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DEVELOPMENT OF THE MACEDONIAN STOCK EXCHANGE

Abstract

The operating and the level of development of the stock market estimate through more indicators. Ones of these indicators are the market capitalization/GDP that presents the scope of the market, and market turnover/GDP and market turnover/market capitalization as the indicators for the market liquidity.

In the analysis is covered over the 10 years of the functioning of the Macedonian Stock Exchange (MSE), which further allows to see an negative impact from the global financial crisis on the operating and the development of the MSE.

In the paper, a comparative analysis is made on the Macedonian Stock Exchange with some stock exchanges in the region, confirming the unfavorable trend in the development of the Macedonian Stock Exchange after the global financial crisis.

Key words: liquidity, market capitalization, market turnover, GDP, MSE

JEL classification: G11, G12

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Introduction

The development of the capital market is usually considered through its size and depth. The indicator of the size of the capital market is market capitalization in relation to GDP, and the depth of the capital market, which actually refers to its liquidity, is measured through stock exchange turnover in relation to GDP and stock exchange turnover in relation to market capitalization. Higher numbers of these indicators indicate a higher development of the capital market.

The paper analyzed the operating and development, through the size and liquidity of the Macedonian Stock Exchange (MSE) as a representative of the Macedonian capital market.

The Macedonian Stock Exchange is established in 1995 and is the first organized stock exchange in the history of the country. But in the Macedonian financial system the banking is dominated sector, while other segments are less represented and in the process of development. So, we have situation the most important source of capital in Macedonian economy presents the loan, yet.

MSE is characterized as shallow stock exchange given that it traded with a few types of securities, namely only with shares and government securities. In terms of types of transactions on the Macedonian Stock Exchange, it includes: trading in best, block transaction, public auction or public offer of securities, etc. In terms of market segments on the MSE operates official and unofficial market.

The survey of the market turnover and market capitalization as the relative indicators allow to consider the reasons or the factors that led to the current conditions on the MSE and conditioned positive or negative trend in the stock exchange turnover and market capitalization in certain years in the past period (2005-2016).

1. LIQUIDITY OF THE MACEDONIAN CAPITAL MARKET

Under a liquid or continuous market we mean a market in which investors in securities can convert, i.e. convert securities into cash and vice versa, with minimal costs and without loss in time. In fact, liquidity refers to the speed at which a certain amount of value can be purchased, sold on the market, without significantly changing its price. Thus, if the market

is lucrative, economic agents can more easily convert their money into financial instruments and vice versa, enabling them to preserve or undergo small fluctuations in the amount of money they have invested in the market. Therefore, the greater the liquidity in the capital market, the greater the amount of savings channeled through the stock market. Securing a continuous market is important for investors, as liquidity allows them to hold the invested funds all the time, and withdraw them as soon as they need it. Liquidity is also important for the issuers themselves, because the higher liquidity, the required rate of return, i.e. the price of capital is the lower.

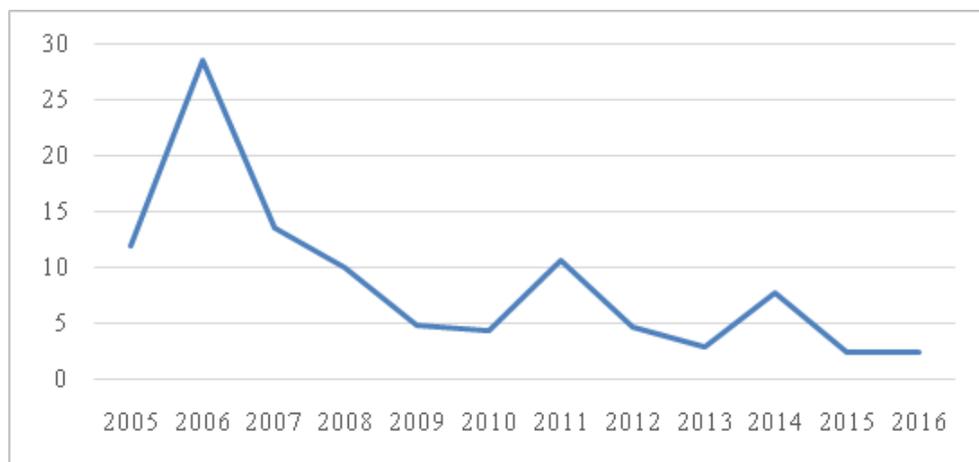
Table 1 presents the degree of liquidity as the ratio between total turnover and market capitalization on the MSE in the period 2005-2016.

Table 1. Liquidity ratio, as a ratio between total turnover and market capitalization (in%) (2005-2016)

Year	Liquidity ratio
2005	11,95
2006	28,48
2007	13,49
2008	9,94
2009	4,91
2010	4,32
2011	10,7
2012	4,65
2013	2,96
2014	7,84
2015	2,47
2016	2,52

Source: Own calculations based on data from <http://www.mse.mk/mk/reports>

Figure 1. Liquidity ratio, as a ratio between total turnover and market capitalization (2005 - 2016)



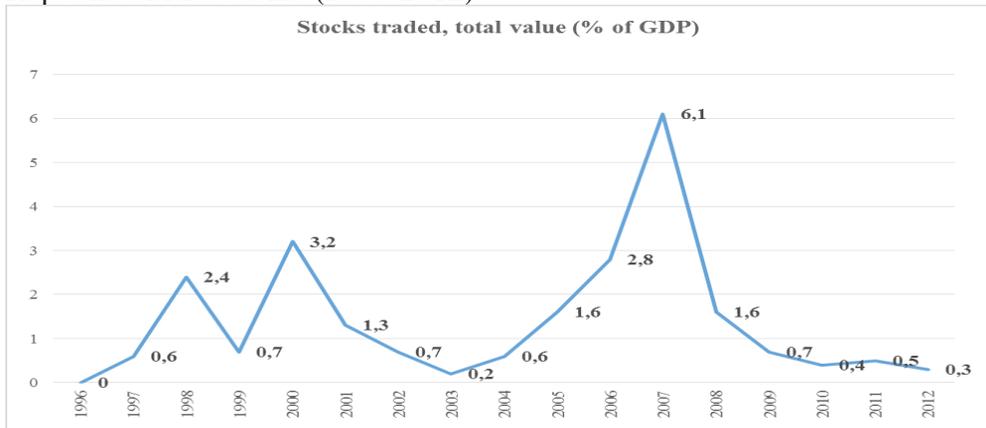
Source: Own illustration

From the Table 1 / Figure 1 we can notice in the whole period of analysis, the liquidity of the securities market measured through this indicator is not only low, but in 2016 it has been reduced several times compared to 2005. However, it should be borne in mind that these indicators would be higher if the effect of the realized block transactions, which have a significant impact on the total trading volume, is exempted. The high prevalence of block transactions on the Macedonian Stock Exchange relative to regular trading transactions is a factor that contributes to the low liquidity of the market, since these transactions are incidental and not an indicator of market liquidity.

The data on the capital market liquidity on the basis of the stock exchange turnover indicator expressed as a percentage of GDP provided through the World Bank Reports are given in Figure 2.¹

¹ The latest available data from the World Bank relate to 2012.

Figure 2. Stock exchange turnover, total amount (% of GDP) in the Republic of Macedonia (1996-2012)



Source: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/MK?display=default> (accessed on 12.8.2017)

Based on these data, it is perceived that the stock exchange turnover on the Macedonian Stock Exchange in the period from 1996 to 2012 shows oscillations in the behavior from rise to decrease. At the beginning of the analyzed period there was a slight increase (in 1997 from 0.6% to 2.4% in 1998), then a decrease of 0.7% in 1999, an increase of 2.5 percentage points in 2000 (3, 2%) and a gradual decrease which in 2003 had the lowest value of 0.2%. The upward trend continued in 2004 to 2007, which is registered as the year of highest liquidity on the capital market of the Republic of Macedonia from 6.1 %, that is a logical indicator of the state of the capital market corresponding with the high market capitalization in 2007. The stock turnover in 2007 was increased by the increased turnover of shares on the official and the regular market compared to 2006. In 2008, the stock turnover dropped to 1.6% (by 4.5 percentage points). The downward trend is evident in the coming years.

In addition, the indicator of the low liquidity of the stock exchange is also the high share in the turnover with the ten most traded securities. In fact, this shows us that it is a relatively small-sized market, i.e. a weak supply of securities with different characteristics. The greatest liquidity on our capital market was registered in the period 2005-2007, and especially in 2006. This situation, as mentioned above, is due to several activities undertaken in that period, such as the implemented reforms aimed at improving the stock

exchange operations, the exemption from the capital gains tax in order to encourage greater dynamics in trading in shares, the entry foreign investors, the participation of the two domestic pension funds in the trading of the stock exchange, the privatization of state capital, and the stable macroeconomic environment. In the years when the effects of the global economic crisis were most felt, the liquidity ratios of securities were very low. In addition, during the economic crisis, in 2008, the NBRM conducted a restrictive monetary policy, which caused the banks in the fight for greater liquidity to increase the interest rates on savings deposits. This meant absorbing a significant amount of free money to invest in the banking sector, and an additional blow to the liquidity of trading in securities on the stock exchange. Low liquidity continued in the following years, with the exception of a slight increase in 2011 and 2014. The limited liquidity of the Macedonian Stock Exchange disables the easy exit from the market, which adversely affects the value of the capital of the domestic investors.

2. MARKET CAPITALIZATION AS AN INDICATOR OF THE SIZE OF THE MACEDONIAN CAPITAL MARKET

The size of the capital market is usually reflected through market capitalization relative to the gross domestic product. Market capitalization is the value at which investors value a certain joint stock company on a particular day. This value is obtained by multiplying the total number of issued shares and the average stock price on a given date. In this way we estimate how much the company is worth in the market, or how much it is capitalized.

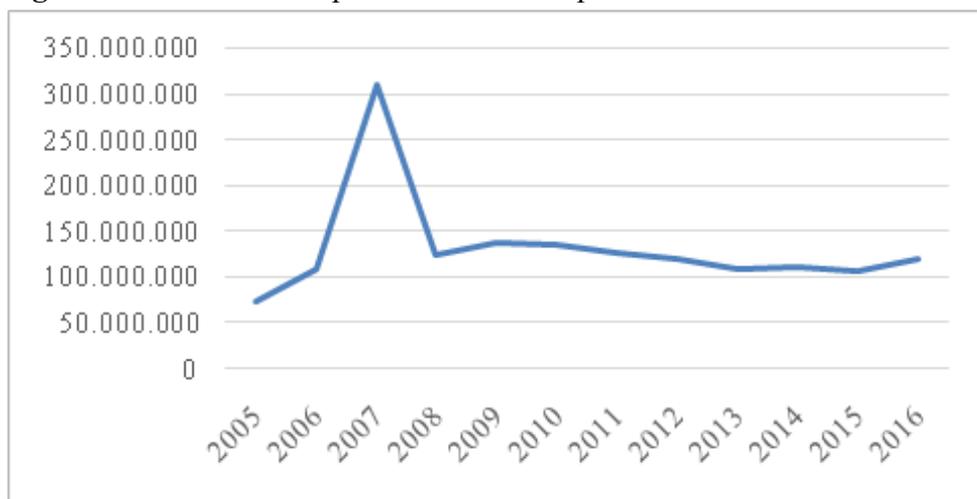
Below we present the total market capitalization, capitalization of shares and bonds in our country, as well as the percentage change for the period 2005-2016 (Table 2). From Table 2 it can be noted that in the period from 2005 to 2007, the total market capitalization is constantly increasing. This increase is due to the economic and financial boom in Macedonia, which was characteristic for those years, but above all because of the increase in the market capitalization of the shares, unlike the bonds in 2006 and 2007, when we notice a decrease as a result of the due annuities of the bonds and also on the pre-emptive redemption of the continuous government bond and the bond for remediation of Stopanska Banka AD Skopje, which happened in 2007.

After several years of growth in market capitalization, it significantly decreased in 2008, as a result of the consequences of the global economic crisis. However, we should bear in mind that due to the general aversion of investors for risk taking, reduced liquidity and fears of slowing down in the domestic economies, a reduction in market capitalization is noticed not only at our stock exchange, but also on almost all stock exchanges in the world and, of course, in stock markets in the region.

Table 2. Market capitalization (in total and as a percentage change) for the period 2005-2016

Year	Shares		Bonds		Total	
	Market capitalization	% change	Market capitalization	% change	Market capitalization	% change
2005	50.425.546.869	52,16	23.972.382.237	12,66	74.397.929.106	36,71
2006	86.482.150.528	71,50	22.436.317.815	-6,41	108.918.468.343	46,40
2007	288.765.400.791	233,9	20.309.065.558	-9,48	309.074.466.349	183,77
2008	106.290.316.076	-63,2	18.212.904.677	-10,32	124.503.220.753	-59,7
2009	122.080.076.689	14,86	14.883.330.348	-18,28	136.963.407.038	10,01
2010	122.577.939.865	0,41	12.511.677.891	-15,93	135.089.617.756	-1,37
2011	119.041.270.716	-2,89	8.563.567.068	-31,56	127.640.837.784	-5,54
2012	113.016.985.122	-5,06	7.353.535.935	-14,13	120.370.521.057	-5,67
2013	102.718.163.286	-9,11	6.616.404.276	-10,02	109.334.567.562	-9,17
2014	105.370.997.921	2,58	5.680.322.013	-14,15	111.051.319.934	1,57
2015	102.850.635.856	-2,39	4.881.457.420	-14,06	107.732.093.276	-2,99
2016	115.710.274.852	12,5	4.438.483.765	-9,07	120.148.758.617	11,5

Source: Annual reports for the Macedonian Stock Exchange AD Skopje for: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 and 2014 and the Annual Statistical Bulletin of the Macedonian Stock Exchange AD Skopje for 2015

Figure 3. Total market capitalization for the period 2005-2016

Source: Own illustration

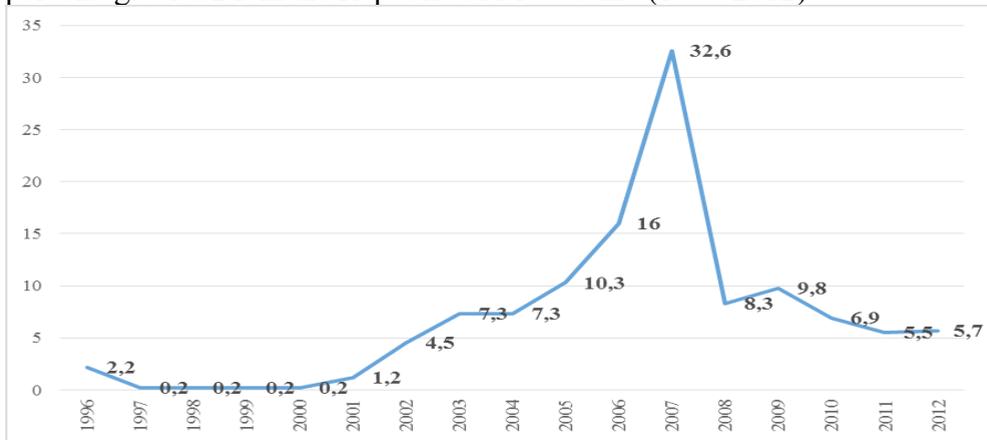
The following year 2009, the market capitalization of the bonds in relation to the previous year again dropped, but there is an increase in the market capitalization of the shares and an increase in the total market capitalization. In 2010 and 2011, the total market capitalization of both the shares and the bonds was reduced. Regarding the reduced market capitalization of the bonds, should be taken in consideration the due annuities of the denationalization bonds in 2010 and 2011 and the maturity of the bond for settling the claims of citizens on the basis of deposited foreign currency deposits in 2011. When it comes to reducing the market capitalization of the shares, in 2011, the reduced number of companies that listed on the stock exchange this year compared to 2010 should be taken into account. The situation was similar in 2012, when market capitalization declined by 5.67% compared to last year.

In the analysis of the market capitalization of the shares, a significant moment in 2013 was the introduction of the new market sub-segment on the official market of the stock exchange - the obligatory listing, which caused significant changes in the movements of the market capitalization of the listed companies. In contrast to the mild decline in the market capitalization of the listed companies in the first few months of the year, after the introduction of the obligatory listing, the enormous increase in the market capitalization of the listed companies occurred at the end of the first half of the year. This trend continued in 2014, when the market capitalization of the shares registered a

slight increase, but the market capitalization of the bonds dropped by 14.15% compared to last year, although the number of listed government bonds remained the same. In the last year of the analysis, we again notice a decline in the market capitalization of the bonds, unlike the shares where growth in market capitalization was 12.5% compared to 2015.

For the analysis of the development of the capital market, as previously mentioned, a more relevant indicator is the market capitalization expressed as a percentage of GDP. Figure 4 shows the values of this indicator, but which only applies to shares for the period 1996 - 2012.²

Figure 4. Market capitalization of shares listed on the stock exchange as a percentage of GDP in the Republic of Macedonia (1996-2012)



Source: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/MK?display=default> (accessed on 12.8.2017).

The market capitalization indicator expressed as a percentage of GDP in the years presented shows large fluctuations. Thus, in 1997, 1998 and 1999 it was 0.2% of GDP. Then, market capitalization has grown. This is mainly due to the reforms that were undertaken in the Republic of Macedonia in this period for development of the stock exchange, as well as the presence of the two investment funds from the second pension pillar and the stable macroeconomic situation in the analyzed period. During this period, there were several bigger sales that were realized on the Macedonian Stock Exchange with the privatization of state-owned enterprises. Especially significant in 2006 is the privatization of ESM and the entry of EVN Macedonia as part of

² The latest available data from the World Bank relate to 2012.

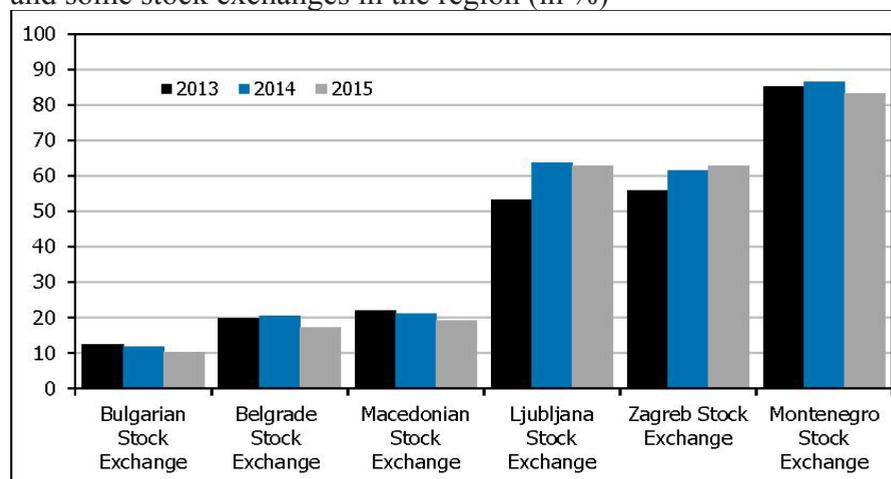
the EVN Group in the distribution and supply of electricity in the Republic of Macedonia. Market capitalization as % of real GDP in the Republic of Macedonia reached its highest value in the analyzed period in 2007. The high coefficient of market capitalization in 2007 is also linked to the high rate of economic growth in the same year. In the period of the global economic and financial crisis, more precisely since 2008, market capitalization as an indicator of the size of the capital market has seen a sharp decline. This analysis confirms the findings of the previous analysis of market capitalization taken as an absolute value.

3. A COMPARATIVE ANALYSIS OF SOME STOCK EXCHANGES IN THE REGION

In order to get a more realistic picture of the development of the Macedonian Stock Exchange, it is also necessary to make a comparative analysis with certain stock exchanges in the region. Comparative analysis takes into account the share of total market capitalization in GDP at certain stock exchanges in the region, as well as the correlation coefficient between the MBI-10 index and the indexes of certain stock exchanges in the region.

Figure 5 shows the share of the total market capitalization in GDP on the Macedonian and some stock exchanges in the region.

Figure 5. Share of the total market capitalization in GDP on the Macedonian and some stock exchanges in the region (in %)



Source: http://www.nbrm.mk/WBStorage/Files/WebBuilder_FSR_MKD_2015.pdf accessed on 20.8.2017

Based on the data from Figure 5, it is noted that the share of market capitalization in the GDP of the Macedonian Stock Exchange is only higher in relation to the Bulgarian and Belgrade Stock Exchange, but far behind the other three stock exchanges (Ljubljana, Zagreb and Montenegro Stock Exchange).

Table 3. Correlation coefficient of MBI-10 with indexes of stock exchanges in the region for the period 2012-2014

MBI-10 Skopje			
Market index	2012	2013	2014
BELEX15 - Belgrade	60,9	57,1	69,6
BET - Bucharest	41,9	-64,8	5,5
CROBEX - Zagreb	36,2	83,1	-4,6
EURO STOXX 50 Index	-20,7	-76,3	-31,9
SBITOP - Ljubljana	0,8	-14,9	10,5
SOFIX - Sofia	-53,2	-87,3	-25,5
WSE WIG20 - Warsaw	-41,2	-6,3	-12,8
BUX - Budapest	12,4	18,9	-52,1
SASX-10 – Sarajevo	42,6	45,4	-24,2

Source:http://www.nbrm.mk/WBStorage/Files/Regulativa_FSR_2014_1.pdf accessed on 20.08.2017

The unfavorable situation of the Macedonian Stock Exchange is also confirmed by the analysis of the degree of correlation of the index of the Macedonian Stock Exchange with the indices of certain stock exchanges in the region (see Table 3).

As can be seen from Table 3 in this three-year period of analysis, the number of stock exchanges with which MBI 10 index has negative correlation is increased, i.e. if in 2012 the MBI-10 index is in negative correlation with the indices of three stock exchanges in the region, in 2014, that number is growing to 6 stock exchanges.

Conclusion

The Macedonian capital market (that is, the Macedonian Stock Exchange as its representative) is a poor and illiquid market. The liberalization of the capital market and the reforms so far allowed to increase the market capitalization and the turnover on the capital market in the Republic of Macedonia, but it is still at unsatisfactory level. From the analysis made in the paper we can conclude that the Macedonian capital market in terms of its size and depth is much behind the countries with developed financial markets.

The impact of the global financial crisis on the Macedonian Stock Exchange was reflected with a slight delay, i.e. its effects began to be felt from 2009 when the turnover and market capitalization began to decrease continuously.

A capital market that is not profound as the Macedonian capital market, it is imperative that there is intense cooperation with the local stock exchanges. The integration of the Macedonian stock market on broader trading platforms, initially regional and later European, also will contribute to providing greater liquidity and attracting foreign portfolio investments, following the example of the developed stock exchanges in the world that are rapidly integrating. In this direction is the functioning of the joint platform SEE Link, which includes the Macedonian, Sofia, Zagreb, Belgrade and Ljubljana Stock Exchange, an initiative supported by the European Bank for Reconstruction and Development. This creates a significant market in which the offer consists of more than 500 securities, which is positive given the small regional local markets.

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