003; Sievers and Vandenberg, 2007), market access (Mead and Liedholm, 1998; Fletcher, 2006), the provision of appropriate technologies (UNIDO, 2002), the provision of necessary materials (Mead and Liedholm, 1998), the lack of information about market opportunities, standards and regulations (Sievers and Vandenberg, 2007), the lack of knowledge and experience and so on.

In the countries in transition, there is a large number of additional problems and constraints for the development of entrepreneurship. These countries are characterized by high systemic risk caused by economic, political and legal instability that discourage the establishment of new businesses and cause a slow development of existing businesses (McMillian and Woodruff, 2002). Also, financing is a very serious problem for the countries in transitions (Leeds et al., 2003). Personal savings of population, in countries in transitions, is poor because the standard of living is
low. Profit of entrepreneurs is also low especially in the initial period. So entrepreneurs, who would like to develop their business have to use external sources of financing (debt), mainly bank loans. The increase of debt causes a change in the financial structure and can have a major impact on efficiency.

There are different explanations of the impact of financial structure on the efficiency of literature. The debate of optimal financial structure and its impact on business performance have been the focal point of the finance literature for previous several decades (Anil, Zenner, 2005). As it is known creation of financial structure based on various trades-offs between the costs and benefits of debt versus equity, and affects firm’s cost of capital and consequently its performance. But, financial theory have very little to say about the optimal level of debt financing (optimal financial structure) especially when it comes to entrepreneurs and SMEs (Almazan and Molina, 2005). The problem of developing a definitive theory of optimal financial structure and designing empirical tests those are powerful enough to provide a basis for choosing among the various theories is still unresolved. The available literature on leverage and profitability depicts a great deal of theoretical controversies. The theorists Berger and Udell (1998) and Romano et al. state that entrepreneurs have a preference of using internal sources of financing. The preferences are attributed to the cost gap between internal and external funds. This tendency portrays negative association between leverage and efficiency of the entrepreneur. This association is one of the most systematic findings in the empirical literature (Hung Albert and Addie, 2002). Their findings suggest that possible firms raise finance preferably from their internal sources rather than bank loans and debt issue. The external financing is their last resort. Maksimovik,(2001) documented that more profitable is firm, the lower the debt ratio’ regardless of how debt ratio is defined.

On the other hand in accordance with trade-off theory an opposite relationship may also be envisaged. The stated rational is when firms are profitable they prefer debt to benefit from the tax shield. Firms use debt financing to dilute their cost of capital due to low waited average cost of capital.. Engagement of low cost capital in productive investment avenues enables firms to magnify their profits.

The results of empirical research of the impact of the financial structure on efficiency are also very different. For example, Fama and French (1998) used a reprezenativ sample of US firms, concluded that the relationship between financial structure and firm efficiency was unreliable. Lemmon and Zender (2001) separated firms into two groups based on the foregone tax benefits associated with debt financing. They documented that a large fraction of firms are conservatively financed, and that neither the pecking order nor the trade off theory of capital structure adequately explain this result. Minton and Wruck (2002) found little evidence that the trade off theory explains the capital structure choices of low debt firms.

So empirical studies have very little to say about the impact of the financial structure on efficiency, particularly with regard to SMEs and entrepreneurs. For this reason, we will analyze this relationship with reference to entrepreneurs in Serbia.

2. RESEARCH METHODOLOGY, INFORMATION BASE AND RESEARCH QUESTIONS

The entrepreneurs in Serbia have been faced with a number of financial problems in the previous period. First of all, a serious problem for the entrepreneurs in Serbia was to provide sources of financing. Potential entrepreneurs, are often not able to provide large amounts of capital for business development due to the fact that the standards of living in Serbia is low. (at a startup period, and in the later stages). Since the workload is often low, entrepreneurs generally do not generate large profits, so they are not able to provide large amounts of capital from internal sources, and they are forced to use external sources of financing if they want to develop their businesses. Entrepreneurs mainly rely on short-term borrowed sources of financing (liabilities to suppliers, em-
ployee salaries and customers advance payments, etc.) that do not make the costs. However, these sources are often modest and insufficient, so entrepreneurs who want to develop their businesses are forced to use external long-term sources of financing. In the countries in transition, such as Serbia, the most commonly used long-term sources of financing are loans from banks because there are very few opportunities to replace them with other external sources of financing (Berger and Udell, 2006). Bank loans cause certain financing expenses. Since entrepreneurs have little financial capacity and they have trouble gaining bank confidence, these costs can be quite high (Shen et al., 2012).

In the period from 2004 to 2014, the sources of financing of Serbian entrepreneurs and financial expenses have been continuously increasing, conditioned by increased long-term liabilities. The movement of sources of financing and interest expense are shown in the following table.

**Table 1.** Sources of financing and interest expense of Serbian entrepreneurs in the period from 2004 to 2014 (at 000 din)

| Years | Equity | Long-term liabil. | Short-term liabil. | Total liabil. | Total sourc. | Interest expense | ROE |
|-------|--------|-------------------|-------------------|--------------|-------------|-----------------|-----|
| 2004  | 9723   | 608               | 15699             | 16307        | 26030       | 527             | 22.31|
| 2005  | 17616  | 1780              | 29397             | 31177        | 48793       | 1207            | 31.68|
| 2006  | 19951  | 3362              | 39081             | 42443        | 62394       | 1403            | 24.99|
| 2007  | 21961  | 5833              | 47157             | 52990        | 74951       | 1661            | 24.53|
| 2008  | 22600  | 8371              | 56084             | 64455        | 87055       | 3140            | 22.07|
| 2009  | 21866  | 8160              | 57171             | 65331        | 87197       | 3318            | 18.81|
| 2010  | 22654  | 8053              | 61192             | 69245        | 91899       | 2690            | 18.18|
| 2011  | 24687  | 7410              | 65500             | 72910        | 97597       | 2402            | 18.99|
| 2012  | 25156  | 7343              | 68151             | 75494        | 100650      | 2768            | 19.67|
| 2013  | 24703  | 5675              | 65879             | 71554        | 96257       | 2103            | 21.08|
| 2014  | 26514  | 5691              | 63781             | 69472        | 95986       | 1813            | 24.29|

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014.

Long-term liabilities have been continuously increasing in the period from 2004 to 2008. That was followed by an increase in interest expenses. During the period of the growth in interest expense caused by the growth of long-term liabilities, the efficiency which was measured by the rate of return on equity fell. In contrast, since 2010, interest expenses have been gradually reducing as a result of the reduction of long-term liabilities, and since 2011, the efficiency of Serbian entrepreneurs has been gradually increasing. In this sense, our first assumption is as follows:

**H1:** Efficiency of Serbian entrepreneurs in the previous period has been mostly caused by changes in long-term liabilities and related financial expenses.

In addition to absolute changes in sources of financing, their relationship and changes in the financial structure are very important. The following graph shows the movements of individual sources of financing of Serbian entrepreneurs in the period from 2004 to 2014.
Figure 1. Sources of financing of Serbian entrepreneurs in the period from 2004 to 2014

![Graph showing sources of financing]

Source: Business Registers Agency - BRA, 2004-2014.

The graph shows that, debts have been increasing much faster in comparison to equity. This has led to significant changes in the financial structure. The most common indicators of financial structure are: debt ratio, long-term debt to equity ratio, interest coverage ratio etc (Moore et al., 2008). The debt ratio shows the share of debt in the total sources of financing. The rest of the 1 (or 100%) related to the participation of equity. The interest coverage ratio represents earnings before interest and taxes divided by interest expenses. This ratio shows the degree of financial burden of organizations in accepting new loans. This ratio does not have generally accepted standard. Its reduction reflects the fact that the financial burden of entrepreneurs is increasing (because a large part of the operating profits is used for the payment of debt).

Financial theory explains (Moore et al., 2008) that at a time when a business is developing (when it comes to the growth of business activities), the increase in long-term liabilities in total sources of financing positively affects the efficiency, thanks to the effects of taxation (financial expenses reduce operating profit-the basis for taxation, and indebted companies pay less tax). However, in case of the reduction business activity, a higher share of long-term liabilities in total sources of financing can lead to multiple decrease of business efficiency, due to the effects of financial leverage. For these reasons, it is very important to carefully compose financial structure. Borrowing is acceptable only to the level of equalizing rates of return on assets and the interest rate, because after that the financial risk becomes too large, so that a small decline in business activity can lead to a huge reduction in net earnings and rates of return on equity. Indicators of financial structure and financial risk of Serbian entrepreneurs are presented in the following table.

As it can be seen from the table, the share of debts in the total sources of financing of Serbian entrepreneurs was continuously increasing until 2009, after which it remained at the same level (0.75). More specifically, in 2004, every dinar of investment in business assets was financed with 0.38 pounds of equity and 0.62 pounds of debt, while in 2009 this ratio was 0.25 dinars of equity to 0.75 dinars of debts. More obvious changes are observed in Long-term debt to equity ratio. In 2004, for every dinar of equity there were 6 dinars of debts, while in 2008, for every dinar of equity there were 37 dinars of debts. Increased long-term liabilities led to an increase in the load of business performance by financial expenses (as indicated by the Interest coverage ratio, which was gradually reduced from 2005 to 2010, where in 2008 it was almost twice lower than in the previous year, 2007) and it caused an increase in financial risk. Since there is no data on the average...
interest rate, we used Degree of financial leverage (Earnings before interest and taxes / Earnings before taxes), as an indicator of financial risk.

Table 2. Indicators of financial structure and financial risk of Serbian entrepreneurs in the period from 2004 to 2014

| Year | The share of debt in total sources of financing | Long-term debt to equity ratio | Interest cover-age ratio | Degree of Financial leverage | ROE | Number of closed business |
|------|-----------------------------------------------|-------------------------------|--------------------------|-----------------------------|-----|--------------------------|
| 2004 | 0.62                                          | 0.06                          | 3.76                     | 1.36                        | 22.09 | -                        |
| 2005 | 0.64                                          | 0.10                          | 5.13                     | 1.24                        | 31.48 | 24111                    |
| 2006 | 0.68                                          | 0.17                          | 4.14                     | 1.32                        | 24.84 | 27518                    |
| 2007 | 0.71                                          | 0.27                          | 3.66                     | 1.37                        | 24.37 | 32129                    |
| 2008 | 0.74                                          | 0.37                          | 1.95                     | 2.05                        | 21.85 | 36022                    |
| 2009 | 0.75                                          | 0.37                          | 1.49                     | 3.05                        | 18.63 | 36579                    |
| 2010 | 0.75                                          | 0.35                          | 1.53                     | 2.89                        | 18.00 | 37277                    |
| 2011 | 0.75                                          | 0.30                          | 2.01                     | 1.99                        | 18.99 | 35391                    |
| 2012 | 0.75                                          | 0.29                          | 1.68                     | 2.47                        | 19.67 | 32946                    |
| 2013 | 0.74                                          | 0.23                          | 2.39                     | 1.72                        | 21.08 | 36661                    |
| 2014 | 0.75                                          | 0.21                          | 3.24                     | 1.45                        | 24.29 | 32613                    |

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014.

It can be seen (from the table number 2) that the financial risk, measured by Degree of financial leverage, of Serbian entrepreneurs rapidly increased until 2009 (from 1.24 in 2004 to 3.05 in 2009), at the same time the efficiency of Serbian entrepreneurs decreased. The financial risk, measured by Degree of financial leverage decreased after this period (2009), and the efficiency of Serbian entrepreneurs increased (with one year lag). Accordingly, our next hypothesis is:

H2: The degree of financial risk, caused by the characteristics of the financial structure had a great influence on change of business efficiency of Serbian entrepreneurs.

H2a: The increase in financial risk caused the decrease in the efficiency in the period from 2005 to 2010.

H2b: The decrease in financial risk in the period from 2010 to 2014 caused an increase in efficiency.

3. RESEARCH RESULTS AND THEIR DISCUSSION

The influence of long-term liabilities interest expense and financial risk on the efficiency of Serbian entrepreneurs will be examined, by applying a descriptive statistics method as well as correlation and regression analyses. The analyses will be performed for the period from 2004 to 2014, thanks to available data. As an indicator of the efficiency of Serbian entrepreneurs the rate of return on equity (ROE), as the ratio of net income (profit) and equity, will be used. Independent variables in the first model will be various sources of financing and interest expenses, while for the second model indicators of financial risk will be used. The analysis will be performed for the period 2004-2014, based on the Agency for Business Registers data. Variables that will be used in the paper and the criteria on the basis of which will be monitored are shown in Table 3.
Table 3. Variables that will be used in the model

| Indicator          |                |
|--------------------|----------------|
| ROE                | Return on Equity |
| LL                 | Long-term Liabilities |
| IE                 | Interest Expense |
| TL                 | Total Liabilities |
| DFL                | Degree of Financial leverage |
| ICR                | Interest coverage ratio |
| LLER               | Long-term debt to equity ratio |

Source: Authors

First, the average values of all variables were calculated and then deviations from the average are shown in Table 4.

Table 4. Descriptive Statistics

| Variables | N | Mean   | S.d.   |
|-----------|---|--------|--------|
| ROE       | 11| 22.4182| 3.90601|
| LL        | 11| 5662.3636| 2666.64434|
| IE        | 11| 2093.8182| 865.03859|
| TL        | 11| 57398.0000| 19458.77676|

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014.

In addition, the link between business efficiency and indebtedness of Serbian entrepreneurs were examined by the method of multiple correlation. The results of correlation analysis are presented in Table 5.

Table 5. Pearson’s correlation coefficients

|       | ROE | LL  | IE  | TL  |
|-------|-----|-----|-----|-----|
| ROE   | 1.000|    |     |     |
| LL    | -.934| .617|     |     |
| IE    | -.803| .622|     |     |
| TL    | -.831| .922|     | 1.000|

As it can be seen from the table, there is a very strong and statistically significant indirectly relationship between the efficiency of Serbian entrepreneurs and their level of indebtedness. More
specifically, any increase in liabilities, followed by an increase in financial expenses, resulting in reduction of efficiency and otherwise. Since the relationship is statistically significant, conclusions can be generalized and associated with all entrepreneurs in Serbia. To check the representativeness of the models, coefficient of determination is fortified.

Existence of high correlation dependence between the independent variables Long-term Liabilities (LL) and Total Liabilities (TL), indicates invalidation of multi colinearity assumption. In that case, we exclude the variable of long-term liabilities from the model, because we assume that such a high direct correlation dependence follows from the fact that total liabilities include also long-term liabilities.

The next model includes two independent variables - interest expense and total liabilities. In order to check what was the impact of changes in indebtedness on efficiency change, regression analysis was performed. Results are shown in Table 6.

### Table 6. The impact of changes in indebtedness on efficiency

| Model | Unstandardized Coefficients | Standardized Coefficients | Sig. | Correlations Part |
|-------|-----------------------------|---------------------------|------|-------------------|
|       | B                           | Std. Error                | Beta |                   |
| (Constant) | 3458.379                     | 223.677                   | .907 |                   |
| IE | -.263 | .115 | -.466 | .045 | -.365 |
| TL | -.011 | .004 | -.541 | .032 | -.423 |

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014.

As it is see from the table, the coefficient of determination is extremely high. It is means that the model is representative. In other words, changes of financial structure, respectively, increased level of indebtedness affected 90.7% change in efficiency of Serbian.

According to Table 6 data, we find that the changes in efficiency (ROE) is largely influenced by changes of total liabilities and interest expense. Specifically, an increase in interest expense of one million dinars leads to a decrease in ROE for 0.263 and vice versa. Also, increase of the overall requirement for one million dinars leads to reduction of efficiency (ROE) for 0.11. The impact of total liabilities on efficiency is lower due to the fact that total liabilities also include short-term liabilities which do not bear the expenses, so do not affect directly to the efficiency. Both relationships are significant, so conclusions can be generalized. The coefficient of determination (R = 0.907) indicates that the model is representative, whereby the model explains 77.3% of the variability in ROE. This confirms the first hypothesis, where is the change in efficiency of Serbian entrepreneurs greatly influenced by movement of long-term liabilities and related financial expenses.

To check the validity of the second hypothesis, there are also performed descriptive statistics, correlation and regression analysis. Results of descriptive statistics are presented in the following table:
Table 7. Results of descriptive statistics

| Variables | N  | Mean   | S.d. |
|-----------|----|--------|------|
| ROE       | 11 | 22.4290| 4.1171|
| DFL       | 11 | 1.9549 | .6584|
| ICR       | 11 | 2.7220 | 1.2566|
| LLER      | 11 | .2518  | .1103|

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014.

As it is seen, there are no significant deviations from the mean values. In order to test whether there is a correlation between financial risk and efficiency of Serbian entrepreneurs, correlation analysis was made. Results are shown in the following table.

Table 8. Pearson’s correlation coefficients

|          | ROE | DFL | ICR | LLER |
|----------|-----|-----|-----|------|
| ROE      | 1.000 | - .802 | .955 | -.941 |
|          |     | (.0003) | (.000) | (.000) |
| DFL      | 1.000 |     | -.665 | .647 |
|          |     | (.001) | (.001) | |
| ICR      | 1.000 |     |     | -.960 |
|          |     |     | (.000) | |
| LLER     |     |     |     | 1.000 |

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014

As it is seen from the table, there is a very strong and statistically significant correlation between efficiency (ROE) and financial risk, indicated by: a) long-term debt to equity ratio (-0.941), b) Interest coverage ratio (0.955), c) degree of financial leverage (-0.802). According to data from Table 8, we also notice the existence of high correlations between the interest coverage ratio and long-term debt to equity ratio, which indicates a multicollinearity problem. So we will exclude the variable interest coverage ratio expense from further analysis.

On the problem of the basic assumptions distortion in the analysis pointed some other indicators (Tolerance and VIF), which also is being resolved by turning off one variable from the analysis.
Table 9. The impact of the financial structure on efficiency

| Model | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | Sig. | Correlations Part |
|-------|-------------------------------|------------|--------------------------------|------|-------------------|
| (Constant) | 31.356 | 1.662 | | .000 | |
| DFL | -0.134 | 1.507 | -.021 | .032 | -.011 |
| LLER | -0.344 | 8.988 | -.922 | .006 | -.491 |
| R | .941 | | | | |
| Adjusted R² | .852 | | | | |

Source: Authors’ own calculations based on the data of Business Registers Agency - BRA, 2004-2014.

Data in Table 9 indicate that the financial risk caused by the characteristics of the financial structure had a significant impact on efficiency (ROE). More specifically, the increase in long-term debt to equity ratio by 1% causes a decrease of efficiency (ROE) for 0.344%, while increases of financial risk, indicated by degree of financial leverage of 1% causes reduction in efficiency for 0.134%, and opposite. This proves the second hypothesis. The coefficient of determination (0.941) shows that the model is representative, and the variability in ROE was explained with 85.2% of the variability in the independent variables.

CONCLUSION

It can be concluded that entrepreneurship in Serbia was developing continuously up to 2008. The number of entrepreneurs was increasing (the average growth rate was 58% from 2004 to 2009). At the same time, the debts of Serbian entrepreneurs were growing much faster, especially a long-term debt (the average growth rate was 815% from 2004 to 2009). It caused changes in financial structure: a high degree of indebtedness and financial risk. In the beginning, it had a positive impact on efficiency, but the situation soon changed and entrepreneurs were faced with a huge number of financial problems, especially after the global economic crisis. Because of inability to meet due liabilities, the accounts of many entrepreneurs were blocked, many entrepreneurs closed their businesses and a great number of them was faced with additional debts. Due to low creditworthiness, additional loans were given to entrepreneurs under extremely unfavorable conditions (high interest rates), which increased interest expenses and decreased operating profit as well. Therefore, more and more entrepreneurs started losing the equity.

All in all, due to deterioration of financial structure, the increase in financial risk and negative impact of financial leverage, entrepreneurs in Serbia had a lot of financial problems in previous period. These financial problems influenced a decrease in efficiency and slowed the development of entrepreneurship.

The key financial problems of entrepreneurs in Serbia, which we identified in this paper, are following: a) huge financial expenses, and b) high level of financial risk (great share of long-term debt in total sources of financing).

Financial expenses of Serbian Entrepreneurs were so high that they burdened, and in some cases overloaded operating profit. In the initial period, the increase in financial expenses caused the increase in efficiency (in 2005), due to the effect of taxation. However, from 2006, financial expenses growth was followed by a decrease in efficiency, which continued until 2010. After that, the reduction in financial expenses was followed by an increase in efficiency. Based on that, we concluded that the financial expenses caused decrease in efficiency (ROE) of entrepreneurs in
Serbia. It resulted in a reduction in earning capacity, what is proven by using correlation and regression analyses.

High level of financial risk caused by increasing indebtedness, also resulted in inefficiency. The degree of financial leverage increased sharply after 2007, indicating a very large financial risk and significant negative impact of badly composed financial structure on business performance (for example, in 2009, a reduction in operating profit by 1% made 3 times less reduction in net income). A similar conclusion indicates the long-term debt to equity ratio, which was becoming bigger every year to 2009 which led to an increased financial risk above an acceptable level, which led to the reduction in earning capacity, gradual melting of equity and finally bankruptcy of many entrepreneurs, particularly in the period after the global economic crisis.

Serbian entrepreneurs can be advised to take much more care with financial risk (financial structure) in the future. Borrowing is acceptable only to the level of equalizing the interest rates and rates of return on assets, because after that the financial risk becomes too large, so that a small decline in business activity can lead to a huge reduction in net earnings and rates of return on equity.

We suggest macroeconomic policy makers to provide more favorable sources of financing for entrepreneurs in order to: start up a new business, and improve the existing business.

We suggest that macroeconomic policy makers should provide more financial incentives for SME development at the national, but also at the local level. Local communities can play a constructive role in the provision of micro-credits and micro leasing for new companies on its territory. They can help entrepreneurs directly by lending the funds from their own budget, or indirectly by connecting them with micro-credit institutions.

In addition to direct funding, it is very helpful to provide guarantees to entrepreneurs and small and medium enterprises by establishing local guarantee funds. This measure may increase the availability of loans to entrepreneurs in the municipality, because entrepreneurs can more easily obtain credit if they have a guarantee. would open

One group of activities is to provide finance advice. The serious problems of SME are related to the financing negotiations with banks (because SMEs are usually not familiar enough with the techniques of financial institutions), and to the access to formal financial market (because SMEs usually do not have significant assets that could serve as collateral). Therefore, advice and education on financial planning, financial institutions technology and the like can be helpful.

These measures may encourage the development of entrepreneurship and lead to an increase in the rate of economic growth. Developed economies are essential conditions for building smart cities.

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