

## **THE CEE COMPANIES, ATTRACTIVE DEALS FOR LEVERAGED BUYOUT TRANSACTIONS?**

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**Abstract:** *Leverage buyout in the CEE region was almost nonexistent to 2003 and limited until 2006, when both the international and local creditors, following the global trend, increased demand for mergers & acquisitions. Private equity investors prefer to investigate the characteristics of companies when select target acquisitions. Our study defines a typology of CEE companies in following criteria: profitability, efficiency, liquidity, leverage, cash - flow generated. This study can be used by investors to identify new investment opportunities in the CEE region. The study results show that on average, the sample analyzed (1428 companies CEE) during 2004-2013 is represented by large companies, profitable, efficient, with positive cash-flows, but indebted and with liquidity issues. Low percentage of investments private equity buyout in CEE (only 3% of all private equity investments in Europe) is determined by the types of companies from this region of development, the high level of leverage recorded during the analyzed period in particular.*

**Keywords:** *leverage buyout, investment opportunities.*

### **1. INTRODUCTION**

Leveraged buyout represents the fourth historic wave (1978 – 1989) from the fusion and transaction evolution in North America, usually assimilated to hostile takeovers from that period of time. This particular wave was followed by the booms of the informational technologies, especially of the Internet, in which there were invested large amounts of money by comparison to the previous wave (5842 billion USD between 1993 and 2000 by comparison with 1438 billion USD between 1978 and 1989), as Meier and Schier stress (2002). The last wave of fusions and transactions was characterized by a strong development of the private equity operations, based on extremely low reference interest rates.

The private equity has easily turned into a value activation class on capital markets, including the following main components: the buyout and the venture capital (in Europe, private equity and the venture capital are distinctively treated, whereas, in the United States, the private equity includes the venture capital). The regulation authorities from various countries admit the fact that these acquisitions help promoting and efficient, dynamic and innovative business environment. This idea is backed up by Osborne et.al. (2012). The buyout type of investments implies company acquisitions with high development potential on the long run, in order to restructure and enhance their values. The restructure implies offering capital as well as administration and counselling (Black & Gilson, 1998). The purpose of the private equity company (as well as the private equity fund) is that, by the end of the scheduled timetable (on average 5-6 years), to increase the

value of its investment, generating welfare both to the investors and to the restructured company.

The practice and research in the field identified a series of controversies regarding the leveraged buyout activity. The main controversies are due to the holding period of time, the exit types, as well as the increased level of indebtedness practiced among this type of investments. Axelson et.al (2007) compared the level of indebtedness practiced by leveraged buyout transactions and the one registered on a sample of public companies coming from the same location, industry and same reference year. In the case of the sample consisting of indebt takeovers, there was an average of net debts of 67% from the company's value, as well as a debt net average reported to the EBITDA of 5.4% by comparison to 14%, respectively 1.1 for the correspondent tested sample. Given the practiced high level of indebtedness regarding this type of investments, it is expected that the bankruptcy rate will be bigger for companies taken over through indebtedness than the case of other public companies.

Strömberg (2007) analyzed the registered failure rate of this particular type of investments. The criteria that founded the analysis took into consideration the identification of the situations where bought companies were led to bankruptcy through leveraged buyout or to financial restructuring, or even whether they exited the business field. The reports showed that 6% of the taken over businesses during 1980 and 2002 were led to bankruptcy or reorganization. The reports also signaled a tendency of diminishing the number of situations where acquired companies registered financial difficulties in time. This failure rate is larger when it comes to American marketable companies but lower than in the case of the corporative bonds emission. Companies dealing with financial difficulties at the time they are being taken over through indebtedness have a bankruptcy rate twice as big as the financially stable companies. The management buyout component registered a higher incidence of bankruptcy. On the other hand, division takeovers represent the least predisposed to register bankruptcies. Indebtedness takeovers from the United States and the United Kingdom have a higher bankruptcy or financial restructuring probability given their practiced in debt aggressiveness practiced in the most developed private equity markets.

Analyzing the accessibility of leveraged buyout investments, studies have shown (i.e. Capasso et.al. 2014) that, even though entrepreneurs are often willing to receive private equity offers thanks to their generated interest of potentially significant capital infusions, most companies fail to actually draw the attention of private equity funds. Under these circumstances, one must ask himself: What can companies do in order to attract private equity investments? The following study focuses on the microeconomic factors – the specific set of a company's characteristics determining its probability to become the subject of a private equity offer.

In a research conducted on a sample of companies originating from developed countries, during 2000 and 2009 (Australia, Canada, United Kingdom, United States, France, Germany and Sweden), Osborne et.al (2012) concluded that the specific features of companies are more influenced when selecting the target segment than the external or institutional variables. This was made possible because the well-structured businesses, as well as the low risk ones can diminish the determining factors that are country specific –

the level of corruption, information disclosure, etc. However, one should bear in mind that this conclusion is only available throughout the developed countries, whereas things change if we move forward the analysis on different development regions (Western Europe/ Central-Eastern Europe<sup>1</sup>).

The purpose of this study is to estimate the probability of Central-Eastern European companies to become the object of a buyout offer, given the company specific features, identifiable in the existing specialty literature. First of all, we analysed companies from their profitability point of view, as well as the efficiency of active usage, liquidity, indebtedness and the cash flow evolution. Furthermore, we created the CEE company typology. The analyzed sample consists of marketable companies (public companies), as well as of private companies listed in the Orbis database, from 2004 until 2013. The probability determining factors were selected from the existing field literature (empirical studies, reports, objectives enounced by private equity companies on their personal websites, etc.).

In a leveraged buyout transaction (indebtedness take over), a company is bought by an investment specialist company through the use of personal capital in a small percentage and financial debt in a higher percentage. In a typical leveraged buyout transaction, the private equity company takes over the majority control of an existing mature company.

## **2. BACKGROUND**

Leverage buyouts appeared for the first time as an important phenomenon in the 1980s. A geographic analysis of leveraged buyout transactions identifies the regions in which this type of investment is developed, respectively less developed. The first wave of takeovers (buyouts) lasted until the 1980s was predominantly found in the United States and Canada, rather than in the UK. During 1985 – 1989, these three countries counted for 89% of the total leverage buyout transactions and 93% of the global value of these transactions. Meanwhile, the leverage buyout type of business was dominated by acquiring a relatively large number of big companies from mature industries (retail and manufacturing). The public-to-private type of businesses counted for nearly half of the private equity transactions value. After the fall of the bonds market, public-to-private dropped significantly. In exchange, the buyouts of non-publicly traded firms increased significantly, making for the most important component of the private equity activity for that moment. The producing and retail companies became less dominant in the targeted field of buyout companies as the buyout activity mainly reoriented to new industries, including information technology (IT), media, telecommunications, financial services, health care, etc. Thus, even though the total value of the transactions dropped, the number of closed business between 1990 and 1994 doubled by comparison to the same period, between 1985 and 1989. In the following time period (1995 to 2004, excepting the

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<sup>1</sup>Bemoth et.al (2010) investigated the determining macroeconomic factors of private equity activity from Europe, mainly focusing on a comparison between the Central-Eastern European regions and the Western Europe, registering both similarities and differences in their influence rate.

market decline from 2001), the private equity activity continued to rise. The listed companies' takeover category increased despite the fact that private companies buyout still represented 80% of the total value and 90% of the number of listed transactions at that time being.

The buyout phenomenon rapidly spread throughout Europe. During 2000 and 2004, the private equity market from Western Europe (including Great Britain) represented almost 49% of the total value of leveraged buyout transactions closed at a global level, by comparison to the United States which still held on to 43.7% of the market. During this time, the main targets of buyout firms extended towards new fields, including service offering companies and infrastructure. During the *boom*, many of these tendencies amplified. The 2008 debt crisis determined the reorientation of funds and private equity companies towards new attractive opportunities. Furthermore, it has been taken into consideration whether Central and Eastern Europe<sup>2</sup> generates new opportunities for investment by private equity firms in terms of the companies' characteristics that are active in this region. It starts from the assumption that the weak development of this type of investment in CEE is due to the typology of the companies in this region

The private equity industry consists of a shorter history in the CEE region than Western Europe. The investment volume, as GDP percentage, although rapidly grew recently (2002-2008), is still significantly lower than the rest of Europe. Even though the private equity activity in the CEE area doubled between 2002 and 2008, this type of investment continues to find itself in its early stages of development, given the fact that the largest part of funds was not gathered and invested until the end of the 1990s. As a result, many of the private equity projects have not yet reached their maturity phase, when investors wish to de-invest in order to obtain the anticipated profitability. According to the assumptions of Bernoth et.al (2010), the private equity activity trend in this region was not affected by the 2008 debt crisis.

CEE became a trustworthy commercial partner, a leading manufacturer and a service provider for the main EU markets, taking advantage of the un-bordered general access, attractive costs and lower rates of profit taxation. The high educational level and a long tradition of technical and engineering preparation, combined with flexible labour markets draw the investment environment as open and welcoming. Since CEE continues its economic integration, the advantage list will keep on growing.

Ever since the 1990s when the first private equity fund was created and until now, in this region there were not created the necessary regulations of developing the life cycle of a private equity investment. The economic system designed throughout the years does not only include experienced banks willing to offer loans and professional counseling, but also legislation, which led to the convergence of deal closing terms and conditions regarding the developed markets.

The exit infrastructure is also robust: FDI flows, acquisition/fusion offers, active public markets for debts and personal capital in many of the region's countries. For

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<sup>2</sup>Region Central and Eastern Europe includes the following countries: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Serbia, Slovakia and Slovenia.

instance, Poland, which currently owns the most developed value stock market in the area, had the largest number of IPOs in terms of European value stocks, every single year, from 2009 to 2012 (IPO WatchEurope, 2009, 2011, 2012, PwC). Even so, according to an EMPEA survey (2011), the existing exist possibilities when it comes to the ECE region countries were identified as the main discouraging factor for private equity investors.

Today, CEE's private equity opening market encounters a large variety of funds, while investors take part in the buyout process, expansion and risk capital, as well as in readdressing and reorganizing strategies (turnarounds). Moreover, national associations of private equity closely collaborate with EVCA in order to ensure a professional and fully responsible approach of this type of investment. The power implication of the European Bank for Reconstruction and Development, and the European Investment fund led to the enhancement of private equity activity. Moreover, highlighting the positive role of private equity investments in the government transition process, led to the appearance of a positive operational environment.

Even though the infrastructure and the main elements of the private equity market were created and developed throughout the CEE time, the investors' capitals flow towards other arising markets. The private equity market from CEE is a sub-financed market. Even though fund raising was rather robust for a short period of time before 2008, these values continue to be low by comparing them to the region's GDP and with the speculated amounts on other markets. The generated revenues towards CEE's private equity market represented, on average, 0.098% of the GDP, while the Europe's average was of 0.303%, and 0.239% in Asia. As of 2009, the investor's capital was redirected towards rising markets, while the new financings redirected towards CEE followed an increasing trend, leading the similar level of their initial developing stage.

With this decline, the level of investments in the period 2008-2011 came to exceed the new targeted funding: the value of investments was € 7.4 billion while the amount of funds directed to this area were worth € 4.5 billion (65% more money invested than those attracted to the region) as noted EVCA (EVCA / PEREP\_Analytics). Investing activities was dominated by funds created and specialized in this region.

Leverage buyout in the CEE region was almost non-existent until 2003 and quite limited until 2006, when both the international and local creditors, following the global trend, increased the offers for the financing of acquisitions. However, the indebtedness in CEE never reached the shares of the developed markets. So, according to the mentioned study, the average levels of debt of the respondents portfolios at the end of 2011 was only  $3.1 \times$  debt to EBITDA, compared to the Europe's average of  $4.7 \times$  (S & P LCD, the European Private Equity Report). This would be an advantageous development of this region, given that the buyout is typically financed at the rate of 60-90% based on indebtedness, as Kaplan and Strömberg point out (2008).

The study done by private equity firms in CEE (2012) also showed that businesses made by the general partners who were surveyed in 2011, had an average capital structure of equity of 57% compared to the European average of 47%. In these conditions, amid a global recession of the financing of buy-outs, the creditors inside and those outside the region are willing to further support private equity transactions

characterized by moderate leverage. Thus is justified the targeting of investments in the region, mainly towards financing takeovers, as evidenced by the reports prepared by EVCA<sup>3</sup> (amount of capital for buyouts in CEE increased by 20% in 2009 over the previous year to the level of 1.8 billion euro share capital for buyouts in total investments private equity, thus increasing from 63.3% in 2008 to 75.1% in 2009). However, this trend was not maintained for the next period (it descended dramatically in 2010 to 720 million and the decrease continued to record value of 427 million euro in 2013). In contrast, the buyout investments in Europe recorded stable values every year. In conclusion, the low level of indebtedness constitutes in a first phase an advantage but it is not the case if it is not accompanied by features related to the growth potential of the company, its domain of activity, of its financial performance that allows private equity firms to generate high profitability by means of a significant improvement of the operational component.

From the point of view of turnover, in 2013, as well as in recent years, the CEE market remained focused on small and medium sized buyouts in the market. According to EVCA, small buyout refers to transactions lower than 50 million euros while, mid-market buyout includes transactions with values between 50 to 500 million euros.

In summary, among the competitive advantages of the CEE region attracting private equity investors identify:

- 58% of businesses are still in their first generation of property but at the same time have up to 20 years of service behind them;
- opportunities for buy-and-build ( large number of existing companies, new generations of company founders, large consolidation potential);
- businesses made by the general partners questioned in 2011 had in their capital structure on average an equity of 57%, compared to the European average of 47%. In these conditions, amid a global recession on the financing of buy-outs, creditors within and outside the region are willing to further support private equity transactions characterized by moderate leverage.

However, we must take into account the urging of some authors addressed to private equity firms, to no longer rely on the power of leverage and on the practice of inflated prices in public offerings to generate higher profitability. Boosting operational performance of the companies in the portfolio is the only controllable way to create value. Investing in companies that have significant opportunities to improve the profit margins is the main objective of private equity firms. This study aims to determine to which extent these preconditions are created in companies that develop their activity in the CEE region.

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<sup>3</sup>European equity Private & Venture Capital Association, Central and Eastern European Statistics 2013  
EVCA Special Paper, Brussels 2014

### **3. CEE COMPANIES' TYPOLOGY**

*Does Central and Eastern Europe<sup>4</sup> generate new investment opportunities for the private equity firms in terms of the characteristics of companies that develop their activity in this region?* It starts from the assumption that the weak development of this type of investment in CEE is due to the typology of the companies in this region.

This characterization has its starting point in the research findings conducted by the authors Chapple et al. (2010), Osborne et al. (2012), Nordström&Wiberg (2009), but also on the available data provided by the Orbis database in the period 2004-2013 on the private and public companies from Central and Eastern Europe. Consequently, according to the authors mentioned above, one might assert the following regarding private equity firms:

- they are aiming at larger companies which are more profitable and more efficient, companies with higher operating cash flows. Target companies also seem to be less leveraged and less liquid (Chapple et al, 2010). This finding relates to other types of transactions (mergers & acquisitions).

- the firms examine the changes that occurred in the evolution of the following indicators: the EBITDA margin, the number of employees, the debt/equity ratio. More specifically, the smaller the change in the debt/equity and the EBITDA margin compared to the period t-1, the greater the probability of that specific company to become a takeover target. Once the number of employees is increased (as an expression of firm size), the probability of a buyout offer is likely to appear. These ideas are supported by the findings reached by Nordström&Wiberg (2009).

- given the latest developments in the market for private equity (since the debt crisis), this study will also consider the following conclusion deduced from analysis of the current state of research: funds and PE firms can no longer rely on the power of the leverage effect and they will be forced to invest in companies that have significant opportunities to improve profit margins. Therefore, the following indicators will be analyzed: financial leverage; market to book and the profit margin (in value, but also its evolution).

Consequently, we consider the following variables to characterize the companies in Central and Eastern Europe in terms of size, profitability, efficiency, liquidity and indebtedness: the total of assets, the number of employees (in order to measure the size of the company); the rate of return on equity (ROE), the return on assets (ROA) and the net profit (in order to measure the profitability); asset turnover ratio (as a measure of the efficiency); the current liquidity, the available cash flow (a number of studies<sup>5</sup> states that the private equity transactions creates a new form of organization that gives the advantage to control the agent costs generated by the surplus of the available cash flow and the private equity firms declare this variable as a criterion of investment). There are also tracked: the EBITDA margin indicators, the number of employees and the ratio debt/equity during 2004-2013 for the population growth in the CEE region. To this

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<sup>4</sup>Region Central and Eastern Europe includes the following countries: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Serbia, Slovakia and Slovenia.

<sup>5</sup> Jensen, M., 1986, Agency costs of free cash flow, corporate finance, and takeovers, *American Economic Review* 76, 323-329

picture there are added the indicators regarding the analyzed companies. Not ultimately, there are identified the fields of activity where the analyzed companies operate because the field of activity is a selection criterion checked by the private equity firms (noting that preferences of the private equity firms ranged over time from this point of view).

A greater number of years were chose (2004-2013) because the results of some researches from this field have shown that the dynamic variables are important and it affects a company's possibility of becoming the target of a buyout deals (Nordstrom & Wiberg, 2009). The change of the variable is more important than the level of such variables. Therefore, it is considered the level of certain variables and also the other dynamic variables because the purpose of the study constitutes determining the probability of companies to become the target of a buyout transactions starting from variables whose influence has been tested and validated by previous research. The selected variables support in literature, both in the results of empirical studies and the theories developed by famous authors. In order to characterize the CEE companies through these indicators, some theoretical issues related to landmark values, interpretation of results that may be generated by the descriptive analysis. These results will be compared with those registered by companies in developed European countries (in so far as this is possible fact, given that the reporting period varies from study to study).

Our sample consists of 1,428 companies based in different countries of Central and Eastern Europe region and analyzed period is 2004-2013. We characterized these companies in terms of leveraged buyout investments. The results were compared to theoretical limits. Table 1 summarizes the limit values of the variables.

**Table 1 Description of variables**

<b>Variable</b>	<b>Formula</b>	<b>Theoretical values</b>
ROE (%)	$\frac{\text{Net income}}{\text{Shareholders equity}} \times 100$	ROE must be higher than the average market interest. The industry average is 9.2% (Onofrei, 2007).
ROA (%)	$\frac{\text{Net Income}}{\text{Total Assets}} \times 100$	The higher the ROA number, the better, because the company is earning more on less investment. The recommended value is 5%.
Profit margin (%)	$\frac{\text{Net Income}}{\text{Revenue}} \times 100$	Values: Less than 1%: unstable situation; 1%-15%: stable; Higher than 15%: volatile situation.
EBITDA margin	$\frac{\text{EBITDA}}{\text{Total revenue}} \times 100$	High values show that the company is considered less risky, in financial terms.

Cash flow	The sum of components: cash-flow from operating activities; cash-flow from investing activities and cash-flow from financing activities.	Positive
Asset turnover	$\frac{\text{Revenues}}{\text{Total Assets}}$	A reduced turnover than 2 shows that the company is not efficient.
Current liquidity	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Recommended value: more than 2-2.5.
Leveraged	$\frac{\text{Debt}}{\text{Equity}}$	A value above 2.33 looks bankruptcy risk.

As the Table 2 reflects, the CEE companies record in average higher rates of financial return (above the industry average of 9.2%) of 12.68%. However, in the sample analysed, there are companies that have registered negative ROE. In previous studies (Chapple, 2010) the companies from the analyzed sample (companies from Europe), were registering, on average, a level of ROE of 15.90%. The rates of return on assets recorded by CEE companies are on average positive (5.19%). This is less than the average recorded by the companies taken over by debt analyzed by Chapple (7.18%), but it fits into the theory. The average net profit is 14,845€. Also, the CEE companies generate positive cash-flows (33,491. 95€). The CEE companies appear in a statistical description as indebted, the leverage registering an average of 5.70 (surpassing 2.33) and the risk of bankruptcy. The CEE companies face liquidity problems and the average of this ratio is 1.76. The indicator should record higher values of 2-2.5 in the idea of guaranteeing the current coating on the basis of capitalizing the short-term assets. In terms of number of employees, the analyzed CEE companies have on average 1,821 employees and therefore they are large companies. Overall, the CEE companies are profitable.

In conclusion, the descriptive statistics show that on average, the sample analyzed consists of large profitable companies, managing assets that generate cash-flows positive, but they are indebted (this result is in contradiction with previous results according to which the CEE companies have moderate leveraged compared to other regions) and record liquidity problems.

Note: In previous literature, the values recorded by taken over by debt companies (leveraged buyout) were compared with those of companies acquired using conventional techniques (Merger & Acquisition) or with companies which were not yet the subject of a

transaction until that date. This study compares the results obtained with theoretical values of the characteristics analyzed and in a lesser extent with the results from previous studies (Chapple, Osborne, Nordström) because they are related to different time periods prior to the international financial crisis that has begun in 2008. This allows a characterization of the CEE companies in terms of profitability, efficiency, liquidity, borrowing, size, growth prospects and also a comparison with other companies that were taken over by debt.

Is worth mentioning the fact that microeconomic factors determinants should be correlated with the cyclical phenomenon that is characteristic of this investment type and the managers of the private equity firms look for those companies that hold a number of factors that allow them to withstand any economic climate or market.

A classification of companies and a creation of a typology provide an insight into the category of companies that dominate the analyzed sample, considering that this sample is heterogeneous. The Tables 3, 4, 5, 6, 7 contain the classification of the companies after the indicators: cash - flow, leveraged, asset turnover, liquidity, profitability. The frequency with which sample companies was framed over the period analyzed in theoretical value limits is shown in the tables 3-7.

The results show that the types of companies in Central and Eastern prevail:

- companies that register cash - flow positive (91.43% of the total number of observations);
- companies that are less indebted (61.40% of the total number of observations), although the percentage of indebted companies is quite high;
- even if the companies from CEE have a faster rotation speed of the asset  $> 2$ , the sample is dominated by inefficient companies (speed of rotation of the asset  $< 2$ ); in percentage of 53.89%;
- even if the average of the current liquidity indicator registered by the companies is below the theoretical threshold, the sample prevails observations where this indicator reaches  $> 2$  (approximate 75% of observations);
- the companies from the region of Central and Eastern Europe are profitable (81.78%).

An analysis of the structure of sectors in which it operates CEE companies shows that the largest share is owned by C sector (manufacturing) - 38.38%; followed by G sector (wholesale and retail) - 34.03%, consequently in mature industries. The trend in the buyout is heading towards new industries such as information technology, media, telecommunications, financial services and health care.

The average level of the leveraged (5.70 at a theoretical threshold of max. 2.33) and the classification of CEE companies after this variable shown in Table 4 (38.60% of observations are above the theoretical threshold of 2.33) reported the findings of research (Strömberg,2007) according to which acquisitions of companies facing bankruptcy or financial difficulties constitute only 2% of the total number of transactions and 1% of their value (and recorded the highest failure rate). This leads to the conclusion that a high percentage of companies from the analyzed sample cannot be tendered through buyout offers due to the high degree of indebtedness recorded during the reference period (2004-2013). This conclusion differs from that found in some previous research (the study

undergone by 18 private equity firms on CEE in 2012) according to which companies in this region are the least indebted.

Finally, we find that the low buyout activity in the CEE region is determined by the types of companies in this region, especially the high level of financial leverage recorded during the analyzed period.

#### 4. CONCLUSIONS

In the specialized literature, the leveraged buyout transactions are characterized as being a temporarily governance structure whose main purpose is to improve the governance of public companies with dispersed structures of ownership. These are suffering from an excess of available cash flow, as compared to investment opportunities, after this period they are returning to the public capital market. But this is a point of view because, over time, leveraged buyout began to target both public as well as private companies.

Leverage buyout in the CEE region was almost non-existent until 2003, and mainly limited until around 2006, when both the international and local creditors, following the global trend, increased the demand for the financing of acquisitions. It started from the hypothesis that the weak development of this type of investment in CEE is based on the types of companies in this area. Thus, such a typology was created.

The aim of this work is the characterization of the companies from Central and Eastern Europe in terms of a leveraged buyout deals.

The main directions of research are:

- to identify companies' specific the factors that determine the probability of establishing a buyout deals (a synthesis of the previous researches was conducted);
- the characterization of the companies from the countries in Central and Eastern Europe against the objectives of buyout offers.

Taking into consideration the opportunities offered to companies by the leveraged buyout investments (which include not only significant infusions capital in the company, but also application of governance engineering and the improvement of the operations developed by the company, in this way creating value), but also the targeted market segment by this type of transactions, a characterization of the companies in the countries of Central and Eastern Europe in the period 2004 - 2013 was performed, against the objectives of private equity firms (including their offer component in buyout). In total, 1,428 companies from the Orbis database were analyzed (both public and private).

Analyzing the availability of leveraged buyout investments, previous studies have shown (e.g. Capasso et al., 2014) that although entrepreneurs are often willing to get offers for private equity due to the interest generated by potential significant capital infusions, many companies fail to actually attract the attention of private equity funds. Under these circumstances, the question emerged: What can companies do to attract private equity investments?

In a survey conducted on a sample of companies from developed countries for the period 2000-2009 (Australia, Canada, UK, USA, France, Germany and Sweden) Osborne

et al. (2012) found that specific features of the companies are most influential in the selection of the target segment, rather than external or institutional variables.

Thus, the present study identified in the relevant literature the microeconomic main determinant factors in taking over companies by private equity firms. These studies looked at and compared companies that have been the subject of buyout deals and companies that have been subject to other types of transactions. It also compared companies that have been the subject of buyout deals against groups of companies with similar characteristics who were not yet the subject of a takeover. The analyzed companies come from developed countries (Western Europe, USA, the Nordic countries). Unlike previous research, this study aims at predicting the likelihood of companies from Central and Eastern Europe to be taken over by means of the analyzed specific factors targeted by private equity firms, as they were identified in previous studies. The sample comprises large private companies as well as listed companies that may be subject of buyout offers. The reference period is a period of extremes: economic development and the financial crisis.

The identified microeconomic factors were used as variables in characterizing the companies from Central and Eastern Europe in terms of size, profitability, efficiency, liquidity and indebtedness by comparing the recorded levels with the theoretical thresholds. It also tracks the EBITDA margin indicators, number of employees and the debt / equity ratio during 2004-2013, for the companies in the CEE region. They have identified sectors in which the analyzed companies mainly operate as this provides a selection criterion requested by private equity firms (noting that preferences of private equity firms have varied over time from this point view also).

The research results show that:

- On average, the analyzed sample (1,428 companies CEE) is made of large profitable companies, which are effectively managing assets, which generate positive cash-flows, but are indebted (this result is in contradiction with previous results according to which CEE companies have moderate indebtedness as compared to other regions) and register liquidity problems;
- The lower proportions of private equity investments in the CEE region is determined by the types of companies in this region, especially by the high level of financial leverage recorded during the analyzed period. It should be followed (as a direction of future research) the evolution in time of this indicator and differentiated in these two periods: 2004-2007; 2008-2013. We need to take into consideration that in the Central and Eastern Europe' countries, businesses have increased their use of funds, reducing the recourse to resources from banks (due to restricting access to bank loans) during the financial crisis.

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18. <http://www.alphadictionary.com> (accesat la data de 04.10.2015)
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## Appendix

Table 2. CEE Companies, Summary statistics

Nr. Crt.	Denumirea variabilei	Obs.	Mean	Std Dev	Min	Max
1	Cash flow (EUR)	10,700	33,491.95	133107.8	-718.255.1	2,836,703
2	Total Assets(EUR)	13,116	315,113.3	960281.4	0	2.53e+07 (25,300,000.07)
	Log Total Assets EUR)	13,113	11.64188	1.336677	-1.40845	17.04631
3	Current liquidity	13,079	1.76	3.582885	.005	97.251
4	Number of employees	11,281	1,820.94	4,686.301	0	101,345
5	Leveraged	12,984	5.70	105.0869	-3378.012	6696.305
6	ROE (%)	12,512	12.68	67.32663	-959.974	886.129
7	ROA (%)	13,060	5.19	12.05055	-100	96.13
8	Net Income (EUR)	13,103	14,844.55	74131.51	-718895	2,516,411
9	Profit margin (%)	13,002	4.09	11.8277	-97.854	100
10	EBITDA margin (%)	10,364	8.57	12.5691	-96.04	91.202
12	Asset turnover	13,089	2.52	13.21502	-.0394164	1303.743

Table 3. The frequency of theoretical value limits (Cash flow positive/negative)

Cash flow	Freq.	Percent
Negative	1,224	8.57
Positive	13,056	91.43
Total	14,280	100.00

Table 4. The frequency of theoretical value limits (Leveraged)

Leveraged	Freq.	Percent
Leveraged $\leq$ 2.33	8,768	61.40
Leveraged $>$ 2.33	5,522	38.60
Total	14,280	100.00

Table 5. The frequency of theoretical value limits (Asset turnover)

Asset turnover	Freq.	Percent
Asset turnover $\geq$ 2	6,585	46.11
Asset turnover $<$ 2	7,695	53.89
Total	14,280	100.00

Table 6. The frequency of theoretical value limits (Current liquidity)

Current liquidity	Freq.	Percent
$>$ 2	3,588	74.87
$<$ 2	10,691	25.13
Total	14,280	100.00

Table 7. The frequency of theoretical value limits (Profitability)

Profitability	Freq.	Percent
Achieving simultaneous three conditions: ROE $\geq$ 0.09; ROA $>$ 0.05; Net income $>$ 0	11,673	81.78
Not meeting conditions	2,601	18.22