ANALYSIS OF THE INDICATORS SPECIFIC TO ENTITIES LISTED ON THE CAPITAL MARKET AND THEIR ROLE IN QUANTIFYING COMPANY PERFORMANCE

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Abstract: *The paper aims at presenting certain indicators specific to entities listed on the capital market and their analysis based on the financial statements of C.N.T.E.E. Transelectrica S.A., listed on the Bucharest Stock Exchange: growth stock exchange indices (market capitalization, earnings per share, price to book ratio, price to sales ratio, price earnings ratio, cash EPS) and dividend stock exchange ratios (dividend per share, dividend yield, and dividend payout ratio). The research methodology involved studying the financial statements of the entity for the 2009-2013 period. The case study method was used to study the evolution of the stock exchange indices and opinions were formulated concerning the performance reflected by the analysed indices.*

Key words*:* capital market; performance; stock exchange indicators.

JEL Classification Codes: G11, G12.

1. INTRODUCTION

The reasons underlying the analysis of the stock exchange indicators (the market ratios) are determined by the fact that, by being listed on the Stock Exchange Market, the securities of a company will receive a market value resulted from balancing demand and supply, which value will be different from the book value of the share.

The measurement of the economic and financial performance of the companies traded on the capital market for the assessment of the structure of their securities portfolio is a complex activity that implies the collection and processing of a large volume of information, but also experience and a little bit of flair in interpreting it (Siminică, 2008, p. 168)

The calculation of the market rations helps investigators select the securities they want in their portfolio by using the so-called fundamental analysis, completed by a technical analysis that allows for determining the right moment for the entry of the respective securities. The fundamental analysis is a method of forecasting the future evolution of the price of a financial instrument, based on economic, political, environmental factors, as well as other relevant factors and statistical factors that may have a significant impact on the supply and demand for the analysed financial instrument (Prisacariu et al., 2008, p. 191).

The indicators specific to the entities listed on the stock exchange market can be grouped in two sub-categories, namely: growth stock exchange rates and dividend stock exchange ratios. Each of them will include a number of ratios used to identify and measure

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the financial performance of an entity listed on the stock exchange market. In our opinion, the stock exchange market ratios are the most comprehensive measures of the performance of an entity because they reflect the corroborated influence of the financial rates of risk and return (Achim, 2010, p. 355).

The National Electrical Power Transmission Company "Transelectrica" S.A. is the Romanian Transmission and System Operator, with a key role on the electrical power market, being included in the local stock exchange market indices (BET, BET-XT, BET-NG, BET-C, ROTX) and in the international indices DowJones Wilshire Global Indexes, which is the reason why I chose to carry out the case study at this entity.

2. GROWTH STOCK EXCHANGE MARKET INDICATORS

The category of the growth stock exchange market indices is extremely important for the majority shareholders and long-term investors who are interested in increasing the result of the accounting period, thus being able to ensure the increase of the market value of the entity (Achim, 2010, p.356). The growth stock exchange market indices are related to: market capitalisation, earnings per share, price to book ratio, price to sales ratio, price earnings ratio, cash EPS.

a) Market Capitalisation

Market capitalisation is the market value of an entity listed on the stock exchange market, being used to assess its shares, and basically reflects the value given to the entity by the public. This index is determined as the product of the multiplication of the market value of a share *Vpa*) by the total number of shares issued by the entity (*Na*) (Brezeanu, Boştinaru, Prăjişteanu, 2003, p. 105).

$$KB = Vpa \times Na$$

If the value of this index is high and keeps growing, it will be a plus or any capital investor; the disadvantage of using this indicator is that it does not always reflect the real value of the entity (at takeovers or acquisitions). On the other hand, the big advantage of this index is that it is extremely useful in the analysis of the liquidity of an entity, thus assessing the possibility to trade the securities of an entity easily (an investor who used large amounts of cash to buy the securities of an entity can thus assess the possibility to obtain cash quickly). In such circumstances there are three categories of entities: large caps, mid-caps, and small caps. This index is also used to assess the size of a stock exchange market, calculated as sum of the market capitalizations of all the listed entities.

Table 1. Determining the market capitalization

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
Vpa	13.50	19.35	17.40	12.69	15.79
Na	73,303,142	73,303,142	73,303,142	73,303,142	73,303,142
KB	**989,592,417**	**1,418,415,798**	**1,275,474,670**	**930,216,872**	**1,157,456,612**

Source: Information obtained by processing the financial statements of C.N.T.E.E. Transelectrica S.A.

We can notice an oscillatory dynamics of the market capitalisation, i.e. the market value of the company, with increases in 2010 and in 2013 and decreases in 2011 and in 2012 due to

the decrease in the market value of a share compared to the previous year, the number of shares issued being constant.

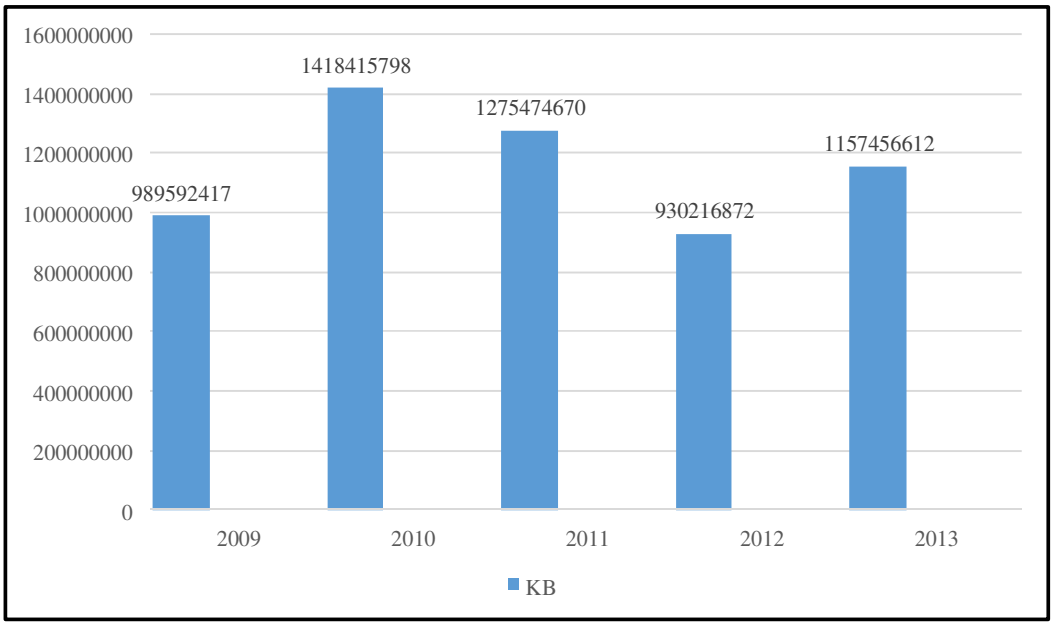

Figure 1. Evolution of the market capitalisation

The level of the index in the last analysed year (2013) reflects the added value obtained by the capital holders by increases compared to the levels recorded in 2009 and in 2012.

b) Earnings per Share

An entity will calculate the value of the earnings per share (EPS) for the profit or loss attributable to the shareholders of an entity, dividing the profit or loss attributable to the shareholders of the mother entity (the numerator) by the weighted average of the ordinate shares outstanding (the denominator) of the accounting period.

The objective of the information concerning the basic earnings per share is to assess the level of contribution of each ordinary action of an entity in the performance of the entity throughout the reporting period. In order to calculate the basic earnings per share, the values attributable to the ordinary equity holders of the entity concerning the profit or loss from the continuous activities attributable to the entity and the profit or loss attributable to the entity will be presented adjusted with the after tax values resulted of the preferential dividends, with the differences resulting from paying the preferred stock, and with other similar securities of the preferred stock classified as equity capital.

In a capitalisation or bonus issue or a share split, ordinary shares are issued to existing shareholders for no additional consideration (International Accounting Standard IAS 33, paragraph 28). Therefore, the number of ordinary shares outstanding is increased without an increase in resources. The number of ordinary shares outstanding before the event is adjusted for the proportionate change in the number of ordinary shares outstanding as if the event had occurred at the beginning of the earliest period presented.

Also, according to IAS 33 *Earnings per share* (paragraph 29), A consolidation of ordinary shares generally reduces the number of ordinary shares outstanding without a corresponding reduction in resources. However, when the overall effect is a share repurchase

at fair value, the reduction in the number of ordinary shares outstanding is the result of a corresponding reduction in resources. An example is a share consolidation combined with a special dividend. The weighted average number of ordinary shares outstanding for the period in which the combined transaction takes place is adjusted for the reduction in the number of ordinary shares from the date the special dividend is recognised.

Practically, the net earnings per share generated during the accounting period can be assessed using the formula:

$$EPS = \frac{Rn}{Na},$$

where *Rn* – the net earnings of the period, *Na* – the number of shares.

A high level of this index can highlight either high trust of the investors in the company's management, or lack of trust, estimating that a transfer of assets can be made to another company with a more credible management. In the case of a low level of this index, there is lack of trust in the management or the existence of difficult problems for it (Achim, 2010, p. 357). The overall usefulness of this index lies in the fact that it is not affected by the dividend distribution policy.

The price rate is an external measure of the performance of the listed entity, while EPS is the direct expression of the profitability of the company (Stancu, 2007, p. 788)

Based on the financial statements of C.N.T.E.E. Transelectrica S.A., I determined the value of the basic earnings per share (table 2).

Table 2. Determining the earnings per share

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
Rn	6,135,590	9,557,424	90,913,316	34,487,968	201,017,126
Na	73,303,142	73,303,142	73,303,142	73,303,142	73,303,142
EPS	**0.08**	**0.13**	**1.24**	**0.47**	**2.74**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

We can notice a significant increase of the index in 2013 (the highest level in the analysed period), determined by the good financial results (the net profit grew 5.8 times compared to 2012 and 32.8 times compared to the first year analysed, 2009).

The limits of this index are deemed to be as follows (Achim, 2010, p. 358):

- time limits: the index is based on historical profits (in the past the management was able to make decisions from the perspective of increasing current profit), consequently EPS cannot underlie future growth prospects;
- space limits: the profits are influenced by the decisions of the managers of the various entities concerning the accounting policies, the earnings per share being influenced by the capital structure at various companies.

c) Price to Book Ratio

This index (*PBR*) is used to identify the entities with low prices that have been neglected by the market. It is calculated as ratio between the market value of a share (*Vpa*) and its

accounting value (*Vca*), highlighting in a practical manner the value given by financial markets to the entity management.

$$PBR = \frac{Vpa}{Vca}$$

The book value of a share (*Vca*) is determined by dividing book net asset (*ANC*) to the number of shares (*Na*).

In the analysis of the market value ratio the following aspects are taken into account:

- a properly managed entity with high growth prospects should have a market value equal to or higher than the book value of the equity capital (Halpern et. all, 1998, p. 114);
- the entities with a rate of return higher than their equity capital and their turnover have a higher ratio, while the entities with a lower rate of return, and a stable profit and turnover respectively, have a lower index;
- when an entity is traded at a lower value than Vca, the market deems that its assets are overestimated, respectively its profitability is very low (it is recommended either to sell its shares, or to change the management).

In table 3 we determined the market value ratio.

Table 3. Determining the market value ratio

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
Vpa	13.50	19.35	17.40	12.69	15.79
ANC	2,351,632,024	2,355,441,697	2,881,622,054	2,430,758,272	2,793,897,135
Na	73,303,142	73,303,142	73,303,142	73,303,142	73,303,142
Vca	32.08	32.13	39.31	33.16	38.11
PBR	**0.42**	**0.60**	**0.44**	**0.38**	**0.41**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

We can notice the oscillation of PBR, from 0.42 in 2009, with a maximum level of 0.38 in 2012 and a maximum level of 0.60 in 2010, but less than one throughout the whole period analysed, showing an overvaluation of the assets compared to their market value.

d) Price to Sales Ratio

This index is used to identify unprofitable investments, being very useful in the assessment of the shares of entities with low profits or unprofitable). It is very useful when other indices cannot be used, because the entity is running at a loss or has extremely low profitability, or margins).

It is determined as a ratio between the market price of a share (*Vpa*) and the net turnover per action (*CAna*) or as a ratio between the market capitalization (*KB*) and the net turnover of the entity (*CAn*):

$$PSR = \frac{Vpa}{CAna} \text{ or } PSR = \frac{KB}{CAn}$$

The index does not allow for comparisons between sectors of activity, but it can be used for entities with similar activity or in comparisons with the average values of the sector. The calculation of the price too sales ratio of the market was made using the second calculation formula (table 4).

Table 4. Determining the price to sales ratio

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
KB	989,592,417	1,418,415,798	1,275,469,125	930,216,872	1,157,009,203
CAn	2,485,127,373	2,545,724,630	3,113,142,778	2,767,686,710	2,472,315,761
PSR	**0.40**	**0.56**	**0.41**	**0.34**	**0.47**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

It is deemed (Petrescu, 2009, p. 276) that a value bigger than 0.5 of this ratio can be attractive for investors, while a value lower than this level indicates an undervaluation of the turnover as a result of the lack of financial performance of the entity.

We can notice that only in 2010 the level of the index was bigger than the 0.5 threshold, while for the rest of the analysed period it was lower than this threshold. In 2013 PSR grew (0.47), getting closer to the benchmark level.

The evolution of the last three indices analysed is shown in figure 2.

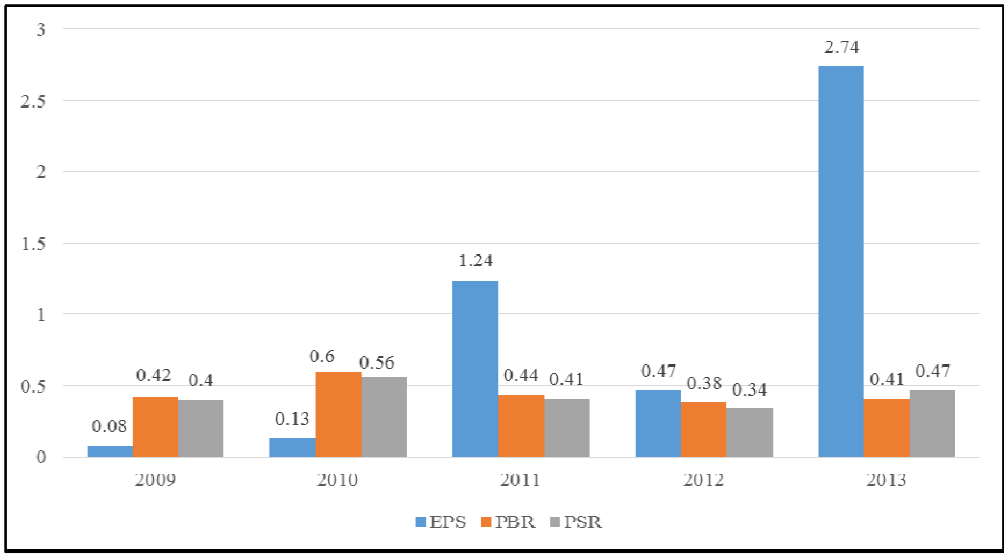

Figure 2. Evolution of the market growth rates

e) Price Earnings Ratio

This index is very important for any entity known and listed on the stock exchange. In combination with all the earnings obtained by the entity, it provides information concerning

the possibility to decide to undervaluate or overvaluate shares. It is calculated as a ratio between the market value of one share (*Vpa*) and the earnings per share (*EPS*).

$$PER = \frac{Vpa}{EPS}$$

Based on this index, stock market analysts assess investors' reactions to changes in the financial rate of return of the listed entity (Mironiuc, 2006, p. 387) and in how many years the investment will be recovered, under the assumption that the whole profit is distributed as dividends. Thus, we can determine how much an shareholder should invest in order to obtain a profit unit. A high level of the *PER* means that the shares are expensive or overvaluated and vice versa (Achim, 2010, p. 359).

Statically speaking, a share with a low *PER* is preferable to a share with a high PER mare, concerning the purchase price, but a share with a higher *PER* is possibly much more profitable than one with a lower *PER* (the increase or decrease of the earnings of the share in the future are taken into account). The index is extremely useful provided it is based on future prospects, rather than if it is determined based on historic information (thus a higher level of this index can be explained either by a higher growth rate, or by a reduction of the risk).

The price earnings ratio allows for comparisons among companies, regardless of the dividend payout ratio, being more objective in assessing the profitability of the shares compared with the dividends per share (Petrescu, 2008, p. 276).

Table 5. Determining the price earnings ratio

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
Vpa	13,50	19,35	17,40	12,69	15,79
EPS	0,08	0,13	1,24	0,47	2,74
PER	**168,75**	**148,85**	**14,03**	**27,00**	**5,76**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

The dynamics of the index is influenced especially by that of the earnings per share (EPS) which, as we have seen hereinabove, was determined by the net earnings which recorded a significant increase in 2013, which led to a low value of the PER (5.76) – a positive aspect.

f) Cash EPS

This index highlights the amount of cash generated by an action in an accounting period (Duțescu, 2000, p. 57) and is determined as a ratio between the cash generated by the operating activity (operating cash flow – *OCF*) and the number of shares (*Na*).

$$CashEPS = \frac{OCF}{Na}$$

We agree with the opinion according to which this index is much more relevant than *EPS*, because the net earnings of the accounting period from the profit and loss account used for its calculation is much more impure and easier to handle than cash.

In order to make assessments concerning this index we must analyse it by comparing it with EPS: if *EPS* is lower than the *Cash EPS*, this means that the net earnings reported is better in terms of quality, and the entity has generated more cash than the net earnings; otherwise, it is deemed that the net earnings could not be appropriately turned into cash.

Table 6. Determining the CashEPS

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
OCF	254,775,293	472,596,507	536,429,538	454,568,800	544,417,740
Na	73,303,142	73,303,142	73,303,142	73,303,142	73,303,142
CashEPS	**3.48**	**6.45**	**7.32**	**6.20**	**7.43**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

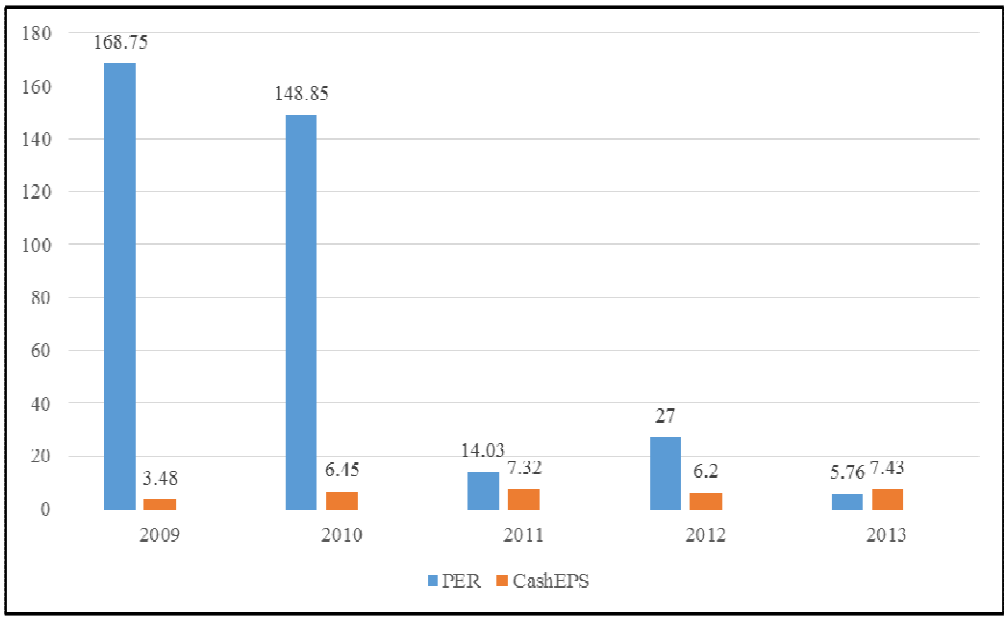

Figure 3. Evolution of PER and CashEPS

We can notice that the index CashEPS has had an oscillating evolution too, with a minimum level in 2009 and a maximum level in 2013, due to the increase in the operating cash flow.

3. DIVIDEND STOCK MARKET RATIOS

This category of rations is, in its turn, important both for shareholders and for the short-term investors of an entity, as they are interested in getting high short-term profitability for the shares, and consequently for the level of the distributed dividends. This category includes: the dividend per share, the dividend yield, and the dividend payout ratio and the dividend coverage ratio. A company with a low dividend payout ratio, due to the fact that it reinvests its profit, will grow faster and will generate future earnings (Oancea-Negescu, 2009, p. 159).

a) Dividend per Share

This index (*DIVA*) shows the level of the dividend corresponding to one share. It is determined as a ratio between n the value of the dividends distributed to the shares from the net earnings of the accounting period (*DIV*) and the number of common shares outstanding (*Na*): $DIVA = \frac{DIV}{Na}$

An uptrend of the dividend corresponding to an invested share is desirable, from the point of view of the minority shareholders or short-term investors in the equity capital of the entity. A high level of this index usually attracts investors aiming at obtaining short-term profits (Bondoc, 2014, p. 142).

Table 7. Determining DIVA

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
DIV	3,665,157	8,503,165	80,633,456	29,614,469	163,319,401
Na	73,303,142	73,303,142	73,303,142	73,303,142	73,303,142
DIVA	**0.05**	**0.12**	**1.10**	**0.40**	**2.23**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

In our opinion, the level of the dividend corresponding to one share is extremely low. Since the number of shares in the analysed period is constant, the oscillations of the dividend per share were determined exclusively by those of the allocated dividends, but we should also highlight that there is a significant increase in the index DIVA in the accounting period 2013 (due to the increase in the net earnings distributed as dividends).

b) Dividend Yield

This index (*RDIV*) measures the gain collected by the shareholders following their investments in the entity shares. It is determined as a ratio between the dividend per share (DIVA) and the market value of one share (Vpa): $RDIV = \frac{DIVA}{Vpa}$

The dividend yield is calculated in relation to a financial value (an exchange rate) and in any case not in relation to an accounting value (Vernimmen, 2009, p. 551).

In this case too an uptrend is desirable, as it shows a maximization of the effects in the form of dividends per share invested to the efforts of the shareholders substantiated in the value of the price paid for purchasing one share.

Table 8. Determining RDIV

Indices	**2009**	**2010**	**2011**	**2012**	**2013**
DIVA	0.05	0.12	1.10	0.40	2.23
Vpa	13.50	19.35	17.40	12.69	15.79
RDIV	**0.004**	**0.006**	**0.063**	**0.032**	**0.141**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

The dividend yield decreased in 2012 compared to 2011, but it increased in 2013, recording the highest level of the gain collected by the shareholders following their investments in the actions of the entity.

c) Dividend Payout Ratio

This last index (*DPR*) analysed in this paper measures the proportion of the net profit (*Rn*) distributed to shareholders as dividends (*DIV*) and is determined as a ratio between the two elements.

$$DPR = \frac{DIV}{Pn}$$

A very high level of this index reflects an enhanced dividend policy corroborated with a diminished self-financing policy. On short term, a high value of this index seems attractive for investors, but in the long term, it does not provide a sustainable development for the business.

Table 9. Determining DPR

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**
DIV	3,665,157	8,503,165	80,633,456	29,614,469	163,319,401
Pn	6,135,590	9,557,424	90,913,316	34,487,968	201,017,126
DPR	**0.5974**	**0.8896**	**0.8869**	**0.8587**	**0.8125**

Source: Information obtained by processing the financial reports of C.N.T.E.E. Transelectrica S.A.

The level of the dividend payout ratio is determined by the dividend policy (reinvestment or distribution of the net profit) practiced by an entity. A constant dividend payout rate indicates a stability of the future incomes (cash flows) of the company, while an increase in the dividends indicates higher cash flows that will cover the dividends, and consequently the market value of these shares will grow (Stancu, 2007, p.683).

If a company maintains the level of the dividends when its net profit decreases, it signals to the market that this decrease of the earnings is only temporary and that the profit increase will be resumed (Vernimmen, 2009, p. 896). In the opposite case, if it reduces or even c eases to distribute dividends, the company sends a signal concerning the prospects of the activity susceptible to be interpreted in a negative manner, determining the decrease of the exchange rate of its shares.

In the case of C.N.T.E.E. Transelectrica S.A., although the increase in the net result in 2013 was accompanied by the increase in the distributed dividends, the profit index is higher than the distributed dividend index, so the profit was distributed to the shareholders as dividends in a lower proportion than the previous year (81.25% in 2013 compared to 85.87% in 2012), which is the reason why the dividend payout ratio decreased. It is believed (Martin, 2006) that the decision to distribute dividends reflected by the dividend policy is determined by a number of factors, among which the income tax applied to the two incomes arising from holding shares: the dividend and/or the capital gains from the increase in the share value.

The evolution of the dividend stock exchange ratios determined for C.N.T.E.E. Transelectrica S.A. is shown in figure no. 4.

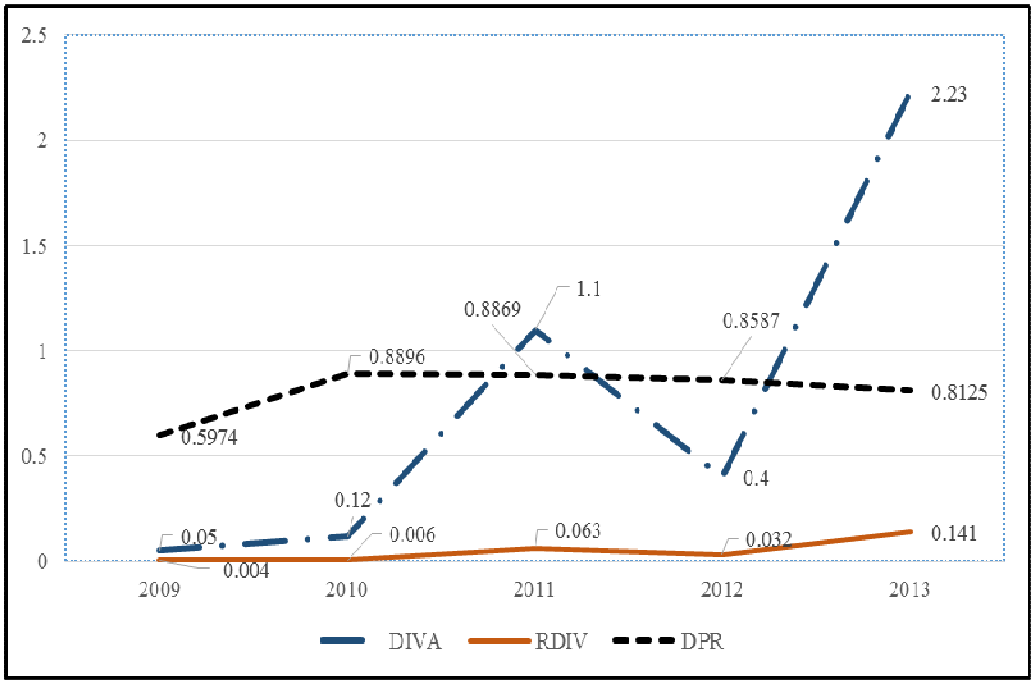

Figure 4. Evolution of the dividend stock exchange ratios

4. CONCLUSIONS

The absolute value of one of the indicators presented herein cannot be significant for a potential investor without a reference framework that can be the trend of the respective rate, a level pre-established, by a similar entity or a standard accepted by stock exchange specialists.

In relation to the market indicators analysed based on the financial statements of C.N.T.E.E. Transelectrica S.A. we can express the following opinions:

- generally, the analysed indices had an oscillating evolution in the analysed period (2009-2013)
- the market capitalization indicates that Transelectrica is a large and prominent entity;
- the entity recoded net profit in the analysed period and distributed dividends;
- the highest dividend payout rate was recorded in 2010, but until 2013 it was maintained at the level of 80% of the net profit;
- the significant increase of the net profit in 2013 compared to 2012 (but also compared to the other accounting periods analysed) had a direct influence on EPS and, through it, on PER;
- the dividend yield recorded the highest level in 2013, also as an indirect consequence of the financial performance reflected by the net profit.
- when comparing the level of CashEPS to that of EPS, we can notice lower levels of the latter, so we can say that the net earnings reported are good in terms of quality, the entity generated more cash than the net earnings.
- the decrease in the dividend payout ratio in the last year analysed could indicate a need for cash related to new investment opportunities, which is therefore a positive aspect.

It is believed (Horobeț et al., 2011) that the performance of companies on the capital market is not explained by their operating and financial performance, except PER and EPS, which indicates a clear separation between the performance of the companies that is reflected in the financial statements and the performance of the investors obtained by trading on the capital market.

Consequently, in our opinion, a continuation of the research can represent a benchmarking of the performance reflected by stock exchange indices and those reflected by the traditional performance indicators determined based on the profit and loss account.

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