

The Lack of a Stronger Link Between Companies and Financial Markets is the Result of a Decline in Economic Activities

Radomir Šalić

Dean of the Faculty of Management, University Metropolitan Belgrade,
Serbia. Main research areas: Banking, Financial Markets and Corporate Finance

Abstract: For years, the Belgrade Stock Exchange has had a tendency of falling with regard to: achieved turnover, stock market index and the price of shares. The companies have been withdrawing from the stock market, due to the fact that they arrived at this market by means of legal obligation and that they did not manage in using the capital market's advantages, such as acquiring capital, improving management efficiency and strengthening their image. The solutions could be: using future regulations to prevent the companies that have acquired ownership through the privatisation of public companies from abandoning shareholding, selling all remaining public companies and placing them on the stock market with the existing and new owners, in the form of joint stock companies as the most suitable form of companies for acquiring capital.

Key words: Stock market • Stock market index • Shares • Beta coefficient

INTRODUCTION

This research was created as the result of observing shareholding and financial markets and economy with the aim of finding new business models for the stock market and the economy and of establishing their mutual connection and correlation degree that influences the total growth and development of the financial sector in Serbia. The research structure consists of describing and defining the problem of the Belgrade Stock Exchange, determining the ascertainment with regard to the existing state in this field, determining research boundaries, determining research goals and models of studying the problem and finally, proposing several possible solutions to the problem of reviving the Belgrade Stock Exchange, i.e. the financial market and the financial sector in general.

Description of the Problem: The market economy is unimaginable without a stock market and the free flow of capital, which present the foundation of all developed countries in the West. The situation in Serbia, i.e. the Belgrade Stock Exchange, is not like that nowadays, i.e. the liquidity has nearly dried up and the trade in securities (shares) has been reduced to a miserable level for which just several brokerages would be enough. Smaller

brokerages stopped operating long ago due to lack of work and the remaining ones have been experiencing possibly the worst crisis since the creation of the stock market in Serbia. The share price indices have been noting infamous records by achieving their historical lows. However, it is generally known that a stock market crash in a country usually means the economic crash of the country as well. Therefore, the situation nowadays is ten times worse compared to 2006 and 2007. There are numerous facts confirming the previous statement, but we will here briefly address some of them:

- The daily turnover of the Belgrade Stock Exchange is between two hundred and three hundred thousand euros at best and for 2007 it amounted to two billion euros in total.
- The stock market in Serbia is very shallow, with a small number of high-quality long-term securities and a generally small number of quoted shares,
- The Belgrade Stock Exchange has been developing based on pre-2000 laws and the very process of privatisation has helped in removing a large number of "blue chips" from the stock market to this day. According to various opinions, there are only two quality shares left, those being: NIS and the Belgrade Airport.

Corresponding Author: Radomir Šalić, PhD, Associate Professor and Dean of the Faculty of Management, University Metropolitan Belgrade, Serbia. Main research areas: Banking, Financial Markets and Corporate Finance.

- The financial market is becoming more and more underdeveloped and it is becoming an unnecessary load that would reduce and render worthless Serbia's results on the World Economic Forum's list of competitiveness and infrastructure development.
- The companies listed on the Belgrade Stock Exchange are registering the most drastic drop of profitability since the global economic crisis. In addition, it takes several years for the consequences of large economic shocks, Brexit being the latest, to be presented in the companies' business results.
- Furthermore, a strong resistance to reforms is dominant in Serbia and the state is aware of the problems dominating the financial market.
- In the previous period, there were no new quality ownership securities included on the Stock Exchange market, no processes of initial public offerings, or other market recovery measures initiated by the state or other participants in the market, which has resulted in the lack of the expected development of stock market activities in our country.
- As regards the economy, the atmosphere is ruled by non-transparency, considering that some companies do not even publish their achieved business results.
- Financial reports of public companies show that operating income has been reducing year after year and debts have been increasing, which points to the fact that they should have been privatised a long time ago.
- The stock market has 4.8 million small shareholders, owing to the division of free shares, however, their rights are not protected, which is absurd and it results in weakening the integrity of the Securities Commission.

Excluding the aforementioned, the Belgrade Stock Exchange, just like other capital markets in the region of South Eastern Europe, did not record any significant changes in the previous period, both with regard to turnover and the movement of market capitalisation. Based on an analysis of current macroeconomic trends and their possible influence on the connection between the capital market development and boosting the economy, it has been determined that this connection has not yet been established in Serbia, just like other capital market tools have not been used to a sufficient degree. Therefore, it is about poverty not resulting from greedy financiers taking advantage of the poor, but from the lack of financial institutions, i.e. efficient credit institutions that can transfer excess funds from idlers to the enterprising [1].

Definition of the Problem: In the situation described above, it is clear that the problem does not lie exclusively with the capital market and the Belgrade Stock Exchange, but that it is structural in nature. We primarily mean the structure of a country's economy, i.e. the lack of quality companies in general and their quotation on the stock market, i.e. the establishment of a connection between the economy and the financial market. Therefore, it is about the lack of quality companies in all fields of work, especially the companies in the manufacturing field, although the companies in the service field are increasingly interesting (information technologies sector), whose final products would possess such quality and whose business results would be so positive as to arouse interest or intrigue in some new investors. In fact, the problem lies in the backward economy and a narrow range of business activities performed by the existing companies. Therefore, the definition of the Belgrade Stock Exchange's problem lies in the lack of a firmer bond between the companies and the financial market, as well as in the influence of the economy on the state of the financial market. The cause of such a state is the financial crisis that began with the occurrence of second-rate loans in the US and that has been lasting for years, i.e. since 2007, equalling a natural disaster whose consequences have been felt by all, leaving scars that have never healed [2].

Ascertaining the State: Low liquidity, along with the disputable quality of investment alternatives, has essentially left the Serbian market out of global investors' reach and the domestic particularities have not had a stimulating effect on the status of stock market activities in Serbia. The Belgrade Stock Exchange has had the tendency of falling with regard to:

- Achieved turnover,
- Achieved stock market index and
- The price of shares in the market.

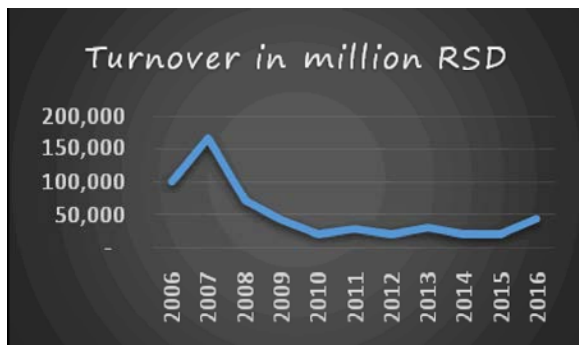
Achieved Turnover at the Belgrade Stock Exchange in the Period from 2006 to 2017: The achieved turnover at the Belgrade Stock Exchange has been lower and lower each year, i.e. the tendency is that the turnover is constantly dropping. In 2007, the annual turnover at the Belgrade Stock Exchange reached its peak, having realised the sum of two billion euros, only to be reduced in 2009 by five times and in 2014 to drop nearly twelve times (Table 1, Graphs 1, 2).

Table 1: Achieved turnover at the Belgrade Stock Exchange in the period from 2006 to 2016 ¹

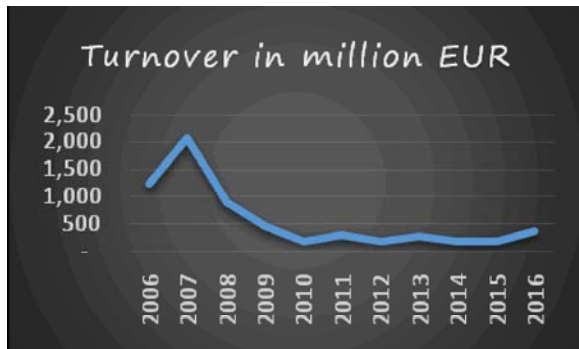
Turnover at the Belgrade Stock Exchange											
Description	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bn RSD	100.584	164.990	71.854	41.778	23.017	28.584	24.988	30.164	20.258	22.429	44.574
Bn EUR	1.210	2.059	882	442	222	280	220	267	173	186	362

Table 2: Value of the Belex 15 index ²

Belex 15 index trend by years											
Description	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	1	2	3	4	5	6	7	8	9	10	11
RSD	1.675	2.318	565	664	652	499	524	558	667	644	717



Graph 1: Turnover of BSE in dinars



Graph 2: Turnover of BSE in euros



Graph 3: Value of the Belex 15 in dinars

Achieved Stock Market Index in the Period from 2006 to 2017: Owing to the fact that the Belgrade Stock Exchange turnover has been dropping constantly, that the number of participants (both brokers and investors) has been reducing, the value of the stock market index, Belex 15, has also been dropping.

If we wished to determine the previously noticed rule of the Serbian financial market, we would agree only in the part saying that the treasury or state records have not made losses, but modest and stable gains each year and that corporative shares completely crashed in 2008, having failed to recover since (Table 2).

Value of shares at the Belgrade Stock Exchange: The value of shares at the Belgrade Stock Exchange (BSE) in 2016 is several times lower than the value in 2006, particularly compared to 2007, when the value culminated (Graphs 1, 2 and 3), with slim chances of significant recovery in the foreseeable future.

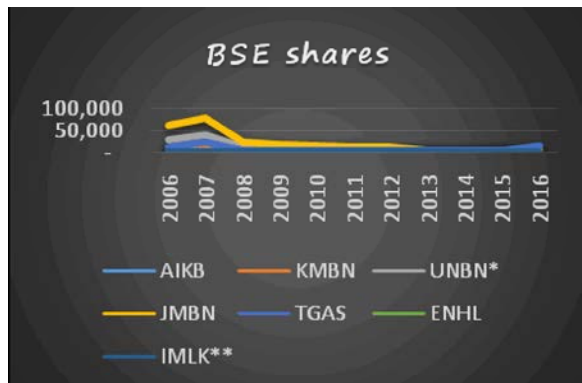
Nowadays, the situation in Serbia, with regard to the capital market, is such that nearly all shareholders would gladly accept their initial investments from 2006 and 2007, thus ending up in a much more favourable situation than the present. In fact, there is almost always a group of permanent gainers, but not even they can guarantee constant gains in the future; however, it is worth noting that there is always a group of permanent losers, but they are inconspicuous since no one boasts about bad results [3]. Many investors are constantly losing; however, if larger income would ensue in the following period, it would be the result of expense risk at the time of huge losses within the crisis period, which began in the US, transferred to Europe and did not bypass Serbia and all other former SFRY republics.

¹ <http://www.belex.rs/trgovanje/izvestaj/godisnji>

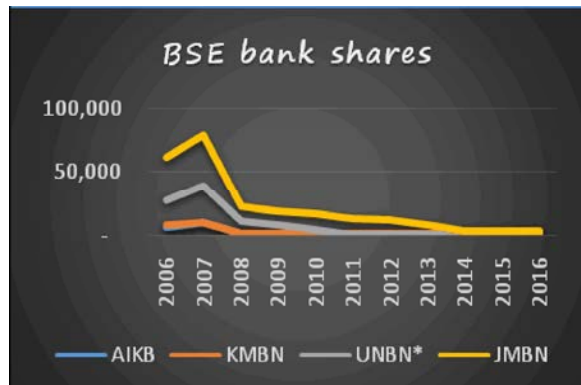
² <http://www.belex.rs/trgovanje/izvestaj/godisnji>

Table 3: The chosen (the most liquid) shares at the Belgrade Stock Exchange in the period from 2006 to 2016³

Share symbol	Price of shares at the end of the year (in RSD)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
0	1	2	3	4	5	6	7	8	9	10	11
AIKB	5.681	9.803	2.550	2.472	3.323	1.648	1.566	1.533	1.845	1.838	1.750
KMBN	7.430	9.790	2.600	2.875	2.605	1.700	1.399	1.507	2.201	1.624	1.738
UNBN*	27.800	39.238	11.270	7.802	4.200	2.300	1.020	550	-	-	-
JMBN	60.951	78.751	22.733	18.939	16.495	12.999	12.331	8.000	3.000	4.582	4.398
TGAS	10.600	22.000	4.400	7.196	5.860	4.300	3.550	5.040	5.451	8.700	13.006
ENHL	1.301	2.900	554	761	900	392	605	720	910	1.037	1.431
IMLK**	1.300	2.698	1.099	1.490	1.900	2.353	3.181	2.919	4.808	5.176	5.700



Graph 4: The most liquid shares at the BSE



Graph 5: The most liquid shares of banks at the BSE

The previous graphs show that the sample shares in the observed period have realised yield in the period from 2006 to 2007 and that after this period (2007 - 2016) there was no yield, i.e. there was a negative yield and a certain significant level of uncertainty or risk still exists, but we do not know its range and duration. In order to quantify this relation, it is necessary to know the tools and the required series of past data; otherwise, it would not be

possible, which we will show in the following chapter. A large number of broker dealer companies has been closed in the previous period⁴, so that de-registering pursuant to the old laws amounts to 65 broker dealer companies and de-registering pursuant to the Law on the Market of Securities amounts to 49 broker dealer companies. Likewise, de-registering pursuant to the Law on the Capital Market amounts to 21 broker dealer companies, so that the state, i.e. the number of broker dealer companies still actively operating at the Belgrade Stock Exchange is 22, or 14.5% of 158 registered companies in total. Aside from simple broker dealer companies, there are twelve business banks with the licence for trading on financial markets, making it a total of 34 active broker dealer companies.

Purpose of Research: The purpose of this research is not to show the causes of the Belgrade Stock Exchange fall, but to try and devise certain possible solutions necessary for its future operations, i.e. to determine the dependency level of the economy and the financial market and to devise possible solutions for increasing the number of quality companies listed on the capital market, which would enable the state of the economy to present the condition of the country's financial market.

Studying the Problem at the Bse: It is hard to expect that the stock market would develop on its own in a non-market environment, so a large part of the responsibility lies with the state, which has done nothing to promote shareholding and stock exchange operations. The companies have been withdrawing from the Belgrade Stock Exchange more and more, primarily due to the fact that they reached this market by means of legal obligation and that they did not manage in using the

³ Shares at the Belgrade Stock Exchange in the period from 2006 to 2016

* Decision on the exclusion of shares from the Open Market-market segment Open-Market-shares No. 01/1 No. 961/14.

** Decision on the exclusion of shares from the Open Market-market segment Open-Market-shares No. 01/1 No. 7176/16.

⁴ <http://www.sec.gov.rs/index.php/sr/>

capital market's advantages, such as acquiring capital, improving the management efficiency, strengthening their image. As long as such business climate is present at the Belgrade Stock Exchange, it seems that there would be no company we could claim would stay on the market forever. When the owner removes a company from the market, he may organise it as a lower organisational form, primarily as a limited liability company (LLC). By buying 100 percent of shares, the owner of the company entraps large capital, has no possibility of financing through issuing shares, has no co-owners who would improve the efficiency of management, nor is he quoted on the market, where the company would be graded by the investing public. In addition, in order for a joint stock company, listed on the Belgrade Stock Exchange, to remove its shares from this market, it has to comply with two legally prescribed conditions. First - to have fewer than 10,000 shareholders, which is easily done, since just a handful of Serbian companies has this number of shareholders. The second condition relates to insufficient liquidity on the stock market, which is defined by the Law on the Capital Market - therefore, the total and monthly turnover in the period prior to removing the shares is clearly defined.

For determining the distribution of probability, it is necessary to determine two parameters. The first parameter explains the central tendency of the set and the second explains the risk, i.e. dispersion or deviance from the central tendency of the set. These two parameters are tightly related to the answer to the question of interest for every investor: What is the expected total yield rate and what is the stability or uncertainty of an investment? The response of a rational investor would be achieving his goal with the highest possible yield and with the lowest uncertainty or risk [4].

Expected Yield Rate and Standard Deviation Shown in the Example of BSE Shares: The first parameter, determining the central tendency of the set, is the expected value, which shows us where the centre of probability distribution of the observed accidental variable is located, so that the algebraic expression of the expected total yield rate (O_p) would be:

$$O_p = \sum_{i=1}^n v_i x R_i \quad (1)$$

where: O_p - expected yield rate, R_i - yield for the i -element state of the economy, v_i - probability of realising the yield. Therefore, the expected value of the total yield rate is the

sum of R_i yield weighted to the corresponding probabilities v_i , i.e. expected or imagined weighted average of possible yields, where the weighting factors correspond to the degree of probability. The second parameter, which determines the nature of the probability distribution or its numerical presentation or the joint measure of risk and probability distribution, is presented by the variance or standard deviation [5]. They actually show the potential of the yield rate deviating from its expected value, expressed as:

$$\text{Var}_R = \sum_{i=1}^n v_i [(R_i - Op)^2] \quad (2)$$

Therefore, the variance presents the sum of products of probability and the square deviation of the yield rate from its expected value, or, it is the square deviation, so that the standard deviation is the square root of the variance, i.e.:

$$\text{SD}_R = \sqrt{\text{Var}_R} \quad (3)$$

The data on yield distribution in the past can be of help when the yield distribution assessments are required for future investors. If we assume that certain shares produce the dividend Div_{t+1} in $t+1$ time and that they are sold at P_{t+1} price, the realised yield per share can be presented as:

$$R_{t+1} = \frac{\text{Div}_{t+1} + P_{t+1}}{P_t} - 1 = \frac{\text{Div}_{t+1}}{P_t} + \frac{P_{t+1} - P_t}{P_t} = \text{Dividend yield} + \text{Capital gain} \quad (4)$$

However, it is necessary to know that if shares are held after the date of the first dividend, the calculation of the yield must be determined for the dividends obtained in the meantime. In our example, or the chosen portfolio of shares from the BSE (Tables 4 and 5), we have taken only the capital gain of each share as the yield (difference between the price of shares at the end of each business year), without paid dividends for the given period.

The ENHL share that realised the highest variability, variance calculation and the standard deviation looks like this:

The yield deviation has been determined by offsetting the average yield with the realised yield rate by years, i.e.: Average yield = $192.89 : 10 = 19.29\%$ and the variance as the average square deviation, i.e.: $\text{Var} = 28,494.83 : 10 = 2,849.48$ and the standard deviation as the variance root, i.e.

Table 4: Yield per share in dinars at the BSE

Share symbol	Yield per share based on the difference in price per share at the end of each year (in RSD)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
0	1	2	3	4	5	6	7	8	9	10	11
AIKB	5.681	4.122	-7.253	-78	851	-1675	-82	-33	312	-7	-88
KMBN	7.430	2.360	-7.190	275	-270	-905	-301	108	694	-577	114
UNBN*	27.800	11.438	-27.968	-3.468	-3.602	-1.900	-1.280	-470	-	0	0
JMBN	60.951	17.800	-56.018	-3.794	-2.444	-3.496	-668	-4.331	-5.000	1.582	-184
TGAS	10.600	11.400	-17.600	2.796	-1.336	-1.560	-750	1.490	411	3.249	4.306
ENHL	1.301	1.599	-2.346	207	139	-508	213	115	190	127	394
IMLK**	1.300	1.398	-1.599	391	410	453	828	-262	1.889	368	524

Table 5: Yield deviation and square deviation of the ENHL share

Year	Yield rate	Yield deviation	Variance Var	St deviation SDR
2006	basic			
2007	122.91	103.62	10,737.31	
2008	-80.9	-100.19	10,037.84	
2009	37.36	18.07	326.56	
2010	18.27	-1.02	1.04	
2011	-56.44	-75.73	5,734.88	
2012	54.34	35.05	1,228.57	
2013	19.01	-0.28	0.08	
2014	26.39	7.10	50.42	
2015	13.96	-5.33	28.40	
2016	37.99	18.70	349.73	
Total	192.89	-	28,494.83	SDr
Average	19.29	-	2,849.48	53.38%

$$SD_R = \sqrt{2.849,48} = 53.38\%$$

It is apparent that the estimated standard deviation (with the previous conditions) of this share varies significantly compared to market prices; however, if we tried to determine the deviations for the remaining shares from the chosen sample, they would be even higher and it is uncertain whether there is sense in determining the deviations of shares for such a short period. It is much easier to calculate the deviations for the entire portfolio of shares or securities, it is only necessary to possess reliable data for the period in question. Still, the majority of shares varies significantly from the market portfolio, which results in the question: if the market portfolio consists of separate shares, why isn't its variability equal to their average variability? The answer lies in diversification, whose increase reduces the variability of the total portfolio of shares. However, when the investor has a portfolio of shares, he is interested in the influence of each particular share on the risk of the total portfolio of shares. And the contribution of a particular share to the total risk of the portfolio depends on the level of its variability compared to other shares.

Systematic Risk Shown in the Example of Shares at the BSE:

When investors estimate the risk of their investments, they worry and think about the systematic risk, which cannot be eliminated by a new diversification of investments, so as compensation, they intend to realise the highest possible yield, which can be determined only after measurement. The first step in measuring systematic risk lies in finding the portfolio of shares containing solely systematic risk, where the change of price within the portfolio corresponds to the systematic shocks in the economy. Such a portfolio is a so-called efficient portfolio, i.e. a portfolio that cannot be diversified, but the risk cannot be reduced without reducing its expected yield. As a matter of fact, the key matter in modern finance nowadays is identifying such a portfolio. An efficient portfolio should be a large portfolio with many various shares and it is naturally a market portfolio, i.e. a portfolio of all shares and securities traded on the capital market [6].

Every investor owning a diversified portfolio is highly interested in the effect of each share on the risk of his entire portfolio, which is why measuring the risk of separate regular shares depends on their exposure to macroeconomic events and it can be presented (measured) as a rate of yield's sensitivity to investing into a certain share, to the fluctuations of the yield on the total market portfolio. This sensitivity is called the beta coefficient of shares, which is often presented by the Greek symbol β , or beta securities, presenting the expected change of yield in per cent after the change of the market portfolio yield. Market fluctuations influence some shares more, some less, so in theory, some authors divide them into defensive shares (not sensitive to market fluctuations and having a low beta coefficient, lower than 1) and offensive shares (sensitive to market fluctuations and with a higher beta coefficient, above 1), so that, if the prices grow, it is good to have offensive shares, unlike the case when the share prices drop, when

it is better to have defensive shares. In addition, the average beta coefficient for all shares is 1 and its concrete measurement will be shown on an example indicating that corporate shares can realise yield:

- Based on market yield and beta coefficient (fluctuations are the result of market risk) and
- Based on good news specific for each particular corporation (fluctuations are the result of specific risks).

The beta coefficient is also called the index for measuring the systematic (market) risk, i.e. the rate of yield change for one share compared to the change of the market yield rate. It is determined on the financial market based on a suitable portfolio of shares, such as Standard & Poor's, Dow Jones, Nikkei and others.

In terms of algebra, the beta coefficient is determined as the ratio of the products of: standard deviation of yield on shares and the coefficient of linear correlation of market and share yield compared to the standard deviation of the market index-yield [7]:

$$\beta = \frac{\delta_j \times r_{j,m}}{\delta_m} \tag{6}$$

or adjusted:

$$\beta = \frac{SD_{RCo} \times r_{TCo}}{SD_{RT}}$$

where: δ_j or SDRa is the standard deviation of yield on shares, δ_m or SDRT is the standard deviation of the market index-yield and r_{jm} or r_{TC0} is the coefficient of the simple linear correlation of yield on shares and the market rate - index. The beta coefficient is usually between 0.5 and 2 and the higher it is, the larger the systematic risk. In addition, corporations operating in fields that are more sensitive to cyclic movements within the national economy will have a higher beta coefficient, i.e. they will be exposed to a larger systematic risk than those less influenced by the cyclic movements [8]. Since we have established the algebraic expressions for the expected yield, variance and standard deviation in the above section of the paper, we are only left with an expression for the numerator of this quotient for calculating the beta coefficient: the coefficient of linear correlation (r), which reads [9]:

$$r = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \tag{7}$$

or adjusted [10]:

$$r_{TCo} = \frac{n \sum R_T R_{Co} - \sum R_T \sum R_{Co}}{\sqrt{n \sum R_T^2 - (\sum R_T)^2} \sqrt{n \sum R_{Co}^2 - (\sum R_{Co})^2}}$$

where: RT is the yield market rate, RCo is the corporate shares yield rate and n is the number of cases taken into consideration. In order to determine the beta coefficient, we will start by determining the linear correlation coefficient (correlativity) between the yield on shares and the yield market rate (raT) and we will form another table for faster calculation; we determine the coefficient in question, needed for determining the beta coefficient, based on the resulting data. If the linear correlation coefficient between the yield on shares and the yield market rate is positive, it indicates a very high degree of correlativity between these two rates. In the next part, the standard deviation must be determined both for the yield market rate and for the corporate shares yield rate. The first step is determining the arithmetic mean (expected value) for both types of yields and the second step is determining the variance value [(RT-Op)² Vi or VarRT]) and of course the third step is calculating the standard deviation for the yield market rate (SDRT) according to the formula:

$$SD_{RT} = \sqrt{\sum_{i=1}^n v_i [(R_i - Op)^2]}$$

The standard deviation for corporate shares yield rate (SDRCo) is also determined by using the same logic, where one can see whether the standard deviation of corporate shares yield rate in our examples is higher or lower than the standard deviation of yield market rate. In the end, one can conclude how much a corporation is sensitive to changes of yield market rate, indicated by the resulting beta coefficient. For the users of information on the standard deviation, correlation and the beta coefficient, fully understanding how they are determined based on the aforementioned formulas, as well as for those with the need to often re-calculate the obtained data, individually and quickly, it is advisable to use Excel as an electronic programme with built-in functions for determining their value. The aforementioned indicators for certain more representative shares from the Belgrade Stock Exchange, in the period from 2007 to 2016, are determined here, i.e. the yield of shares from the sample (Tables 3 and 4) are compared with the data of the Belex 15 index from the Belgrade Stock Exchange, with the

Table 6: Indicators for AIKB shares

Year	Yield in percentage	
	Belex 15	AIKB
2007	38.39	72.60
2008	-75.62	-74.00
2009	17.44	-3.10
2010	-1.81	34.40
2011	-23.43	-50.40
2012	4.98	-5.00
2013	6.51	-2.11
2014	19.54	20.35
2015	-3.44	-0.38
2016	11.38	-4.79
SDr	29.39	38.64
β		1.13
Correlation		0.86

Table 7: Indicators for KMBN shares

Year	Yield in percentage	
	Belex 15	KMBN
2007	38.39	31.76
2008	-75.62	-73.44
2009	17.44	10.58
2010	-1.81	-9.39
2011	-23.43	-34.74
2012	4.98	-17.71
2013	6.51	7.72
2014	19.54	46.05
2015	-3.44	-26.22
2016	11.38	7.02
SDr	29.39	32.71
β		1.02
Correlation		0.91

Table 8: Indicators for shares from the sample

Company - Bank	SDr	Correlation	β
AIKB	38.64	0.86	1.13
KMBN	32.71	0.91	1.02
UNBN	32.66	0.71	0.79
JMBN	35.61	0.48	0.58
TGAS	52.60	0.83	1.48
ENHL	53.38	0.90	1.64
IMLK	41.64	0.84	1.19

assumption that we have determined individual yields per share solely as the difference in prices (year after year), therefore, without calculated and paid dividends. However, regardless of the fact, the results obtained by determining the standard deviation, correlation degree between the yield of particular shares and the market yield and the beta coefficient show, or rather precisely present

the state on the mentioned market. The abovementioned indicators have been determined by using the ENHL shares from the Belgrade Stock Exchange and an electronic table, where it is clear that, when the share yield realises a high degree of correlation with the market yield, the beta coefficient is also high, i.e. above 1 and the shares are offensive (Table 6).

However, as we can see in our sample, i.e. the Belgrade Stock Exchange and the Belex 15 index, there are also shares with a lower beta coefficient, i.e. some shares have achieved the beta coefficient below average, that is to say, they are defensive shares that should not be in the portfolio of shares when the market index drops.

In the end, we present a review of the results determined by the indicators of shares from the sample compared with the indicators of the Belex 15 index used for trade in the observed period.

The results are as follows (Table 9):

- The yields of nearly all presented shares are largely dependent on the market yield, i.e. the linear correlation coefficients between the yield on shares and the yield market rate are positive (from 0.76 to 0.91),
- The non-banking corporations (ENHL, TGAS, IMLK) realise higher beta coefficients (from 1.19 to 1.48) than banks (KMBN, JMBN, UNBN), i.e. they are more sensitive to changes than banks and they can realise yield based on the beta coefficient as well (from 0.58 to 1.13),
- The shares of non-banking corporations are offensive ($\beta > 1$) and the shares of banks are defensive ($\beta < 1$), etc.

Possible Solutions to the Problem: Considering the apparent trend of concentrating ownership in a string of companies on the Belgrade Stock Exchange, present in the previous years, along with the generally chronic problems of insolvency, investors' lethargy and the reducing amount of quality securities on the domestic stock market, we can say that the perspective of developing this part of the financial market is not exactly bright. However, the solutions in this regard, i.e. the problem of quality securities and their correlation with the growth and rise of the financial market, can be presented currently in Serbia in: a) the need of the state to sell all public companies and for those public companies to appear on the stock market, because the advantage of selling public companies would be their quotation on the market and ability to collect new funds from the market, necessary for development and

further operation, b) that the Belgrade Stock Exchange realises public offerings, e.g. of shares, of some quality companies that are not yet quoted on the stock market. The right example could have been the initial public offering to sell the shares of the company “Telekom Srbija” when it bought the telecommunications company in the Republic of Srpska. It was then that the state could have accumulated the capital for the purchase from numerous new shareholders, instead of taking significant credits from the bank consortium and instead of directing part of the profit into further growth and development, the state is now obligated to pay annuities, i.e. interest on these annuities, thus making the company less competitive compared to other companies in the same field, c) that the existing shareholders (owners) of various forms of companies (most often LLCs) and the new founders are suggested with establishing joint stock companies as the most suitable form of companies for acquiring capital. Why? Because every new, but also old company in any legal form, always needs new and fresh capital if it wishes to grow and develop with the aim of staying on the market. The easiest and most economical way of acquiring new capital and new developmental projects is acquiring capital by issuing shares in which a large number of smaller shareholders would appear, who would not be able to influence the management of the company significantly, but who would greatly aid with their new shares in realising new project tasks of the company. Such company would certainly have to have a high-quality and prospective scope of work and d) the suggestions from the Government and the Parliament, presented in future laws and regulations, which would prevent the companies that have acquired ownership through the privatisation of public companies from abandoning shareholding, or make them abandon such intentions. Why? Because many companies, which had thousands of shareholders in 2007, today only have the one that has no interest in performing business as a joint stock company and who cannot wait to abandon this operating form, because he is alone and makes all the decisions on his own and the other shareholders are an excess, he does not need them. He has the desire to be the sole owner, he entraps huge capital, has no possibility of gathering funds through issuing shares, has no co-owners who would increase the management efficiency, nor is he quoted on the market, so such a company grows at a rate different from that of a joint stock company with several members and finally, it does not establish a connection between developing the capital market and boosting the economy.

CONCLUSION

The market economy is unimaginable without a stock market and without the free flow of capital, which present the foundation of all developed countries in the West. The situation in Serbia, i.e. the Belgrade Stock Exchange, is not like that nowadays, i.e. the liquidity has nearly dried up and the trade in securities (shares) has been reduced to a miserable level for which just several brokerages would be enough. Smaller brokerages stopped operating long ago due to lack of work and the remaining ones have been experiencing possibly the worst crisis since the creation of the stock market in Serbia. The share price indices have been noting infamous records by achieving their historical lows. However, it is well known that a stock market crash in a country usually means the economic crash of the country as well. It is about the lack of quality companies in all fields of work, especially the companies in the manufacturing field, although the companies in the service field are increasingly interesting (information technologies sector), whose final products would possess such quality and whose business results would be so positive as to arouse interest or intrigue in some new investors. It is hard to expect that the stock market would develop on its own in a non-market environment, so the large part of the responsibility lies with the state, which has done nothing to promote shareholding and stock exchange operations. The companies have been withdrawing from the Belgrade Stock Exchange more and more, primarily due to the fact that they reached this market by means of legal obligation and that they did not manage in using the capital market's advantages, such as acquiring capital, improving the management efficiency, strengthening their image. The research results show that the yield of almost all shares is highly dependent on the market yield, i.e. that the linear correlation coefficients between the share yield and market yield rate are positive, that non-banking corporations have achieved higher beta coefficients compared to banks, i.e. that they are more sensitive to changes than banks and that they can realise yield based on the beta coefficients as well and finally that the non-banking corporations' shares are offensive, while the banking ones are defensive. The solutions could be: the need of the state to sell all public companies and for those public companies to appear on the stock market, that the Belgrade Stock Exchange realises public offerings, e.g. of shares, of some quality companies that are not yet quoted on the stock market, that the existing shareholders (owners) of various forms of companies (most often LLCs)

and the new founders are suggested with establishing joint stock companies as the most suitable form of companies for acquiring capital and lastly, the suggestions from the Government and the Parliament, presented in future laws and regulations, which would prevent the companies that have acquired ownership through the privatisation of public companies from abandoning shareholding, or make them abandon such intentions. Why? Because many companies, which had thousands of shareholders in 2007, today only have the one that has no interest in performing business as a joint stock company.

REFERENCES

1. Ferguson, N., 2010. Uspon novca, finansijska istorija sveta. Beograd: Plato books Beograd.
2. Zandi, M., 2010. Financijski šok. Zagreb: Mate.
3. Mishkin, F.S., 2010. Ekonomija novca, bankarstva i finansijskih tržišta. Zagreb: MATE D.O.O. Zagreb.
4. Šoškić, D., 2010. Hartije od vrednosti: Upravljanje portfoliom i investicioni fondovi. Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta U Beogradu.
5. Brealey, R.A., S.K. Mayers and A.J. Marcus, 2010. *Osnovi korporativnih finansija*. Beograd: Mate, Zagreb.
6. Berk, J.P., 2011. Corporate Finance. Harlow: Pearson Education Limited.
7. Kaen, F.R., 2010. Corporate Finance. Cambridge: Wiley-Balckwell.
8. Ivanišević, M., 2008. Poslovne finansije. Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta u Beogradu.
9. Žižić, M., & Lovrić, M. P. (2006). *Metodi statističke analize*. Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta u Beogradu.
10. Šalić, R., 2013. Osnove korporativnih finansija. Beograd: Draslar Partner.