

The Impact of COVID-19 on the Stock Markets: Evidence from North Macedonia

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Abstract: Because of the global pandemic of COVID 19, the stock markets evidence loses, while the stocks are losing their values drastically. Namely, the world stock markets are losing of billions of euros due to the coronavirus pandemic that caused a blow to the economy with restrictions on the movement of citizens and new working conditions for companies. Some of the world economic media write that the fall brought by the pandemic on some stock markets is bigger than the one caused by the economic crisis in 2008.

The covid-19 virus epidemic that has hit the global stock markets has also harmed the domestic stock market, most notably in the MBI10 index, which contains the ten most liquid securities of listed companies. This index sank by 22.43% in March 2020 which is significantly decline, having in mind that in the past 5 years MBI10 was characterized with continuous double-digit annual growths. Oil companies, travels agencies, manufacturers were also exposed to the corona outbreak, their stocks were also in the downfall losing over 10% of their stock value. Nevertheless, in terms of COVID 19, the value of banks' shares recorded rise.

Starting from the a.m., the main objective of this research will be directed towards providing data about the impact of the COVID-19 pandemic on the stock markets, with particular focus on the Macedonian Stock Exchange.

Keywords: COVID 19, financial markets, stock markets, Macedonian Stock Exchange.

1. INTRODUCTION

The COVID-19 pandemic, which has already infected almost 19 million people (August 2020), resulting in more than 700.000 deaths, has the potential to reach a large proportion of the global population. Some estimates suggest that 40-70 per cent of the world's population could become infected.

The crisis is causing not just a global health emergency (International Labour Organization, 2020, p.2), but it has already transformed into an economic and labor market shock, impacting not only supply (production of goods and services) but also demand (consumption and investment). Disruptions to production, initially in Asia, have now spread to supply chains across the world. All businesses, regardless of size, are facing serious challenges, especially those in the aviation, tourism and hospitality industries, with a real threat of significant declines in revenue, insolvencies and job losses in specific sectors. Sustaining business operations will be particularly difficult for Small and Medium Enterprises (SMEs). Since, it is about a new

virus, at the moment no one fully knows what the long term effect of the virus will be. But, there is no doubt that there could be long lasting effects on both the health of the public and on the economies worldwide.

Economic turmoil associated with the COVID-19 pandemic has also impacted all financial markets worldwide in particular share prices trend dropped significantly and continuously.

Financial markets witnessed a historic flight to safety as the economic consequences of widespread measures to contain COVID-19 became apparent. Global equity valuations took an unprecedented plunge early in the year, while market volatility spiked to its highest level since 2008.

Actually, the financial markets have been under much pressure, volatility and uncertainty since COVID-19 (Larry 2020, p.1). At the end of February 2020, the global equity markets were in a freefall. Many still doubt the severity of this quickly spreading disease, but as these bottom buyers are

finding out, the big picture still views this uncontained epidemic as not seen through.

According World Bank (2020) global equity markets fell sharply as the pandemic spread across the world. Within a week of reaching an all-time high in mid-February, the S&P 500 index in the United States experienced its fastest decline since October 1987, and stock markets in other major economies experienced declines of similar magnitude. Emerged markets and developing economies suffered from record capital outflows accompanied by a rise in sovereign borrowing spreads, which was especially severe for countries with high government debt. (June, 2020).

The covid-19 virus epidemic that has hit the global stock markets has also harmed the Macedonian stock market. Having minded the previous, the main objective of the research in this paper is to analyze the consequences of the global pandemic on the Macedonian Stock Market.

2. RELATED RESEARCH

The COVID-19 pandemic put the world in virtual lockdown, causing deep recessions and economic turmoil with wide-ranging impacts in many economies worldwide. The most vulnerable were the emerging markets and developing economies (EMDEs) that rely heavily on global trade, tourism, or remittances from abroad and those that depend on commodity exports will be particularly hard-hit. Among them was and our country, Republic of North Macedonia.

Since there is no segment of the society which is not affected by the pandemic, many studies have been conducted in order to examine the possible impacts of COVID-19 on global financial markets, e.g. stock markets and its volatility during this pandemic.

According World Bank (2020, p.3), financial markets have been extremely volatile, reflecting exceptionally high uncertainty and the worsening outlook. Financial markets witnessed a historic flight to safety as the economic consequences of widespread measures to contain COVID-19 became apparent. Equity markets around the world plunged, spreads on riskier categories of debt widened considerably, and EMDEs experienced large capital outflows accompanied by a rise in sovereign borrowing spreads, which was especially severe for countries with high government debt. Many countries have provided large-scale macroeconomic support to alleviate the economic blow, which has contributed to a recent stabilization in financial markets. Central banks in advanced economies have cut policy rates and

taken other far-reaching steps to provide liquidity and to maintain investor confidence. In many EMDEs, central banks have also eased monetary policy.

OECD (2020, p.1) states that the economic impact of the global spread of COVID-19 has heightened market risk aversion in ways not seen since the global financial crisis. Stock markets have declined over 30%; implied volatilities of equities and oil have spiked to crisis levels; and credit spreads on non-investment grade debt have widened sharply as investors reduce risks. This heightened turmoil in global financial markets is occurring despite the substantial and comprehensive financial reforms agreed by G20 financial authorities in the post-crisis era.

The conducted study of Okorie and Lin (2020, p.7) provides empirical pieces of evidence on the fractal contagion effect of the COVID-19 on the stock markets. The results of their research have shown that there exists a significant but short-lived contagion effect in the stock markets as a result of the COVID-19 pandemic. These contagion effects are observed both in the stock market returns and volatilities.

Hai Yue Liu *et al.* (2020, p.1) examined the short-term impact of the coronavirus outbreak on 21 leading stock market indices in major affected countries including Japan, Korea, Singapore, the USA, Germany, Italy, and the UK etc. Their results suggest that COVID-19 outbreak has a significant negative effect on stock market returns across all affected countries and areas. Also, they revealed that stock markets of Asian countries react more quickly to the outbreak with some of them recovering slightly in the later stage of the pandemic. Confirmed cases of COVID-19 have significant adverse effects on major stock indices performances with those in Asia suffering a greater decrease in terms of abnormal returns. Investors fear sentiment is proved to be a complete mediator and transmission channel for the COVID-19 outbreak's effect on stock markets.

On the other side, Yan *et al.* (2020, p.5) analyze the potential effects that the coronavirus, "COVID-19", have on the stock market. They have investigated the travel industry, the entertainment industry, the technology industry, and gold. Their finding have shown that shorting travel stocks, entertainment stocks, and certain technology stocks, are likely ways to make short term profit due to the short-term panic selloff caused by the outbreak.

As per the Republic of North Macedonia, the situation with the stock market was similar at the beginning of the pandemic.

OECD (2020, p.2) states that the MBI10 index lost around 9% of its value from 10 January to 14 April. The Government bond spread has increased by around 6% between 1 January and 31 March, signaling weakened investor confidence. The local currency "MKD" has depreciated around 3% since the beginning of the year, signaling a potential capital outflow and rendering international trade and investment decisions more difficult.

UNDP (2020, p.3) finds serious impact of COVID19 to the economy in North Macedonia of the size higher than the global financial crisis of 2007-2009. Their finding revealed that the impact of the pandemic is different, attacking both supply and demand side of the economy and certain sectors has been more affected, especially micro, small, and medium enterprises. The financial sector is resilient to the crisis. Most banks – especially the systemically important ones - have high capital adequacy ratios and high liquidity to weather the crisis. Deposits continue to rise; credit activity to households is decelerating, precautionary saving is on the rise. The deceleration of outstanding amounts of consumer loans reflects lower outstanding amounts due on credit cards and lower overdrafts on the transaction accounts. Loan activity has already plateaued. Private sector credit in 2020 is forecasted to grow only by 0.5% compared to 2019. Banks and other financial institutions prefer to maintain higher buffers to sustain a potential wave of non-performing loans by firms and households.

According the analysis of Macedonian Stock Exchange (Monthly Statistical Bulletin, 2020), it was evidence 30 percent drop in the value of MBI10, which represent level of prices of the 10 most liquid shares on the Macedonian Stock Exchange. After the coronavirus pandemic was declared, only for one day this index sank by 9.38%, which is the biggest daily decline in the past 10 years, since the financial crisis. Namely, the value of MBI10 at July 31st 2020 compared to the value at the end of 2019, dropped about 7.73%.

So, there is no doubt that the pandemic has negative influence on the stock markets worldwide.

3. THE IMPACT OF COVID-19 PANDEMIC ON THE MACEDONIAN STOCK EXCHANGE

Modern history of the Macedonian capital market is associated with the structural changes in the 1990s of the 20th century, when the process of country

transition started. The process of privatization resulted in formation of larger number of shareholding companies, which posed a need of creating suitable market infrastructure for transfer of newly-created securities. Although many regional stock exchanges of the countries that went through the same transitional period were established earlier, constitution of the Macedonian stock exchange started in 1995 (Spaseska et al., 2017, p. 132).

Republic of North Macedonia successfully established a stock exchange in 1995. The stock exchange was founded as a holding company on a non-profit base, with a start-up capital of 1 million German marks. Although it was established in September 1995, the birth of the Macedonian stock exchange is associated with 28 March 1996, when the stock bell rang for the first time, which announced the official trading start. (Spaseska et al., 2016, p. 73).

The first few years if its' functioning, the market was rather unregulated and served privatization purposes. During this period, the listing of the companies was voluntary as in many transition economies that went through ownership transformation phase. From the establishment of the Macedonian stock exchange up to 2001, only two shareholding companies were listed on the official market. In order to intensify the security market development in R. Macedonia, various measures were taken over, among which two projects for mandatory listing shares.

Basically, the development of the Macedonian Stock Exchange is based on two projects of mandatory listing, the first in 2002, and the second in 2013. As a result of the mandatory listing, the number of listed companies increased on 78 companies at the end of 2002, and 116 companies in 2013. This means that the market capitalization in 2013 reached 97.76 billion MKD (about 1.6 billion EUR) and saw a rise of 277.18% as a result of the new 84 companies listed in the sub-segment mandatory listing. (Spaseska et al., 2019, p. 4).

The growth of the stock exchange in Republic of Macedonia has been relatively slow, mainly due to the modest securities offering and the low volume of stock market trading by these instruments. The turnover movement and the prices fluctuations on the capital market in R. North Macedonia can be divided into three periods. The first period is from the Stock Exchange establishment up to 2004, when on the capital market you could trade with an exceptionally small number of shares and the investors' main motive on the market was improvement of the companies' ownership

structure. Then, the second period from 2004-2007 followed, when there was an enormous growth of the turnover and the prices of the shares that were traded on the capital market. The third period on the capital market was that after 2007, i.e. the period from 2008 up today, when drastic turnover

falls and high prices fluctuations of the securities have been registered (Spaseska et al., 2019, p.825).

In the following table is shown a brief overview of Macedonian Stock Exchange.

Table 1: Overview of the Macedonian Stock Exchange

Year	Stock Market Capitalization (million MKD)	Total Yearly Shares Turnover (million MKD)	Average Daily Turnover (thousand MKD)	Average Daily Number of Transactions	No of Listed Companies	VOT (million MKD)	MBI 10
2005	50.425	4.625,4	33 341,7	159	57	8.889,57	2291,04
2006	51.021	8.564,8	42 836,6	208	43	31.017,93	3702,54
2007	113.499	28.844,6	123 095,1	574	38	41.702,32	7740,79
2008	35.255	6.675,1	32.780,6	175	38	12.378,96	2096,16
2009	38.886	2 794,5	16 798,8	141	36	6.732,33	2751,88
2010	30.443	2 017,4	13 237,0	104	34	5.842,96	2278,92
2011	27.300	2 147,1	14 154,7	96	32	13.655,86	1974,86
2012	25.918	1 553,2	11 201,1	60	32	5.600,31	1731,18
2013	97.756	1 394,6	8 664,4	55	116	3.234,56	1738,86
2014	101.759	1.985,4	10.146,7	53	115	8.704,06	1844,20
2015	99.359	1.436,5	8.532,6	48	114	2.660,49	1833,26
2016	115.710	1.823,6	9.520,2	52	109	3.023,39	2.134,91
2017	136.338	2.728,9	11.917,2	66	107	4.738,44	2.538,86
2018	158.772	4.358,2	19.794,1	96	105	10.414,07	3.469,03
2019	181.279	3.819,1	17.119,3	76	100	7.700,62	3.469,03

Source: Annual Reports of Macedonian Stock Exchange for the period 2005 to 2019

Available on: <https://www.mse.mk/mk/publication/annual-reports>

From all these above it can be concluded that in our country the capital market is not developed enough yet, especially the market of long-term securities. Therefore, the Macedonian stock exchange is relatively young institution and has negligible role in financial system of the country.

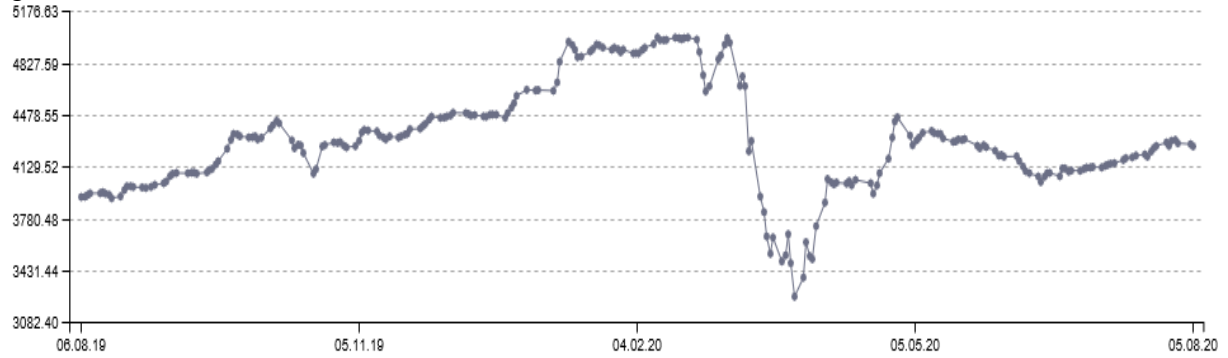
The covid-19 virus epidemic that has hit the global stock markets has also harmed the Macedonian stock market.

The decline began on February 24, just two days before the first positive case was confirmed in the

country, i.e. when several cases were registered in the region. Shortly afterwards, the stock market stagnated and improved until March 11, when the World Health Organization declared a Covid-19 pandemic, after which stock trading was at a steady downward trend.

After the coronavirus pandemic was declared, it was evidence 30 percent drop in the value of MBI10, which represent level of prices of the 10 most liquid shares on the Macedonian Stock Exchange.

Figure 1: Index Value - MBI10



Source: <https://www.mse.mk/en/indicies/MBI10/values>

According to the calculations of the Macedonian Stock Exchange based on the published annual statements, the annual minimum value of MBI10 during the first six months of 2020 is noticed on 27th of March, 3,256.92 and the annual max value of MBI10 is evidence on 2nd of February, 5,002.11. Data shows that last time the value of MBI10 was under the limit of 4,000 index points in August 2019 (Graph 1). The value of the MBI10 on 30.12.2019

was 4.648,89 which are 34.01% higher than the value of the index on the last day of trading in 2018, when it was 3.469,03.

Namely, significant upward growth of the value of MBI10 has been detected in the last 5 years, with continuous double-digit annual growths starting from 2016.

Table 2: MBI10 growth for the period from 2016 to 2019

Year	2015	2016	2017	2018	2019
MBI10 value	1.833,26	2.134,91	2.538,86	3.469,03	4.648,89
MBI10 growth (in %)	6.06%	16.45%	18.92%	36.64%	34.01%

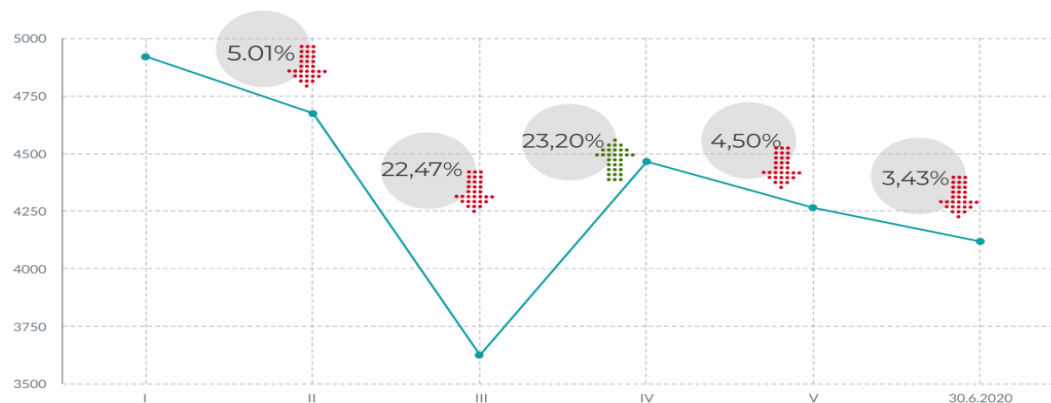
Source: Annual Statements of Macedonian Stock Exchange for the period from 2016 to 2019

But, the positive trend of the MBI10 index in the previous period has changed during 2020, under the influence of the COVID-19 virus which has resulted

in health and economic crisis in the country. (Graph 2)

Figure 2: Fluctuations of MBI 10 during 2020

Fluctuations of MBI10 in 2020



Source: www.mse.mk

Figure 2 has shown that the fastest decline of MBI10 is recorded during March 2020 (-22.47%). After the

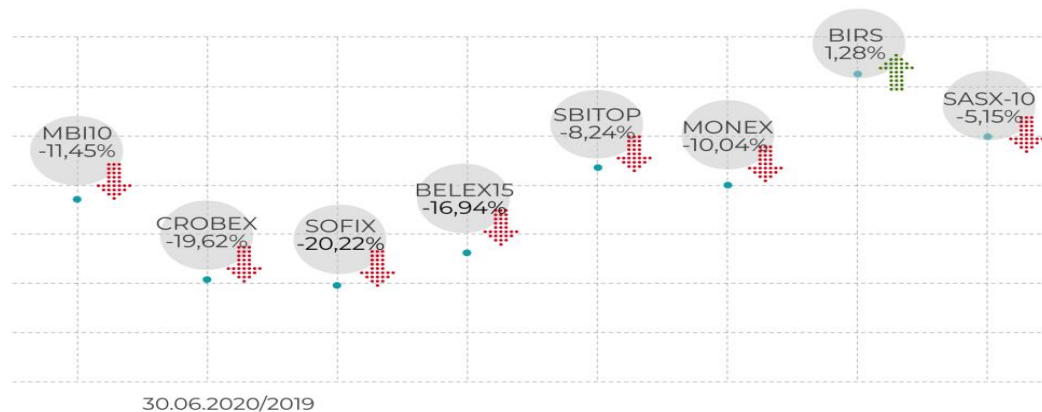
significantly shrank of the value of MBI in March 2020, the next month, April was recorded

meaningfully increase (+23.2%). Starting from 6th of May 2020 until the end of the first semester, the value of MBI10 was stable. This means that besides the turbulences as a result of the global pandemic, Macedonian Stock Exchange began to recover in early April.

Generally, the situation with all regional stock markets was similarly. Otherwise, decreased value of all regional indexes have been noticed in the first half of 2020, while MBI10 compared to all regional indexes has a much reduced decline in relation to the last trading day of 2019.

Graph 3: Comparative analysis of MBI 10 and regional indexes during 2020

Comparative analysis of MBI10 and regional indexes during 2020



Source: www.mse.mk

The destruction caused by the global pandemic of the coronavirus to the value of companies is huge. Namely, the market capitalization of listed companies at the end of March 2020 amounted about 2.5 billion euros and compared to the end of 2019 decreased by 16%.

Nevertheless, such decreasing tendency was short-lived. According to the analysis of the Macedonian Stock Exchange, the market capitalization in the first half of 2020 increased by 2.04% compared to the first half of 2019 and in relation to GDP is 25% (Semiannual Statistical Bulletin, 2020).

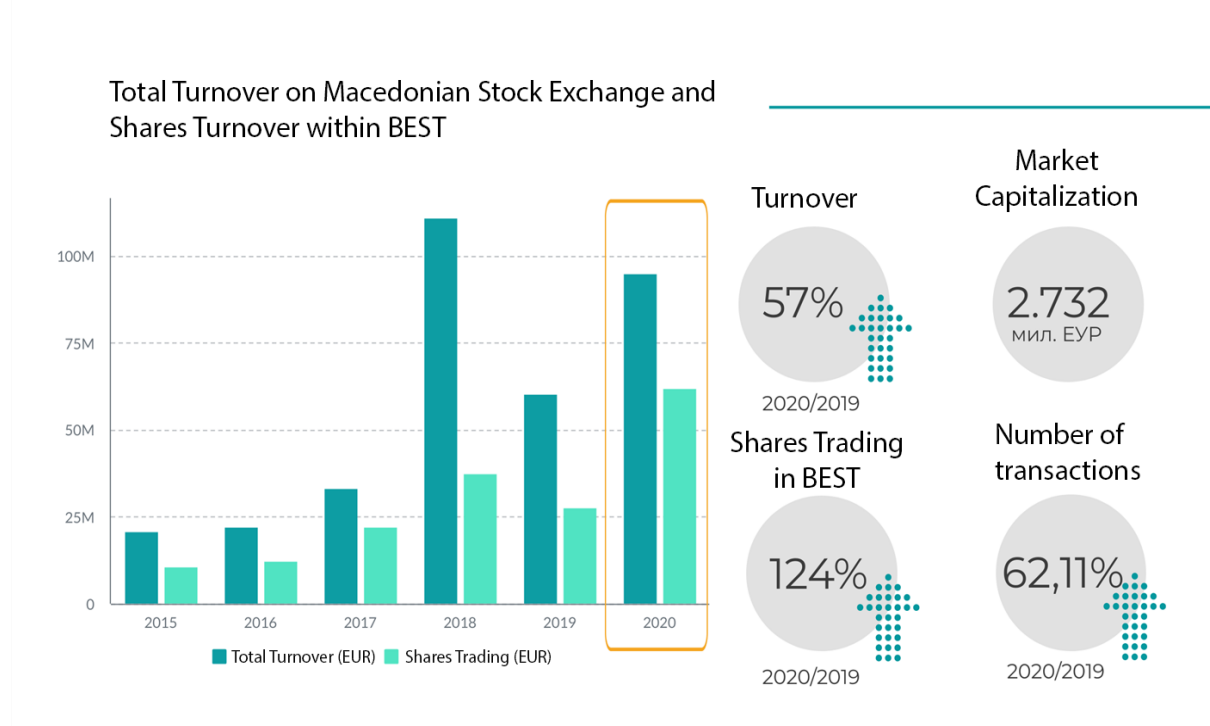
Regarding the turnover on the Macedonian Stock Exchange, it was noticed significantly higher volume of trading, even about 133% compared to the first three months of the last year. Namely, according to overview of trading in Q1 2020 on Macedonian Stock Exchange (Short summary - Q1, MSE, 2020), the first quarter of 2020 is characterized with significantly greater turnover, i.e. total turnover amounted about 68 million euros which is 133% higher than the same period last year (29 million euros).

Characteristically for this period is that although the shares drastically lost value in March, some investors saw a great opportunity to buy shares of respectable corporations at a much lower price, so the stock turnover in those thirty days was 23.5

million euros, which is a record, i.e. the largest monthly turnover in the past 10 years on the Macedonian Stock Exchange. Already in April 2020, the fear of small shareholders calmed down and the portfolios of large investors consolidated which resulted in continuous growth of the MBI10 value with small fluctuations, but the shares turnover dropped by 55% to 652 million MKD (10.6 million euros). While it is understandable that the record turnover from March is unlikely to be repeated, the level of ten million euros in April is still 1.5 - 5 times higher than the average monthly level of stock trading in the last 10 years.

On the other side, according the data published in the Semiannual Statistical Bulletin of Macedonian Stock Exchange (2020), the total turnover in the first semester of 2020 amounted about 95 million euros, which means increased volume of trading about 57% compared to the same period last year. The analysis of the annual reports published by the Macedonian Stock Exchange in last 5 years has shown that in the first half of 2020, the second largest total turnover after 2018 was verified. At the same time, shares' turnover within BEST for the first semester of 2020 was 62 million euros which is 124% higher compared to the same period last year. The analysis has shown that this turnover is the biggest one in the last 5 years.

Graph 4: Total Turnover on Macedonian Stock Exchange and Shares Turnover within BEST¹

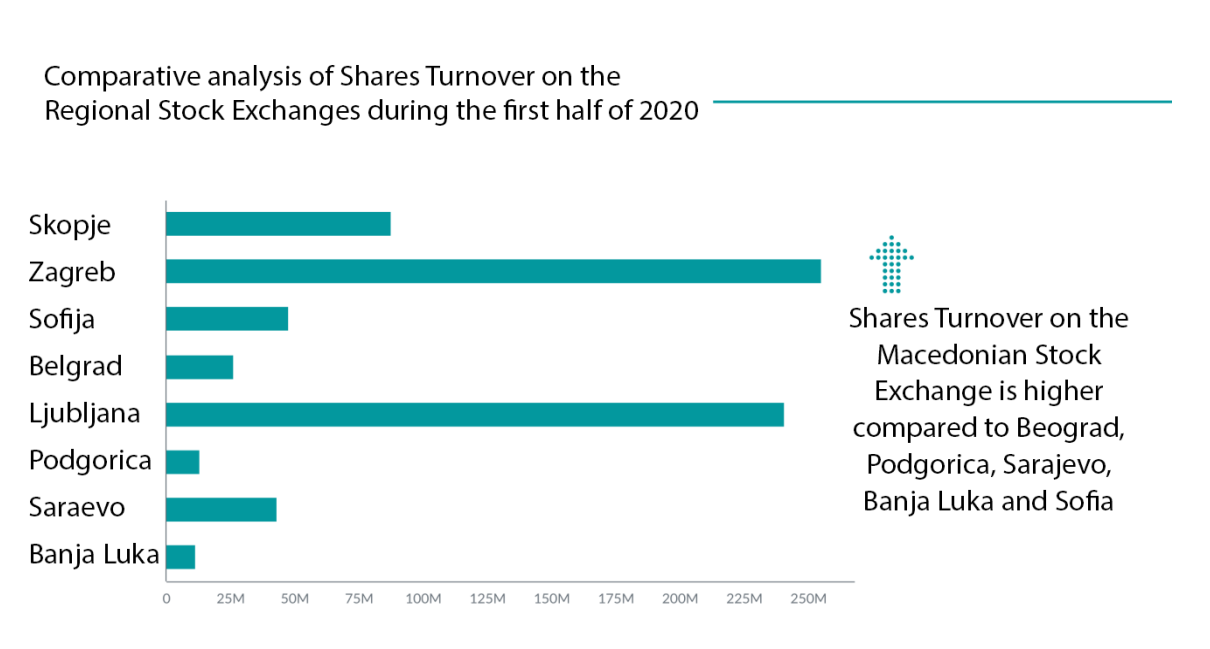


Source: www.mse.mm

Also, comparative regional analysis have shown that the volume of trading with shares on the Macedonian Stock Exchange in the first semester in

2020 is higher compared to the stock markets in Beograd, Sofia, Podgorica, Sarajevo and Banja Luka. (Graph 5)

Graph 5: Comparative analysis of Shares Turnover on the Regional Stock Exchanges during the first half of 2020



Source: www.mse.mk

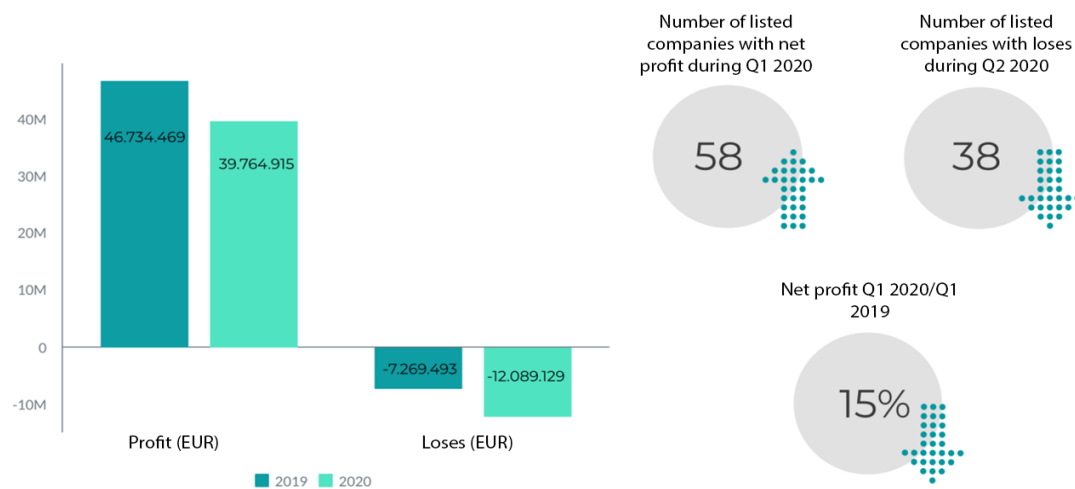
¹ BEST System – Stock Market Electronic System of Trading on the Macedonian Stock Exchange implemented in 2002

Based on the financial statements analysis of the listed companies on the Macedonian Stock Exchange, it could be concluded that from 100 quoted companies, 58 companies have registered profit, 38 registered loses, while 3 companies did

not published financial statement. The published profit of the listed companies in the first quarter of 2020 is reduced about 15% compared to the previous year.

Graph 6: Financial Results of the Listed Companies on Macedonian Stock Exchange

Financial Results of the Listed Companies on Macedonian Stock Exchange



Source: www.mse.mk

CONCLUSION

The outbreak of COVID-19 has severely impacted the financial markets all over the world. We have witnessed that the global financial markets have seen dramatic declines not seen until nowadays.

The covid-19 virus epidemic that has hit the global stock markets has also harmed the financial markets in Republic of North Macedonia. So, the main objective of this study was to investigate the impact of coronavirus (COVID-19) on the capital market in our country i.e. on the Macedonian Stock Exchange functioning during the first semester of 2020.

The decline of the Macedonian Stock Exchange began on February 24, when several cases were registered in the region. Shortly afterwards, when the World Health Organization declared a Covid-19 pandemic, it was observed 30 percent drop in the value of MBI10.

After the significantly shrank of the value of MBI in March 2020, the next month, April was recorded meaningfully increase (+23.2%). Starting from 6th of May 2020 until the end of the first semester of 2020, the value of MBI10 was stable. Also, our analysis has shown that total turnover on the

Macedonian Stock Exchange significantly increased in the first semester of 2020. Such situation was a result of the opportunities that have been seen by some investors, who used the chance to buy shares of respectable corporations at a much lower price. Namely, the research carried out in this study has shown that besides the turbulences as a result of the global pandemic, Macedonian Stock Exchange began to recover in early April.

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