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ATTRACTIVENESS OF THE BOSNIAN STOCK MARKET

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Abstract

The study assess the attractiveness of stock market in Bosnia and Herzegovina and questions whether consolidating Sarajevo and Banja Luka stock exchanges would make the Bosnian stock market more attractive.

Listing standards, fees and regulatory environment are important factors to consider when selecting a stock exchange. However, as important, if not more so, are factors such as size, diversity, volume, liquidity, risk and return (or together “Attractiveness Factors”). Stock market’s Attractiveness Factors are essential part in determining company’s valuation and play an important role in investors’ decision making process.

To determine the level of attractiveness, using stock market Attractiveness Factors, the study compares Bosnian stock market with Croatian (“ZSE”), German (“FSE”) and Macedonian (“MSE”) (or the “Focus Markets”). The study analyzes the composition of the Focus Markets and their main indexes - providing the support for Bosnian stock market consolidation.

Key Words: Stock Market, SASE, BLSE, ZSE, FSE, MSE, Bosnia, Croatia, Macedonia, Germany.

Özet

Çalışma Bosna Hersek borsasının cazipligini ve Saraybosna ve Banja Luka borsalarının birleşmesi durumunda Bosna borsasının daha çekici olabilirliliği sorunu değerlendirmektedir.

Borsa seçiminde listeleme standardı, ücretler ve mevzuat önemli faktörlerdir. Ancak, bunlar kadar önemli diğer faktörler de boyut, çeşitlilik, hacim, likitide, risk ve geri dönüş (veya birlikte “Caziplik Faktorleri”). Caziplik Faktorleri şirket değerlendirmesinin temel parçasıdır ve yatırımcının karar verme sürecinde önemli rol oynamaktadır.

Borsanın ne kadar cazip olduğuna karar vermek için, Caziplik Faktorunu kullanarak, çalışma Bosna Hersek Borsasını Hırvatistan (“ZTE”), Almanya (“FSE”) ve Makedonya (“MES) (veya “Odak Marketler”) ile karşılaştırmaktadır. Çalışma Odak Marketlerin yapısını ve ana indekslerini kullanarak Bosna Hersek borsasını analiz etmektedir.

Anahtar Kelimeler: Borsa, SASE, BLSE, ZSE, MSE, Bosna Hersek, Hırvatistan, Makedonya, Almanya

I. Introduction

Stock market is extremely important from the standpoint of obtaining money for operations and expansion of businesses. However, the importance of stock market attractiveness and efficiency does not concern Bosnian political leadership. Lack of political interest is proven by the fact that Bosnia has two inefficient and unattractive stock markets.

The study argues that large, unlike small, stock markets are more attractive and have positive effects on the overall attractiveness of the country. Thus, hypothetically speaking, merging of small stock markets should improve the overall attractiveness of a market. Currently, the world is going through the phase of capital consolidation. Numerous examples of consolidation benefits provide a valid reason for merging Bosnian stock markets. The consolidation should not stop in Bosnia, it should include other countries in the region, ultimately creating the single market for Bosnia, Croatia, Serbia, Montenegro and Slovenia. Such market would increase the overall attractiveness of the region and provide many benefits for the Balkan economy.

Understanding the purpose and the drivers of a successful capital market is essential factor for a country that seeks to improve its attractiveness. Small countries with limited size economies have a chronic market liquidity problem. The study aims to provide support for a stock market consolidation by emphasizing the benefits of the larger stock markets. The US, EU and other economic unions are example of how working together can create value, attract investments and increase the benefits for everyone.

The main purpose of this study is to determine the level of attractiveness of Bosnian stock markets (Sarajevo “SASE” and Banja Luka “BLSE”). To determine the level of attractiveness, using stock market Attractiveness Factors (i.e. size, diversity, volume, liquidity, risk and return), the study compares Bosnian stock market with the Focus Markets. It further, analyzes the composition of the Focus Markets and their main indexes providing the support for Bosnian stock market consolidation.

II. Stock Market Attractiveness Criteria

Companies or investors considering their opportunities and feasibility of entering a new market perform the analysis of market attractiveness in order to determine whether the entrance into a particular market is profitable and worthwhile¹. Coffee (2002) states that the number of stock exchanges will undoubtedly decrease radically in the nearest future due to the globalization and technologies. As the number of stock exchanges decreases, the competition among those remaining will increase². However, for assessing the market attractiveness, it is necessary to identify the main factors influencing it. In this section, the factors defined as most important for stock market attractiveness will be analyzed.

The analysis of literature (Pagano et al. (2001), Kennedy (2004), Klein (2005), M. E. Porter (1980), Carpentier et al. (2004), Cantillon Pai-ling Yi (2008)) shows 12 factors with the biggest impact on the stock market attractiveness, as listed below.

Table 1: Stock Market Attractiveness Factors

Market Size	Liquidity	Diversity	Trade Volume
Risk	Return	Listing fees	Transaction fees
Shareholders' protection	Legal regulation	New listings	Cross listing

The literature review indicates that stock market size, diversity, volume, liquidity, risk and return as the most important criteria measuring the stock market attractiveness. The role and importance of these criteria is outlined below.

i. Size & Diversity

The market size has been present in all of the researches mentioned above as one of the fundamental factor of stock market attractiveness. While talking about market size, Coffee, (2002) includes smaller factors such as listings, market capitalization, capitalization share in the gross domestic product, and IPOs. Others name those factors separately as the criteria of stock market competitiveness. Market size can be directly related to the market competitiveness. The larger the market, the more attractive it is, because it provides access to the bigger investor base.

¹ Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York, N.Y.: Free Press, p. 396.

² Coffee, J. C. (2002). *Competition among securities markets: A path-dependent perspective*. Columbia Law and Economics Working Paper, No. 192. 88 p.

Stock market diversity, first considered by Fernholz (1999), is a measure of the distribution of capital in an equity market. Diversity is higher when capital is more evenly distributed among the stocks in the market, and is lower when capital is more concentrated into a few of the largest companies³. According to Credit Suisse's Global Investment Returns Yearbook for 2015, the three largest industries in 42 of the countries in the FTSE all world index make up at least 40% of total country capitalization. Meanwhile the US, along with France, the UK, and Japan, have the most diverse stock markets. The study also notes that investors in most countries with fewer industries have less-diversified portfolios, thus fueling their demand for foreign stocks. This underlines the need for global diversification across countries in order to diversify effectively across industries⁴.

According to Fernholz (2005) Market diversity appears to be an important factor in the investors' performance. Holding a portfolio that is closer to diversity weights than to capitalization weights should improve relative performance over the long term⁵.

ii. Volume

The volume shows the amount of securities traded over the period of time in terms of money⁶. When the trade volume is bigger, a market is more liquid as the issuers can attract the capital faster. "A liquid market is one in which large amounts of securities can be traded in a minimum number of transactions and with a little impact on prices" (Kennedy, 2004)⁷.

In practice, volume is very important in the case of smaller stock exchanges as it indicates the level of transaction efficiency in a market. Furthermore, volume is one of the most important factors in the technical analysis. Investors and traders use volume as a tool to determine trends, chart patterns and forecast stock prices. The movement in a stock price that is accompanied by a high volume is considered more relevant move than a movement with a weak volume.

³ Fernholz, R. (1999). On the diversity of equity markets. *Journal of Mathematical Economics* 31 (3), 393–417.

⁴ Credit Suisse, Credit Suisse Global Investment Returns Yearbook 2015 (February 2015). Retrieved June 20, 2016, <https://publications.credit-suisse.com/tasks/render/file/?fileID=AE924F44-E396-A4E5-11E63B09CFE37CCB>.

⁵ Fernholz, E. Robert. "Stock Market Diversity." *Stochastic Portfolio Theory* (2005): 25-42. Web. http://www.q-group.org/wp-content/uploads/2014/01/Stock-Market_Diversity.pdf.

⁶ Carpentier, C., L'Her, J. F., Suret, J. M. (2008). On the competitiveness of the Canadian stock market. *Banking & Finance Law Review*, Vol. 24, No. 2. 24 p.

⁷ Kennedy, S. (2004). Canada's capital markets: How do they measure up. *Bank of Canada Review*, Bank of Canada, p. 33–40.

iii. Liquidity

Market liquidity refers to the ability of buyers and sellers of securities to transact efficiently and is measured by the speed, with which large purchases and sales can be executed, and the transaction costs incurred⁸. Some of the liquid market characteristic include: ready and willing buyers and sellers (instant transactions), ability to convert shares into cash quickly, and ability to trade shares without affecting a share price. Some of characteristics of an illiquid market include: high transition costs, large price movements caused by transactions, and inability to buy or sell shares quickly enough to capitalize on gains or prevent losses.

Liquidity is important for stock exchanges and trading systems in general. In competition with each other and with alternative trading systems, liquidity tends to be an important argument to attract order flow and listings. Moreover liquid markets tend to attract even more liquidity, and ultimately more attractive.

iv. Risk

Financial risks are a relatively recent phenomenon, evolutionary speaking. The chance that an investment's actual return will be different than expected return includes the possibility of losing some or all of the original investment. Most literature on this subject defines the term "risk" as comprising two elements: First is the probability (or likelihood) of occurrence of a negative event during the lifetime of operation of a facility: Second is the resultant consequence when a negative event has taken place.⁹

Risk is an important concept when considering which stock market to invest in, especially in terms of how it affects security prices and rates of return. If a market carries higher risk, investors will expect higher premium and vice versa. At the same time if a certain stock market carries high risks including country risk, exchange rate risk, interest rate risk, liquidity risk or any other risk, the attractiveness of that market diminishes significantly regardless of the upside in potential higher returns.

⁸ Elliott, D. J. (June 2015). Market Liquidity: A Primer. Economic Studies at Brookings. Retrieved April 02, 2016, 4. pag. Web.

⁹ Rackwitz, R. . "A new approach of setting safety targets." Proceeding on the conference on safety risk and reliability (2001): n. pag. Malta.

v. Return

A return is a performance measure used to evaluate the efficiency of an investment. Return of a certain stock market depends on all the factors outlined above. Generally, the higher the risk of an investment, the higher the potential return. There is no guarantee that investor will actually get a higher return by accepting more risk (higher risk only increases the potential for higher returns)¹⁰. Theoretically, the higher a stock's spread, the higher the return. Therefore higher liquidity yields lower return, making the particular market more attractive for investors.

III. Analyzing the Attractiveness of the Bosnian Stock Market

I. Purpose of the Study

The main purpose of this study is to determine the level of attractiveness of Bosnian stock markets (Sarajevo "SASE" and Banja Luka "BLSE"). To determine the level of attractiveness, using stock market Attractiveness Factors (i.e. size, diversity, volume, liquidity, risk and return), the study compares Bosnian stock market with the Focus Markets. It further, analyzes the composition of the Focus Markets and their main indexes providing the support for Bosnian stock market consolidation.

II. Content of the Study

Stock markets are public institutions and data records are freely available. Most of the data for the study was gathered from Bloomberg Terminal, where information on stock markets, indices composition and publicly traded companies is readily available. Furthermore, annual, country and market reports were used as an important source of information for this research.

The study includes detailed analysis of Focus Markets main indices (i.e. SASX-10, BIRS, CROBEX10, MIB10 and DAX30). The information gathered for the above mentioned indices includes data from December 31, 2008 until December 31, 2015.

¹⁰ Koch, Stefan. "Illiquidity and Stock Returns: Evidence from the German Stock Market." SSRN Electronic Journal (n.d.): n. pag. Web.

III. Methods and Assumptions of the Study

Methods of this study are listed as follows:

- The research methods used for performing research include analysis of literature and statistical data and the review of historical data of the stock market attractiveness factors.
- The study collects historical data on the Focus Markets Attractiveness Factors using Bloomberg Terminal and market & company reports.
- Using Microsoft Excel, the study compares Focus Markets focusing on size, diversity, volatility, liquidity, risk, and return.
- Ultimately, the study determines the level of attractiveness of Bosnian stock markets when compared to Croatian, Macedonian and German markets.

The assumptions of this study are listed as follows:

- The study assumes that the main indices of the respective markets are good representatives of the markets as a whole.
- The study assumes that comparing five most traded companies from the focus markets rather than frequency of trading of the entire market is a better indicator of stock market volume and liquidity.
- The study assumes that the risk profile of the respective stock markets is a function of the stock market specific risks (e.g. liquidity and regulations risks) and country related risks (e.g. political risk).
- The data used for this study is publicly available financial information and is assumed to be correct.

IV. Stock Market Attractiveness Analysis and Findings

i. Stock Market Size

The size of a stock market is heavily dependent on the size of an economy. Table 1 depicts market capitalization of the five focus stock markets. When analyzing the table, it is clear that all markets follow the global trend. Market capitalization grew from 2003 until the financial crisis

of 2008, after which, there is a significant capitalization decrease (more than 50%). As presented in the table below, the recovery of the markets is very slow and it is unclear when they will reach the market capitalization level of 2007.

Table 2: Market Capitalization USD Billion

Year	B&H	SASE	BLSE	ZSE	MSE	FSE
2003	0.83	0.39	0.44	8.00	0.63	1,144
2004	2.73	1.91	0.82	13.76	0.64	1,266
2005	4.76	3.29	1.47	18.40	1.38	1,294
2006	9.85	5.81	4.03	32.16	0.81	1,735
2007	11.87	7.91	3.95	62.88	4.95	2,231
2008	5.86	3.98	1.88	28.00	1.99	1,173
2009	5.57	3.65	1.92	27.20	2.19	1,375
2010	5.58	3.68	1.90	30.88	2.16	1,515
2011	4.18	2.23	1.95	29.60	1.96	1,256
2012	4.25	2.30	1.95	30.66	1.93	1,575
2013	4.52	2.41	2.11	29.39	1.75	1,256
2014	4.71	2.44	2.26	32.32	1.78	1,345
2015	5.77	3.10	2.67	29.66	1.74	1,541

Source: Bloomberg

FSE is by far the largest stock market analyzed and it corresponds to the size of German economy. Croatian market is the second largest, 6 times larger than Bosnian and 15 times larger than Macedonian, even though Croatian economy is 3 times the size of Bosnian and 5 times the size of Macedonian. According to market capitalization analysis, FSE is the most attractive stock market, followed by ZSE, SASE, BLSE and MSE.

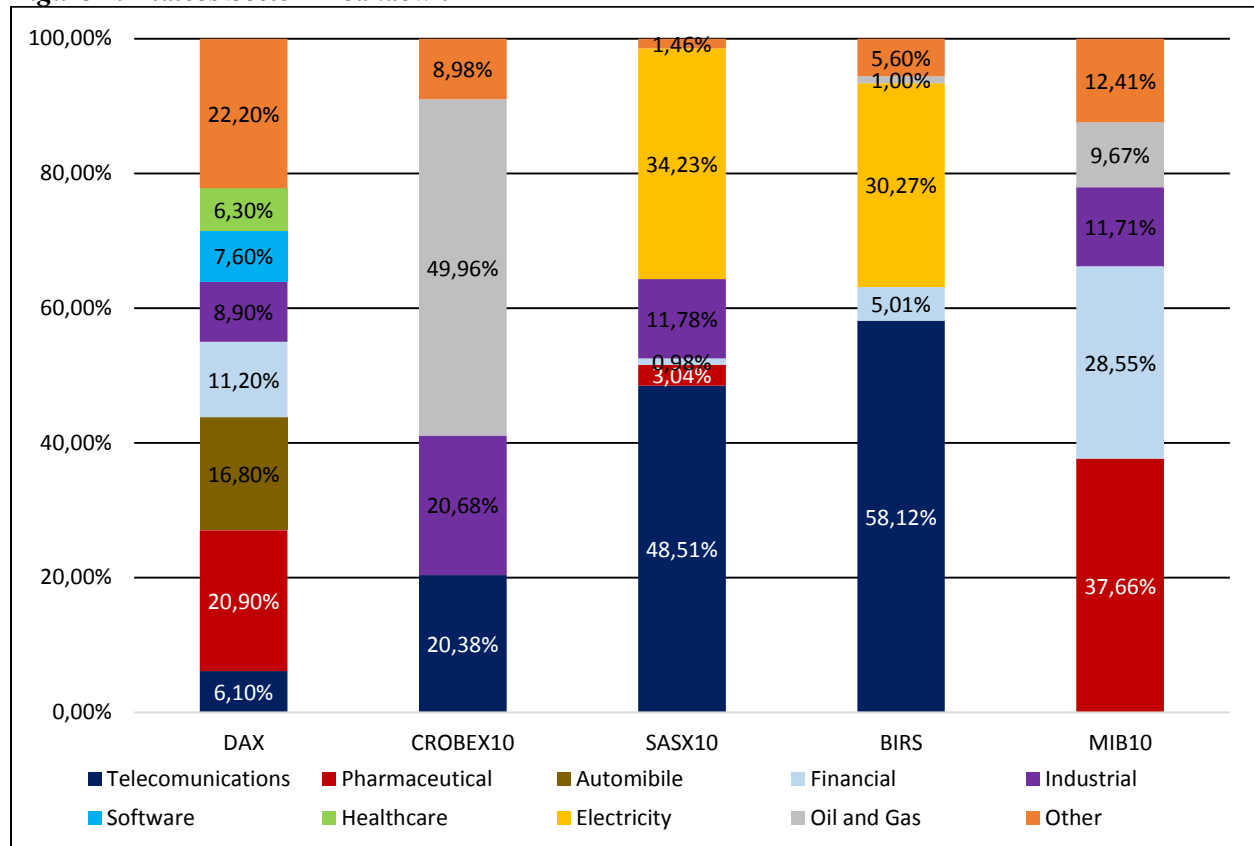
ii. Diversity

Stock market diversity is a measure of the distribution of capital in a stock market. Diversity is higher when capital is more evenly distributed among the stocks in the market, and is lower when capital is more concentrated into a few of the largest companies.

Including all listed companies from the Focus Markets when analyzing diversity would be very time consuming exercise. Analysis of this caliber is outside the scope of the study. Instead, the study focuses on the main indices from the focus stock markets. The main indices from the Focus Markets include most traded companies with highest market capitalization. As

capitalization of companies that are included in the indices is amended so that no single company carries more than 20% of the index weight, the study includes full market capitalization of the companies (as it provides a better reflection of the overall market diversity). The analysis includes breakdown of SASX-10, BIRS, CROBEX10, MIB10 and DAX30. Market capitalization of the above mentioned indices was calculated as at December 31, 2014.

Figure 1: Indices Sector Breakdown



Source: Bloomberg, Stock Exchange Annual Report

Regardless of having two stock exchanges, this analysis suggests that the two main industries for Bosnia include Electricity and Telecommunications. Even in case of a stock market consolidation, the diversity picture would not significantly change. The study suggests that small economies are destined to specialize in few industries and have poor stock market diversity.

iii. Volume and Liquidity

To compare markets' volume and liquidity, the study examines the market turnover ratio, calculated as the total capital turnover of the markets divided by market capitalization- as illustrated below.

Table 3: Stock Market Turnover Ratio

Year	B&H	SASE	BLSE	ZSE	MSE	FSE
2004	0.06x	0.05x	0.06x	0.04x	0.21x	1.23x
2005	0.09x	0.09x	0.10x	0.08x	0.10x	1.45x
2006	0.05x	0.06x	0.05x	0.08x	0.62x	1.73x
2007	0.09x	0.08x	0.10x	0.06x	0.13x	1.79x
2008	0.07x	0.06x	0.07x	0.08x	0.10x	1.93x
2009	0.04x	0.03x	0.05x	0.04x	0.05x	1.07x
2010	0.03x	0.02x	0.05x	0.03x	0.04x	1.03x
2011	0.08x	0.06x	0.11x	0.02x	0.11x	1.34x
2012	0.08x	0.08x	0.07x	0.01x	0.05x	0.91x
2013	0.07x	0.05x	0.09x	0.01x	0.03x	1.03x
2014	0.13x	0.13x	0.13x	0.02x	0.08x	1.21x

Source: Bloomberg

As expected, FSE has the highest stock turnover ratio. Note the gradual increase in turnover from 2004 until 2008 financial crisis. The data also shows that Focus Markets follow global trends (i.e. after the recession period the ratio has started to recover, however very slowly). According to the analysis, surprisingly, ZSE has the lowest turnover ratio (the least liquid out of five markets analyzed). What is also interesting is that MSE appears to be the second most liquid market up until 2008, after which, the Bosnian stock markets take the second place.

In order to further analyze the market volume and liquidity, the study compares five most traded companies from each focus market (as this may be a better indicator of stock market liquidity). The calculation utilizes one year data (January 1, 2013 to December 31, 2014). Tables 3 & 4 include five most traded companies for each market (only DAX turnover table includes complete calculation).

Table 4: Turnover ratio Frankfurt Stock Exchange

Company Name	Turnover (EUR)	Avg. Price	Volume	Float Shares	Turnover ratio
Bayer	116,742,400,000	125.8	928,000,000	826,000,000	1.12x
BASF	104,139,200,000	77.6	1,342,000,000	888,000,000	1.51x
Simens	105,512,000,000	96.8	1,090,000,000	749,000,000	1.46x
SAP	81,354,000,000	74.5	1,092,000,000	978,800,000	1.12x
Allianz	101,956,500,000	146.7	695,000,000	457,000,000	1.52x

Source: Bloomberg

Table 5: Turnover ratio of SASE, BLSE, SZE, and MSE

SASE	Turnover ratio	ZSE	Turnover ratio
BH Telecom d.d. Sarajevo	0.07x	HT d.d.	0.11x

Bosnalijek d.d. Sarajevo	0.13x	Ericsson Nikola Tesla d.d	0.26x
Elektro grupa d.d. Jajce	0.21x	Adris grupa d.d	0.18x
Bor Banka d.d. Sarajevo	0.11x	Ledo d.d.	0.11x
ZIF MI Group dd Sarajevo	0.17x	Valamar Adria Holding d.d	0.11x
BLSE	Turnover ratio	MSE	Turnover ratio
Bobar Banka Bijeljina	0.79x	Komercijalna banka AD Skopje	0.11x
Telekom Srpske Banja Luka	0.07x	Alkaloid AD Skopje	0.04x
Bobar Osiguranje Bijeljina	0.27x	Makpetrol AD Skopje	0.09x
Banja Vrucica Teslic	0.27x	Makedonski Telekom AD Skopje	0.005x
Cistoca Banja Luka	0.52x	Granit AD Skopje	0.06x

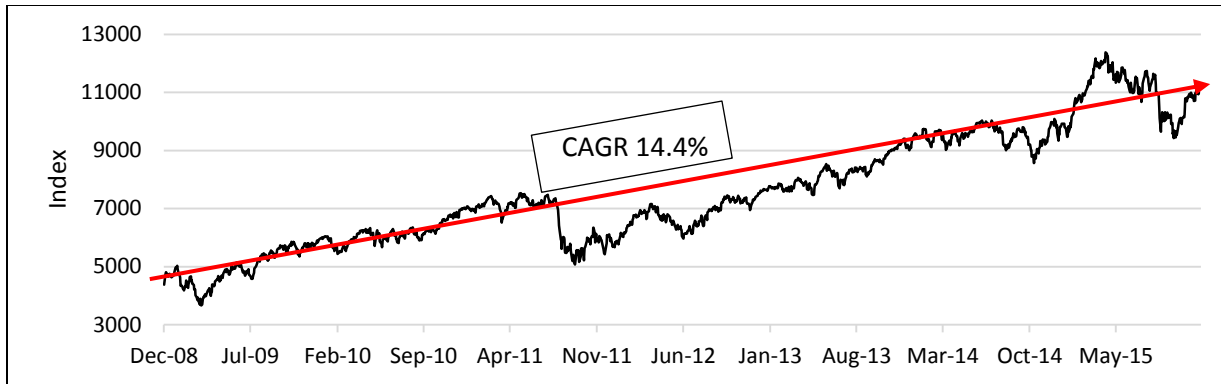
Source: Bloomberg

The turnover ratio of the five most traded companies in Focus Markets reflect the overall turnover of their respective markets. According to the analysis, FSE is the most liquid market, followed by BLSE, the second most liquid when taking into account five most traded companies. SASE, ZSE and MSE have similar turnover ratio and, in general, all four (apart from FSE) have low liquidity and turnover. However, the analysis supports study's hypothesis, implying that combining SASE and BLSE would make Bosnian stock exchange second most liquid out of five analyzed. It is important to note that SASE, BLSE, MNSE and ZSE are all relatively illiquid when compared to leading stock markets such as London Stock Exchange ("LSE"), New York Stock Exchange ("NYSE"), and FSE. This indicates that attractiveness of stock markets in South East Europe is very low and the only way to attract more investors is to create a larger market that is well diversified.

iv. Risk and Return

A return is a performance measure used to evaluate the efficiency of an investment. The performance graphs and return of the five focus indices is outlined below. As mentioned earlier, DAX is used as a model for other stock markets. The performance is calculated post 2008 financial crisis. Figure 2 outlines DAX historical chart.

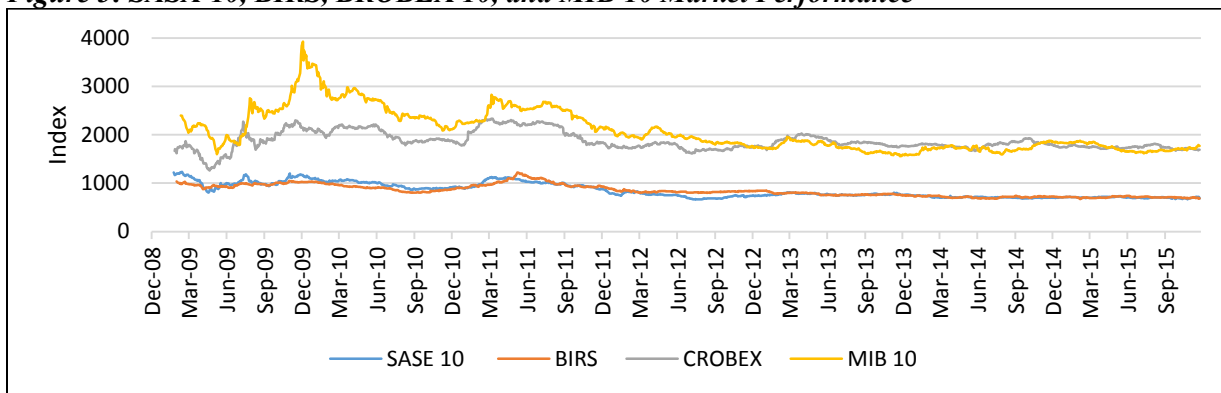
Figure 2: Historical Performance of DAX



Source: Bloomberg

DAX has appreciated 14.4% annually, from December 2008 until November 2015. This signals that the market has been recovering, recording positive growth over the past seven years. The figure and the table below depict the historical performance of the other four stock exchanges.

Figure 3: SASX-10, BIRS, BROBEX 10, and MIB 10 Market Performance



Source: Bloomberg

Table 6: Historical Performance

Index name	Performance (2008-2015)	Index name	Performance (2008-2015)
SASX-10	-7.90% *	MIB 10	-5.06% *
BIRS	-5.75% *	CROBEX	0.20% *

*Per annum (p.a.) from December 2008 to November 2015

Source: Bloomberg

As outlined in Table 5, CROBEX is the only index that has a positive performance and shows the sign of recovery. However, the appreciation is only 0.20% annually. Other indices have been depreciating despite the global recovery. The results suggest that larger economies perform better and are more resilient to economic crisis - supporting the idea of market consolidation. The table below depicts the risk profile of five focus stock markets.

Table 7: Stock Exchange Risk Profile

Stock Market / Type of risk	Diversifiable	Market	Asset Pricing Model	Liquidity	Country	Regulations
FSE	Low	Low	Low	Low	Low	Low
ZSE	Medium	Medium	High	High	Medium	Low
SASE	High	Medium	High	High	High	Low
BLSE	High	Medium	High	High	High	Low
MSE	High	Medium	High	High	High	Low

Risk profile analysis shows that FSE offers the lowest risk and highest returns. As expected ZSE is the second best performer with slightly lower level of risk than SASE, BLSE and MSE. The SASE is the worst performer, followed by the BLSE and the MSE. The risk profile analysis supports the general idea that the larger markets have lower risk and higher returns; however, there is no evidence that consolidating Bosnian stock market would improve its risk profile.

Conclusion

The analysis of the data presented in this study indicates that consolidation of SASE and BLSE would slightly improve Bosnian stock market attractiveness. Furthermore, the study validates the correlation between stock market size and attractiveness, as larger stock market seem to be more attractive than, to some degree, smaller markets (i.e. ZSE is slightly more attractive than SASE; and SASE is slightly more attractive than BLSE and MSE).

Even though ZSE appears to be more attractive than SASE, BLSE and MSE, in reality, all four markets are significantly less attractive compared to FSE. The study suggests that all stock exchanges except for FSE have low liquidity, turnover, diversity, returns and high risk exposure. Furthermore, analysis shows that consolidating SASE and BLSE would increase market's size, volume and liquidity; however, diversity, risk and return would not improve. Ultimately, the study advises that the increase in attractiveness in case of SASE and BLSE consolidation would be insignificant, moreover, in order to increase the markets attractiveness, the improvements in Attractiveness Factors would have to be substantial. Nevertheless, SASE and BLSE consolidation would be beneficial for the country, as it would provide a 'one-stop-shop' for investors seeking to invest in Bosnian companies.

In Conclusion, stock exchanges from the countries with small economies are significantly less attractive when compared to stock markets from countries with larger economies. Focus Markets, with the exception of FSE, seem to have similar attractiveness issues and are all regarded as unattractive.

Bibliography

Carpentier, C., L'Her, J. F., Suret, J. M. (2004). Competition among securities markets: Can the Canadian market survive? Working Papers. 35 p.

Carpentier, C., L'Her, J. F., Suret, J. M. (2008). On the competitiveness of the Canadian stock market. *Banking & Finance Law Review*, Vol. 24, No. 2. 24 p.

Cantillon, E., Yin, P. L. (2008). Competition between exchanges: Lessons from the battle of the bund. CEPR Discussion Paper, Vol. 6923. 53 p.

Coffee, J. C. (2002). Competition among securities markets: A path-dependent perspective. Columbia Law and Economics Working Paper, No. 192. 88 p.

Credit Suisse, Credit Suisse Global Investment Returns Yearbook 2015 (February 2015). Retrieved June 20, 2016, <https://publications.creditsuisse.com/tasks/render/file/?fileID=AE924F44-E396-A4E5-11E63B09CFE37CCB>

Elliott, D. J. (June 2015). Market Liquidity: A Primer. Economic Studies at Brookings. Retrieved April 02, 2016, 4. pag.

Fernholz, R. (1999). On the diversity of equity markets. *Journal of Mathematical Economics* 31 (3), 393–417.

Fernholz, E. Robert. "Stock Market Diversity." *Stochastic Portfolio Theory* (2005): 25-42. Web. http://www.q-group.org/wp-content/uploads/2014/01/Stock-Market_Diversity.pdf

Kennedy, S. (2004). Canada's capital markets: How do they measure up. *Bank of Canada Review*, Bank of Canada, p. 33–40

Koch, Stefan. "Illiquidity and Stock Returns: Evidence from the German Stock Market." *SSRN Electronic Journal* (n.d.): n. pag.

Pagano, M., Randl, O., Röell, A. A., et al. (2001). What makes stock exchanges succeed? Evidence from cross-listing decisions. *European Economic Review*, Vol. 45, p. 770–782.

Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York, N.Y.: Free Press, p. 396.

Rackwitz, R. "A new approach of setting safety targets." *Proceeding on the conference on safety risk and reliability* (2001): n. pag. Malta.

Sun, Walter. "Relationship between Trading Volume and Security Prices and Returns." MIT Laboratory for Information and Decision Systems (2003): 49. pag.

The Bloomberg Terminal - <https://www.bloomberg.com/professional/solution/bloomberg-terminal/>