# STUDY REGARDING THE ASSESSMENT OF THE POSITION AND FINANCIAL PERFORMANCE OF THE COMPANIES THROUGH THE CAPITAL MARKET INDICATORS

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***Abstract:*** *Evaluating the financial performance of a company it's important in taking the investment decision, by choosing correctly the financial titles in which it is intended to invest and the appropriate time to enter on the capital market in order to purchase the financial titles. The insecurity of the investors from the capital market, regarding the companies ability to adapt to the new conditions imposed by the economic and financial crisis, corroborated with the reduction of the activity of some of these companies, led especially from 2008 to 2014 to the depreciation of the financial performance appreciated from the point of view of stock market indicators, at the level of the Romanian capital market and of the manufacturing industry. Although in the last two years included in the research, the evolution of the indicators suggests that we are witnessing at an improvement in the financial performance of the companies from the manufacturing industry, its level is not the same as in the years before the beginning of the economic and financial crisis.*

***Keywords:*** *financial performance, stock market indicators, Price Earnings Ratio, Price to book value, Dividend Yield, Turnover Velocity.*

***JEL Classification:*** *C10.*

## 1. Introduction

Evaluating the financial performance is extremely important in order to perform an efficient management of the company and is imperative for making decisions that will make it possible to achieve appropriate economic results.

The topic discussed in this research is more relevant if we consider the evolution of the global economic and financial crisis, which has helped managers to become aware of the need to pay special attention in determining the companies financial performance.

Evaluating the titles financial performance is based on the capital market indicators. By determining those indicators it is possible to estimate the titles intrinsic value, and the theoretical course to be taken into account by investors when assessing the current market value of the financial assets.

## 2. Literature review

**The stock exchange indicators of estimating the position and the financial performance of the economic entities listed on the Bucharest Stock Exchange**

### 2.1. Price Earnings Ratio (PER)

It is the most popular exchange rate. From the point of view of Frederic S. Mishkin and Stanley G. Eakins, the Price earnings ratio (PER) highlights the price that the capital market is willing to offer for 1 $ from a company's net profit per share (Mishkin and Eakins, 2012). A Price Earnings Ratio higher than the average of the industry, is seen in a positive way by investors, which suppose that a further increase in the net profit per share will happen and implicitly a decrease in the value of the Price earnings ratio.

From the point of view of Ivo Welch, the Price earnings ratio is higher at the companies with an important future economic growth (Welch, 2009).

Price Earnings Ratio can be determined with the following calculation model (Hillier et al., 2014):

$$\text{PER} = \frac{\text{The title's market price}}{\text{EPS}} \quad (1.)$$

In which,

$$\text{EPS} = \frac{\text{Net profit}}{\text{Number of shares}} \quad (2.)$$

Although according to the researchers in the field, the shares of the companies with a Price Earnings Ratio that has a value of over 20 are considered to be overvalued and those with a value below 10 should be part of the portfolio of investors being considered undervalued, many cases have been noted, in which between the level of this indicator and the one of the future growth of the company, there is a positive relationship.

**2.2. Price to book value (PBV)**

Price to book value highlights the investors perception regarding a company's future profitability. In general, the performant companies have a high level of this indicator, and the low-performing ones have a low level.

This market rate shows how much from a title's book value can be covered based on his price (Brezeanu, 2003). The indicator can be determined by applying the following formula (Gitman and Zutter, 2012):

$$\text{PBV} = \frac{\text{The title's market price}}{\text{The title's book value}} \quad (3.)$$

In which,

$$\text{The title's book value} = \frac{\text{Equity}}{\text{Total number of shares}} \quad (4.)$$

**2.3. The Dividend Yield (DIVY)**

It is determined as ratio between the dividend per share (Div) and the market price of the share (Cb) (Stancu, 2007).

$$\text{DIVY} = \frac{\text{Div}}{\text{Cb}} \quad (5.)$$

The dividend represents for the shareholder an income obtained from their investment and is determined as ratio between the net profit attributed to the shareholders and the total number of issued shares (http://www.romcapital.ro/). In general, the companies who offer higher dividends to shareholders, do not manage to achieve an increase in the price of their shares, due to the fact that giving the money to shareholders reduces the funds allocated for investments (Fernandez, 2004).

Numerous empirical studies demonstrate that the dividend yield indicator has an important prediction capacity regarding the titles rentability (Fama and French, 1988, 1989, 1993; Hodrick, 1992; Pontiff and Schall, 1998; Vuolteenaho, 2000, 2002; Ali et al., 2003a). In Peters J. opinion, over a longer period of time, an increase of the dividend will result in an increase in the share's value and implicitly in its profitability (Peters, J., CFA, Supplement to Morningstar Dividend Investor). Instead, other researchers are skeptical about the fact that obtaining high returns of the dividends would lead to higher returns (You, Lin and Hsiao, 2010). The Dividend yield gives to the investors the opportunity to determine the returns that they will obtain and to find out if there are more advantageous investment options (Rutterford, 2004).

**2.4. Turnover Velocity / TV**

This indicator highlights the titles's liquidity (BVB Monthly Bulletin, December 2014, http://www.bvb.ro/info/Rapoarte/Lunare/Decembrie2014.pdf) and it can be determined as ratio between the traded value and the market capitalization.

The value of the transactions performed at the Bucharest Stock Exchange halved in the years after the crisis, compared to their value in 2007. This is not due to the decrease in the number of transactions made on the stock exchange (as the number of listed companies increased in recent years) but rather to the decrease in the share price of listed companies.

Therefore, the liquidity of the Bucharest Stock Exchange did not reduced with the emergence of the crisis, the Romanian capital market still being attractive for the investors, due to the shares low prices (Geambașu and Stancu, 2010).

**3. Study regarding the assesment of the position and financial performance of the companies from the manufacturing industry in Romania, listed on the Bucharest Stock Exchange**

The main objective of this study is to evaluate the position and the financial performance from the perspective of the evolution of the capital market indicators at the companies from the manufacturing industry in România, as well as at the level of all Romanian companies listed on the Bucharest Stock Exchange, at premium and standard categories, during the period of time 2007-2016. In achieving this main objective, the following secondary objectives were considered:

**$O_1$**: Carrying out a comparative study regarding the performance of the companies from the manufacturing industry in Romania and the average annual performance of Romanian companies listed on the Bucharest Stock Exchange, at the premium and standard categories, through the capital market indicators: PER, PBV, DIVY.

**$O_2$**: The classification of the companies belonging to the manufacturing industry in Romania included in the research, according to the level of the indicators, compared to the average annual values of the indicators obtained by the companies from Romania, listed at premium and standard categories;

**$O_3$:** A comparative study between the Dividend yield (DIVY) at the level of the companies from the manufacturing industry in Romania and on the capital market and between the bank interest average annual rate;

**$O_4$:** Building a score model in order to estimate the position and the financial performance of the companies from the manufacturing industry, based on the capital market indicators.

The research starts from the hypothesis that the 35 companies belonging to the manufacturing industry in Romania, listed on the Bucharest Stock Exchange, at the premium and the standard categories, have faced in the period 2007-2016 with a decrease in the financial performance appreciated from the perspective of the capital market indicators.

The needed data for this research was taken from the reports published on the Bucharest Stock Exchange website (www.bvb.ro), as well as from the financial statements found on the websites of the 35 studied companies, belonging to the manufacturing industry in Romania, listed on the Bucharest Stock Exchange, at the premium and standard categories. In order to process the data and obtain the results, the econometric software EViews and the statistical and mathematical Excel software were used.

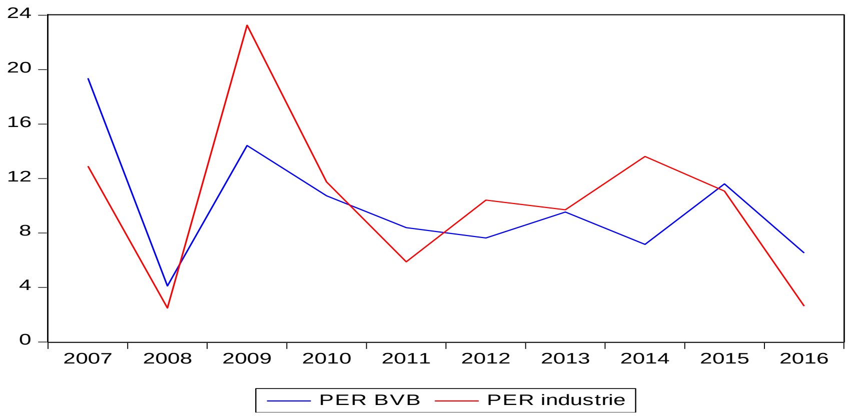



**Figure no. 1. PER's evolution on the capital market and on the manufacturing industry (RON), 2007-2016**

*Source*: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

With the beginning of the economic and financial crisis in 2008, the value of the PER indicator is decreasing compared to 2007. Since 2009, its value has been rising, but it didn't reached until the end of the studied period of time, the level reached before the crisis.

The structure of the companies from the manufacturing industry, according with the PER's value, compared with its value at the level of the capital market, is presented in the Figure no. 2.

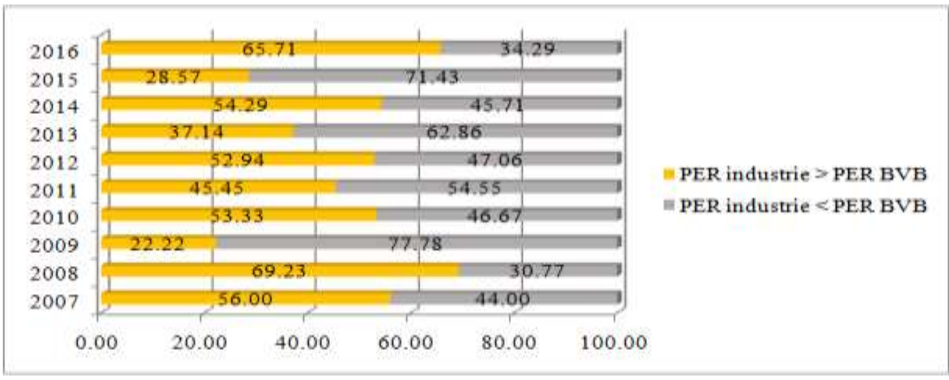



**Figure no. 2. The structure of the companies from the manufacturing industry with a value of the PER indicator higher/lower than the value of the PER indicator registered on the capital market during the period of time 2007-2016 (%)**

*Source*: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

During 2007 and 2008, 56% and 69% from the companies from the manufacturing industry from Romania obtained a higher level of the PER indicator, compared to the one registered at the Bucharest Stock Exchange. This situation was mainly determined by the decrease of the PER indicator on the capital market with 70% in 2008 compared to 2007. In the following years, the average of the companies with a higher PER than the one registered at the  Bucharest Stock Exchange was oscillating, having values between  între 22.22% and 65.71%.

The evolution of the Price to book value (PBV) indicator, on the Bucharest Stock Exchange, as well as on the manufacturing industry from Romania is presented in the Figure no. 3.

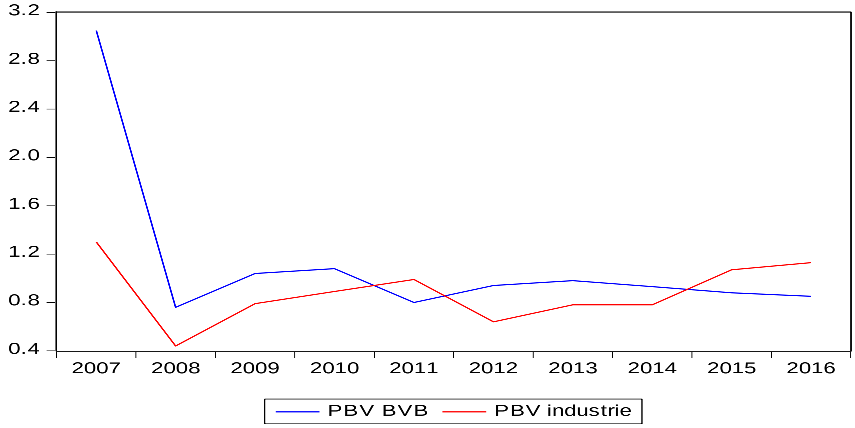



**Figure no. 3. The PBV's evolution at the Bucharest Stock Exchange as well as at the manufacturing industry, during 2007-2016 (RON)**

*Source*: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

During the period of time 2007 - 2010, the PBV indicator follows the same trend at the level of the capital market, as well as at the level of the manufacturing industry. On the capital market as well as in the manufacturing industry, the PBV values decreased a lot beginning with the financial crisis, not reaching even in 2016 the value recorded before the crisis.

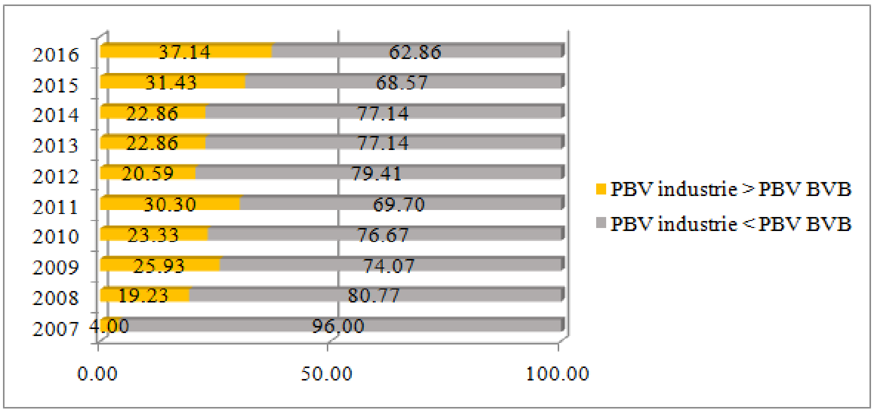



**Figure no. 4. The structure of the companies from the manufacturing industry with a PBV indicator higher/lower than the PBV indicator from the capital market during 2007-2016 (%)**

*Source*: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

It can be noticed that in 2007, only 4% from the companies from the manufacturing industry obtained a PBV indicator higher than the one obtained on the capital market. In 2008, the companies weight increased significantly, reaching 19.23%. This evolution was determined by the beginning of the financial crisis, that affected the indicator's value at the level of the capital market, resulting in his reduction with more than 70% compared with 2007. In the last analysed years, it can be noticed an upward trend of the companies that recorded a Price to book value higher than the one registered on the capital market (between 22.86% to 37.14%).

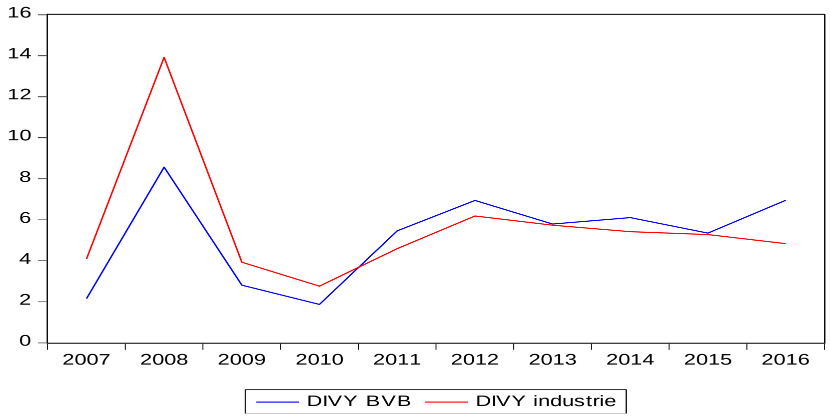



**Figure no. 5. DIVY evolution on the capital market and on the manufacturing industry, during the period of time 2007-2016**

*Source*: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

At the level of the Bucharest Stock Exchange, as well as at the level of the manufacturing industry, the highest value of this indicator is recorded in 2008, in the following years, the value of the Dividend Yield (DIVY) decreasing significantly, reaching only ¼ from the value recorded in 2008. Since 2011, at the level of the stock market, the value of the indicator is increasing and at the level of the manufacturing industry, the Dividend yield has a decreasing trend.

The structure of the companies from the manufacturing industry, depending on the values recorded by the DIVY compared with the value of this indicator recorded at the level of all the companies listed on the Bucharest Stock Exchange, is highlighted in the Figure no. 6.

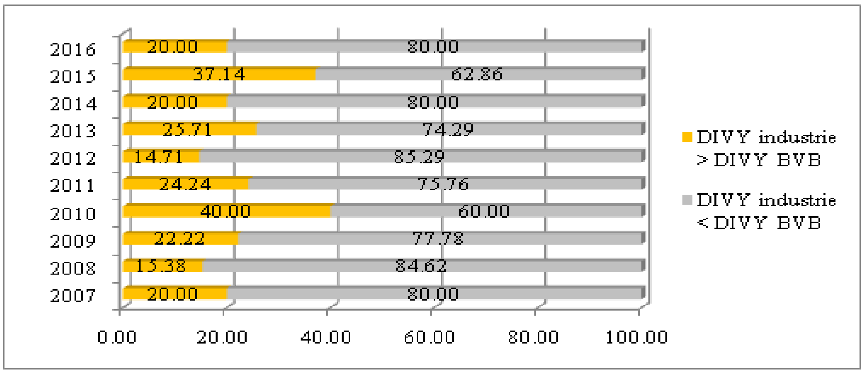
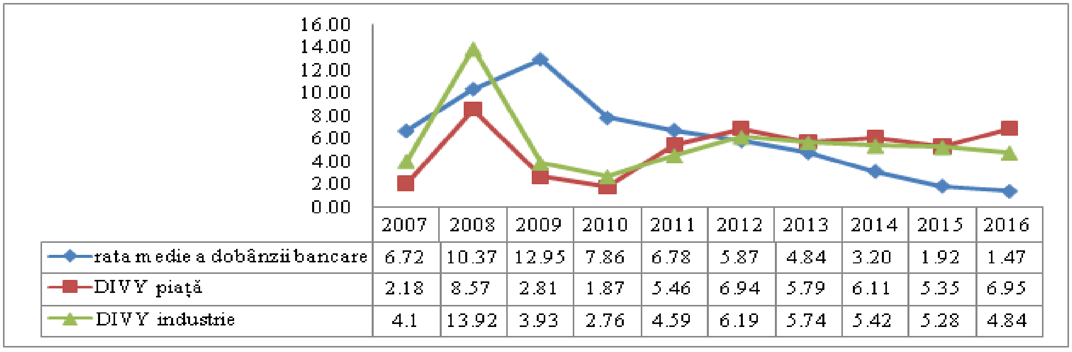



**Figure no. 6. The structure of the companies from the manufacturing industry with a DIVY higher/lower than the DIVY from the capital market during 2007-2016 (%)**

*Source*: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

Over the entire period of time 2007-2016, between 60% and 85.29% of the companies belonging to the manufacturing industry, registered a DIVY lower than the one recorded on the stock market.

In the Figure no. 7, it is highlighted a comparison between the evolution of the Dividend yield on the capital market and at the companies from the manufacturing industry, and the evolution of the bank interest rate applied by the commercial banks from Romania to the RON deposits.




| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| rata medie a dobânzii bancare | 6.72 | 10.37 | 12.95 | 7.86 | 6.78 | 5.87 | 4.84 | 3.20 | 1.92 | 1.47 |
| DIVY piață | 2.18 | 8.57 | 2.81 | 1.87 | 5.46 | 6.94 | 5.79 | 6.11 | 5.35 | 6.95 |
| DIVY industrie | 4.1 | 13.92 | 3.93 | 2.76 | 4.59 | 6.19 | 5.74 | 5.42 | 5.28 | 4.84 |

**Figure no. 7. The DIVY evolution on the manufacturing industry and on the capital market, compared with the bank interest rate (%)**

*Source*: Authors own processing, based on the data taken from www.bnr.ro and from the companies annual financial statements, available on www.bvb.ro

Starting from 2007 and until 2010, the Dividend yield of the companies from the manufacturing industry, is higher than the Dividend yield from the capital market, and in 2008 is also higher than the banks interest rate. Therefore, we can notice that in 2008, the investments in the companies from the manufacturing industry were more profitable than the ones from the money market. From 2009 to 2011, the effects of the economic and financial crisis on the capital market are visible, the investments on the money market being more profitable. Due to the fact that the investors' confidence in the capital market increased starting with 2012, until the end of the researched period of time, the capital market investments in the companies listed on the Bucharest Stock Exchange and in the companies from the manufacturing industry, brought a higher gain than the one obtained from the money market placements.

We also build a score model in order to evaluate the the financial performance of the companies from the manufacturing industry listed on the Bucharest Stock Exchange, depending on the values of the capital market indicators. As consequence, the companies from the manufacturing industry whose Price earnings ratio (PER) was higher than the annual average of the Price earnings ratio from the capital market, received 1 point and 0 points in the opposite situation. The same in the case of the indicators: Price to book value (PBV), Dividend Yield (DIVY) and Turnover Velocity (TV). The average annual scores of the indicators can be determined as below:

$$\text{Annual average score for PER} = \frac{\sum \text{PER score for "i" company}}{n}$$

$$\text{Annual average score for PBV} = \frac{\sum \text{PBV score for "i" company}}{n}$$

$$\text{Annual average score for DIVY} = \frac{\sum \text{DIVY score for "i" company}}{n}$$

$$\text{Annual average score for TV} = \frac{\sum \text{TV score for "i" company}}{n}$$

where“n” is the number of the companies from the manufacturing industry

The overall annual performance score was determined according to the model below:

$$\text{Score}_g = \frac{\text{PERScore} + \text{PBVScore} + \text{DIVYScore} + \text{TVScore}}{4}$$

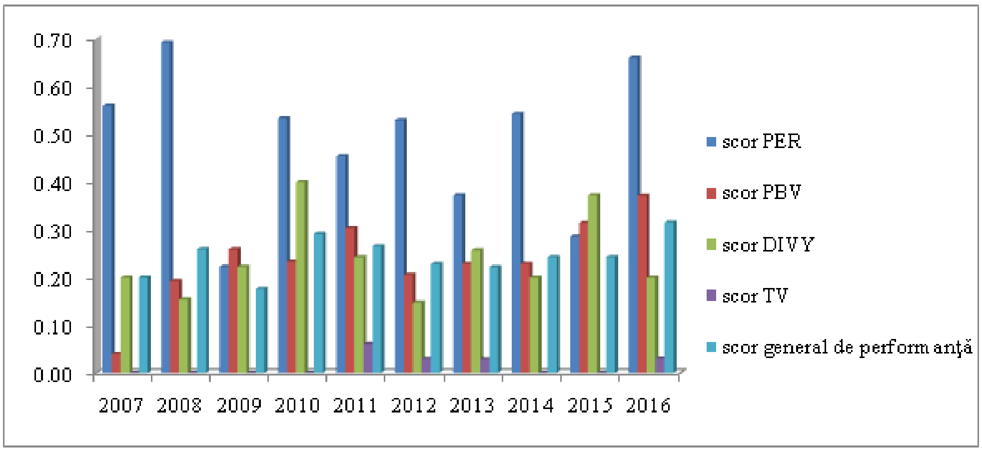



**Figure no. 8. The evolution of the score of the capital market indicators and of the general performance score (2007-2016)**

Source: Authors own processing, based on the data taken from the companies annual financial statements, available on www.bvb.ro

It can be noticed that the average annual score of the Price earnings ratio (PER) recorded the highest values over the whole studied period of time, compared to the other performance indicators. A score of 0.5 corresponds to a medium performance. Most of the companies from the manufacturing industry in Romania (between 84.85% and 100%) recorded during the period 2007-2016, an annual average of the general performance score lower than 0.5, meaning a relatively low financial performance.

## 4. Conclusions

The unfavorable macroeconomic conjuncture caused by the emergence of the economic and financial global crisis has significantly influenced the companies financial performance at the level of the Romanian capital market as well as at the level of the manufacturing industry.

In our empirical study, it was showed that the values of the Price earnings ratio (PER) and of the Price to book value (PBV) indicators significantly decreased in 2008 compared to 2007, at the level of the Bucharest Stock Exchange as well as at the level of the manufacturing industry. Although, since 2009, their value has been rising, this was largely due to the reduction of the Earnings per Share (EPS) and not to the increase of the shares market value.

At the same time, it was highlighted that in 2008, the investments in the manufacturing companies were more profitable than the ones on the money market, and from 2009 to 2011, the investments in the money market were more profitable. Starting with 2012 and until the end of the researched period of time, capital market investments, both on the stock market and on the manufacturing companies, brought investors a better rentability than money market investments.

The scoring model for assessing the financial performance according to the values of the capital market indicators, showed that most of the companies registered during 2007-2016, an annual average of the general performance score, corresponding to a relatively low financial performance.

Therefore, the study confirms the hypothesis according to which during the period 2007-2016, the manufacturing industry faced with a reduction of the financial performance appreciated from the perspective of the capital market indicators. Although in the last 2-3 years included in the research, the indicators evolution leads us to the conclusion that we are seeing a recovery of the financial performance of the companies from the manufacturing industry, its level is lower than the one from the years before the economic and financial crisis.

**References**

1. Brezeanu, P., 2003. *Diagnostic financiar: Instrumente de analiza financiară*. Bucharest: Economică Publishing.
2. Bursa de Valori București, 2014. *Buletin lunar BVB, Decembrie 2014*. [online] Available at: <http://www.bvb.ro/info/Rapoarte/Lunare/Decembrie2014.pdf> [Accessed 4 February 2018].
3. Fernandez, P., 2004. Company valuation methods. The most common errors in valuations. *IESE Business School, CIIF,* Working Paper no. 449, p. 8.
4. Geambasu, L. and Stancu, I., 2010. Lichiditatea Bursei de Valori București (BVB) în perioada crizei financiare. *Economie teoretică şi aplicată*, 5(546), pp.2-24.
5. Gitman, L.J. and Zutter, C.J., 2012. *Principles of Managerial Finance.* 13th Edition, The Prentice Hall Series in Finance, p.83.
6. Hillier, D., Clacher, I., Ross, S.A., Westerfield, R.W. and Jordan, B.D., 2014. *Fundamentals of Corporate Finance*. London: McGraw – Hill Education, UK, 2nd European Edition.
7. Mishkin, F.S. and Eakins, S.G., 2012. *Financial Markets & Institutions*. Seventh Edition, The Prentice Hall Series in Finance, Pearson Education, p.311.
8. Peters, J., The Dividend Drill: Evaluating Long-Term Total Returns Why dividend yield plus growth equals total return. *CFA, Equities Strategist, Editor, Supplement to Morningstar Dividend Investor,* p. 1.
9. Romcapital, 2017. *Informations.* [online] Available at: <http://www.romcapital.ro/> [Accessed 4 February 2018].
10. Rutterford, J., 2004. From dividend yield to discounted cash flow: a history of UK and US equity valuation techniques. *Accounting, Business and Financial History*, 14(2), pp.115–149.
11. Stancu, I., 2007. *Finanțe. Piețe financiare și gestiunea portofoliului. Investiții directe și finanțarea lor. Analiza și gestiunea financiară a întreprinderii*. 4th edition. Bucharest: Economica Publishing.
12. Welch, I., 2009. *Corporate finance: an introduction.* The Prentice Hall Series in Finance, Pearson Education, p. 498.
13. You, C.-F., Lin, S.–H. and Hsiao, H.-F., 2010. Dividend yield investment strategies in the Taiwan stock market. *Investment Management and Financial Innovations*, 7(2).