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## Perspectives of SME Financing Through Capital Markets: the Case of Croatia

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## **Perspectives of SME Financing Through Capital Markets: the Case of Croatia**

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### **Abstract**

*Small and medium enterprises (SMEs) are considered generators of economic growth, added value, employment and innovation worldwide. They face numerous issues, especially in the early stages of a life cycle, from available sources of financing to strategic and market challenges. Due to its importance, the SME sector has often been supported by the government, development agencies and European institutions and programmes. The European Union stimulates the SME sector through different initiatives, as well as their easier access to various sources of financing. The aim of the paper is, therefore, to determine the possibilities and perspectives for equity financing of SMEs in Croatia using capital markets. More specifically, the aim of the paper is to compare key efficiency indicators of SMEs in Croatia and other similar SMEs listed on SME stock exchanges in Europe and worldwide, using quantitative methodology. Discussion of the research results determines the potential and limitations for the equity financing of Croatian SMEs through an organised SME stock exchange. The paper uses quantitative methodology, which consists of a comparative analysis of financial indicators and correlation analysis on a sample of chosen SMEs in Croatia and worldwide. The paper also discusses the expectations and current effects of the EU initiative – Capital Markets Union on the SME sector and capital market in Croatia. The paper's conclusions contribute to discussion and to initiatives for developing an SME stock exchange and strengthening the equity financing of the SME sector in Croatia.*

**Keywords:** capital market, Capital Markets Union, Croatia, small and medium enterprises, SME stock exchange

Track: *Entrepreneurship*

Word count: 6.863

### **1. Introduction**

Small and medium sized enterprises (SMEs) have always been the backbone of any economy, representing its largest employment providers, added-value contributors, as well as innovation and economic growth generators. Notwithstanding the indisputable significance for both economic and social welfare, SMEs have continuously faced a number of issues, where the financing gap has the most significant adverse effect on their current and future development and investment possibilities.

Historically, SMEs have been heavily reliant on traditional sources of funds, i.e., bank lending and overdraft facilities which appear to be inadequate to completely meet their funding needs. The problem is strongly exacerbated during periods of economic and financial crisis when the economy as a whole experiences downward trends while the financial sector faces liquidity issues. Given the importance of SMEs for national economies, both political establishments and regulatory entities have recently launched a number of initiatives with the aim of filling the SMEs financing gap and broadening the range of instruments and finance options available to SMEs. At the European Union level, one of the most important ones relates to the development of Capital Markets Union which should further facilitate cross-border investment activities and capital flows. In addition to Capital Markets Union, a number of countries have recently launched SME stock exchanges with listing and disclosure requirements tailored to the SMEs' characteristics.

Therefore, this paper aims to analyse perspectives for capital market financing through SME stock exchange for SMEs in Croatia. Since the Zagreb Stock Exchange introduced its own SME stock exchange Progress, i.e. a trading platform targeting primarily Croatian-based SMEs, another objective of this paper is to perform a comparative analysis of Croatian-based SMEs and SMEs listed on foreign SME stock exchanges, to investigate the potential for the development of the SME trading platform in Croatia and to assess its future efficiency in providing SMEs with additional funding options. The paper is organised as follows. After the introductory remarks, equity finances of SMEs are discussed and that chapter brings literature review. The forthcoming chapter presents Data and methodology followed by presentation of results and discussion. Economic discussion of research findings and certain policy conclusions are presented at the end of a paper.

## **2. Equity financing of SMEs: challenges and practice**

The capital market is regarded as the centre of any financial system. In their research of the importance of the level of capital market development and its impact on economic growth, Levine and Bencivenga et al. concluded that financial and stock market liquidity reduces transaction costs, which has a positive impact on investments in long-term development projects that should result in economic growth (Levine, 1991, Bencivenga et al., 1995). Other research concluded that greater connectedness by and between international financial markets has an impact on changes in the portfolio structure of institutional investors towards more substantial investments in more risky instruments, thus having a positive impact on productivity growth (Devereux, Smith, 1994, Obstfeld, 1994). Levine and Zervos concluded that financial market liquidity and banking system development have a positive impact on economic growth (Levine, Zervos, 1998). A developed financial market is, thus, important for achieving economic growth, but it is also an important investment potential because of high funding volume, in this case for the SME sector.

Institutional investors are one of the key investors on the capital market as the result of the advantages they offer to individual investors. Institutional investors invest clients' funds as professional managers in the interest of the client and based on a pre-set investment strategy,

but not in their own interest (Davis, 1996). The growth of institutional investors' assets and their growing trading presence in total trade on the financial market lead to the institutionalisation of the financial market, which is often mentioned as a disadvantage. Theoretical considerations conflict in terms of the impact of institutionalisation on the volatility of the price of securities. Some hold that block trading favours volatility, while others believe that institutionalisation improves financial market liquidity and efficiency. In their analysis of G7 countries, Davis and Steil observed that more developed financial systems (measured by the indicator of the share of total assets of the financial system in GDP) present a higher level of financial market institutionalisation. Higher institutionalisation of the financial market follows a higher share of stock in total financial assets; and there is no record of a statistically significant correlation between the level of institutionalisation and financial market volatility. In stable financial market settings, institutional investors should ensure and accelerate the process of reaching the price of securities that corresponds to their fundamental value. This should be achieved because institutional investors hold and process existing information, but also reduce transaction costs (Davis, Steil, 2001). The said role of institutional investors is important and relevant for investments in the SME sector. The significance and role of institutional investors on the financial market is also analysed by a comparison of capital market indicators and institutional investors' assets. In his research, Krišto concludes that the development of institutional investors and of the financial market is most intimately intertwined. Markets with a higher indicator of institutional investors' assets in GDP are also characterised by better financial market development and liquidity. Thus, it can be concluded that institutional investors have systemic significance for the effective functioning of the financial market (Krišto, 2012).

Expanding the spectrum of the available sources and instruments for financing SMEs to non-banking sources and instruments, i.e., tradable securities and funds from the capital market, improves the availability of the sources of financing for SMEs and at the same time increases the level of their financial market participation. Thus, their exposure to bank financing is diminished, but so is their exposure to potential problems with the securing of outside funds in conditions of a contracting and tightening bank credit policy (Nassr and Wehinger, 2015).

From the aspect of SMEs, financing via the issuing of equity and debt securities provides for their access to long-term stable sources of funding, which is not the case with bank financing. Further, since securities on the capital market are traded, their prices reflect the operating performance and value of the issuing company, thus decreasing the asymmetric information on the market. As the result of improved transparency and reduced obstacles to investment exit strategies via the capital market, SMEs become more attractive as investment opportunities for capital market investors. Greater focus towards the investing public and company settings also increases the efficiency of internal management procedures and of external communication with various stakeholders. Observed from the aspect of the investor and of the capital market, the issuing of securities by SMEs boosts access to and the range of available investment products within a regulated and transparent framework, while stock exchanges, by attracting a greater number of participants, increase their revenue as well as liquidity, significance, and attractiveness (Oliver Wyman, 2014).

Once they are listed on a regulated capital market, the future collection of capital via the issuing of additional stock or other types of securities becomes simpler for SMEs and requires lower costs of capital in comparison to other forms of financing. Further, considering that the financial crisis of 2007 and 2008 showed that fast-growing enterprises with insufficient material assets that would serve as debt collateral have major difficulties accessing debt financing, equity capital collected via the capital market would increase the likelihood of meeting their funding needs during the periods of economic crisis (World Federation of Exchanges, 2017).

Benefits from financing via the capital market for SMEs also arise from their very presence on the capital market, which contributes to their reputation and presence among potential buyers, suppliers, business partners, as well as prospective investors. Additionally, new opportunities for retaining and motivating key employees are secured via the offer of equity bonus, participation in the results, which is particularly important for enterprises at the beginning of their development, in which human capital is the key generator of growth, innovation, and progress (Roman and Rusu, 2015).

Taking into consideration the significance of SMEs in national economies, measured by their share in added value of the economy, employment, and export, the positive effects of capital market development for SMEs spill over into the economy as a whole, creating preconditions for more pronounced economic growth and the creation of new jobs. The analyses conducted show that efficient capital markets for SMEs increase their contribution to total annual growth of GDP by 0.1% – 0.2% (Oliver Wyman, 2014).

One of the most significant factors that deters SMEs from capital market financing is the loss of complete control over the operation and decision-making in the enterprise as a result of the appearance of new investors in the ownership structure. Furthermore, disclosure requirements primarily relating to information on business operations, results and planned investments rise considerably following the listing of securities on organised capital markets, which is not something that SMEs have experience of in most cases. Another restricting factors for SMEs to get listed on the capital markets are significant time and monetary costs incurred during the preparatory phase as well as future reporting requirements imposed by regulatory bodies and new shareholders (Freeman, 2015).

Enterprises are also subject to numerous regulatory procedures and they must develop and present to the investment public attractive investment prospects, business model, qualified management team, and provide for an effective system of control and compliance with all regulatory provisions. Another obstacle is a lack of knowledge about the functioning and mechanisms of the capital market, a shortage of qualified staff, and fear that the perceived risk of operation of SMEs will lead to higher stock price discounts at the time of inclusion on the market. Further, insufficient market liquidity for SMEs and the absence of stock demand on the part of investors greatly determine the success of inclusion on the capital market. The success of the inclusion and listing of SMEs on the capital market also depends on the engagement of market mediators, i.e., brokers, who can lack interest to provide support to SMEs because of lower commission fees and inappropriateness of their distribution channels for the stock of smaller enterprises (IOSCO, 2015).

Analyses conducted in of Croatia in 2011 and 2013 showed that there is an ongoing lack of financing, which means that a considerable share of SMEs cannot obtain financing from banks, from the capital market or from other sources of financing. Banks are quite risk-averse, resulting in 79% of SMEs using their own funds and retained earnings as their primary source for financing new investments. SMEs have certain difficulties in obtaining small loans (EUR 25,000 – EUR 100,000), while 60% of SMEs do not have sufficient collateral to obtain any form of bank financing. 54% of financial services and products on offer are not adjusted to the needs and expectations of SMEs and the interest rate is too high for them, i.e., 34%. The risk capital market barely exists and the available capital is negligible, while the network of business angels is weak and underdeveloped. SMEs need professional support provided by entrepreneurship support institutions (ESIs) in various phases of their growth. It is often regarded that ESIs provide services that most SMEs cannot afford. Further, different Croatian regions have different needs for specialised support to SMEs. However, it was shown that ESIs do not have sufficient capacity to provide high quality services and a contemporary approach to the resolution of problems faced by SMEs. Requirements received from SMEs revolve around more specific and higher-ranking services and other forms of business support (EC, 2013).

### **3. Data and methodology**

To prepare this paper, the authors conducted research in the form of a comparative analysis of the key performance indicators and financial position on a sample of SMEs whose securities are listed on organised capital markets, i.e., SME stock exchanges in a selection of developed countries and on a sample of Croatian SMEs. The comparison of such key performance indicators and financial standing of enterprises included in the sample attempts to determine the extent to which Croatian SMEs are comparable to their competitors on world markets and, on the basis of those findings, to draw a conclusion on the fitness of Croatian enterprises for inclusion on the capital market.

The research uses quantitative methodology conducted on the basis of publicly available secondary financial data on the SMEs included in the sample. In the analysis of SMEs listed on the relevant capital markets, the basic source of information was the official website of such stock exchanges as well as data collected and published by Thomson Reuters, which are used as a relevant source of information for the purposes of conducting financial analyses of companies. On the other hand, the analysis of comparable companies from Croatia was conducted on the basis of information included in the most recently published audited financial statements for 2016 available on the official website of the Financial Agency (FINA). Enterprises were picked randomly from the Register of Business Subjects available at the website [www.biznet.hr](http://www.biznet.hr), launched and administered by the Croatian Chamber of Economy. The authors analysed 157 enterprises distributed in two main samples. The first sample consists of only those SMEs whose securities are listed on SME stock exchanges. The sample includes 87 enterprises in total, where 43 are listed on the Euronext (Alternext) Growth Paris platform, 19 enterprises are listed on the Alternative Investment Market platform of the London Stock Exchange, while the remaining 25 are enterprises from the GreTai platform,

which is intended for the listing and trading in securities of SMEs on the Taipei Stock Exchange from Taiwan. The majority of analysed enterprises operate in the production sector for technological, electronic, and medical equipment (25 enterprises), the construction sector (8 enterprises), the business services sector (6 enterprises), and the biotechnology and pharmaceutical sector (5 enterprises), while the remaining sectors are represented by one or two enterprises. Data on the financial results of the enterprises from the sample relate to the most recently available information on their financial performance, where most of the sample covers the period from 1 January 2016 to 31 December 2016. In the calculation of the market indicators of the enterprises from the sample, the authors used market values applicable at the time the data were downloaded and the analysis conducted (August 2017).

The second sample consists of 70 Croatian SMEs that are not listed on organised capital markets. The criterion for including them in the sample was their revenue in 2016, where the lower limit was around HRK 30 million per annum, under the assumption that enterprises with a lower level of revenue do not feature as the target group for inclusion. Further, in compiling the Croatian sample, the authors did not take into consideration enterprises that are part of international groups, on the assumption that such enterprises have less interest to be listed on an SME stock exchange in Croatia, since they can be included on the domicile markets of their parent companies.

The data were processed and the samples analysed via the methods of descriptive statistics and correlation analysis. In order to compare the values of individual indicators, the authors used the median values of certain indicators, so that outliers could be eliminated and the representativeness of the samples and comparability of the results improved.

Given that Croatian enterprises included in the analysis were not listed on the SME stock exchange at the time, there are no data about their market values. Further, in view of the limited access to information, other than that presented in the revised financial reports, their values could not be determined for the purposes of this paper either. Therefore, the basis for comparison were EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) and the EBITDA margin as operating efficiency indicators of core business activities of the enterprise, the debt-to-equity ratio as an indicator of indebtedness, i.e., financing structure of the enterprise, and revenue per employee as a productivity indicator of the employed workforce.

#### **4. Results and discussion**

The results of descriptive statistics of the presented indicators show that SMEs from three selected SME stock exchanges generate better results than Croatian enterprises in terms of almost all operating performance indicators.

**Table 1: Sample analysis — descriptive statistics**

Sample from SME stock exchanges						Sample of Croatian enterprises				
	Revenue	EBITDA	Net income	Debt / EBITDA	Revenue per employee	Revenue	EBITDA	Net income	Debt / EBITDA	Revenue per employee
Mean	74.9	7.9	2.1	5.6	0.2	29.0	1.4	-0.1	2.3	1.8
Standard Error	14.0	2.5	1.6	1.8	0.0	2.3	0.2	1.3	0.8	1.1
Median	30.0	3.2	1.0	1.8	0.2	26.8	0.9	0.5	1.2	0.3
Mode	10.0	1.0	1.0	0.0	0.3	N/A	N/A	N/A	0.0	N/A
Standard Deviation	130.9	22.6	14.3	14.2	0.3	19.3	1.7	11.3	6.3	8.9
Sample Variance	17124.4	513.0	204.6	201.8	0.1	373.3	3.0	127.4	39.8	78.4
Kurtosis	9.6	10.5	8.1	35.4	18.5	3.8	2.7	56.1	10.2	49.2
Skewness	3.1	2.5	0.2	5.6	3.6	1.5	-0.1	-6.8	2.0	6.9
Range	682.6	173.0	116.5	101.0	1.8	105.1	11.4	117.6	47.4	68.2
Minimum	0.0	-59.0	-61.0	0.0	0.0	4.5	-4.8	-88.1	-15.3	0.0
Maximum	682.6	114.0	55.5	101.0	1.8	109.6	6.6	29.5	32.1	68.2
Sum	6518.1	651.3	159.4	338.7	17.0	2031.8	99.3	-4.5	164.2	125.4
Count	87.0	82.0	77.0	61.0	70.0	70.0	70.0	70.0	70.0	69.0
Confidence Level (95.0%)	27.9	5.0	3.2	3.6	0.1	4.6	0.4	2.7	1.5	2.1

Source: Data processed by author

In terms of median values, foreign companies generate higher-level of revenue and net income. Regarding key performance indicators of the core business activities, the values of the EBITDA contribution and the EBITDA margin are also higher in foreign enterprises. The median value of the EBITDA contribution of foreign enterprises from the sample was EUR 3.2 million in 2016, while that of Croatian enterprises was EUR 0.9 million. Further, the EBITDA margin in foreign enterprises was higher by 5 percentage points in comparison to Croatian SMEs. On the other hand, the debt/EBITDA contribution ratio was higher in foreign enterprises (1.8x) than in Croatian enterprises (1.2x), although the values in both samples indicate a moderate and sustainable level of indebtedness. Despite the better debt/EBITDA contribution ratio of Croatian companies, the ratio of the EBITDA contribution and the cost of interest is much higher in foreign enterprises, which implies that the operating results of Croatian enterprises are encumbered to a greater extent with the costs of financing. The greater orientation of Croatian enterprises towards debt financing is evident from the debt-to-equity ratio, where debt towards financial institutions accounts for 39.4% of capital value, while that indicator in foreign enterprises is somewhat lower and stands at 35.2%. It is important to emphasise that the said ratios represent median values, while the average values indicate a substantially higher level of indebtedness of Croatian based enterprises. The indicator that shows the much greater success of Croatian enterprises in comparison to foreign ones is revenue per employee. In 2016, the median value of revenue per employee in the sample of Croatian enterprises was around EUR 298,000, while in the sample of foreign enterprises it was around EUR 180,000.

If we localise the analysis to a specific market, i.e., an SME stock exchange, it follows that in terms of their financial performance SMEs from the Republic of Croatia are most similar to enterprises included in the Euronext Growth Paris platform, which consists primarily of French-based SMEs. As in other stock exchanges, the sample includes enterprises from various industries to minimise the impact of the specificity of operating indicators pertaining



to certain industries on total sample indicators. In comparison to enterprises from the Euronext Growth Paris platform, the median value of revenue is greater in Croatian enterprises. However, in view of the greater operating and cost efficiency of French enterprises, the EBITDA margin is at a level of around 4% to 5% in both samples.

**Table 2: Sample analysis – descriptive statistics**

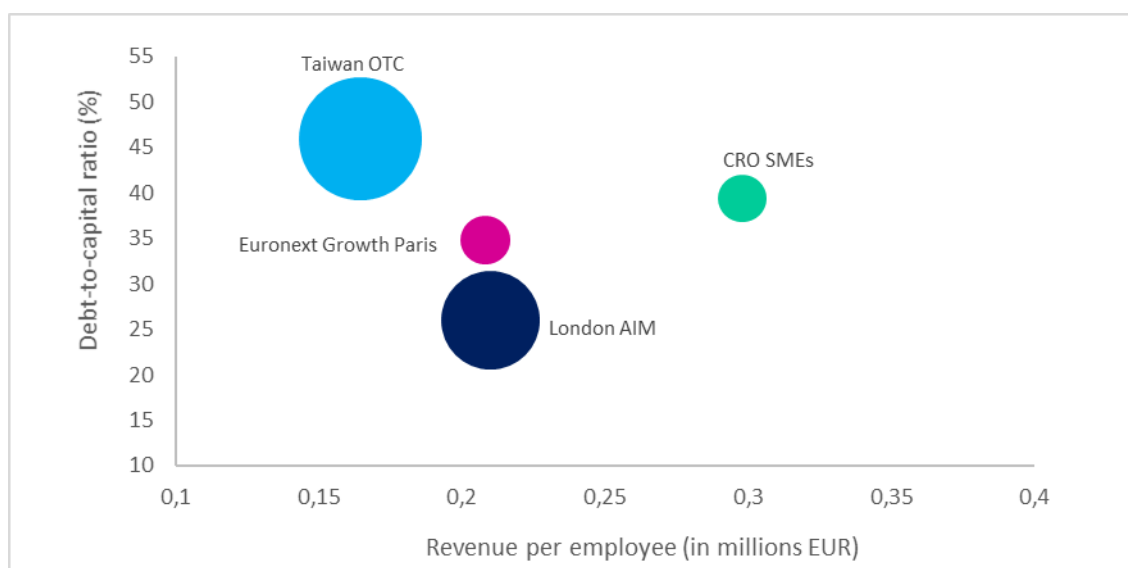
Gretai						London AIM				
	Revenue	EBITD A	Net incom e	Debt/ EBITD A	Revenue per employee	Revenue	EBITD A	Net incom e	Debt/ EBITD A	Revenue per employee
Mean	87.6	11.7	4.2	8.6	0.2	95.3	14.9	9.7	1.5	0.3
Standard Error	27.7	3.8	1.6	4.4	0.0	37.7	7.2	5.1	0.4	0.1
Median	37.5	6.2	3.5	2.2	0.2	31.5	4.0	4.5	1.1	0.2
Mode	N/A	N/A	N/A	0.0	N/A	N/A	3.0	N/A	0.0	N/A
Standard Deviation	138.3	18.5	7.9	21.5	0.1	164.4	29.6	18.6	1.5	0.3
Sample Variance	19138.5	342.7	63.1	460.8	0.0	27011.1	878.4	344.5	2.4	0.1
Kurtosis	7.6	13.9	4.9	16.3	-0.6	9.5	8.1	2.2	0.7	0.7
Skewness	2.9	3.5	0.2	3.9	0.3	2.9	2.7	1.6	1.1	1.2
Range	538.4	88.7	46.2	101.0	0.4	681.6	120.0	63.0	5.0	0.9
Minimum	1.5	0.2	-18.7	0.0	0.0	1.0	-6.0	-7.5	0.0	0.0
Maximum	539.9	89.0	27.5	101.0	0.4	682.6	114.0	55.5	5.0	0.9
Sum	2189.4	280.5	101.3	206.5	4.0	1810.6	252.5	126.1	20.1	4.2
Count	25.0	24.0	24.0	24.0	23.0	19.0	17.0	13.0	13.0	14.0
Confidence Level (95.0%)	57.1	7.8	3.4	9.1	0.0	79.2	15.2	11.2	0.9	0.2
Euronext Growth Paris										
	Revenue	EBITD A	Net income	Debt/ EBITD A	Revenue per employee					
Mean	58.6	2.9	-1.7	4.7	0.3					
Standard Error	16.7	3.3	2.3	1.4	0.1					
Median	19.0	1.0	0.5	2.9	0.2					
Mode	10.0	1.0	1.0	3.4	0.3					
Standard Deviation	109.5	20.9	14.8	6.7	0.3					
Sample Variance	11994.5	435.4	218.6	44.8	0.1					
Kurtosis	12.9	12.8	9.6	9.1	16.9					
Skewness	3.4	2.0	-0.6	2.9	3.7					
Range	569.0	159.0	112.0	30.1	1.8					
Minimum	0.0	-59.0	-61.0	0.0	0.0					
Maximum	569.0	100.0	51.0	30.1	1.8					
Sum	2518.0	118.3	-68.0	112.1	8.7					
Count	43.0	41.0	40.0	24.0	33.0					
Confidence Level (95.0%)	33.7	6.6	4.7	2.8	0.1					

Source: Data processed by author

The debt/EBITDA contribution ratio of Croatian enterprises is more sustainable than is the case with enterprises from the London AIM Stock Exchange and the Euronext platform, while the same indicator for enterprises from the Taiwanese stock exchange is at the level of Croatian enterprises. Taking into consideration all stock exchanges together, enterprises from the Taiwanese stock exchange show the highest level of financial performance based on the values of performance indicators arising from the profit and loss statement. The one indicator

with which Croatian enterprises outperform enterprises from all other stock exchanges is workforce productivity measured by revenue per employee.

Chart 1 shows the position of the samples of enterprises from the selected stock exchanges in terms of three main indicators used to compare the operating business performance and financial position, i.e., the structure of the sources of financing. The chart shows the mentioned dominance of the sample of enterprises from the Taiwanese stock exchange in terms of performance, i.e., the profitability of its operation and the more pronounced reliance on debt financing in comparison to enterprises from other stock exchanges and to the sample of Croatian enterprises. In terms of the sample of Croatian enterprises, their dominance in view of revenue per employee and the similarity of their operating performance indicators with those of enterprises included in the Euronext Growth Paris platform are evident.



Source: Data processed by author

**Chart 1:** Comparison of SMEs from specific SME stock exchanges and the sample of enterprises from the Republic of Croatia

As part of the analysis of enterprises that have securities listed on the selected SME stock exchanges, the authors also analysed the correlation between operating performance indicators and certain indicators pertaining to the market values and financial position of enterprises. The highest positive correlation in all samples was observed between market capitalisation and the level of revenue as well as between market cap and EBITDA contribution. On the other hand, the connection between financial performance indicators on the one hand and the enterprise value-to-operating revenue ratio and the price-to-sales ratio show a mildly negative correlation in all three samples. As opposed to market capitalisation, the correlation between operating performance indicators (revenue, EBITDA contribution, net income) and the debt-to-equity ratio is not significant, so that in terms of the Euronext Growth platform the correlation coefficient ranges from 0.05 to 0.07, while in the case of the Taiwanese Stock Exchange it ranges from 0.2 to 0.3. On the London Stock Exchange for SMEs, the correlation between the same indicators is mildly negative with the correlation coefficient in the range from negative 0.09 to negative 0.1. Finally, the authors also examined

the correlation between the percentage of free float and operating business performance. No significant correlation was observed on the Taiwanese Stock Exchange (where the correlation coefficient was 0.12 – 0.3) and the London Stock Exchange (where the correlation coefficient was 0.2 – 0.3), but the Euronext Growth platform showed a more pronounced negative correlation between the free float level and performance indicators. The coefficient of correlation with the amount of revenue from sales was negative 0.42, with the EBITDA contribution it was negative 0.5, and with net income it was negative 0.49.

**Table 3:** Correlation coefficients between the selected indicators of market value and financial position and performance of enterprises from SME stock exchanges in the sample

Euronext Growth Paris					
	Market cap.	EV / Revenue	P / S ratio	Debt-to-capital ratio	% free float stock
Revenue	0.59	(0.24)	(0.24)	0.05	(0.42)
EBITDA	0.29	(0.28)	(0.28)	0.05	(0.50)
Net income	0.05	(0.28)	(0.26)	0.07	(0.49)
London AIM					
	Market cap.	EV / Revenue	P / S ratio	Debt-to-capital ratio	% free float stock
Revenue	0.88	(0.16)	(0.18)	(0.12)	0.22
EBITDA	0.96	(0.19)	(0.19)	(0.10)	0.33
Net income	0.91	(0.29)	(0.30)	(0.09)	0.24
Gretai					
	Market cap.	EV / Revenue	P / S ratio	Debt-to-capital ratio	% free float stock
Revenue	0.72	(0.15)	(0.17)	0.18	0.32
EBITDA	0.92	(0.12)	(0.12)	0.33	0.18
Net income	0.58	(0.16)	(0.16)	0.20	0.12

Source: Data processed by author

The analysis can serve to discuss some of the following conclusions.

First, the results indicate a higher performance level of enterprises listed on SME stock exchanges in relation to the sample of Croatian enterprises. A higher performance level is achieved in almost all analysed indicators. While the difference in the median value of generated revenue may be justified in part by the size and potential of the market on which foreign enterprises conduct business, significantly better indicators of the EBITDA contribution, EBITDA margin and, finally, net income still show a higher level of cost efficiency and efficiency of core business activities of enterprises from SME stock exchanges. In terms of the excessive encumbrance of operation with the costs of financing, a higher debt-to-EBITDA ratio of foreign enterprises indicates higher external debt burden. However, if one simultaneously takes into account the EBITDA-to-interest expense ratio, according to which the EBITDA contribution of foreign enterprises is 20.3 times higher than the amount of interest expenses, while in terms of Croatian enterprises it is 14.1 times higher, one cannot but conclude that the costs of debt servicing encumber the operation of foreign enterprises to a

significantly lesser extent, i.e., that the efficiency of business activities of foreign enterprises results in greater reserves for the coverage of costs of external financing than is the case with Croatian enterprises.

The foregoing can be explained in part by the already described primary orientation of Croatian enterprises towards bank financing and by the insufficient availability of alternative and market-oriented sources of financing, the price of which would potentially be lower than the interest rates charged by banks. Further, one should consider that the sample of foreign enterprises includes enterprises that are listed on SME stock exchanges and that are, therefore, obligated to meet the requirements of transparent operation and publication of business results. Thus, both the information asymmetry and credit risk premium are lower than in the sample of Croatian enterprises. As a result of being listed on capital market, enterprises from the sample of foreign enterprises also have access to additional, non-bank, market-oriented debt instruments that may involve lower financing costs than bank loans, which are the primary source of exposure of Croatian enterprises.

The results of the analysis of financial position show that for Croatian enterprises the median value of debt-to-equity ratio is around 39.4%, while for foreign enterprises the same indicator is around 35.2%. The results are in line with the authors' expectations if one takes into consideration that Croatian enterprises, apart from shareholders' equity, are almost exclusively confined to debt capital collected via bank loans. By increasing the availability of market-oriented equity-based financial instruments, one of which is most definitely the issuing of shares on SME stock exchanges, the value of this indicator, in the case of Croatian enterprises, should come closer to the value of the sample of foreign enterprises.

The comparative analysis conducted also shows a comparison of individual SME stock exchanges that list enterprises included in the sample as well as individual SME stock exchanges with the sample of Croatian enterprises. The comparison shows the pronounced superiority of enterprises from the AIM segment of the London Stock Exchange and the GreTai segment of the Taipei Stock Exchange in terms of business performance indicators. Still, deviations should be examined and interpreted by taking into consideration the size and the level of development of the markets on which the enterprises operate and the extended history of operation and trading on such stock exchanges in relation to the SME segment of the Euronext Stock Exchange. The GreTai SME stock exchange was launched as far back as in 1994 and since then it has listed more than 1 100 companies (Harwood and Konidaris, 2015). The AIM segment of the London Stock Exchange was also launched back in 1995, while Alternext as the segment of the Euronext stock exchange was launched only in 2005. The fact that those markets have a longer history of trading and operation could certainly be the reason they include and list larger and more successful enterprises that would be candidates for inclusion in the main segment of the capital stock exchange in countries that have more poorly developed capital market, such as the Republic of Croatia.

Croatian enterprises have better results with the indicator of workforce productivity. The median value of revenue per employee in the sample of Croatian enterprises is around EUR 297,000 and it is significantly higher than the indicator of enterprises from selected stock exchanges, where the indicator ranges from EUR 160,000 to EUR 210,000 per

employee. Such a difference can be explained, to a certain extent, by the fact that Croatian enterprises began to recover from the consequences of the economic crisis and recession much later. During the crisis and the recession, a large number of jobs was lost, which is why better business results in terms of revenue and profitability will only be complemented with new recruitment in the period ahead.

Despite the fact that the analysis primarily focused on the operating aspects of enterprises from the sample, the level of development of the capital market in a particular country represents a major determinant of the effective functioning of SME trade platforms. It should be noted that the existence of a developed and liquid market is regarded as a basic presumption for all initiatives concerning the development of SME stock exchange segments. It is precisely in this part that one may find one of the most significant restricting factors for the realisation of the full potential of the SME trade platform in the Republic of Croatia, since some of the most important features of the capital market in the Republic of Croatia are insufficient development and insufficient liquidity of the instruments being traded. For example, the average daily stock turnover on the Zagreb Stock Exchange in 2016 was around HRK 7.6 million, but a single stock, that of Croatian Telecom, Inc., accounted for around 19% of such turnover. Of the total of 127 shares listed in 2016, only six of them accounted for a 52% turnover rate, while 55 shares had a total annual turnover under HRK 1 million (Zagreb Stock Exchange, 2017).

Another restricting factor in terms of achieving greater turnover on the Zagreb Stock Exchange and increasing market liquidity as a whole is an extremely low free float. Although the median value of free float market capitalisation of all stock listed on the Zagreb Stock Exchange is around 35%, stock with best liquidity and stock with the largest market capitalisation have significantly lower free float levels. Namely, the free float of four shares on the Zagreb Stock Exchange with the highest market capitalisation is in the range from only 2% to 6% of total market capitalisation. That one stock of Croatian Telecom with a free float of around 42% of market capitalisation is the only exception.

Taking into consideration the foregoing, several conclusions regarding the acceptability and the potential for financing SMEs in the Republic of Croatia via the SME platform come to the fore.

Croatian SMEs are still behind comparable enterprises listed on the existing SME trading platforms in terms of most operating indicators. Despite the gap, Croatian SMEs are still profitable and have positive performance indicators for their core business activities, while the relationship between financial obligations (debt) and the EBITDA contribution is sustainable, i.e., it indicates the ability to service existing debts from their operating business, but also the open-ended potential of further indebtedness.

Taking into consideration the primary objective of introducing SME stock exchanges, which is to make capital market funds and instruments available to SMEs, the presumption for realising that objective is the existence of an interested investing public that would be prepared to invest its capital in the securities of SMEs listed on the stock exchange. On the basis of the data on liquidity and turnover on the Zagreb Stock Exchange, encouraging the

investing public to become more actively involved in activities on the capital market seems to be a key precondition for the development of the Croatian capital market, especially its trade platform that would be intended for SMEs. A favourable circumstance in this segment, in view of the situation in Croatia, is a developed sector of institutional investors. Net assets of mandatory pension funds at the end of 2017 amounted to HRK 91.9 billion, voluntary pension funds HRK 4.8 billion, investment funds HRK 21.5 billion (at the end of June 2017), and the total assets of insurers HRK 40.8 billion (Croatian Financial Services Supervisory Agency, 2018). Regardless of the regulatory restrictions concerning investments adopted by certain institutional investors and their investment strategies, this segment surely includes interested investors on the SME stock exchange in Croatia.

Another precondition for the functioning of the SME stock exchange in Croatia that should be taken into consideration is the interest of enterprises to be listed. In this paper, considering that some information is still unavailable, the comparative analysis of SME stock exchanges does not include the requirements and costs of being included and listed on the Progress Market platform of the Zagreb Stock Exchange. The interest of targeted enterprises will surely depend considerably on the adjustment of the criteria for inclusion and the accompanying expenses, especially in a situation where they already have well-established relations and practices of doing business with banks and of being funded via bank capital, while the instruments, options, and specificities of taking part on the capital market are mostly unknown.

A further challenge to the introduction and functioning of the SME stock exchange in Croatia is the interest of the existing owners to relay part of that ownership of their enterprises to investors from the capital market. This should be viewed in particular through the percentage of free float market capitalisation, which ranges from 45% to 66% in the enterprises from the existing SME stock exchanges included in the analysis. Considering that Croatian SMEs are predominantly owned by one or only a few owners, to make the operation of the SME stock exchange truly effective there would have to be a shift in the awareness of owners about the way of management of their enterprises.

## **5. Conclusions**

While the operating business results of Croatian SMEs could confirm the hypothesis that in Croatia there is a sample of enterprises whose business results have the potential to be included on SME trading platforms, the Croatian capital market, insufficiently developed and marked by non-liquidity, poses a considerable obstacle to the efficiency of such a market.

A special analysis needs to be conducted at the time of defining listing preconditions and requirements. Rules endorsed on the existing SME stock exchanges indicate that they are subject to lower requirements than the main market in terms of equity capital, the historical profitability period, and the level of required profitability. Taking into consideration the characteristics of Croatian enterprises, requirements regarding the number of shareholders, the share of free float stock, and the costs of the listing process should be particularly adjusted.

Tax incentives should certainly be examined as an additional form of incentives for newly listed enterprises on the SME stock exchange. Croatia already imposes a substantial tax wedge, while entrepreneurial and investment activities are burdened with numerous fiscal and parafiscal payments. Acknowledging the global practice of granting tax holidays, lower rates of profit tax, and simplified depreciation policies for enterprises listed on SME stock exchanges would certainly contribute to the attractiveness of SME trading platforms to both enterprises and the investing public in its entirety.

Finally, the introduction and functioning of the trading platform for SMEs in the Republic of Croatia should be complemented with a well-devised promotional policy and a cluster of support measures and incentives to overcome the current non-liquidity on the capital market as well as the passivity of the investing public. This would result in the meeting of preconditions for the efficient functioning of the SME stock exchange and the exploitation of the potential of the sample of enterprises to improve efficiency and reach the results of foreign competitors despite the current gap.

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