UNIVERSITY OF LJUBLJANA

FACULTY OF ECONOMICS

MASTER'S THESIS

REBEKA MOČNIK

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A PRIVATE EQUITY ACQUISITION IMPACT ON FINANCIAL PERFORMANCE OF A TARGETED COMPANY

Ljubljana, August 2018   REBEKA MOČNIK

AUTHORSHIP STATEMENT

The undersigned Rebeka Močnik, a student at the University of Ljubljana, Faculty of Economics, (hereafter: FELU), author of this written final work of studies with the title A PRIVATE EQUITY ACQUISITION IMPACT ON FINANCIAL PERFORMANCE OF A TARGETED COMPANY, prepared under supervision of prof. dr. Valentinčič Aljoša.

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INTRODUCTION

The activity of global Private Equity industry has been on the rise since early 2000. In 2017 financial sponsors contributed to 18.4% of global Mergers and Acquisitions (hereinafter: M&A) (Thomson Reuters Mergers & Acquisitions Review Full Year 2017). The current extent of financial sponsors in real-time economics can be best observed on the US market. A recent study conducted by Fichtner, Heemskers and Garcia-Bernardo (2017) shows that the "Big Three" asset managers (BlackRock, Vanguard, State Street) would be a shareholder in over 40% of American companies, if combined. In terms of market capitalization, this makes up for nearly 80% of the market.

Nevertheless, the presence of financial sponsored transactions in Slovenia is relatively new. While before 2014 the presence of transactions sponsored by financial sponsor on Slovene market was almost negligible, it significantly increased afterwards. According to the Mergermarket database, there were only three takeovers by the financial sponsor in 2013 and 2014. However, after year 2014 their pace increased, as in each year of 2015 and 2016 can observe 6 takeovers by financial sponsors (for a detailed review please refer to Appendix 3).

The increased private equity activity on Slovene market caught the attention of many, especially public media. However, despite its active presence the industry is rather unknown, and as for my acknowledgement the private equity activity in Slovenia has not yet been analyzed. Therefore, the purpose of this thesis is to provide the reader with an overview of the Private Equity industry, and analyze the impact which private equity investment has on performance of its target company, by analyzing the acquisition made on Slovene market. Consistent with the academic findings so far, indicating the positive effect of private equity acquisitions on the performance of target companies and consequently, it would be expected that the private equity investment positively influenced the performance of the Slovene target company.

Hence, the goal of the thesis will be to answer the following research questions:
- Has the private equity investment improved the performance of its target company?
- What was the impact of the investment on target`s performance compared to its peers?

The thesis is developed by using secondary sources, as for theoretical part (known research, trend reports, Mergermarket database), as well as for the empirical part, where the financial data is taken from the officially published financial statements.

The thesis is organized as follows. After the introduction, the first section explains current trends in private equity industry, basic investment context, the advantages of its agency cost reducing nature, industry development throughout the history, and structure and setting of private equity industry, including the overview of the European legal framework

for equity investors. Following, the second section introduces the value creation framework of private equity industry, as proposed by Berg and Gottschald (2005). Section three provides an overview of academic research, whereas the main hypothesis for the empirical analysis are developed. Section four represents the empirical part of the thesis, where the research methodology and main findings are presented. To sum up, section 5 provides concluding remarks of the thesis while summarizing its main conclusions, presents main limitation and proposes implications for future research.

1 THE PRIVATE EQUITY INDUSTRY

Global M&A activity has been growing since the financial crisis hit in 2008. In 2017 global M&A decreased compared to previous years, dropping for 3.15% in value to US$3.15tn, with a total number of 18,433 deals (2016: 18,592 deals with a total value of US$ 3.26tn). Nevertheless, this makes the deal activity in 2017 a fourth consecutive year where the total value was breaking over the US$ 3tn barrier (Mergermarket 2018).

When comparing the nature of deal making before and after the financial crisis, one can notice the increasing importance of financial sponsors. The year 2007 was a record year of financial sponsors activity for the period before the crisis hit, with the financial sponsors contributing to 13% of the global deal making. In 2008 the financial crisis took its share of financial sponsoring as well, as the share decreased to 7.1%. However, the share started increasing again in 2009 and continued to stay above the 2008 level afterwards. For the year 2017 the final contribution of financial sponsors to the global M&A activity was 18.4% (Thomson Reuters 2017).

Figure 1: Global Mergers and Acquisitions Levels ($ tn)
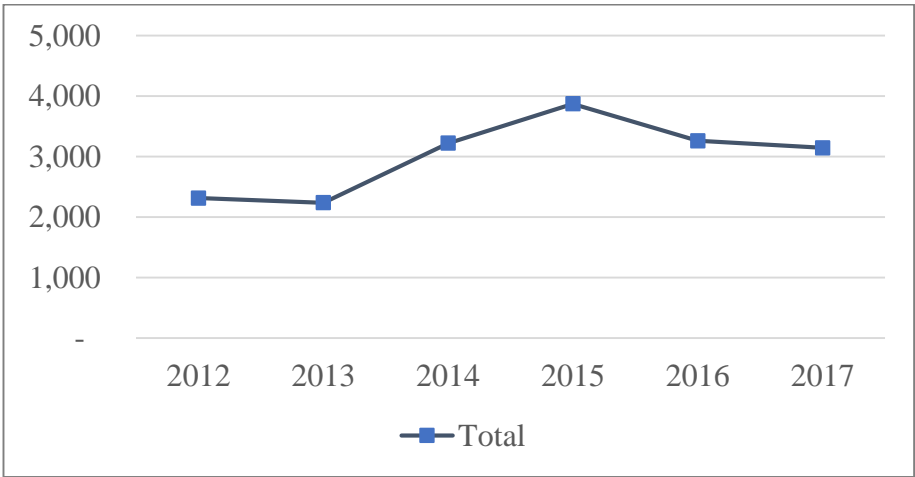
Source: Mergermarket, *Global & Regional M&A Report Q4 2017*, 2018 p.7.

Yet, the increasing importance of financial sponsors in the industry is not new. The phenomena could be first observed in 1980, whereas its value creation has been widely

questioned by academics. The recession in 1990s slowed down the pace of financial sponsors activity, leaving the industry scarce during 1990s and early 2000s, and then picking it up again.

Figure 2: Global Financial Sponsors Activity Overview
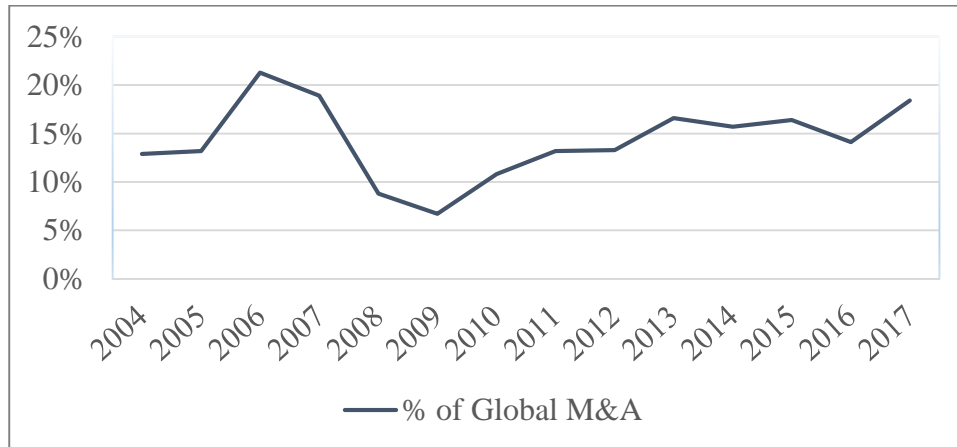
Source: Thomson Reuters, *Mergers and Acquisition Review 2017*, 2018, p.3.

Figure 3: Overview of Private Equity Activity in Europe
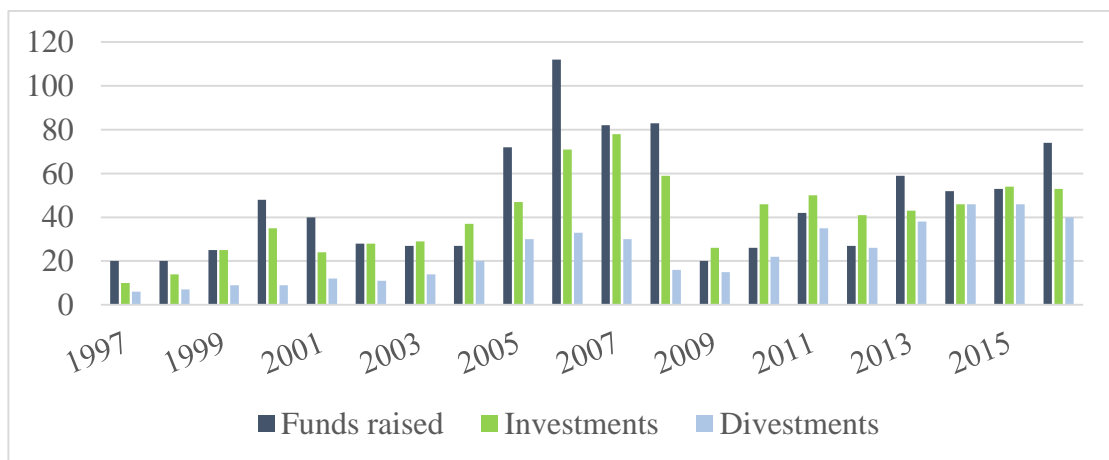
Source: Invest Europe, *2016 European Private Equity Activity*, 2017, p. 5.

1.1 Private Equity Fundamentals

The private equity investment can be explained as the provision of equity capital by financial investors over the medium or long term time frame, to companies identified with a high growth potential. The aim of private equity company is to increase the value of such companies by putting in place the capital, talent and strategy needed, and consequently improve the investors return relative to the public equity markets (EVCA, 2007, p. 4-9; Demaria, 2013, str. 10).

Private equity is categorized as an "alternative investment" to stock and bond portfolio, and from the investors point of view represents the efficient addition to their portfolio, due to its diversification and return enhancement characteristics (see figure 4 for a detailed overview of investment categorizations). It offers the opportunity to investors to finance the development of private companies, and benefit from their success. Because private equity in majority invests in non-listed companies, and its holding periods are longer, private equity has created its own business cycles. This cycles are not correlated directly to the stock exchange indexes, and are therefore perfect tool for investors to further diversity their risk profile (Demaria, 2013, p. 24-30).

Figure 4: Categorization of Financial Assets
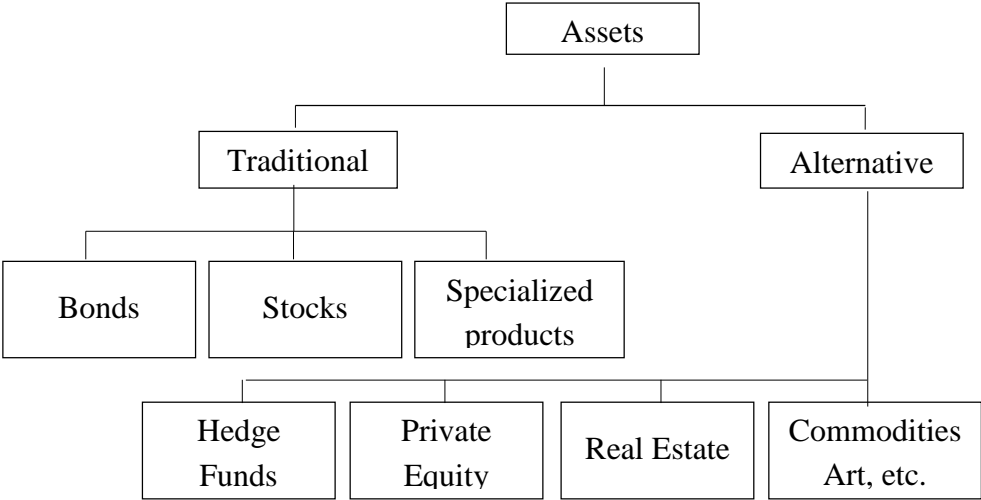
Source: C. Demaria, *Introduction to Private Equity: Venture, Growth, LBO & Turn-Around Capital*, 2013, p. 30, Figure 1.6.

As the investor's motive is to optimally diversify their risks, investment strategies of private equity funds vary according to the stage of target companies on which they are focusing on (Invest Europe, 2017, p. 29; Zider, 1998 p. 131-139; Metrick & Yasuda, 2010, p. 3-9):

- Buyout fund: this type of funds acquires companies by purchasing the majority or controlling stakes, while taking on high levels of debt (term also referred as Leveraged Buyouts or hereinafter LBO).
- Early-stage fund: venture capital funds, investing in companies in their early stages of lives. As those investments are riskier, the investors also require a higher return. They are typically large institutions, which normally put only a small percentage of their total funds invested in such high-risk type of investments.
- Generalist fund: investing in companies in all stages of development.
- Growth fund: investing in relatively mature companies that are looking for a capital to accelerate their business growth (to expand, improve operations or enter new markets).

- Mezzanine fund: funds, which use a hybrid of debt and equity financing, that comprises equity-based options (such as warrant) and lower-priority (subordinated) debt. The investment in usually structured as subordinated debt combined with equity participation in the form of options to buy stocks.

Figure 5 below presents the structure of private equity market structure by fund focus, showing that the majority of the private equity industry is represented by buyout funds.

Figure 5: Fund Raised by Fund Focus in EUR bn
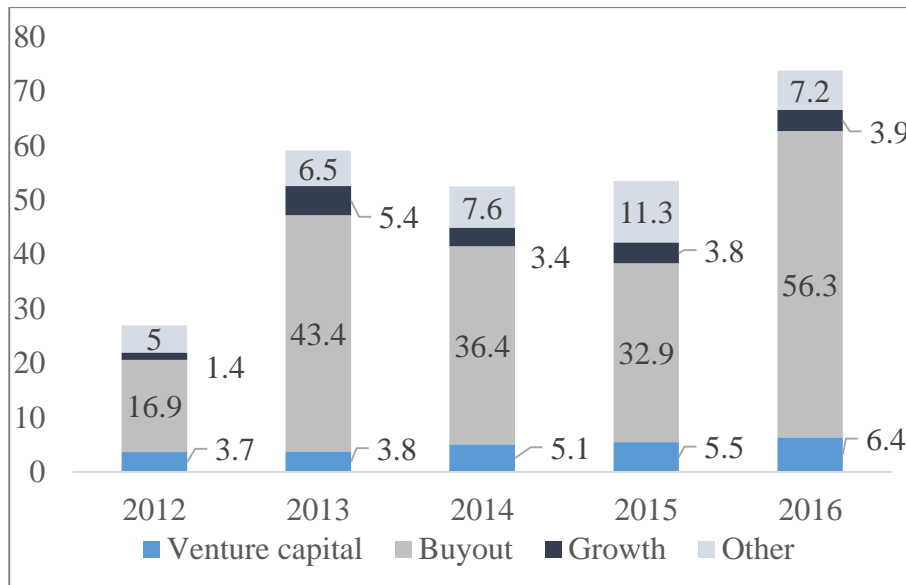
From the perspective of target companies, the private equity market is an important source of capital for different range of companies; startups, private middle-market companies, financially distressed companies, and public firms seeking buyout financing. As the private equity market is considered to be one of the most expensive form of financing, the companies that seek the funding through private equity markets usually tend to be unable to raise funds in other markets, either as a bank loan, private placement, or by participating on public markets. This is often due to their high risk profile, either as the company is in an early stage of its development, or is facing a financial distressing situation. Some companies participating in private equity markets also lack experience and expertise in developing their business, and seeks for an investor which will monitor the business and use the expertise, in order to enhance its return, and consequently positively influence the company´s performance. Companies might turn to private equity also when expanding their business. Even though this is usually done by already established companies with steady cash flows which have the access to bank financing, it is often the case that they might not meet their financing needs entirely. Also, bank loans often come with strict

covenants, which might disrupt with company`s future development (Fenn, Liang, & Prowse, 1996).

Figure 6 below represents the funds raised in European private equity market in 2016. The most active types of investors are (Invest Europe, 2017, p. 31-33; Fenn et al., 1996, p. 23):

- Public and private pension funds, which represent the largest portion of funds raised, contributing to 34% of European fund activity in 2016. Their investment rationale is purely financial, benefiting from high returns and diversification benefits.
- Different financial institutions, such as:
    - Insurance companies, which mainly finance riskier mezzanine debt instruments,
    - Banks, mainly active in large buyouts in later-stage ventures, usually providing the target company other additional services, such as under underwriting, and M&A advice.
- Funds of Funds are private equity funds, established to take equity positions in other funds.
- Endowments are established by universities or cultural institution, investing capital to cover their future operating processes.
- Family office is a legal entity providing services to one or more affluent families or individuals.
- Corporate investors represent different corporate companies, typically investing in early stage ventures that fir into their competitive and strategic objectives.

Figure 6: Funds Raised During 2016 by Investors Type
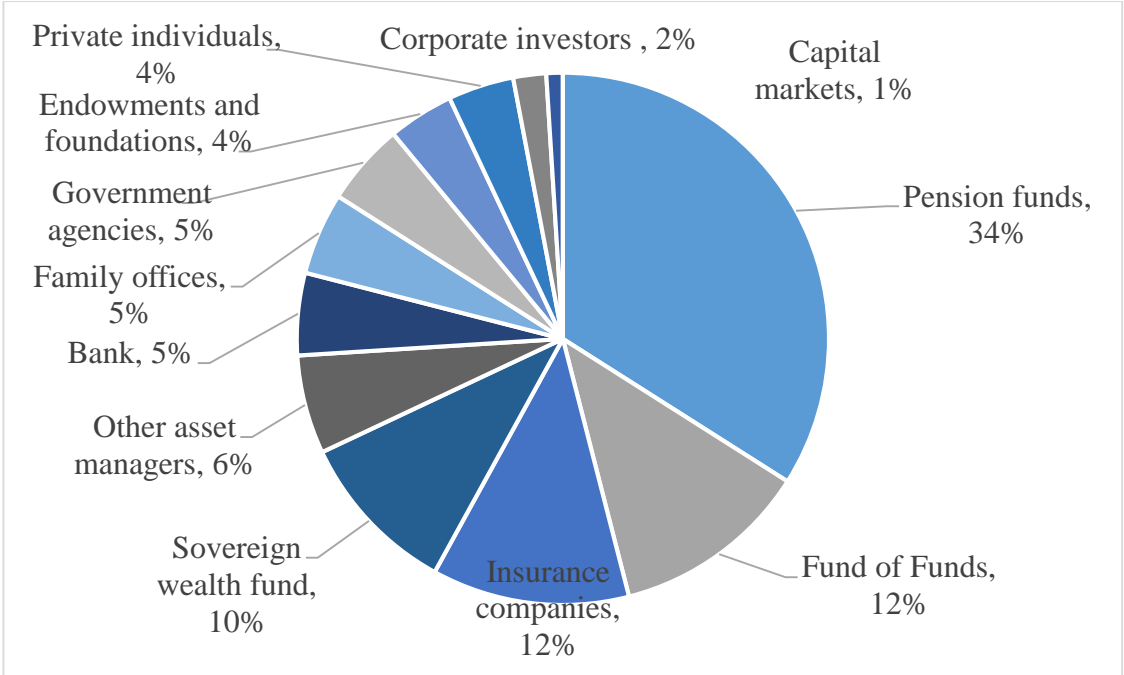
Source: Invest Europe, *2016 European Private Equity Activity*, 2017, p. 16.

As the private equity industry is most widely represented by the buyout fund strategy and the term itself generally represents the acquisition in terms of leveraged buyout, which is also aligned with the main research topic of this thesis, going forward the main topics discussed will closely follow the characteristics of Buyout funds and investments in mature companies. The other alternative investments, and private equity investment strategies will be mentioned only briefly.

1.2 Agency Cost in Private Equity

With the rise of capitalism and big corporations, the ownership and management function have slowly moved into two separated functions. Consequently, the agency problem developed, which argues that when the principals (owners) engages another person (the agent) to perform service and decision making, there is a strong reason to believe that each party will act on behalf of maximizing its own utility. Consequently, the agent will not always act in the best interest of the principal, but rather to satisfy his own interest (Jensen 1976).

To counteract, the private equity has initially emerged to reduce the agency costs. As the private equity companies serve as an intermediary between investors and portfolio companies, it reduces the information asymmetries between them two. The reduction in agency costs is supported by the following three hypotheses (Renneboog & Simons 2005; Kaiser & Westarp 2010):

- Incentive realignment hypothesis

Under the incentive realignment hypothesis, the wealth gains come as a result of a reunification of ownership and control. In a typical corporation, a high divergence of interests between managers and shareholders can be observed. To counteract those, the private equity companies put extra effort for to prevent managers to benefit themselves at the expense of investors, for which they use special incentive programs

- Control hypothesis

The control hypothesis suggests that the wealth gains are largely the result of increased quality of control. As the individual shareholder with small equity stakes may underinvest in monitoring activities, the ownership stakes after private equity investments are in fewer hands. Therefore, there is a strong incentive and a higher possibility of better information flow from the company towards its investors. The private equity managing company puts a strong emphasis in increasing the quality of internal controls and corporate governance, which results in improved monitoring through increased availability and accuracy of information.

- Free cash flow hypothesis

The high leverage nature behind the private equity investments locks the future free cash flow of the company towards debt repayments. That prevents management to invest in unprofitable projects.

Due to their concentrated ownership stakes, incentive plans and an efficient organization with active governance, Jensen (1989a) even argued that leveraged buyout organization would eventually become superior to existing organizations with dispersed shareholders and weak corporate governance.

Nevertheless, parallel to reducing the agency problem between investors and portfolio companies, the private equity industry is creating the agency problem between the investors and themselves. To reduce the problem, the private equity industry uses carried interest on their capital gains, which incentivizes the private equity funds. Although this may lead fund managers into excessive risk taking, the closed time-frame nature of the fund provides investors the power to sanction the badly behaved private equity firms (Kaiser & Westarp 2010).

1.3   Development of Private Equity Industry

From the first professionally managed private equity investments in 1946 to nowadays, the development of private equity industry can be divided into four stages, which are presented in details below.

- Early Stages: 1946 to 1969

First professionally managed Private Equity investments can be traced back to the formation of American Research and Development Corporation (hereinafter: ARD) on the U.S. market in 1946. With highly concentrated wealth held in hands of financial institutions rather than individuals, ARD were formed with the intention to attract funds from institutional investors, and provide managerial expertise to the acquired businesses. Despite failing to attract the wished level of funding (out of planned $5m ARD raised $3.5m of initial funding), it was profitable and has provided its original investors with a 15.8% annual return over 25 years. In its early years, ARD invested approximately $70,000 into a company named Digital Equipment Corporation. In 107ß, the company went public through initial public offering (IPO) where it raised over $83m. However, as ARD´s success was seen as moderate, there was no effort made to further imitate it. Other private equity investments in the 1950s were founded on an ad hoc, deal by deal basis, with syndication of wealthy individuals (Fenn et al. 1996; Demaria 2013 p. 33-57).

To mitigate the absence of private equity capital, the Congress took several actions in the following years, of which the most important was a Small Business Investment Act of 1958, which led to the establishment of Small Business Investment Companies (hereinafter: SBICs). SBICs are entities licensed by the Small Business Administration (hereinafter: SBA) for providing professionally managed capital to risky companies. SBICs were allowed to supplement their private capital with special SBA loans, and were a subject of certain tax benefits. 692 SBIC licenses were granted during the first five years, which raised $350m through public offerings. For comparison purposes, ARD raised only $7.4m in its thirteen years. However, SBICs had several defects. Firstly, not all of their financing went to new ventures, which was their initial goal. SBICs that took the SBA loan had to make their interest payments, and have therefore rather provided financing to small companies with positive cash flows. Secondly, they have attracted wealth individuals, rather than institutional investors. However, the most damaging effect of SBICs was that they did not attract high caliber investment managers (Fenn et al., 1996; Cendrowski, Martin, Petro, & Wadecki, 2012, p. 29-48).

- Limited Partnership: the 1970s

By 1970 investment managers had gained valuable experiences, but enjoyed modest personal rewards. This encouraged formation of a significant number of venture capital limited partnerships in 1968—1969. Limited partnerships were attractive to many private equity professionals as a way to address the problem of compensation. Under the Investment Act of 1940, managers of publicly traded companies (including publicly traded SBICs) could not receive stock option or any other forms of performance incentives, which led to private equity professionals receiving only salary. In addition, limited partnerships also served as a way of avoiding restrictions of SBICs, like size limitation of their targets and restrictions on controlling interests. In 1969 the venture capital partnerships raised a record of $171m. Organized venture capital financing was beginning to gain recognition, and in 1973 the National Venture Capital Association was formed (Fenn et al. 1996).

The promising changes in private equity market were nevertheless hindered by several factors, that slowed down the market for the next decade. The market for public offerings almost disappeared in 1970, specially for smaller firms. At the same time, a weak stock market and recession had a negative effect on the activity of private equity managers. Since the proper exit of investment was diminished, the investment activity significantly slowed down. Consequently, as the financing was carefully granted only to the companies with the highest growth perspective; namely start-ups, the yielded returns were sometimes extraordinary. This helped paving the way for industry`s explosive growth in 1980s (Ibid.).

- Explosive Growth: The 1980s and 1990s

The evolution of the limited partnership combined with favorable regulatory and tax changes, as well as the extraordinary success of carefully selected start up investments in the past decade, triggered the capital flow to the private equity market, mainly venture capital. From 1980 to 1984 venture capital commitment increased from $600m to $3bn. In addition, during 1980s a significant number of large partnerships were created, to provide commitments specifically to more established non-venture companies. Specialized investment practices were developed, such as mezzanine financing, and among the most recognized the creation of leveraged buyout (LBO), term describing the usage of high proportion of debt in acquisition, strategy still highly present in private equity industry nowadays. Low capital gains and high availability of bank debt helped increasing the popularity of buyout strategy in private equity. However, the excessive debt usage, such as 95% of debt financing in Robert Campeau`s takeover of Federated Department Stores, caused the general skepticism among investors (Fenn et al. 1996; Cendrowski et al., 2012 p. 29-48).

The early 1990s recession brought most of the private equity activity to an end. Institutional investors failed to renew their commitments to follow-on funds, and private equity managers were struggling to find investors willing to lend capital. In addition, many private equity deals from prior period defaulted (Guo, Hotchkiss, & Song 2011; Cendrowski et al., 2012 p. 29-48).

In Europe, private equity development however lagged far behind the U.S. and started making more serious progress in 1990s, when liberalization of regulations in regards to investment choices of pension funds and insurance companies played a major role in private equity activity. In addition, in the late 1990s low inflation environment and European regulation in regards to free movement of capital caused the shift of assets from fixed income investments into equities (Loos, 2007).

- Private Equity Today

After the slow pace of activity caused by the recession in 1990s, the industry was left scarce during 1990s and early 2000s, and then started picking up again. Globally, in 2006 and 2007 a record amount of capital was committed to private equity, whereas the financial crisis in 2008 resulted the industry to decline again. Since 2013 private equity industry is beginning to reach its pre-financial crisis levels, with leverage buyouts being a strongly dominant strategy of acquisition.

Figure 7: Global Private Equity Capital Raised (USD billion)
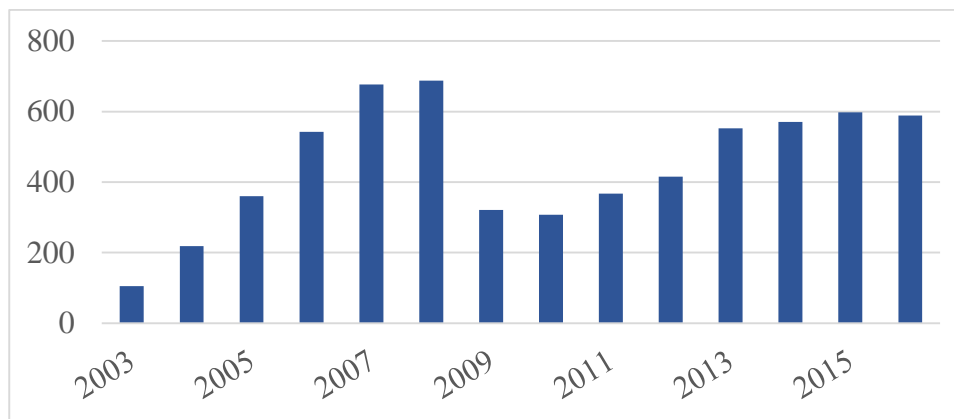
1.4 Overview of Private Equity Market

The majority of the known private equity market activity is made on the organized private equity market. Organized private equity market is encompassed with two other markets; angel capital market, and informal private equity market. Angel capital market represent the investment in significant ownership stake by wealthy individuals, usually having experience in operating similar companies. Angel capitalist are generally not actively involved in monitoring the company, but are rather acting as its advisors. The informal private equity market is the informal market, where unregistered securities are sold to either institutional investors, or accredited individuals. The number of investors is typically larger, and minimum investments smaller. Angel capital market and informal private equity market are estimated to be several times larger than organized private equity market, but the lack of institutional infrastructure prevents academic to obtain reliable and comprehensive information about them (Fenn et al., 1996).

The thesis will elaborate on explaining organized private equity market, which provides professionally managed equity investment mainly through special intermediaries. The special intermediaries, of which mainly used are limited partnerships, represent approximately 80% of organized private equity investment. Other intermediaries used are Small Business Investment Companies (SBICs) and publicly traded investment companies. In addition, to a limited extent, equity investments can be made directly by institutional investors. The acquired ownership stakes on the organized private equity market are large, whereas the private equity managers are actively involved in monitoring and advisory role to their portfolio companies. Use of intermediaries in investing is mainly done to improve the efficiency of investment. Two types of problems arise with external financing of a firm – sorting problem and incentive problem. Sorting problem shows up in a course of selecting the investment. Company´s insiders tend to have better information about the business than outsiders. To keep the information within the company, they tend to rely

more on debt financing, rather than equity financing. The second, incentive problem rises in the course of company´s operations, as the managers have opportunities to work in their best interest at the expense of outside investors. To counteract those two problems, the private equity engages in intensive pre-investment due diligence and post investment monitoring. There activities are not efficient when performed by multiple investors, as there could be a lot of duplicated work by multiple investors, or some investors free-riding at the expense of others. Therefore, delegating these activities to one intermediary is recognized to be the most efficient. Intermediaries are also efficient in selecting, structuring and managing private equity investments, as they require considerable expertise (Ibid.).

Throughout the thesis the main emphasis will be put on the organized private equity market, where as the most widely used special intermediary in private equity investment will be explained in details – the limited partnership.

1.4.1   Legal framework in Europe for equity investors

In European Union (EU) there are six specific financial services activities[1] that have to be managed by specialized organizations. Most widely used specialized organizations are funds, however, any other special investment firm or country´s specific intermediary vehicle can be used. Funds are financial institutions, where a separate manager or managing company manages a specific amount of money (Caselli 2010, p. 41).

Private equity funds are a subject of Alternative Investment Fund Managers Directive (hereinafter: AIFMD). Following the global financial crisis in 2008, the AIFMD is a European law regulating the alternative investment class (hedge funds, private equity, real estate funds, or any other special alternative fund). While before the financial crisis, the industry of alternative investments has not been regulated in the European Union, the AIFMD came into force on July 21, 2011. The Alternative Investment Fund Manager (hereinafter: AIFM) is defined as a legal or natural person whose regular business is managing one or more Alternative Investment Fund (hereinafter: AIF). An AIF refers to any collective investment undertaking that raises capital from a number of investors, with a view to investing it in accordance with a defined investment policy for the benefit of those investors. The AIFMD introduced new regulatory requirement in three areas (Directive 2011/61/EU; Moloney 2014 p. 304-305):

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[1] Special financial services activity regulated by the Financial Services Act: 1) Dealing – buying and selling securities to obtain profit, 2) Brokerage – buying and selling securities on customer`s behalf, 3) Selling – selling the customer´s securities in the primary market, 4) Underwriting – buying the securities in the primary market, 5) Individual asset management - managing the assets of private investors on an individual basis, 6) Non-individual asset management – managing private individuals` wealth on a non-individual basis

- Annual reports – within six months following the end of financial year, the AIFM have to make audited annual reports available for each AIF it manages within the European Union. In addition to normal legal requirements of annual accounts, they also have to include the information in regard to total remuneration paid by the AIFM and the aggregated amount of remuneration broken down by senior management and staff members with the material impact on the risk profile.

- Disclosures to investors – an AIFMD introduced a long list of information that has to be displaced to investors, of which the most significant are AIF`s investment strategy and objectives, main legal implications for investors, valuation and pricing methodology, procedure and conditions of issue and sale of shares in the AIFs, etc.

- Reporting to authorities - the most important goal of the AIFMD is to increase transparency of the alternative investment industry, achieved through established reporting to authorities. Companies under AIFMD are required to make ownership notifications similar to those in regulated-market, however, the reporting requirements are much lower as for public traded companies. In the case of change in control, intentions regarding the future business of the company and the likely repercussion on employment and employment conditions have to be disclosed, which is considered as commercially sensitive.

In addition, investors and the financing of the transaction has to be disclosed, which is also considered as commercially sensitive information. Under AIFMD private equity fund managers are also subject to an asset stripping prohibition. Term asset stripping epresents the practice of selling off the company`s asset to improve returns for equity holders. For a period of 24 months from the acquisition, they are not allowing to facilitate, support or instruct a vote supporting any distribution, capital reduction, share redemption and/or acquisition of own shares by the company. It also must be in their best effort to prevent such transactions.

1.4.2 Fund structuring

The capital is raised from financial investors through the special intermediary of private equity, which is mainly the fund. Investors commit to provide the pre-determined amount of capital, and pay the management fees to the private equity. The majority of the funds are closed-end, which prevents investors to withdraw their money until the funds termination date. The fund usually has a fixed life span, which is around ten years (Kaplan & Stromberg, 2009).

In a typical private equity fund structure investment private equity company and its investment professionals are the ones managing the fund, and are referred to as General Partners (GPs). GPs hold an unlimited liability for the investments. The investors are

known as Limited Partners (LPs), and are liable only for the amount of capital they have provided. The private equity fund (GP) uses the capital provided to buy the high-growth companies (Portfolio Companies – PCs) identified by the investment committee (EVCA, 2007, p. 9-11).

The set up limited partnership structure enables PE funds the use of a pass through taxation. The pass through taxations means that the income generated is only taxed once, as it flows back to the partners. In contrary, the typical corporate structure requires the corporation to first pay the taxes on income on a corporate level, in addition to which the owners have to pay taxes on ordinary or dividend income (Cendrowski et al., 2012, p. 10).

Figure 8: Private Equity Business Model
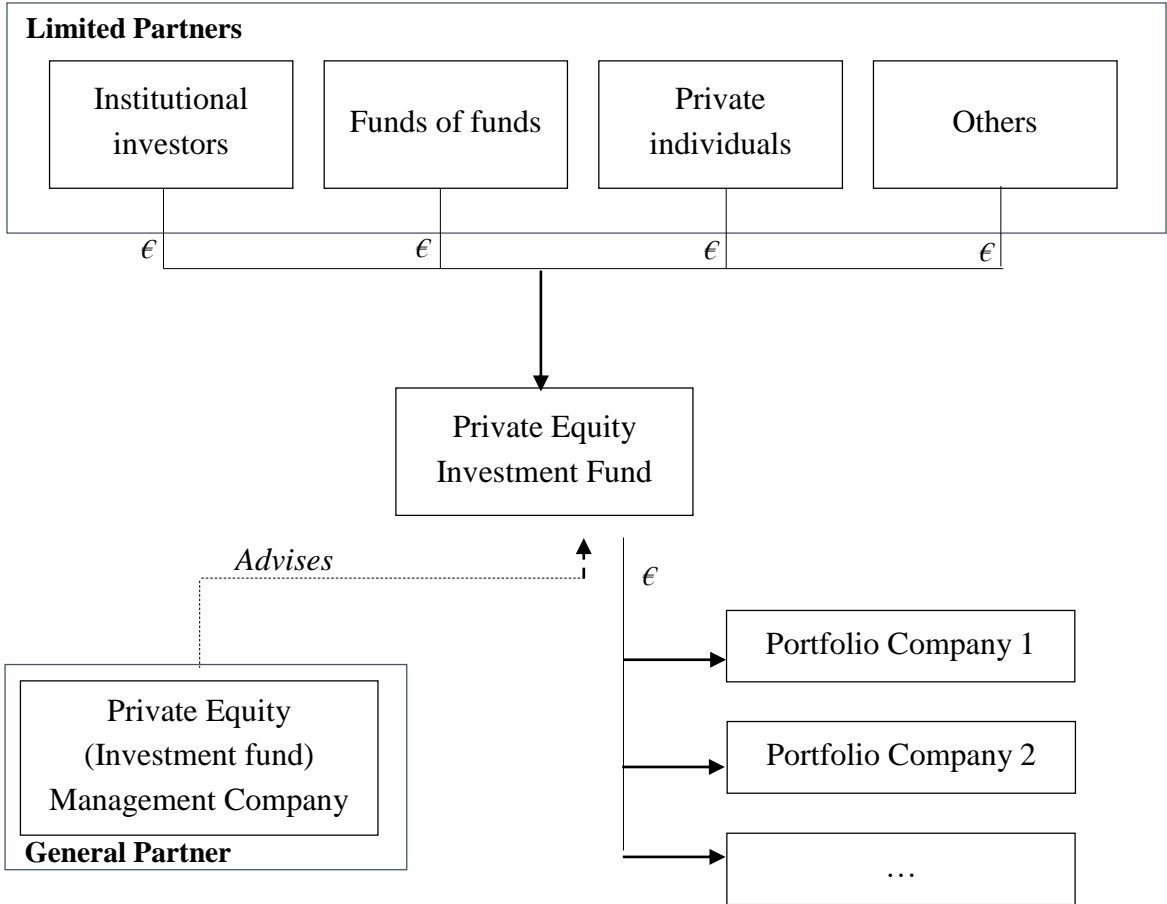
Source: EVCA, *Guide on Private Equity and Venture Capital for Entrepreneurs*, 2007, p.9.

For its service of managing the fund, the private equity company is compensated as follows (Cendrowski et al., 2012, p. 5-9 ; Demaria, 2013, p. 91-93):

- Annual management fee, which represents a remuneration for management service provided (investment advice, analyses, fund management, etc). Usually it represents a

percentage of capital committed (from 1.25% to 3% per annum). If the investments are realized, this fee also includes a percentage of capital employed;

- Carried interest, which represent a share of fund's profit (typically around 20%). Carried interest serve as an investment managers incentive to increase funds' performance, in order to align the interest between GP and LPs. Usually, the fund is required to make a pre-determined annualized return called hurdle rate, before any carried interest may be claimed. Hurdle rate typically varies between 6% and 8%, and serves as a compensation in relation for a higher risks taken by investors, compared to the management team. Beyond the hurdle rate, the performance allocation is done pro rata by distributing carried interest;

- Deal and monitoring fees charged to the invested companies, consulting fees, different operational costs (audit, due diligence, etc).

Figure 9: Cash Flows in Private Equity
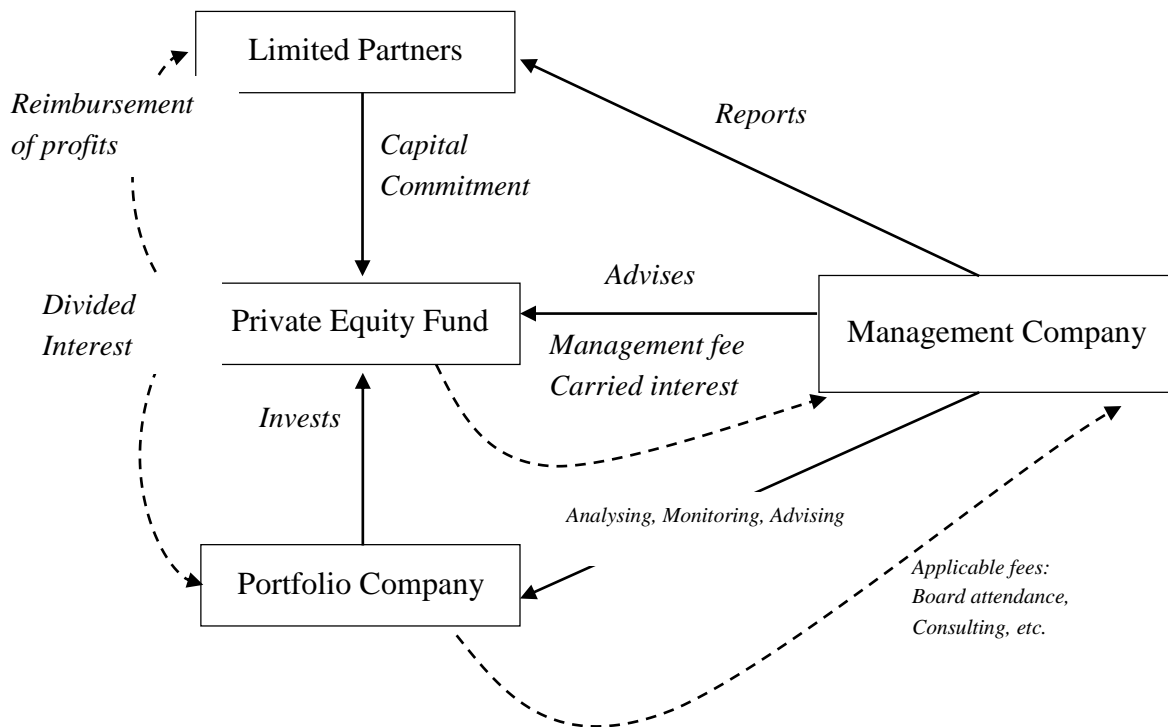
The majority of the funds nowadays voluntarily stay smaller, in order not to negatively influence their performance. Kaplan and Schoar (2005) found a strong persistence in performance of private equity and venture capital funds, supporting the fact that the good performance is to a large extend dependent on well qualified GPs involved in and good deals pursued. Supporting this, Walz and Cumming (2004) found a negative relation between the number of portfolio companies per GP and the realized fund`s return.

Consequently, as both GPs and good deals are scarce, private equity funds are forced to stay smaller, in order not to deteriorate their performance.

1.4.3 Fund lifespan

Figure 10: Typical Stages of Private Equity Fund

Organizaton *Years 1 - 4* **Management** *Years 4 - 10*

Years 0 – 1.5 **Investment** *Years 2 - 7* **Harvest**
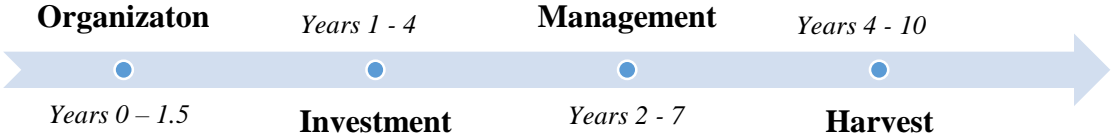
Source: Cendrowski et al., *Private Equity: History, Governance and Operations,* 2012, p. 11, Figure 1.3.

- Organization/Fundraising (Years 0 to 1.5)

In the first stage of its lifecycle, namely organization and fundraising, private equity fund will determine its investment focus. The investment focus defines industry, stage and geography of companies, in which the capital will be invested. At least two of this three criteria's may usually not be changed without the consensus of a majority of LPs.
In the typical 10-year fund life, the organization and fundraising stage occurs in the first 18 months of the funds life. The majority of the fundraising is done through the word of mouth between the LPs, long-term relationships with investors, placement agents that help GPs reach the right investors, and also through so called gatekeepers. Gatekeepers assist investors in allocating their capital, and are compensated with a 1 percent annual fee on committed capital (Cendrowski et al., 2012, p.10-19).

- Investment (Year 1 to 4)

When the sufficient amount of capital has been raised, the investment stage begins. During the investment stage the GPs are looking for the potential high-growth companies and develop deal flow for their fund. This stage typically lasts between years 1 and 4 of the funds lifetime. Even though the LPs commit regarding the amount of invested capital, only a small portion is taken immediately when the fundraising stops. Rather, when the potential portfolio company is identified, GPs send a formal request for pledged capital, with the projected closing of investment – this request is called event-based capital call. Contrary, also other capital calls exist. Some funds draw capital on a pre specified time schedule, which allows investors to budget their capital better. However, the event-based capital call enables GPs to maximize the internal rate or return (IRR) for investors - By minimazing the time frame of holding investors capital, GPs are able to boost investors IRR, which increase their reputation and serves as a marketing material for the future fundraising. The selected investments are usually done in the first five years of the funds

life. Fund are usually not allowed to enter new investments after this period. However, the additional invesments in existing portfolio companies is allowed (Cendrowski et al., 2012, p.10-19; EVCA, 2007, p.9-11).

- Management (Year 2 to 7)

After the investing is done, the managing stage of fund steps in. This is the period when the fund focuses on its portfolio companies to grow and create value in order to increase the return when exiting. In the start of their life, PE funds usually operate with a loss. This is known as a »J curve«, which appears due to the high initial costs of the investing (legal, accounting, due diligence, etc), where as the value creation of investments has not jet fully been realised and the profits are not flowing in yet. This period usually lasts around year 2 to 7 of the funds lifetime (Cendrowski et al., 2012, p.10-19; Demaria, 2013, p. 91-93).

- Harvest (Years 4 to 10)

The last harvesting stage depends on the specific investment, as it can allso occur quite quickly if the economic conditions are in favor of GPs and the right buyer steps in. On a generalized basis the last stage takes place during years 4 to 10. The GP carefully plans the time of the investment exit and its strategy in order to maximize the returns (EVCA 2007, p. 9-11).

In 2016 the most common exit was the sale to another private equity firm, which occured in approximately 29%. Closelly followed was a sale to a strategic (nonfinancial buyer), which occured in approximately 29%. The funds frequently exited also through Initial Public Offering (IPO), by changing the privately held investment into a publicly held. This exit strategy accounted for approximately 17% of exits in 2016 (for a more detailed explanation refer to the Figure 12) (Invest Europe, 2017, p. 55-67).

1.5 Investment Process

The success of the fund is fully conditioned by the success of its investments made. Therefore, some funds can watch its potential targets for years, before investing in them, looking at their own selection criteria's, which correspond with the fund's investment criteria.

Furthermore, not only the success of the portfolio company adds value to the funds, but also the successful steps which the fund makes during its investment process (Figure 11). This puts a high emphasis on the investment process itself, which consists of five stages (Caselli, 2010, p.27-38; EVCA, 2007, p. 24-30; Demaria, 2013, p. 225-231; Loos 2007):

- Preliminary analysis,

- Valuation,
- Negotiations and structuring,
- Monitoring and exit.

a. Preliminary analysis

The first phase of the investment process represents building a trustful relationship between the management team of a potential portfolio company, and investment professionals in private equity fund. A relationship building is made on numerous meeting, presentations and information exchanges to correctly analyse the company's situation, after which the first memorandum is drafted. This memorandum then serves the investment team in assessing whether to pursue the analysis of the potential target.

Figure 11: Investment Process
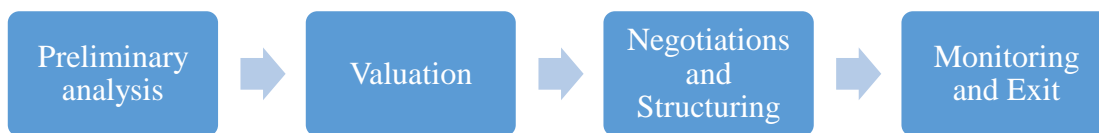
b. Valuation

The valuation enables the private equity managers to assess the price for the acquisition of the portfolio company. The value is often reached using multiple method, followed by discounted cash flow method. This helps investment professionals with price negotiations, and when modeling the unfavorable scenarios and possible precaution steps.

Multiple method is a comparable analysis method, which expresses the value of the company in relation to another variable of company`s performance. Most common ratios used are price to earnings, price to book, price to sales, and EBITDA[2] multiple. The multiple is then compared with those of other companies, or the industry average. The method works as follows (Penman, 2010, p. 76-82):

- First the identification of the industry peer group of the target company is required,
- Secondly the selected multiples of at which the firms trade are calculated,
- Lastly, the median or average of the peer group multiple is applied it to the target company to get its estimated value.

Discounted cash flow method (hereinafter: DCF) shown under Equation 1 estimates company´s value today based on its future free cash flows (FCF), discounted back to the

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[2] EBITDA representing earnings before interest, tax, depreciation and amortization.

present using the discount rate which reflects the risk level of those cash flows (r) (Steiger 2008).

$$Present\ Value = \sum_{t=0}^{n} \frac{FCF_t}{(1+r)^t} + Terminal\ Value \tag{1}$$

The method follows the next steps (Fernandez 2007; Frykman & Tolleryd 2003 p. 69-93; Steiger 2008):

- Estimating cost of capital: determining company´s cost of capital requires analysis of company`s financing structure, and current market conditions. Cost of capital is represented by weighted average cost of capital (WACC). WACC is calculated by weighting capital sources according to the company´s financial structure and then multiplying them with their costs (Equation 2).

$$WACC = \frac{Equity}{Debt+Equity} \times Cost\ of\ Equiyt + \frac{Debt}{Debt+Equity} \times Cost\ of\ debt \tag{2}$$

The cost of equity is most often calculated using the capital asset pricing model (CAPM), which calculates the return that investors require for bearing the risk of holding company´s share (Equation 3).

$$Cost\ of\ Equity = r_f + \beta(r_m - r_f) \tag{3}$$

Where as:

r_f … the risk-free interest yield, where as for the calculation purpose LIBOR[3] is commonly used;

r_m … the average market yield;

β … factor representing the risk of holding the company´s stock. It is derived with linear regression, with the excess return of the stock as a dependent variable and the excess market return as an independent variable,

The cost of debt is the interest rate the company is paying on its outstanding debt. The interest rates are tax deductible, therefore the interest rate that company pays to its debt holders (i) is lower for the tax rate (T) which the company is paying (Equation 4)

$$Cost\ of\ Debt = i \times (1 - T) \tag{4}$$

- Calculating the free cash flow: company´s future free cash flow levels are divided into two periods – the forecasted period and the terminal value period. First, the free cash

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[3] LIBOR stands for London Inter-Bank Offered Rate, and is the average of interest rates of the leading London banks.

flows for the forecasted period are calculated. Free cash flow represents the cash flows which will be used to reimburse all capital providers to the company. It is calculated by adjusting company´s EBIT levels:

- – Cash taxes on EBIT,
- – Investments,
- – Depreciation, and
- – Changes in net working capital.

The free cash flow levels are then forecasted until the year after which the company´s growth can be assumed to stay constant.

- • Computing terminal value: the terminal value represents the free cash flow calculated for the year after the last year of forecaster period, to perpetuity. As it stretches to the future, it is difficult to provide accuracy. The calculation of terminal value follows the next steps:
  - – Estimation of the constant growth, from the year after which the company´s growth can be assumed to stay constant,
  - – The estimated free cash flow level for the last year is multiplied with the constant growth factor,
  - – Discounting using WACC less the constant growth factor.
- • Final corporate value: in the final step the forecasted period value and the terminal value are summed, representing the final theoretical market value of a company under DCF method.

In addition to CAPM model, there also exist other alternative models to estimating cost of equity. As the CAPM model determines the expected investors return by using only the mean and variance of one-period portfolio returns, a more complicated models can be used alternatively.

One of the alternatives is a Fama-French three factor model. The model was developed by professors Eugene Fama and Kenneth French, which argue that though size and book-to-market equity are not themselves state variables, the higher average returns on small stocks and high book-to-market stocks reflect unidentified state variables that produce undiversifiable risks (covariance) in returns that are not captured by the market return and are priced separately from market betas. They show that the stock returns of small firms co-vary more with one another than with returns on the large firm`s stock, and returns on high book-to-market stocks co-vary more with one another than with returns on low book-to-market stocks. Therefore, in addition to the overall market factor integrated in the CAPM model, Fama-French three factor model shown under Equation 5 additionally includes factor of outperformance of small versus big companies, and the outperformance of high book/market companies versus low book/market companies (Fama & French 2004).

$$E(R_i) - R_f = b_i\big[E(R_M) - R_f\big] + {}_{s_i}E(SMB) + {}_{h_i}E(HML) \tag{5}$$

Following the formula, the expected return on portfolio in excess of the risk-free rate $\big[\,E(R_i) - R_f\,\big]$ is explained by the sensitivity of its return to expected premiums to:

- The excess return on broad market portfolio $\big[R_M - R_f\big]$
- The difference between the return on a portfolio of small stocks and the return on portfolio of large stocks (SMB; small minus big)
- The difference between the return on a portfolio of high book-to-market stocks and the return on a portfolio of low book-to-market stocks (HML; high minus low),
  whereas the b_i, s_i, h_i are the slopes in the time series regression (Fama & French 1996).

Fama and French (1993, 1996) show that their model captures the majority of the variation in average return for the portfolios which are formed on size, book-to-market equity and other price ratios, which seem to cause troubles for the CAPM model. Moreover, in a later study by Fama and French (1998), the extended international version of the model was found to perform better than international version, describing average return of portfolios formed on scaled price variables in 13 major markets (Fama & French 2004).

However, the evidence of research done by Novy-Marx (2013), and Titman, Wei, & Xie (2004) indicate that the Fama and French three factor model misses much of the variation related to factors of profitability and investments. Therefore, in their research in 2015, Fama and French extend the three factor into a five factor model, estimating that the model explains between 71% and 94% of the examined portfolio. They additionally integrate the following two factors; 1) RMW_t, which represents the difference between the returns on diversified portfolios of stocks with robust and week profitability, and 2) CMA_t, representing the difference between the returns on diversified portfolios of the stocks of conservative and aggressive investment firms.

c. Negotiations and structuring

At this stage investment professionals and the seller are actively involved in reducing any aspect of uncertainty, and reach the best possible knowledge about the target. Both parties involved then agree to the list of complementary due diligence, which is performed in order to determine the final company's value. The management of the target company is also responsible to deliver the information necessary to complete the due diligence process, and is also responsible for the information provided, as any substantial mistake could leave a significant impact on the final sale price of the company. At the end of negotiations, existing owners are free to accept or decline the offers received for their stake. Therefore,

it is not necessary for the highest offer to be accepted. Rather, the quality of investment team and its contributions to the company are also highly considered.

Furthermore, structuring is a reflection of negotiations and strives towards the optimal exit in the future, and covers various different areas. To incentivize the portfolio company management, the funds usually prepare a stock options indexed on the company's performance. The structuring step also plans the communication between investment professionals and portfolio company, its monitoring activities and control, and may touch the special exit clauses for shareholders, enabling the private equity fund an effective path towards its future exit. When both parties reach the conclusion, the final terms and conditions will be agreed and the transaction closed. The target company will become part of the private equity fund's portfolio companies.

d. Monitoring and exit

During the holding time of investments, some funds are more actively involved in the management of the portfolio company, and some less. On a general basis, more the fund managers are financially involved in their investment, the more they control and monitor the portfolio company. If the investment is successful, the fund is usually on a regular basis approached by the new buyers (strategic investors, banks). In order to make the most of their exit, anticipation of the future aspects plays a high role. Therefore, the fund managers are to a large extent supported by consultants, which help them predicting economic cycles and manage the timing of the exit. When the timing of exit is assessed to come, the exit can be done by different means:

- Trade sale

A trade sale represent the sale of the portfolio company to the industrial investor. With acquisition, industrial buyer creates its strategic advantage, or complements its business activities. The trade can be realized through public tender or private negotiations. For the private equity company, divestment through trade sale represents cheaper and faster operation then investing by listing stocks on public market through initial public offering (IPO). It is also easier to negotiate with fewer participants, than with the entire financial market. On the other hand, however, there can be a lack of trade buyers in specific countries, and the current portfolio company management might oppose the acquisition.

- Entrepreneur or management team repurchase

The repurchase of the portfolio company by its management team. This means of exit is also attractive for the investment manager, as the buyout is quicker, less stressful and cheapest, due to the fact that the management is already familiar with the business.

- Financial buyer (Secondary Buyout - SBO)

As the funds have a fixed lifetime, although profitable, they will have to exit the investment in order not to adhere with its own terms and regulations. The exit may also take place if the financial support for maintaining the portfolio company's development has exceeded the capital capacity. The other private equity fund may recognize the potential for further value creation in portfolio company, which would result in the so called secondary buy-out. Also, this specific technique might be used when the investor specialized in a specific stage of the target company´s lifecycle, sold the participation to another investor specialized in a different life cycle (from seed to start up, from start up to expansion, etc.). When this strategy is realized, the total control of the company passes from one institutional investor to another.

- Initial Public Offering (IPO)

Exiting its investment through IPO is seen much attractive in terms of reputation and economic return, and it is considered for portfolio companies that have reached an adequate level of development and seniority. The IPO generally results in highest valuation of a company, and is often a preferred route. It is also preferred by the company´s management, as it preserves the company´s independence. However, an IPO exit does not end the investors involvement, like other exit routes. The private equity company (GP) generally remains actively involved in the portfolio company, until all stocks are sold or distributed to the limited partners. Though preferable exit route, the IPO includes higher costs, and risk connected to the lack of liquidity on European stock markets. The IPO also makes a portfolio company much more visible to the general public, which requires a higher transparency in the future.

Generally, the normal listing procedure is conducted by using underwriters. Therefore, the first step of the private equity company in the process of an IPO is the selection of an appropriate underwriter. In addition to promoting the share with potential investors, underwriter is responsible for conducting due diligence[4], assisting with the regulatory filings, and determining initial share price and the size of the IPO offering. Many companies select multiple underwriters, however, only one is deemed to be the lead underwriter. After the agreement of the terms between the underwriter and the private equity company, the underwriter will market the security with prospectus, which is basically a selling document prepared for investors. In addition to prospectus, the security is promoted through so called road shows, whereas the company´s management represents and discusses prospectus with potential investors. In addition to marketing the IPO, the underwriter tries to ensure the stock price stability in the days following the IPO, by overselling the stocks up to 15% of the pre-specified amount of shares (tactic called

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[4] A term Due diligence represents an investigation of a business.

"Green Shoe"). If in the day following the IPO the stock`s price declines, it can push investors to selling their shares whilst believing that the offered stock might be unreliable. To stabilize the price, underwriter can repurchase the oversold 15% of shares at offering price, and return them to the issuer.

Nevertheless, an unusual and creative exit move is currently taking place in the financial markets. Music streaming company Spotify, founded in Sweden, has despite reporting 71m paying subscribers and 159m active listeners as of December 2017, continued to report losses. In 2016 it raised $1bn in a debt deal from private equity company TPG Capital Management LP and hedge fund Dragoneer Investment Group, which are currently eager to cash out their investment. The exit through IPO has been set for 3rd of April 2018, whereas the company has decided to enter public markets through direct listing of its securities, without using underwriters. This will enable Spotify to avoid paying underwriters fee, and profit from a quicker placement on the market. However, the direct listing does not come without risk. While underwriters set the stock price based on the demand gained through marketing and road show, the direct placement might experience a much higher volatility after being place on the market, as the demand for the stocks is a subject to a higher approximation. In addition, the volatility after the placement is increased with the lack of "lock-up" period, to prevent security selling in the months following the listing (Coffee 2018; Hirsch & Dewan 2017; Latta 2018).

- Liquidation

The least favorable option, taking place when the investment has not succeeded. In this case, the investors decide to write off a deal, if it is recognized that the portfolio company in unable to produce value in the future. Bankruptcy laws are followed, and in case the cash resources of portfolio company´s asset exceed the total amount of debt, investors can partly recover the face value of their investment.

Figure 12: Channels of Divestments in 2016
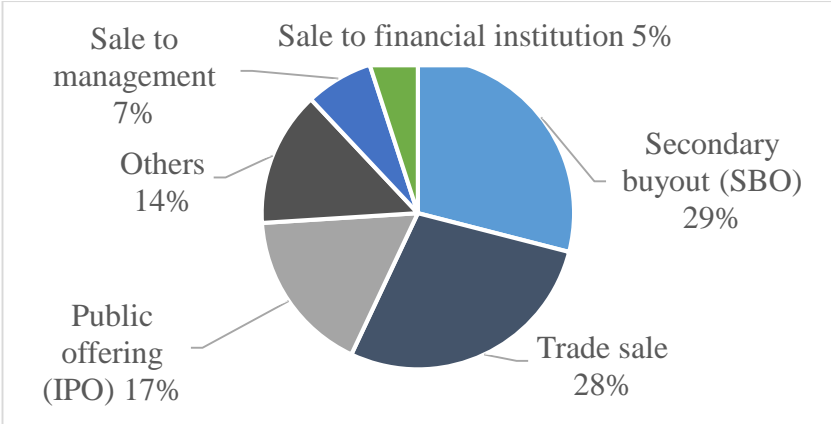
Source: Invest Europe, *2016 European Private Equity Activity,* 2017, p.58

2   VALUE CREATION BY PRIVATE EQUITY FUNDS

In order for private equity to create the return for its investors, the value has to be created on a portfolio company level. Following Berg and Gottschalg (2005), this section will elaborate more on explaining different factors of value generation in portfolio companies.

The value creation can be broken down into two levers – primary and secondary. The primary lever represents the drivers that directly influence the performance by improving the free cash flow to the company. The secondary lever are indirect, and their effect cannot be straightly quantifiable. However, they are important drivers of value creation in investments (See points 2.1 and 2.2). The value capturing level represents other sources of value creation, mainly caused by arbitrage opportunities (See point 2.3).

Figure 13: Levers of Value Creation
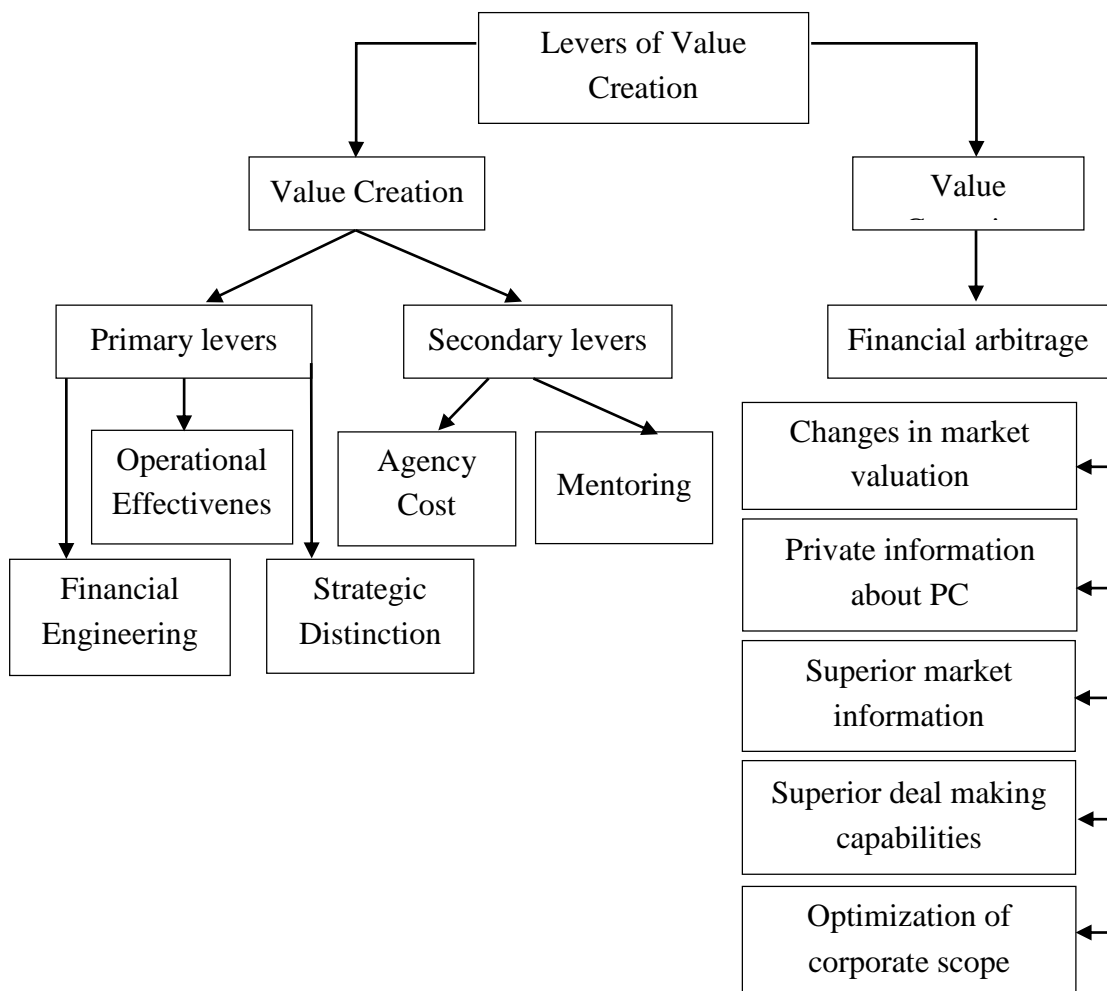
Source: Own creation by framework proposed in A. Berg and O.F. Gottschalg, *Understanding Value Generation in Buyouts*, 2005.

2.1 Primary Levers of Value Creation

The following primary levers directly influence the company's performance and can be quantifiable.

- Financial engineering

The optimization of capital structure and optimization of after tax cost of capital is one of the most widely recognized factors of value creation in buyouts. The increase is influenced by two main sources. The first source is the private equity's widely spread network - the investment professionals are able to negotiate better financing terms for a portfolio company than the portfolio company would be able to on a stand-alone basis. Also, due to their knowledge and experience, they can furthermore apply the optimal debt to equity ratio. The optimal mix between debt and equity levels creates tax-deductible interest payment namely tax shield, which has a positive impact on company's cash flow level, and therefore represents the second source of value creation (Berg & Gottschald 2005). The additional debt applied to reach the optimal debt structure also has a disciplining effect towards the portfolio company, preventing management from spending on unprofitable investment, as part of their earnings has to serve for debt repayments (Jensen, 1989a). However, it is worth noting that the leverage also increases the riskiness of the business itself, as the inflexibility of the required payments to debt may increase the likeliness of a costly financial distress (Kaplan 2009). Palepu (1990) also argues, that increased leverage leads to short-termism, as managers will rather invest in projects that will provide higher short term cash flows to service the debt repayment, rather to look for long term investments.

- Increasing operational effectiveness

Private equity usually optimizes and reorganize the way their portfolio companies are set up, with the motivation to increase the efficiency of operations. After the acquisition, the investment managers start with cost reduction programs to reduce the costs and improve the operational margin. In addition, the existing corporate assets are being optimized – improvement of working capital, management of accounts receivable, inventory optimization, etc. (Berg & Gottschald 2005). The majority of the private equity investments also lead to the replacement of the management team, which is seen as the removal of the main cause of underperformance (Jensen & Ruback 1983).

- Increasing strategic distinctiveness

Often, the investment professionals also concentrate on corporate refocusing of portfolio companies. This leads to redefinition of strategical focus, in a sense of which markets to play on, product mix, customer mix and reorganization of distribution channels.

Consequently, the total level and scope are diversified and reduced, and any inefficient product lines cut, while the inefficient non-core organizations are sold to third party (Wiersema & Liebeskind 1995).

2.2 Secondary Levers of Value Creation

The following secondary levers of value creation do not directly effect on financial performance of the portfolio company but rather effect through primary levels explained before.

- Reducing agency cost

The leverage taken to finance the investment forces the management to service the debt payments, rather than spending it, which improves the levels of free cash flow. This in fact reduces the agency costs between the management and investors. Leverage also serves as additional outsourced governance, as the lenders will monitor managements actions and make sure that the debt is repaid (Baker & Montgomery 1994; Jensen 2010).

In addition, the incentive schemes set up for management also help aligning the direction between investors and management of portfolio company, which encourages/forces management towards their stake in the company, and consequently increases the personal costs of inefficiency, if present (Jensen 2010).

Often, the private equity investors also reconsider the corporate governance established in portfolio companies, to enable the closer monitoring of the portfolio company. In private equity investments the concentration of equity is greater and more active as the one on a stock market, which leads to a more active representation in a board of directors, and active involvement into daily processes (Jensen, 1989a).

The effect of value creation by reducing agency costs has been directly tested by Bruton, Keels and Scifres (2002). In their research they tested the effects of reverse buyout, known as secondary initial public opening (SIPO). Under the agency theory, after the reverse buyout the ownership is decentralized again and moved from management to shareholders, the performance would decrease. In their study they examined 39 US buyouts which happened between 1977 and 1986. Consistent with other studies, the performance did increase after the buyout. However, the performance decline occurred in the three years' window after the reverse buyout. Profit margins decreased significantly in the time window, from 13,3% to 10,5%. The SG&A[5] sales increased, indicating that the efficiency declined. However, sales did continue to grow in the time window, but with a declining rate.

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[5] SG&A represents selling, general and administrative expenses

- Mentoring

A wide professional network enables private equity companies to select and further work with top management team, that is set up to improve the position of portfolio company. In line with the top management team selected, investment team closely monitors the portfolio company and provide the additional management and industrial expertise, which they acquired during the previous investments. The newly assigned management is also highly motivated and prepared to do anything to meet their targets, which are much more aspirational compared to regular public companies, resulting in a so called LBO fever. In addition to the mentoring activities provided by the private equity fund, buyouts are believed to increase the entrepreneurial spirit within the companies. This is recognized to be due to the the new institutional structure and governance releases managers of corporate bureaucracy and encourages them to make independent decisions (Berg & Gottschald 2005).

2.3   Value Capturing Levers

Leveraged Buyouts have been widely criticized by numerous academics (DeAngelo, DeAngelo & Rice 1984; Lowenstein 1985; DeAngelo 1986; Opler 1992) to merely exploit insider information, rather to create actual value for the company (Loos 2007). However, there are many academics and the corresponding research, supporting the fact that the arbitrage opportunities are not the main source of value creation in buyouts (See point 3).

- Financial arbitrage

The financial arbitrage represents the generated return based on difference in valuation between the time of acquisition and exit from the portfolio company. Therefore, this lever has no direct impact on the financial performance of the portfolio company.

It can be decomposed as follows (Berg & Gottschald 2005):

- Changes in market valuation

This factor influences on the return to equity holders by the extent to which the valuation at acquisition and exit is correlated with the change in valuation on the public markets. To some extent private equity investors are able to predict those movements and use them to their own benefit (called multiple riding).

–   Superior market information and deal making capabilities

A big competitive advantage of private equity companies is also a high market intelligence. Firstly, this may represent a wide network of contacts, enabling them to build a significant industry expertise. The second part of the private equity's competitive advantage is an ability, to identify the target companies, and consequently increase its value through various activities (target selection, negotiations and optimization of acquisition processes).

–   Optimization of corporate scope

After the acquisition, investors usually also optimize the corporate efficiency of the business. Many times the sale of peripheral business units take place, which results in the appreciation of assets and further increased efficiency of the business.

3   EVIDENCE FROM ACADEMIC RESEARCH AND HYPOTHESIS DEVELOPMENT

The majority of the PE industry is represented by so called buyout funds. Investments made by buyout funds belong to the investment class of Leveraged Buyout transactions (LBOs), a term representing the usage of leverage for the purpose of buyout. In the case of private equity investments this represents investment professionals using debt to acquire the company or division. Typically, the private equity acquisition is firstly financed by 40-50% of equity (drawn from investors who commit to the capital level at the start of funds life), and the rest represents the leverage. Furthermore, as the company's operations improve cash flow are used to service the debt payments, and equity consequently increases.

A standard LBO represents an institutional buy out, where a fund identifies a company and acquires it. The majority of LBO transactions also represent the involvement of management, frequently backed up by a private equity, or any other debt provider. When the current management team acquires the company, the LBO is called management buyout (MBO). In MBOs, leveraged management buyouts (LMBO) are often used, where buyers use company´s assets as collateral to obtain financing. When management from the outside acquires takes over, the LBO is called management buy-in (MBI). The target companies of MBIs are usually not realizing the full potential of the target company. Consequently, MBIs are usually a hostile nature acquisitions. The outside management can also join the existing management, a transaction called the buy-in management buyout (BIMBO). When, however, the LBO is performed by institutional investors or private equity companies, the transactions are referred to as institutional buyouts (IBO). In a typical IBO the management might stay or is being replaced by new management. The incentive system is then driven by managerial performance and linked to equity stakes via

equity ratchets. Equity ratchets is a special incentive device, enabling the management in a post-buyout company to increase its equity stakes upon meeting performance targets (Demaria, 2013, p. 158; Renneboog, 2005, p.3).

The phenomena of leveraged buyouts have been to a large extent researched in the academic literature, whereas the focus has been emphasized towards the value creation in those investments. The studies conducted have been looking at the value creation from two perspectives – either from the fund level or transaction level.

Fund level perspective is looking at the internal rate of return (IRR) of the fund itself, relative to the stock market index. Kaplan and Scoar (2005) compared the average fund returns net of fees with S&P 500 index, which showed no significant difference between both returns. On the other hand Harris, Jenkinson & Kaplan (2014) analyzed nearly 1400 U.S. private equity funds, revealing that the average funds outperformed S&P averages for more than 3% per year. Similarly, Robinson and Sensoy (2011) results showed that fund on average outperformed S&P 500 for 18% over the funds life. Also, Axelson, Sorensen and Strömberg (2013) findings report over performance of more than 8% per year, gross of fees (Gompers, Kaplan, & Mukharlyamov 2016).

An extensive study of funds returns data has been performed by Walz and Cummings (2004), studying the main determinants of funds returns. They have studied the returns of 221 venture capital and private equity funds spanning over 21 years (1971-2993) and 39 countries in North and South America, Europe and Asia. Their study indicates that the venture capital and private equity investments create value for their portfolio companies, and that the legal context and robust public markets of the specific country determines how efficiently they are able to create value. Active involvement of GPs in portfolio companies increases the fund`s return, while also convertible securities when used were found to increase returns. The use of convertible securities incentivizes GPs to provide effort towards increasing the company´s value.

However, there is issue raising in academic research in private equity and finance in general, known as the selection and survivorship bias. The selection bias, represents a potential preferential selection of better performing funds in research samples, which can potentially effect the final research results, especially in fund level perspective. Phalippou and Gottschalg (2008) are critical to existing academic research, arguing that there exists a bias in private equity's academic research towards better performing funds. After accounting for sample bias and overstated accounting value, their average fund performance underperformance the S&P 500 index for -3.83% per year.

Similarly, the sample bias has been taken into account in the research conducted by Ljungsqvist and Richardson (2003). To overcome the sample bias and overstated accounting figures, the detailed cash flow for each fund has been analyzed. Their results show an excess return of 5-8% per annum, relative to the public market return.

In addition, a second type of bias known as survivorship bias is worth considering when looking at the fund level perspective studies. Research is typically done over a selected instrument that have survived in a given sample period, however, it is not a valid representation of the entire instrument available to the investors (Zimmermann, Bilo, Christophers, & Degosciu, 2004).

Contrary to the fund level perspective, the transaction level perspective looks at the value creation from the perspective of the acquired company. Throughout the years a substantial literature has developed, showing the positive effects of buyouts on performance of target companies, supporting different levers of value creation as explained by the Berg and Gottschald framework. The studies of performance improvements within the buyout companies are based on factors of real performance, or by analyzing accounting data.

3.1 Real effects of buyouts

Studies based on factors of real performance focus on analyzing different factors of real performance, such as factor productivity, employment, research and development, and entrepreneurship.

Study conducted by Lichtenberg and Siegel (1990) focused on plant level data by examining the post-buyout changes in operating performance. Their sample of 1.000 plants involved in LBOs during the period 1981-1990 show a strong positive effect on total factor productivity through improved margins and better efficiency after the buyout.

Their findings were later supported by Harris, Siegel and Wright (2005), expanding the study on 36,000 UK manufacturing plants. Similarly, their findings indicated a substantial increase in productivity after the buyout (Cumming, Siegel, & Wright 2007). Similarly, also Davis, Haltiwanger, Handley, Jarmin, Lerner, & Miranda (2014) show a strong improvement in productivity levels after the buyout, on a sample of 3,200 US target firms during 1980 and 2005, mainly due to the disposal of less productive establishment, and introduction of more productive ones.

While buyouts are many times criticized for the cut off of jobs, which usually happens after the acquisition, the working environment has been found better after the buyout takes place. Amess, Brown and Thompson (2007) analysis conducted on management buyouts show, that employees in companies that overcame the MBO have more discretion over their work practices, especially skilled worker with very low levels of supervision.

In addition to jobs cut offs, buyouts are frequently also criticized for restricting role towards research and development (hereinafter: R&D), which develops as a side effect of cutting R&D cost to serve high debt levels incurred by buyout. However, there is evidence showing positive effect of buyouts on R&D expenditures. Long and Ravenscraft (1993)

found that the R&D intensity declined for almost 40% after the buyout. However the decline did not negatively effect the company's performance on a medium term (5 years after the buyout), indicating that the buyout cut only non-critical R&D levels and had no negative effect on future performance. A survey by Wright, Thompson and Robbie (1992) conducted on a sample of UK buyout between 1983 and 1986 showed, that more than 60% of the sampled companies introduce a new product after the buyout. Similar results showed the survey conducted by Zahra (1995) conducted on top management on 47 US manufacturing companies. Three years following the buyout, their R&D spending factor did not increase. However, after the buyout the companies put a bigger emphasis on commercialization, increased the quality of R&D function, and engaged more on R&D external alliances. The changes had a positive influence performance, significantly enhancing profitability and productivity of the company.

3.2 Performance Improvements

Company´s performance can be assessed by looking at different performance indicators. One of the indicators can be the operating income of the company. The study conducted by Kaplan (1989) used a sample of 76 companies that experienced an MBO during the 1980-1986 period and showed, that the operating income of those companies, measured net of industry changes, exceeds the industry average by approximately 20% over a three years span after the buyout. The operating profitability change was recognized to be mainly influenced by the management incentives introduced, which consequently led to agency cost reduction.

Changes in company´s performance can be also seen by examining operating cash flows. This has been done by Smith (1990), which examined the performance of 58 MBOs by looking at the operating cash flow per employee and per dollar of operating assets, for the year before to the year after the buyout took place. Both examined factors of performance significantly increased, primary due to better management of the working capital. Similarly, Opler (1992) found significant increases in industry-adjusted median of operating profit per dollar of sales and operating profit per employees, while examining 20 largest US buyouts during the years 1985-1990.

Positive cash flow level improvements through cash flow as a percentage of sales ratio have been also noted by Singh (1990) on a sample of 65 firms going private between 1980 and 1987. In addition, after the buyout the sample experienced faster growth in sales levels than their industry benchmarks. A better performance in inventory management, accounts receivable and operating income has also been reported.

The buyouts were recognized to have a positive effect on return on assets (ROA) in a study conducted by Wright, Wilson and Robbie (1996). The evidence relates to takeovers in 1980s, of which the company that experienced an MBO generated significantly higher

increases in ROA over a period from two to five years after buyouts, than their comparable companies. While examining 192 buyouts during buyouts wave for the period 1990-2006 Guo et al. (2011) supports the positive effect of buyouts in ROA, measured through two ratios - EBITDA to total assets and net cash flow to total assets. In addition, he examined the profitability of the company by looking at the EBITDA to sales ratio and net cash flow to sales ratio. Even though the gains in operating performance are comparable or slightly better than those of their benchmark companies, the cash flow gains are greater for companies with greater increases in leverage, indicating that the tax shield positively effects the free cash flow available.

Also, the other financial ratios as return on equity, return on investment and profitability have been seen to improve after the buyouts for 161 French buyouts between 1988-1994, analyzed by Desbrieres and Schatt (2002). The acquired firms did outperform its peers in the same sector of activity before and after the buyout. However, the performance of the companies deteriorated once the acquisition is completed.

3.3 Wealth Transfer Hypothesis

Consistent with the earlier literature review, academics are more or less unanimous on the fact that buyouts do increase the value of the target companies. However, academic like Kaiser and Westarp (2010) and Rennenboog (2005) argue, that the value in buyout is not created, rather it is just transferred from different stakeholders. The wealth transfer hypothesis can take many forms; reduction in taxes represents wealth transfer from the government, reduction in employment transfers wealth from current employees, and reduction in value of existing debt in favor of the remaining equity.

The wealth transfer from government is caused by the tax shield from increased debt, which creates tax deductible interest expenses and has a positive effect on company´s value. However, in their study Jensen, Kaplan and Stiglin (1989b) argue against this argument, showing that the net effect of buyouts increases the present value of Treasury tax revenue by 61%. Though the company does decrease its own taxable profits through tax shield, it creates tax revenues in five other ways. Firstly, as they create capital gains for shareholders, buyouts do increase capital gains taxes. Furthermore, buyouts on a long run significantly increase operating income levels, which are taxable. In addition, many of creditors that finance buyouts are taxed on interest income coming from debt payments. Buyouts also contribute to tax revenues, as they increase the efficiency of capital used. Finally, many buyouts sell assets, which triggers additional corporate taxed on capital gains.

Even though the private equity industry is widely criticized for the job cut off, research on real effects of buyouts show real performance improvements following the buyout, such as increased total factor productivity, positive improvements in relation to working

environment, and increased quality of R&D function (See point 3.1). The reduction in value of existing debt to favor remaining equity represents wealth transfer from prior debt holders to new equity holders. The topic was researched by Asquith and Wizman (1990), who analyzed the impact of unexpected increases in leverage on bondholders. The research findings are contrary to the wealth transfer theory. Even though statistically significant wealth losses occurred, they did accrue only to bonds without protective covenants against increased debt levels.

3.4 Hypothesis Development

In order to closely analyze the changes in financial position of the selected target, the following hypothesis is developed:

Hypothesis 1: There is an improvement in financial position of the analyzed company after the acquisition.

Hypothesis 1 will be analyzed by calculating accounting ratios covering the following areas of company´s performance: profitability, operations, labor, investments, leverage and liquidity.

To further mitigate for the industrial movements which might affect financial ratios, I will adapt a hypothetical industry-benchmark ratio, similar as Guo et al. (2011) and examine the position of the analyzed company compared to its peers, for which the following hypothesis is developed the null form:

Hypothesis 2: There is an improvement in financial position of the target company after acquisition, in regards to the benchmark index.

The hypothetical benchmark index will represent the financial position of target`s market competitors, and will serve to mitigate for the industry related movements by comparing the average performance of the analyzed company with the average performance of its peers through the benchmark index.

4 EMPIRICAL ANALYSIS OF A SLOVENE CASE

In the following empirical part of the thesis the previously presented theory will be examined on a private equity investment on Slovenian market. As the most appropriate private equity investment on Slovene market I have identified the acquisition of Telemach Širokopasovne Komunikacije d.o.o. (hereinafter interchangeably referred as Telemach Slovenia, Telemach Group, the company) by Mid Europa Partners, a UK based private equity company. Mid Europe Partners has acquired Telemach Slovenia in 2009 as a part of their strategy to invest in the TV cable sector.

Mid Europa Partners have exited the investment in 2013, but have made many strategic acquisitions along the way and gathered the companies in one of the leading pay TV operators in Southeastern Europe – United Group.

4.1 Market Overview

Mid Europa Partners started their strategic march on the SEE market by acquiring the largest cable operator in Serbia, Serbia Broadband Company in 2007. Soon after this followed an acquisition of Telemach Slovenia in 2009. In 2010 the major acquisition followed on the market of Bosnia and Herzegovina – the company acquired KT GlobalNET, ELON CATV, BH Cabel Net and joined them into Telemach BiH. Later in the 2012 all companies were merged together under the name United Group, and became a telecommunications leader in South – East Europe (United Group Press Release).

Mid Europa exited its investment in United Group in October 2013, where as the Group has been acquired as a joint venture between EBRD ("European Bank for Reconstruction and Development") and KKR (Kohlberg Kravis & Roberts & Co. L.P). The Group was acquired for EUR 1000m, where as EBRD has contributed a minority stake of EUR 50m.

The hypothetical index in Hypothesis 2 (please refer to p. 31) represents the financial position of two closest Telemach Slovenia competitors (for a detailed market structure please refer to the Figure 14 and 15 below) during our period of analysis – Amis d.o.o. and Telekom Slovenije d.o.o (hereinafter: Amis and Telekom Slovenije). Similar as Telemach Slovenia, also Amis and Telekom Slovenije compete in telecommunications industry, where as their main source of revenues is so called broadband bundle (bundle of internet, television and phone for a monthly fee) (Slo: "Trojček"). The benchmark index combines the average of both peers and will serve as a representation of the industry. The performance of hypothetical benchmark index will be then compared with the average value in Telemach Slovenia to compare Telemach performance with its peers pre and post-acquisition.

During the analysed period a new player providing broadband bundles stepped into the market – T2. However, I have eliminated it from the analysis as the data available was (-2,+3), which could potentially disrupt the consistency of the benchmark index for the comperable periods. Therefore, throughout our analysed period the bechmark index represents the financial performance of Amis and Telekom Slovenia

Figure 14: Market Share in Broadband Access to Internet
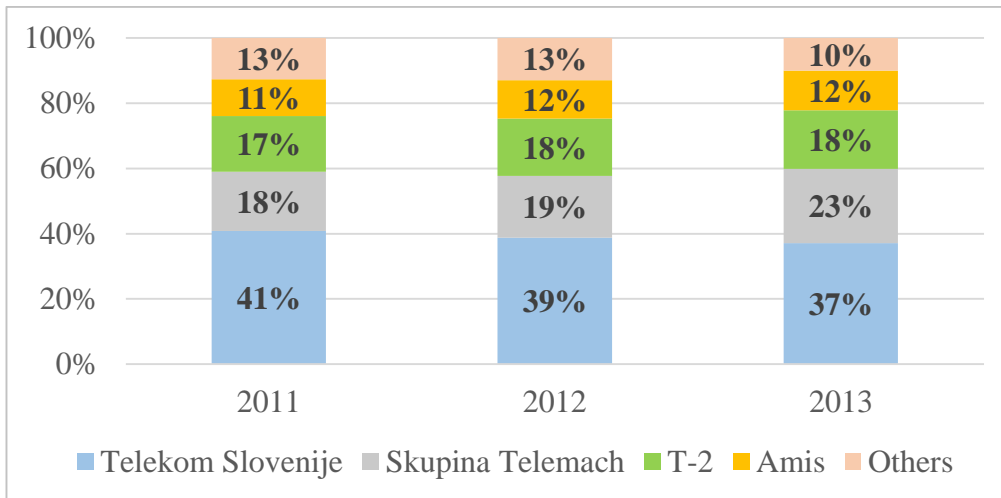
Figure 15: Market Share in Digital Telecommunications
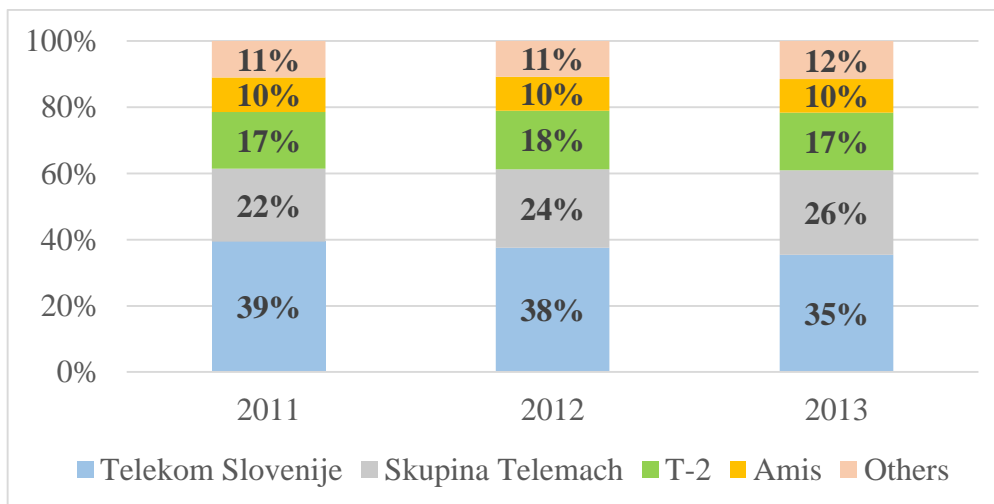
4.2 Method

The thesis adapts an accounting based approach for measuring operating performance by combining the approaches proposed by Al-Hroot (2016) and Guo et al. (2011). By calculating 22 accounting ratios from the financial statements (balance sheet, income statement and cash flow statement), I am closely examining the effect acquisition had on the next key business areas; profitability, operating efficiency, labor, investments, leverage and liquidity. I am comparing the movements of calculated accounting ratios between pre-acquisition period (2006-2008) and post acquisition period (2010-2012). The selected

period of analysis follows numerous academicals research, as the (-3,+3) period is expected to provide enough time for the changed to be reflected in financial data.

The first part of the analysis, testing hypothesis 1, will serve to test for significant improvement in financial performance in Telemach Slovenia. I compare the average value of financial ratios between the pre-acquisition and post-acquisition periods. The change is tested using two tailed sample independent t-test, with a significance at 0.05 level.

On a general note, t-test is any statistical test that uses the t, or Student´s t, family of distributions. The family of t distributions is used when the probabilities of normal distribution cannot be accurate, which happens under the following two conditions (Urdan 2016, p. 93-104):

− The population standard deviation in not known,
− We have a sample smaller than n<120

T-test is used to analyze the means between two sets of observations, and checking whether they are significantly different. The two most commonly conducted t-tests are the independent samples t-test and paired samples t-test. The independent samples t-test compares the means of two independent samples on a given variable. Similarly, paired samples t-test is used to compare two means on a given variable, whereas the means are of two paired samples (Ibid.).

The t-test analysis in testing hypothesis 1 will be based on a independent sample in which obervations in one sample cannot be paired with observations in the other sample, representing the movement of financial ratios between pre-acquisition and post-acquisition period. Consequently, the independent sample t-test will be used, following the below Equation 6 (Urdan 2016, p. 95):

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{\bar{X}_1 - \bar{X}_2}} \tag{6}$$

where as:
$\bar{X}_1$ = Sample 1 mean
$\bar{X}_2$ = Sample 2 mean
$s_{\bar{X}_1 - \bar{X}_2}$ = Standard error of the difference between the means

The calculated t value is then compared to the critical t-value from the distribution table for the chosen confidence level. We can reject the null hypothesis, stating that the population means are equal, when the calculated t value is greater than the critical t value.

In my analysis t-test will analyze the difference between the average value of financial ratios during the post-acquisition period (2010 to 2012), and the average value of financial

ratios during the pre-acquisition period (2006 to 2008). Namely, it will test whether the change between the average value of financial ratios during pre and post-acquisition period is significantly different than zero. Since I am testing for the difference in both directions (namely the average in one period may be bigger or smaller than the average in the other period) I am using a two tailed test, with a significance level of 5%.

Figure 16: Analysis time window

Similary, hypothesis 2 will be testing the differences between the average value of financial ratio in the target company, and average value of financial ratio in the benchmark index. For this part of the analysis the paired sample t-test will be used, following the below Equation 7 (Urdan 2016, p. 95):

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{\bar{D}}}$$ (7)

where as:
$\bar{X}_1$ = Sample 1 mean
$\bar{X}_2$ = Sample 2 mean
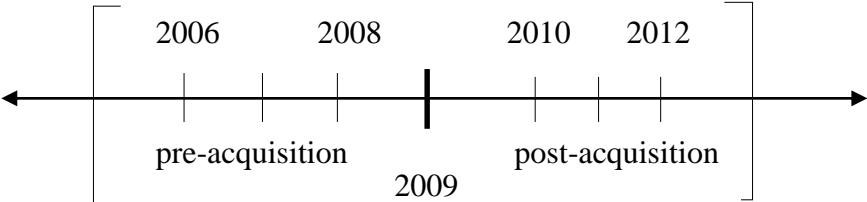$s_{s_{\bar{D}}}$ = Standard error of the difference between the means

4.3 Analysis and Results

4.3.1 Analysis of acquisitions impact on financial performance

Table 1 represents the calculated pre and post-acquisition financial ratios of Telemach Slovenia. The "difference" section demonstrates the financial ratio movements, and is calculated by subtracting the average of financial ratio pre acquisition from the average of financial ratios after acquisition. The change between the means of pre-acquisition and post-acquisition period for each calculated financial ratio is tested for significance by using two tailed independent sample t-test at 0.05 significance level.

4.3.1.1 Profitability ratios

The net profit margin ratio improved from negative during the pre-acquisition period to positive in the post-acquisition period, which was highly influenced by the increase in the net income of the company. Similarly, operating profit margin increased during the

38

periods, due to the fact that the company improved its profitability, which can be seen through improved EBIT levels.

To see the movements in returns that the company made on its assets, in addition to the standard measurement ratio return on total assets (ROA) I have included the return on net assets ratio (RONA). RONA will additionally allow me to check how efficiently the company was using only its fixed assets and net working capital. The improvement in both ratios can be seen, indicating that the company was using its total assets, as well as its fixed assets and net working capital more efficiently. It is worth noting that the improvement was higher in the RONA, which might indicate that either the company did employ its net working capital more than its total assets, or the lag of development of ROA behind RONA is led by the less efficient employment of accounting items not taken into in RONA calculation (intangible assets, investment property and long term financial investment).

Similar trend of increasing profitability can be seen from last two calculated profitability ratios; return on average capital employed (ROACE) and fixed asset turnover ratio. Ratios indicate that the company did generate higher returns on its average capital employed (total assets less current liabilities), and did generate a higher profit (measured with EBIT) on its fixed assets.

According to the movements in accounting ratios, we can see that the profitability of Telemach Slovenia after the acquisition improved significantly for all 6 financial ratios calculated. Hence, I can conclude that there has been a significant improvement in profitability ratios of Telemach Slovenia after the acquisition.

4.3.1.2 Operating efficiency ratios

Operating efficiency of Telemach Slovenia has been represented by analyzing five financial ratios. The ratios revenue per employee and sales per employee indicate that the company managed to generate a higher EBIT and net sales per employee after acquisition, with the improvement being statistically significant. In addition, company efficiency in operating expense ratio improved, indicating that the company uses less operating expenses to generate a unit of sales.

On the other hand, during the post-acquisition period the company was using its fixed assets less effectively in order to generate sales.

However, as three of four financial ratios significantly improved, I can conclude that the operating efficiency of Telemach Slovenia significantly improved after the acquisition.

4.3.1.3 Labor

Comparing the number of employees after the acquisition it can be observed that Telemach Slovenia employed a significantly higher number of people after the acquisition. Simultaneously, the company managed to reduce the labor costs per employees, but the change is not statistically significant. Therefore, I can conclude that the labor ratios of Telemach Slovenia improved after the acquisition.

4.3.1.4 Investments

Looking at the company's investment activity after the acquisition shown by the capital expenditures (hereinafter: CAPEX) to turnover, ratio showing how much of revenue the company is reinvesting, it can be observed that the company engaged in investing less aggressively than before the acquisition. However, this might not necessary mean that the change in investing level is bad as such; it might also indicate that the investments after the acquisition are less aggressive but also more cautious and rational. For the purpose of our analysis the movement in ratio will be treated as an improvement. However, the difference in financial ratio was not statistically significant.

The second ratio, cash flow from operations to CAPEX, shows an improvement in the period after acquisition. The improvement in ratio demonstrates that the company's ability to finance its investment from cash flow instead of taking on additional debt improved.

However, both movements are statistically insignificant. Consequently, we can conclude that there has been no significant improvement in the Investment ratios post acquisition.

4.3.1.5 Leverage

In order to analyze the leverage position of the company after acquisition I have calculated 7 accounting ratios.

From significantly improved interest coverage ratio we can see that the company could cover its annual debt interest payments with its earnings before interest and taxes (hereinafter: EBIT) easier after the acquisition than before the acquisition. Similarly, both leverage and financial leverage ratios have improved after the acquisition, implying that the company started relying less on external financing after the acquisition, and rather improved its equity position, which also reduces the riskiness of the business. Consequently, also the proprietary ratio statistically improved, showing that the larger portion of capital is covered with equity than before the acquisition.

The next two ratios analyze the company' ability to cover its debt obligations from it operations. The "Cash flow to debt ratio" compares cash flows to operations per its total

debt and shows no movement in the post acquisition period. Second ratio, Operating cash flow ratio, shows the deteriorating movement in cash flow from operation per current portion of liabilities. However, the movement is not statistically significant.

The statistically significant improvement in 4 out of 6 leverage ratios indicate, that even though the company increased the debt leverage after the acquisition, its level was managed better than before the acquisition. Therefore, I can conclude that the company managed to significantly improve its leverage position after acquisition.

4.3.1.6 Liquidity

For analyzing the improvements in liquidity position of the company, I have calculated current and acid test ratio. The current ratio shows that the company was able to cover a bigger amount of current liabilities with its current portion of debt. However, the improvement does not show statistical significance. In addition, I have added a stricter indicator of firms liquidity, acid test ratio, which shows the portion of current liabilities covered by current assets without taking into account its illiquid part (cash, accounts receivable, short term investment). Also the acid test ratio shows an improvement, which is not statistically significant.

The analysis of both liquidity ratios, current and acid ratio, showed an improvement in company's liquidity after the acquisition. However, the improvement is not statistically significant.

4.3.1.7 Summary

Figure 17: Summary of Performance Improvements in Telemach

Ratio	Total Ratios	Significantly Improved	Significantly Deteriorated	Insignificantly Improved	Insignificantly Deteriorated
Profitability Ratios	6	4		2	
Operating Efficiency Ratios	4	1		2	1
Labor	2	1		1	
Investments	2			2	
Leverage	6	3		1	2
Liquidity	2			2	
Total	22	9	0	10	3
Percentage	*100%*	*41%*	*0%*	*45%*	*14%*

Table 1: Financial Performance of Telemach Slovenia

Accounting ratio	Before Acquisition			After Acquisition			Diff.	t-value	p-value		Status
	2006	2007	2008	2010	2011	2012					
Profitability ratios:											
Net profit margin	(0.11)	(0.03)	(0.03)	0.05	0.07	0.14	0.15	3.96	0.017	*	Improvement
Operating profit margin	0.08	0.14	0.15	0.17	0.22	0.22	0.08	2.91	0.044	*	Improvement
ROA	(0.04)	(0.01)	(0.01)	0.02	0.03	0.05	0.05	4.30	0.013	*	Improvement
RONA	(0.12)	(0.04)	(0.03)	0.06	0.08	0.16	0.16	4.05	0.015	*	Improvement
ROACE	0.03	0.07	0.07	0.07	0.09	0.10	0.03	1.98	0.119		Improvement
Fixed asset turnover ratio	0.09	0.19	0.17	0.17	0.23	0.25	0.07	1.85	0.138		Improvement
Operating efficiency ratios:											
Revenue per employee	15,730	32,766	34,990	41,640	58,865	58,578	25,19	3.02	0.039	*	Improvement
Sales per employees (´000)	197	227	235	241	269	267	39,813	2.71	0.053		Improvement
Fixed-Asset turnover	1.07	1.29	1.15	1.01	1.06	1.15	(0.09)	(1.24)	0.284		Deterioration
Operating ratio	0.94	0.86	0.86	0.83	0.79	0.80	(0.08)	(2.58)	0.061		Improvement
Labor ratios:											
Average number of employees	122	163	185	205	211	240	62	2.90	0.044	*	Improvement
Labour costs per employees	29,712	29,336	26,144	25,207	27,376	25,230	(2,459)	(1.83)	0.141		Improvement
Investments ratios:											
CAPEX to turnover	0.25	0.88	0.48	0.35	0.43	0.23	(0.20)	(1.05)	0.354		Improvement
CF to CAPEX	1.77	0.43	0.72	0.99	1.10	1.41	0.19	0.45	0.673		Improvement

(table continues)

Table 1: Financial Performance of Telemach Slovenia (Continued)

Accounting ratio	Before Acquisition			After Acquisition			Diff.	t-value	p-value		Status
	2006	2007	2008	2010	2011	2012					
Leverage ratios:											
Interest coverage ratio	0.42	0.96	1.07	1.15	1.73	2.20	0.88	2.40	0.075		Improvement
Leverage ratio	12.08	9.10	8.45	6.30	5.74	4.12	(4.49)	(3.47)	0.026	*	Improvement
Financial leverage ratio	11.32	8.23	7.53	5.79	5.00	3.51	(4.26)	(3.17)	0.034	*	Improvement
Proprietary ratio	0.08	0.10	0.11	0.14	0.15	0.20	0.07	3.34	0.029	*	Improvement
Cash flow to debt coverage	0.16	0.17	0.16	0.13	0.19	0.15	(0.00)	(0.07)	0.951		Deterioration
Operating cash flow ratio	2.92	1.89	1.54	1.11	1.16	0.92	(1.05)	(2.51)	0.066		Deterioration
Liquidity ratios:											
Current ratio (WC ratio)	0.98	0.87	0.89	0.91	0.82	1.22	0.07	0.55	0.610		Improvement
Acid test ratio	0.76	0.75	0.71	0.75	0.70	1.05	0.10	0.87	0.434		Improvement

Note. Number in brackets represent negative values; * Represents statistically significant movements.

Table 1 indicates the results of selected accounting ratios. Figure 17 summarizes the results. From 22 ratios calculated, 9 of them, representing 41% of the total improved with a statistical significance. 10 ratios improved without statistical significance, and all together the deterioration was observed in three ratios, whereas none of them was statistically significant. Based on the results presented in the following above, I can accept the Hypothesis 1 saying: »There is an improvement in financial position of the analyzed company after the acquisition«, and conclude that the financial performance of Telemach Slovenia in the post-acquisition period did improve significantly for the total of 41% ratios calculated.

4.3.2 Analysis of acquisitions impact compared to its benchmark

In order to mitigate for the industry related movements, I somewhat follow Guo et al. (2011) including a hypothetical industry related benchmark index to compare the movements within the analyzed period.[6]

Table 2 shows a comparison between the performance of Telemach Slovenia and benchmark index pre and post-acquisition. This part of the analysis represents 21 calculated ratios, as the average number of employees has been omitted, due to the fact that solely the number does not serve as good representation of company's performance.

4.3.2.1 Profitability

In terms of net profit generated per unit of sale the company on average underperformed its benchmark index in the pre-acquisition period. Throughout the analyzed period the situation improved, which led the company to outperform its benchmark index in the post-acquisition period (see Figure 18).

When comparing the operating profit margin between the company and benchmark index, the company outperformed its benchmark throughout our analyzed period. However, it is worth noting that the EBIT levels in Amis were negative during the years 2006 to 2008, in 2010 and 2011, which might largely influence the underperformance of benchmark index (see Figure 19).

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[6] The Benchmark analysis excludes the comparison of avarage number of employees, as when comparing number of employees in Telemach Slovenia with its benchmark the difference is not important for the purpose of this analysis.

Figure 18: Net Profit Margin movement

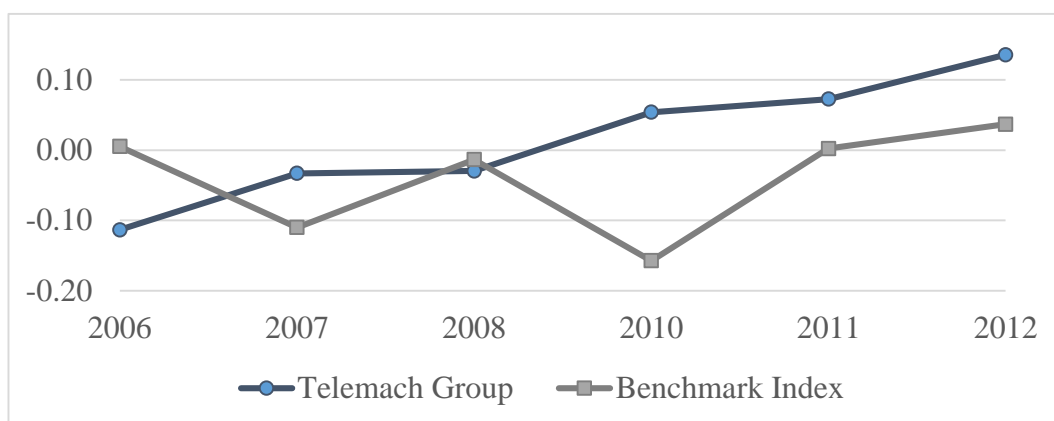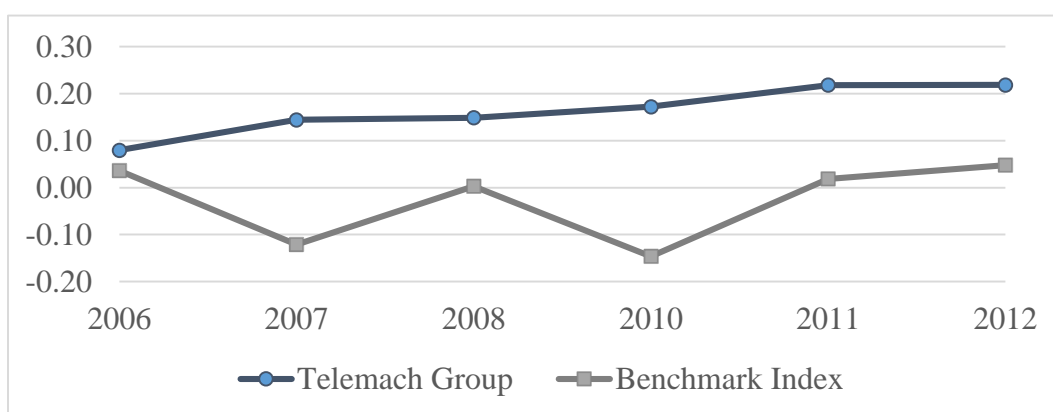Figure 19: Operating Profit Margin

Both applied ratios to measure returns on assets, namely ROA and RONA showed that the company over performed its ratio constantly throughout the analyzed period (see Figure 20).

Figure 20: ROA & RONA movements
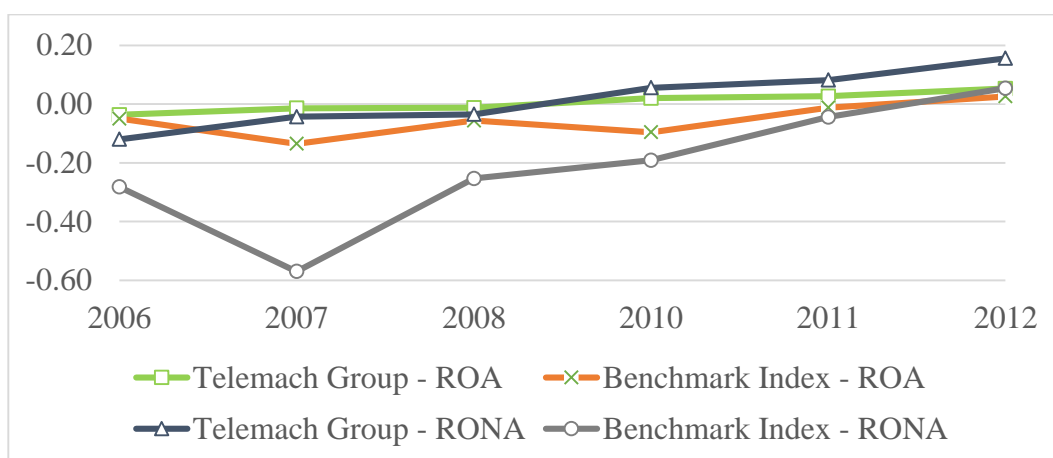
Similar outperformance throughout the period can be also observed in ROACE and Fixed assets turnover ratio, as seen from the following Figure 21 and 22.

Figure 21: ROACE
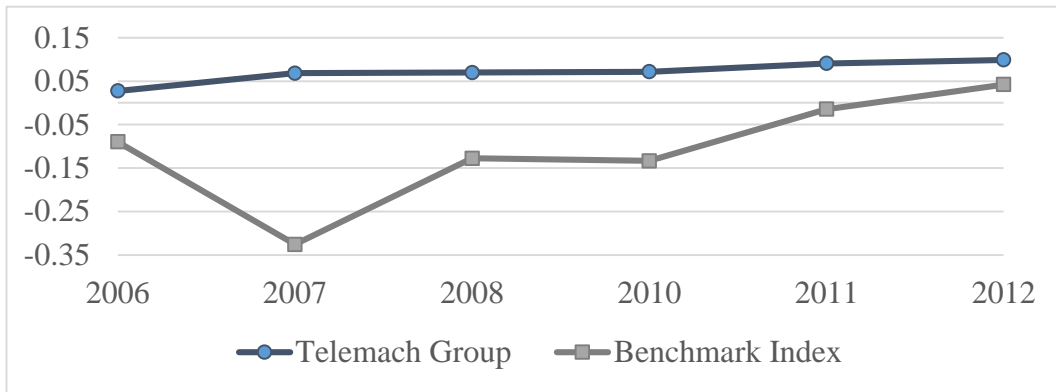
Figure 22: Fixed Asset Turnover Ratio - Profitability
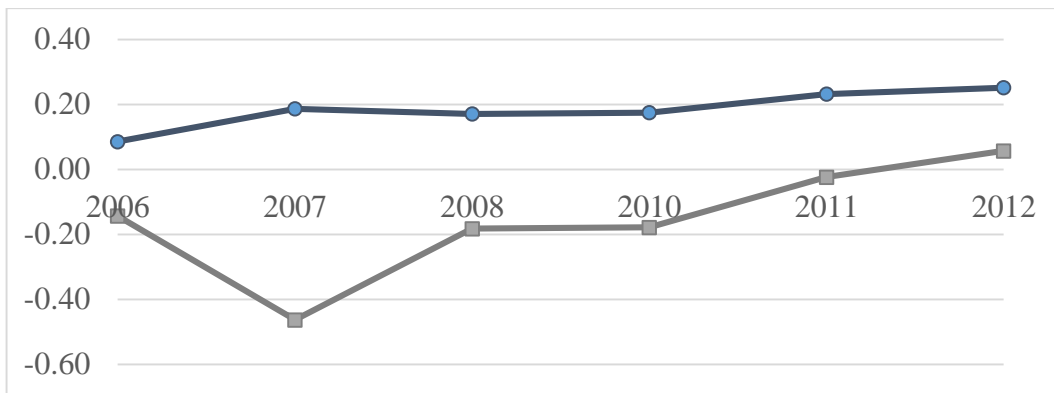
4.3.2.2   Operating efficiency

Throughout our analyzed period a similar trend can be observed in Sales per employee (Figure 23) and Revenue generated per employee (Figure 24), whereas the company outperformed its benchmark index throughout.

Figure 23: Sales per Employee
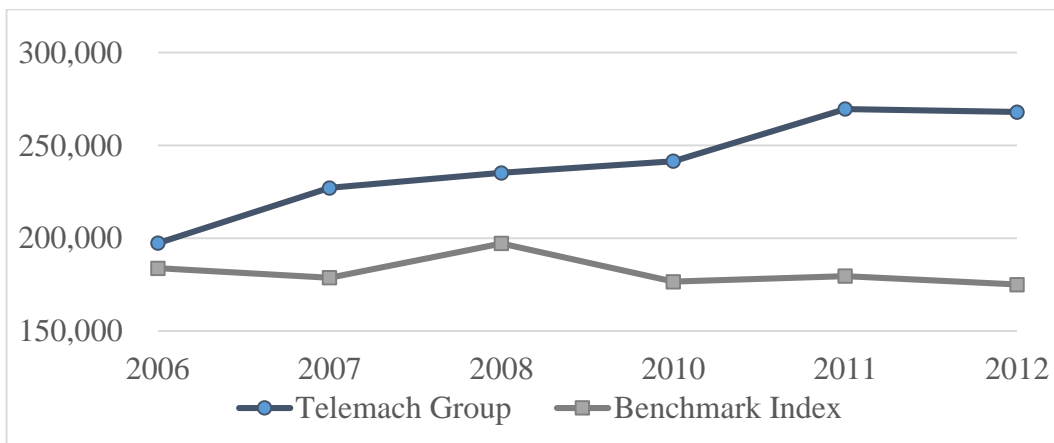
Figure 24: Revenue per Employee
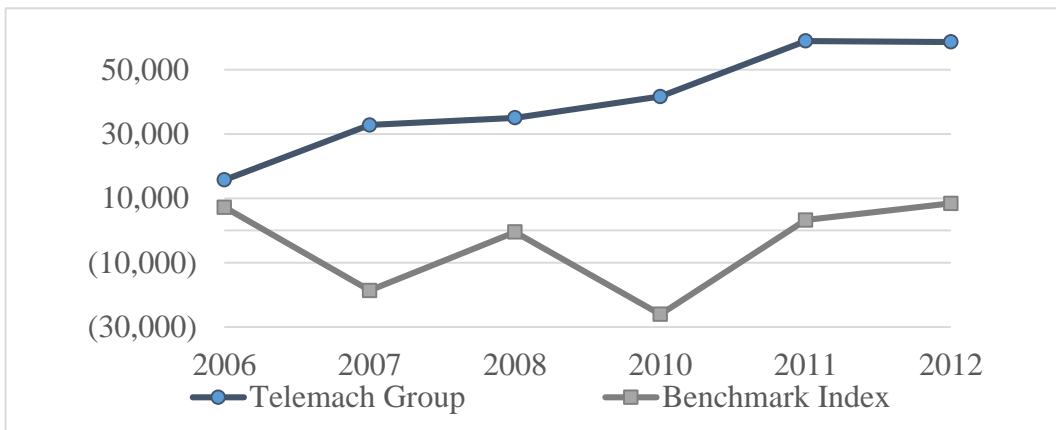
Figure 25: Operating Expense Ratio
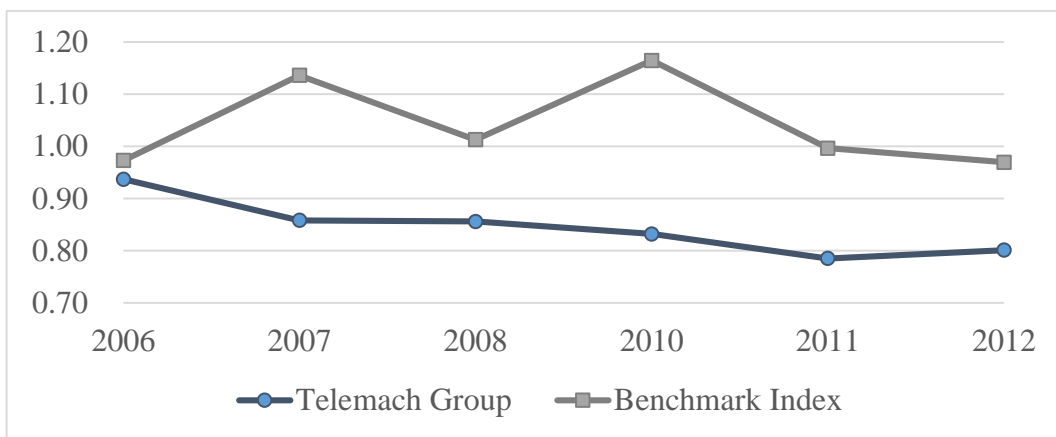
The Figure 25 also indicates, that the company was using a lower amount of operating expenses to generate sales than the benchmark, throughout the whole analyzed period. However, the Fixed-Asset turnover ratio analysis shows that the company scored lower than benchmark index throughout the analyzed period (see Figure 26).

Figure 26: Fixed Asset Turnover Ratio - Operations
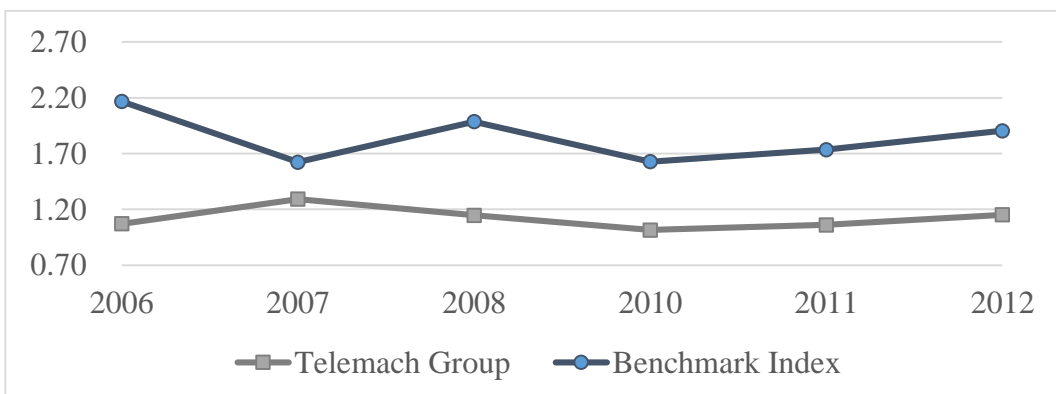
Figure 27: Costs per Employee
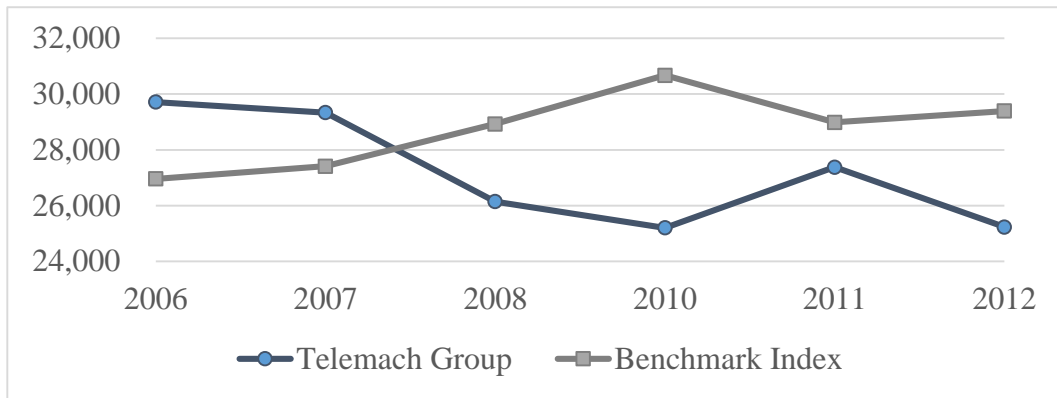
4.3.2.3 Investments

Figure 28: Cash Flow to CAPEX
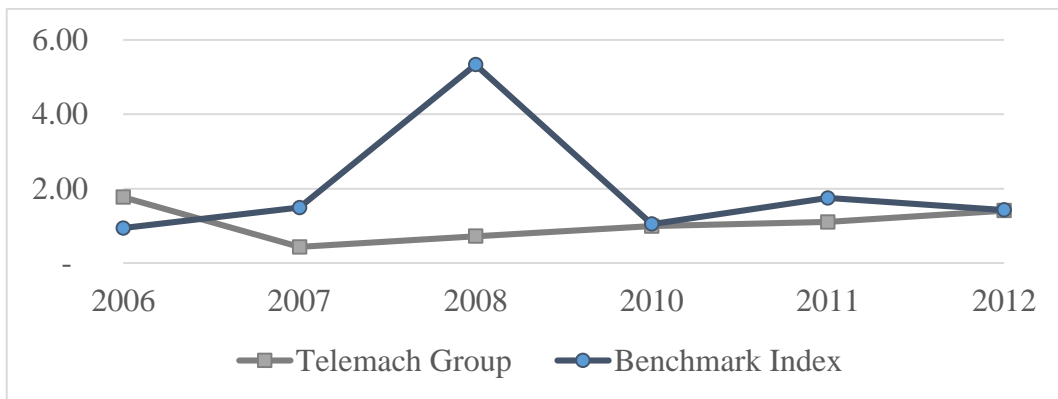
Cash flow to CAPEX ratio (see Figure 28) shows that the company has been investing more aggressively than the benchmark throughout our analyzed period, with the investing level reducing during the analyzed period.

Nevertheless, the company underperformed its benchmark in the ability to finance new investments solely by using its operations generated cash flows (see Figure 29). Nevertheless, as already mentioned the company improved the ratio throughout the analyzed period, though staying behind its peers.

Figure 29: CAPEX to Turnover
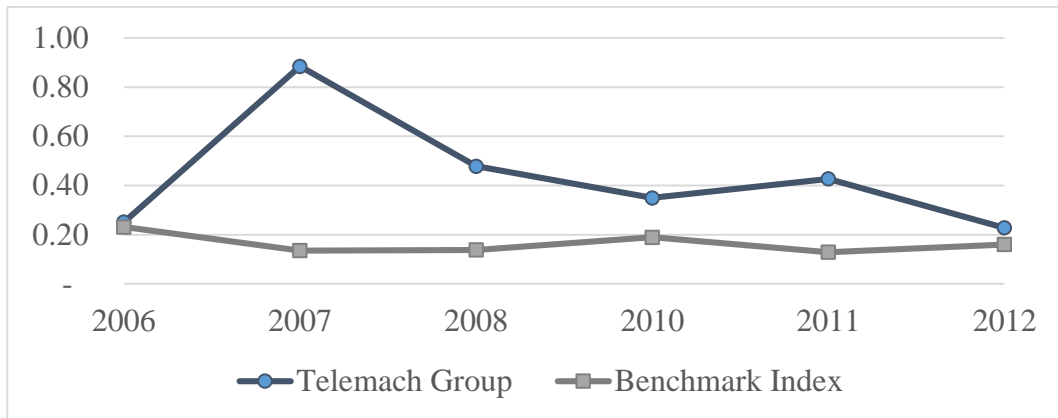
4.3.2.4 Leverage

In the company's leverage position, a similar trend can be observed in the movement of Proprietary ratio (Figure 30), Leverage ratio (Figure 31) and Financial leverage ratio (Figure 32). Throughout our analyzed period the company has been performing worse than its benchmark, whereas the improvement can be observed between the pre-acquisition and post-acquisition period.

Figure 30: Proprietary Ratio
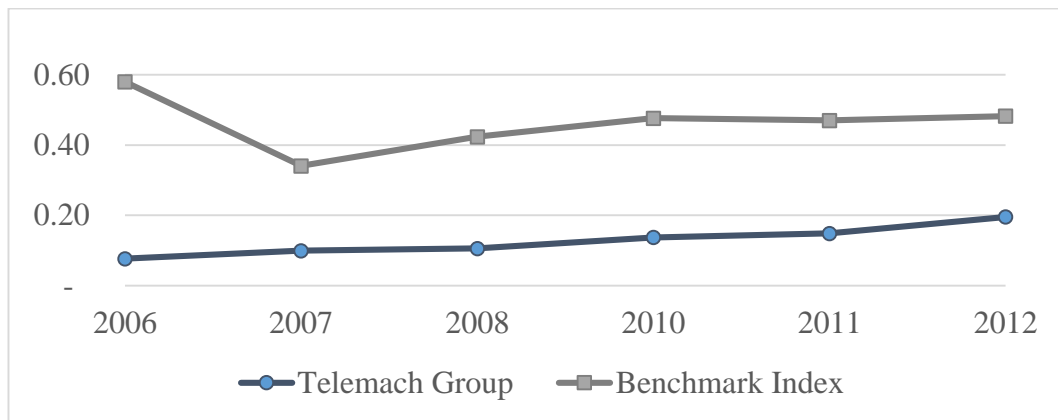
Figure 31: Financial Leverage Ratio

Table 2: Performance Comparison Telemach Slovenia and Benchmark Index

Accounting Ratio	Pre - Acquisition				Post- Acquisition			
	Telemach Mean before acquisition	Benchmark Index Mean before acquisition	Telemach Slovenia less Benchmark Index		Telemach Mean after acquisition	Benchmark Index Mean after acquisition	Telemach Slovenia less Benchmark Index	
Profitability ratios:								
Net profit margin	(0.06)	(0.04)	(0.02)	Underperform	0.09	(0.04)	0.13	Outperform
Operating profit margin	0.12	(0.03)	0.15	Outperform	0.20	(0.03)	0.23	Outperform
Return on total assets (ROA)	(0.02)	(0.08)	0.06	Outperform	0.03	(0.03)	0.06	Outperform
Return on net assets (RONA)	(0.07)	(0.37)	0.30	Outperform	0.10	(0.06)	0.16	Outperform
Return on average capital employed (ROACE)	0.06	(0.18)	0.24	Outperform	0.09	(0.04)	0.12	Outperform
Fixed asset turnover ratio	0.15	(0.26)	0.41	Outperform	0.22	(0.05)	0.27	Outperform
Operating efficiency:								
Revenue per employee	27,829	(4,003)	31,833	Outperform	53,027	(4,827)	57,85	Outperform
Sales per employees	219,895	186,613	33,281	Outperform	259,708	177,094	82,61	Outperform
Fixed-Asset turnover	1.17	1.92	(0.75)	Underperform	1.08	1.76	(0.68)	Underperform
Operating ratio	0.88	1.04	(0.16)	Outperform	0.81	1.04	(0.24)	Outperform
Labor:								
Costs per employees	28,397	27,767	630	Underperform	25,938	29,681	(3,743)	Outperform

(table continues)

Table 2: Performance Comparison Telemach Slovenia and Benchmark Index (Continued)

Accounting Ratio	Pre - Acquisition				Post- Acquisition			
	Telemach Mean before acquisition	Benchmark Index Mean before acquisition	Telemach Slovenia less Benchmark Index		Telemach Mean after acquisition	Benchmark Index Mean after acquisition	Telemach Slovenia less Benchmark Index	
Investments:								
CAPEX to turnover	0.54	0.17	0.37	Underperform	0.33	0.16	0.18	Underperform
CF to CAPEX	0.98	2.59	(1.61)	Underperform	1.17	1.41	(0.24)	Underperform
Leverage:								
Interest coverage ratio	0.82	(2.57)	3.38	Outperform	1.69	(2.62)	4.31	Outperform
Debt to Equity ratio	9.88	3.15	6.72	Underperform	5.39	1.11	4.28	Underperform
Financial debt to Equity ratio	9.03	1.34	7.69	Underperform	4.77	0.60	4.17	Underperform
Proprietary ratio	0.09	0.45	(0.35)	Underperform	0.16	0.48	(0.32)	Underperform
Cash flow to debt coverage	0.16	0.11	0.05	Outperform	0.16	0.28	(0.12)	Underperform
Operating cash flow ratio	2.12	0.22	1.90	Outperform	1.07	0.61	0.46	Outperform
Liquidity:								
Current ratio (WC ratio)	0.91	0.84	0.07	Outperform	0.98	0.96	0.02	Outperform
Acid test ratio	0.74	0.75	(0.01)	Underperform	0.83	0.88	(0.04)	Underperform

Note. Number in brackets represent negative values; * Represents statistically significant movements.

Table 3: Performance Difference Telemach Slovenia and Benchmark Index

Accounting Ratio	Difference Telemach - Benchmark Index						Average of years	t-value	p-value		Status
	2006	2007	2008	2010	2011	2012					
Profitability ratios											
Net profit margin	(0.12)	0.08	(0.02)	0.21	0.07	0.10	0.05	1.485	0.276		Improvement
Operating profit margin	0.04	0.27	0.15	0.32	0.20	0.17	0.19	0.766	0.524		Improvement
ROA	0.01	0.12	0.04	0.12	0.04	0.03	0.06	0.029	0.979		Stagnation
RONA	0.16	0.53	0.22	0.25	0.13	0.10	0.23	0.206	0.413		Deterioration
ROACE	0.12	0.39	0.20	0.20	0.11	0.06	0.18	1.040	0.407		Deterioration
Fixed asset turnover	0.23	0.65	0.35	0.35	0.26	0.19	0.34	0.221	0.442		Deterioration
Operating efficiency											
Revenue per employee	8,535	51,445	35,517	67,711	55,651	50,202	44,843	1.544	0.263		Improvement
Sales per employees	13,476	48,374	37,994	64,879	90,019	92,944	57,948	12.40	0.006	*	Improvement
Fixed-Asset turnover	(1.10)	(0.33)	(0.84)	(0.61)	(0.67)	(0.75)	(0.72)	0.315	0.782		Deterioration
Operating ratio	(0.04)	(0.28)	(0.16)	(0.33)	(0.21)	(0.17)	(0.20)	0.732	0.540		Improvement
Labor											
Average number of employees	(1,908)	(1,951)	(2,093)	(2,202)	(2,167)	(2,105)	(2,071)	2.070	0.174		Deterioration
Costs per employees	2,751	1,922	(2,783)	(5,462)	(1,608)	(4,159)	(1,556)	2.167	0.163		Improvement
Investments											
CAPEX to turnover	0.02	0.75	0.34	0.16	0.30	0.07	0.27	1.111	0.382		Improvement
CF to CAPEX	0.83	(1.06)	(4.61)	(0.05)	(0.65)	(0.02)	(0.93)	0.831	0.493		Improvement

(table continues)

Table 3: Performance Difference Telemach Slovenia and Benchmark Index (Continued)

Accounting Ratios	Difference Telemach - Benchmark Index						Average of years	t-value	p-value		Status
	2006	2007	2008	2010	2011	2012					
Leverage											
Interest coverage ratio	(1.68)	9.09	2.74	11.11	2.16	(0.33)	3.85	0.153	0.891		Improvement
Leverage ratio	11.31	2.24	6.63	5.20	4.59	3.04	5.50	0.975	0.432		Improvement
Financial leverage ratio	11.05	5.14	6.87	5.14	4.40	2.96	5.93	2.339	0.144		Improvement
Proprietary ratio	(0.50)	(0.24)	(0.32)	(0.34)	(0.32)	(0.29)	(0.34)	0.541	0.642		Improvement
Cash flow to debt coverage	0.03	0.11	0.01	(0.07)	(0.09)	(0.19)	(0.04)	4.766	0.041	*	Deterioration
Operating cash flow ratio	2.70	1.74	1.25	0.66	0.50	0.22	1.18	4.676	0.042	*	Deterioration
Liquidity											
Current ratio (WC ratio)	0.01	0.05	0.15	0.12	(0.18)	0.13	0.05	0.468	0.685		Deterioration
Acid test ratio	(0.10)	0.02	0.05	0.02	(0.22)	0.07	(0.03)	0.286	0.801		Deterioration

Note. Number in brackets represent negative values; * Represents statistically significant movements

Figure 32: Leverage Ratio
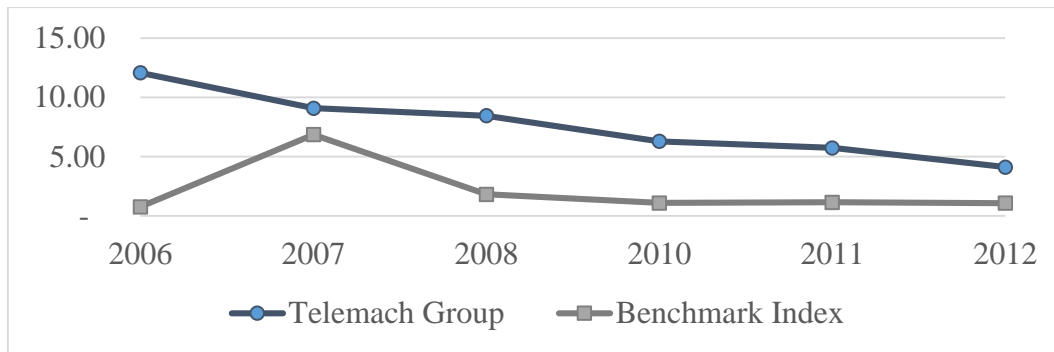
The following ratios shown on Figure 33 and 34 show the company's ability to cover debt obligations from its operations show a negative trend in company's ability in the period post-acquisition, as the performance of both deteriorated. In the case of Cash flow to debt coverage the company had outperformed its benchmark during the pre-acquisition period, and later deteriorated to the level of being outperformed by the benchmark. Operating cash flow ratio has over performing its benchmark throughout the analyzed period, even though its steep deterioration between the periods. The company strongly outperformed its benchmark by its ability to cover the interest payments with its EBIT level throughout the analyzed period (see Figure 35).

Figure 33: Operating Cash Flow Ratio
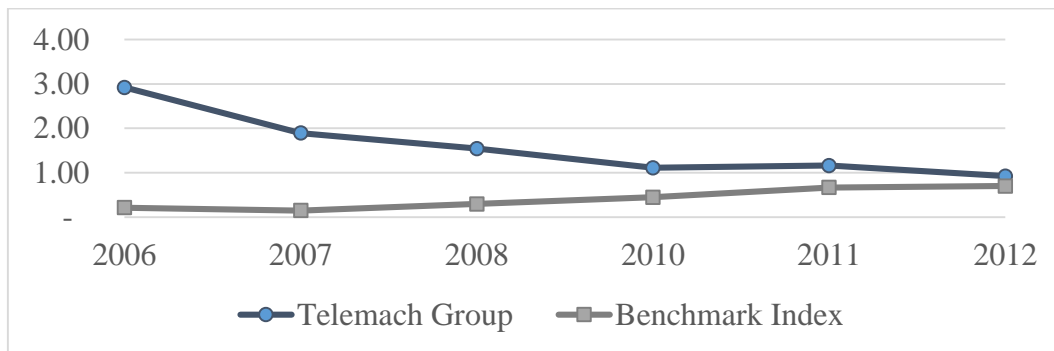
Figure 34: Cash Flow to Debt Coverage
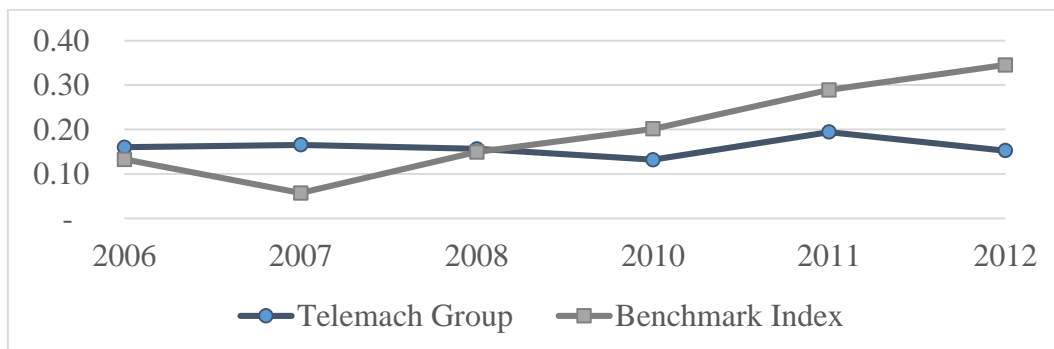
Figure 35: Interest Coverage
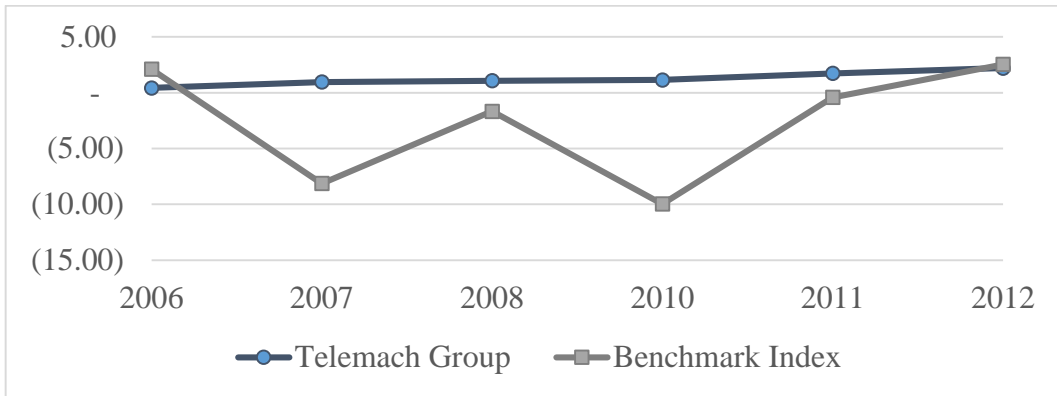
4.3.2.5 Liquidity

The movements in current ratio (Figure 36) indicates, that the company has been able to cover a bigger amount of current liabilities with its current portion of debt throughout the analyzed period, as it outperformed the benchmark in all years except in 2011. However, a stricter indicator of the company's liquidity position, the movement in acid ratio (Figure 37) indicates that the company has underperformed throughout the analyzed period in relation to the benchmark.

Figure 36: Current Ratio
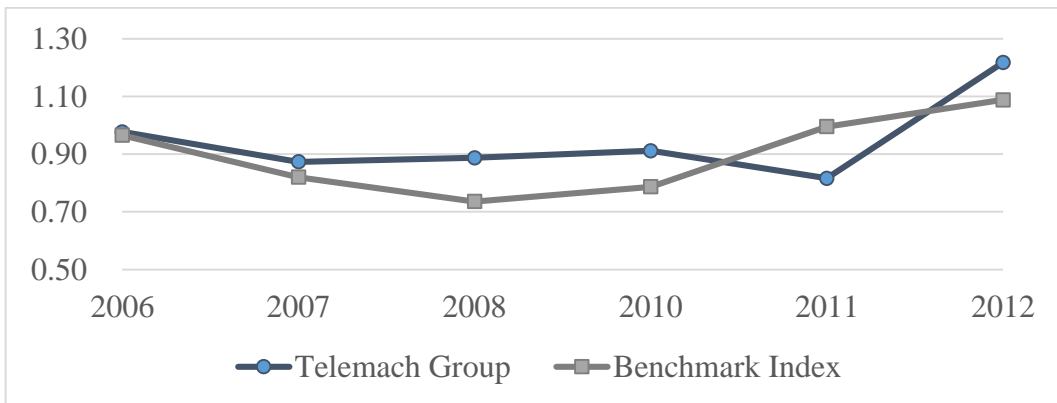
Figure 37: Acid Test Ratio
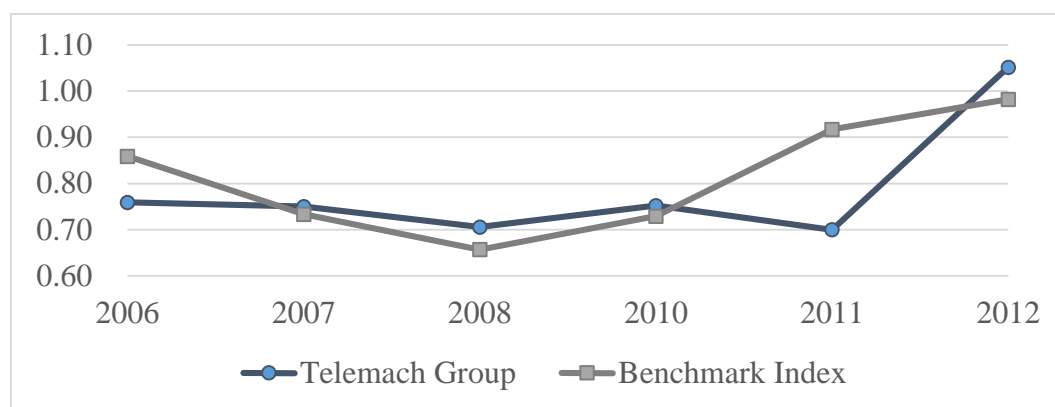
4.3.2.6   Summary

When observing the performance of selected companies, it is evident that already during the pre-acquisition period the performance of Telemach Slovenia was slightly above the benchmark index. Telemach Slovenia outperformed its benchmark index in 12 out of 21 ratios. However, on average it showed worse ratio levels in 10 following ratios: net profit margin, fixed-asset turnover, higher costs per employees, both investments ratios, four leverage ratios, and in acid test ratio.

After acquisition the performance of Telemach Slovenia outperformed its benchmark index more than in the pre-acquisition period, namely in 13 out of 21 accounting ratios. Compared to the pre-acquisition period, Telemach Slovenia additionally outperformed its benchmark index in the level of net profit margin, and costs per employees, which improved compared to the benchmark index. Only the cash flow to debt ratio deteriorated compared to the benchmark index, after the acquisition. In addition, the improvements can be observed in ratios, in which Telemach already outperformed its benchmark in the pre-acquisition period.

To test whether the difference between the performance of Telemach is significantly different then the benchmark index applied, the difference for each ratio analyzed throughout the period has been calculated (please see the Table 3 below). The movement in the ratios have been then analyzed using the same statistical application as before, two tailed paired sample t-test, which tested the average between the performance difference between the pre-acquisition period and post-acquisition period.

The results summarized in Table 3 indicate, that only for 3 out of 22 accounting ratios, the movements in differences are statistically significant. This means that even though the overall performance of Telemach Slovenia improved, it did not improve significantly better than the performance of its peers. This might indicate, that the significant portion of the improvement in operational indicators between the pre-acquisition and post-acquisition

came from the industry related movement. Nevertheless, I may reject the Hypothesis 2 saying: "There is no improvement in financial position of Telemach Slovenia after acquisition, in regards to the benchmark index", as the analysis showed that the number of accounting ratios in which Telemach Slovenia outperformed its benchmark index increased after the acquisition.

CONCLUSION

In this thesis, the theoretical background of a rather unknown private equity industry was presented in details. As part of the alternative investments class, the private equity industry is used by investors to futher diversify their risks by complementing their investment to stocks and bonds. In addition, by investing monies in different funds, with differently defined investment strategies, the private equity industry itself gives them a high degree of possible diversification. The return for investors is then provided by creating value on a level of target company.

Its value creation nature of the private equity industry has been explained according to the value creation framework described by Berg and Gottschald (2005). Following, a summary of existing literature has been briefly explained, where as the acquisition by the private equity has been recognized by having positive effects on multiple asspects of target company, whilst improving its future performance.

Furthermore, by using a Slovene example of private equity investment, the acquisition of Telemach Slovenia by Mid Europa Partners in 2009, the thesis elaborated on presented theory, in order to determine whether there has been any performance improvement in analyzed target company, after undergoing an acquisition by the private equity investment company.

Using the combined accounting methodology similarly as used in Guo et al. (2011) and Al-Hroot (2016), 22 accounting ratios have been calculated on a basis of publicly assessable financial statements (balance sheet, income statement and cash flow statement), chosen to analyze the following key business areas: profitability, operating efficiency, labor, investments, leverage and liquidity. The change in calculated accounting ratios has been analyzed by using t-test, which served to check the significance between the average value of specific accounting ratio in the pre-acquisition period (2006 to 2009) as compared to its value in the post-acquisition period (2010 to 2012).

The findings in the thesis are consistent with previous international empirical research, showing the performance improvements in PE investments. Analysis shows that out of 22 financial ratios calculated, 41% indicate a significant improvement in the performance of Telemach Slovenia after the acquisition. The 45% of the ratios showed an insignificant improvement, while only 14% of the ratios indicated a deterioration in performance.

However, the deterioration was statistically insignificant. Based on the results I could accept the Hypothesis 1 and conclude that the financial performance of Telemach Slovenia in the post-acquisition period did improve as compared to the pre-acquisition period.

To mitigate for the industry movements, the thesis adapts a hypothetical industry-benchmark index, to which the changes in performance of Telemach are compared. When comparing the performance of Telemach Slovenia with the performance of its peer companies, the analysis shows that already before the acquisition Telemach Slovenia was performing slightly above its peers, as it has outperformed the calculated benchmark index in 12 out of 21 rations. After the acquisition, the performance of Telemach Slovenia improved, outperforming the benchmark index in 13 out of 21 calculated ratios. In addition, for the ratios in which Telemach Slovenia outperformed its benchmark index already in the pre-acquisition period, an additional improvement can be observed in the period post-acquisition.

Nonetheless when looking at the significance levels of changes in performance between Telemach Slovenia and the benchmark index, only 3 out of 22 calculated ratios have shown a statistically significant improvement. This shows, that even though the overall performance of Telemach Slovenia improved, it did not improve significantly better than its peers. This might indicate, that the significant portion of the improvement between the pre-acquisition and post-acquisition period is influenced by the industry related changes. Nevertheless, based on the resulst I could accept Hypothesis 2, as the analysis showed that the number of accounting ratios in which Telemach Slovenia outperformed its benchmark indez increased after the acquisition.

The thesis does, however, have certain limitations, which should be taken into consideration when interpreting the results. For the purpose of calculating the improvements in performance of Telemach Group, the industry benchmark ratios have been calculated. During the time period of our analysis the competition of Telemach Group included three main players – Telekom Slovenije, Amis, and T2. However, for calculation purposes T2 was excluded from the analysis, as the data window available was in the period of (-2, +3)[7] years, while the whole analysis was done for the time frame of (-3, +3), which might potentially disrupt the consistency of the benchmark index. Therefore, the index benchmark has been calculated taking into account only two competitors, Amis and Telekom Slovenije, whereas Amis performed worse than Telekom Slovenije, and consequently lowers the performance of benchmark index.

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[7] "Zero" year for the time period represents the year of Telemach Slovenia acquisition by Mid Europa Partners.

Furthermore, the thesis focuses on the exploration of value creation in the Private Equity acquisition in Telemach Group in 2009 by Mid Europe Partners, and as such does not provide a wider explanation of the Private Equity contribution towards wealth creation.

The presence of the private equity industry in Slovenia hinders a potential for future academic research. As the financial sponsor activity seems to be on a rise, it would be interesting to see a bigger elaboration of the PE influence on Slovene market. Despite of its increasing presence, the private equity industry on Slovene market is still to a large extent unknown, and seems to be under-research. There exists a potential to further elaborate performance effects of target companies in Slovenia undergoing the acquisition by private equity fund on a bigger scale, by using a more aggregated approach towards the value creation in multiple private equity investments. A potential future analysis could also take a more detailed approach, by focusing on the detection of main value creating factors in private equity investment.

In addition, the current thesis demonstrates an interesting potential for its elaboration. After the analyzed acquisition of the analyzed case of Telemach Slovenia by Mid Europa Partners in 2009, Mid Europa Partners exited its investment as a part of SBO undertaken in 2013, selling off its investment to another private equity fund – KKR. It could be interesting to see what happened to the operating performance of Telemach Slovenia after undergoing an SBO.

REFERENCE LIST

1. Al-Hroot, Y. A. K. (2016). The impact of mergers on financial performance of the Jordanian industrial sector. *International Journal of Management and Business Studies*, *6*(1), 2230-9519.

2. Amess, K., Brown, S., & Thompson, S. (2007). Management buyouts, supervision and employee discretion. *Scottish Journal of Political Economy*, *54*(4), 447-474.

3. Asquith, P., & Wizman, T. A. (1990). Event risk, covenants, and bondholder returns in leveraged buyouts. *Journal of Financial Economics*, *27*(1), 195-213.

4. Axelson, U., Sorensen, M., & Stromberg, P. (2013). The alpha and beta of buyout deals. *Working Paper*, Columbia University.

5. Bain & Company (2017, February 27). *Global Private Equity Report 2017*. Retrieved June 13, 2017, from http://www.bain.com/publications/articles/global-private-equity-report-2017.aspx

6. Baker, G. P., & Montgomery, C. A. (1994). Conglomerates and LBO associations: A comparison of organizational forms. *Harvard Business School Working paper,* 1-34.

7. Berg, A., & Gottschalg, O. F. (2005). Understanding value generation in buyouts. *Journal of Restructuring Finance*, *2*(01), 9-37.

8. Bruton, G. D., Keels, J. K., & Scifres, E. L. (2002). Corporate restructuring and performance: an agency perspective on the complete buyout cycle. *Journal of Business Research*, *55*(9), 709-724.

9. Bucknall, H., & Wei, Z. (2006). *Magic numbers for human resource management: Basic measures to achieve better results*. Hoboken, NJ: John Wiley & Sons.

10. Caselli, S. (2010). *Private equity and venture capital in Europe: markets, techniques, and deals*. Amsterdam, Netherlands: Elsevier.

11. Cendrowski, H., Petro L., Martin P., (2012). *Private Equity : History, Governance, and Operations*. NJ: John Wiley & Sons.

12. Coffee C. J. (2018, January 16). The Spotify Listing: Can an "Underwriter-less" IPO Attract Other Unicorns?. *Columbia Law School´s Blog on Corporations and the Capital Markets.* Retrieved March 22, 2018, from http://clsbluesky.law.columbia.edu/2018/01/16/the-spotify-listing-can-an-underwriter-less-ipo-attract-other-unicorns/

13. Cumming, D., Siegel, D. S., & Wright, M. (2007). Private equity, leveraged buyouts and governance. *Journal of Corporate Finance*, *13*(4), 439-460.

14. Davis, S. J., Haltiwanger, J., Handley, K., Jarmin, R., Lerner, J., & Miranda, J. (2014). Private equity, jobs, and productivity. *American Economic Review, 104*(12), 3956-90.

15. DeAngelo, H., DeAngelo L., & Rice, E. M. (1984). Going Private: Minority Freezouts and Stockholder Wealth. *The Journal of Law & Economics*, *27*(2), 367-401.

16. DeAngelo. L. (1986). Accounting Numbers as Market Valuation Substitutes: A Study of Management Buyouts of Public Stockholders. *Accounting Review*. *61*(3), 400-420.

17. Demaria, C. (2013*). Introduction to private equity: venture, growth, lbo and turn-around capital (2nd ed.)*. Chichester, UK: John Wiley & Sons.

18. Dent, J. (2014). *Technology Distribution Channels: Understanding and Managing Channels to Market*. London, UK: Kogan Page Publishers.

19. Desbrieres, P. & Schatt, A. (2002). The impacts of LBOs on the performance of acquired firms: the French case. *Journal of Business Finance & Accounting*, *29*(5-6), 695-729.

20. Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers. *Official Journal of the European Union*, No. L174/1.

21. EVCA (2007). *Guide on Private Equity and Venture Capital for Entrepreneurs.* Retrieved August 29, 2017, from www.investeurope.eu/media/78722/guide-on-private-equity-and-venture-capital-2007.pdf

22. Fama, E.F., & French, K.R. (1993). Common Risk Factors in the Returns on Stocks and Bonds. *Journal of Financial Economics. 33*(1), pp. 3-56.

23. Fama, E.F., & French, K.R. (1998). Value Versus Growth: The International Evidence. *Journal of Finance. 53*(6), pp. 1975-999.

24. Fama, E. F., & French, K. R. (2004). The capital asset pricing model: Theory and evidence. *Journal of economic perspectives*, *18*(3), 25-46.

25. Fama, E. F., & French, K. R. (1996). Multifactor explanations of asset pricing anomalies. *The journal of finance*, *51*(1), 55-84.

26. Fama, E. F.*;* French, K. R. (2015). A Five-Factor Asset Pricing Model. *Journal of Financial Economics*, 116: 1–22.

27. Fenn, G. W., Liang, N., & Prowse, S. (1996). The economics of the private equity market. *Staff Studies – Fed. Res. Bull.,* 26.

28. Fernandez, P. (2007). Valuing companies by cash flow discounting: ten methods and nine theories. *Journal of Management Science*, *33*(11), 853-876.

29. Fichtner, J., Heemskerk, E. M., & Garcia-Bernardo, J. (2017). Hidden power of the Big Three Passive index funds, re-concentration of corporate ownership, and new financial risk. *Business and Politics*, *19*(2), 298-326.

30. Frykman, D., & Tolleryd, J. (2003). *Corporate Valuation: An Easy Guide to Measuring Value*. London: Prentice Hall.

31. Gompers, P., Kaplan, S. N., & Mukharlyamov, V. (2016). What do private equity firms say they do?. *Journal of Financial Economics*, *121*(3), 449-476.

32. Guo, S., Hotchkiss, E. S., & Song, W. (2011). Do buyouts (still) create value?. *The Journal of Finance, 66*(2), 479-517.

33. Gildersleeve, R. (1999). *Winning business: how to use financial analysis and benchmarks to outscore your competition (Vol. 1)*. Houston, Texas: Gulf Professional Publishing.

34. Harris, R., Siegel, D. S., & Wright, M. (2005). Assessing the impact of management buyouts on economic efficiency: Plant-level evidence from the United Kingdom. *Review of Economics and Statistics*, *87*(1), 148-153.

35. Harris, R. S., Jenkinson, T., & Kaplan, S. N. (2014). Private equity performance: What do we know?. *The Journal of Finance*, *69*(5), 1851-1882.

36. Hirsch L. & Dewan P. (2017, May 12). Spotify, valued at $13 billion, to launch direct listing on HYSE. *Thomson Reuters*. Retrieved March 22, 2018 from https://www.reuters.com/article/us-spotify-ipo/spotify-valued-at-13-billion-to-launch-direct-listing-on-nyse-sources-idUSKBN18821T

37. Invest Europe (2017). *2016 European Private Equity Activity*. Retrieved August, 2017 29, from https://www.investeurope.eu/research/activity-data/annual-activity-statistics/

38. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.

39. Jensen, M. C., & Ruback, R. S. (1983). The market for corporate control: The scientific evidence. *Journal of Financial economics*, *11*(1-4), 5-50.

40. Jensen, M.C. (1989a). Eclipse of the public corporation. *Harvard Business Review*, *67*(5):61

41. Jensen, M. C., Kaplan, S., & Stiglin, L. (1989b). Effects of LBOs on tax revenues of the US treasury. *Tax Notes*, *42* (6).

42. Jensen, M. C. (2010). Active investors, LBOs, and the privatization of bankruptcy. *Journal of applied corporate finance*, *22*(1), 77-85.

43. Kaiser, K. M., & Westarp, C. (2010). Value Creation in the Private Equity: And Venture Capital Industry. *INSEAD Working Papers Collection*, *19*, 1-66.

44. Kaplan, S. (1989). The effects of management buyouts on operating performance and value. *Journal of financial economics, 24*(2), 217-254.

45. Kaplan, S. N., & Schoar, A. (2005). Private equity performance: Returns, persistence, and capital flows. *The Journal of Finance, 60*(4), 1791-1823.

46. Kaplan, S. N., & Stromberg, P. (2009). Leveraged buyouts and private equity. *Journal of Economic Perspectives*, *23*(1), 121-46.

47. Khan, M. Y., & Jain, P. K. (2008). *Financial Management*. Tata Mc. Graw Hill, India: New Delhi.

48. Latta A. (2018, April 1). Some Thoughts on Spotify`s Direct Listing. *Allen Latta`s thoughts on Private Equity, etc.* Retreived March 28, 2018 from http://www.allenlatta.com/allens-blog/some-thoughts-on-spotifys-direct-listing

49. Lichtenberg, F. R., & Siegel, D. (1990). The effects of leveraged buyouts on productivity and related aspects of firm behavior. *Journal of Financial Economics, 27*(1), 165-194.

50. Long, W. F., & Ravenscraft, D. J. (1993). LBOs, debt and R&D intensity. *Strategic management journal*, *14*(S1), 119-135.

51. Loos, N. (2007). Value creation in leveraged buyouts: analysis of factors driving private equity investment performance. *Doctoral dissertation.* Switzerland: St. Gallen University.

52. Ljungqvist, A., & Richardson, M. (2003). The cash flow, return and risk characteristics of private equity. *Unpublished working paper.* New York University.

53. Lowenstein, L. (1985). "Management buyouts." *Columbia Law Review 85*(4): 730-784.

54. Marr, B. (2012). Key Performance Indicators (KPI): *The 75 measures every manager*

needs to know. London: Pearson UK.

55. Mergermarket (2018). *Global & Regional M&A Report Q4 2017*. Retrieved January 31, 2018, from https://www.mergermarket.com/info/mergermarket-releases-2017-full-year-global-ma-trend-report

56. Metrick, A., & Yasuda, A. (2010). *Venture capital and the finance of innovation*. New Jersey: John Wiley & Sons.

57. McKenzie, W. (2010). *FT guide to using and interpreting company accounts*. UK: Pearson Education.

58. Moloney, N. (2014). *EU securities and financial markets regulation*. Oxford, UK: Oxford University Press.

59. Novy-Marx, R. (2013). The other side of value: The gross profitability premium. *Journal of Financial Economics*, *108*(1), 1-28.

60. Opler, Tim. C. (1992). Operating Performance in Leveraged Buy-Outs. *Financial Management, 21*, 27-34.

61. Palepu, K.G. 1990, Consequences of leveraged buyouts. *Journal of Financial Economics*, *27*(1), pp. 247-262.

62. Penman S. H. (2010). *Financial statement analysis and security valuation*. New York, NY: McGraw-Hill/Irwin.

63. Phalippou, L., & Gottschalg, O. (2008). The performance of private equity funds. *The Review of Financial Studies*, *22*(4), 1747-1776.

64. Ramsden, P. (1998). *The essentials of management ratios*. Hampshire, UK: Gower Publishing, Ltd..

65. Renneboog, L., & Simons, T. (2005). Public-to-Private Transactions: LBOs, MBOs, MBIs and IBOs. *Tilburg University and ECGI,* Discussion Paper 2005-98, 1-51.

66. Robinson, D., & Sensoy, B. A. (2011). Private equity in the 21st century: Liquidity, cash flows, and performance from 1984-2010. *Working Paper,* Duke University and Ohio State University.

67. Singh, H. (1990). Management buyouts: Distinguishing characteristics and operating changes prior to public offering. *Strategic Management Journal*, *11,* 111-129.

68. Smith, A. J. (1990). Corporate ownership structure and performance: The case of management buyouts. *Journal of Financial Economics*, *27*(1), 143-164.

69. Steiger, F. (2010). The validity of company valuation using Discounted Cash Flow methods. *Seminar Papers*, London: European Business School.

70. Stolowy, H., & Lebas, M. (2013). *Financial accounting and reporting: a global perspective (4th edition)*. Hempshire, UK: Cengage Learning Collage.

71. Telemach Slovenia. (2013). *Consolidated annual accounts of Telemach Group*. Ljubljana: Telemach Group.

72. Thomson Reuters. (2017). *Mergers & Acquisitions Review Full Year 2017*. Retrieved January 4, 2018, from www.thomsonreuters.co.jp/content/dam/openweb/documents/pdf/japan/market-review/2017/ma-4q-2017-e.pdf

73. Thomson Reuters (2013). *Mergers & Acquisitions Review Full Year 2013*. Retrieved

January 4, 2018, from http://dmi.thomsonreuters.com/Content/Files/4Q2013_Global_MandA_Financial_Advisory_Review.pdf

74. United Group (2013). United Group – Telecommunications Leader in South-East Europe. Retrieved May 10, 2017, from http://www.united.group/xhtml/press.php

75. Urdan, T. C. (2016). *Statistics in plain English*. Taylor & Francis. NY: New York.

76. Walz, U. & Cumming D. (2004). Private Equity Returns and Disclosure Around the World. *Journal of International Business Studies, 41*(4), 727-754.

77. Warren, C. S., Reeve, J. M., & Duchac, J. (2015). *Managerial accounting*. South-Western Cengage Learning.

78. Wiersema, M. F., & Liebeskind, J. P. (1995). The effects of leveraged buyouts on corporate growth and diversification in large firms. *Strategic Management Journal*, *16*(6), 447-460.

79. Wright, M., Thompson, S., & Robbie, K. (1992). Venture capital and management-led, leveraged buy-outs: a European perspective. *Journal of Business venturing, 7*(1), 47-71.

80. Wright, M., Wilson, N., Robbie, K., (1996). The longer term effects of management-led buyouts. *The Journal of Entrepreneurial Finance, 5*(3), 212-234

81. Titman, S., Wei, K. J., & Xie, F. (2004). Capital investments and stock returns. *Journal of financial and Quantitative Analysis*, *39*(4), 677-700.

82. Zahra, S. A. (1995). Corporate entrepreneurship and financial performance: The case of management leveraged buyouts. *Journal of business venturing*, *10*(3), 225-247.

83. Zider, B. (1998). How venture capital works. *Harvard business review*, *76*(6), 131-139.

84. Zimmermann, H., Bilo, S., Christophers, H., & Degosciu, M. (2004). The risk and return of publicly traded private equity. University of Basel, *Working paper,* No.6.

APPENDIXES

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APPENDIX 1: Summary of Basic Findings in Slovene

Naraščujoča prisotnost zasebnih finančnih skladov na slovenskem trgu v zadnjih letih je vzbudilo zanimanje za ozadje delovanja industrije le-teh. Pred letom 2013 je prisotnost industrije finančnih zasebnih skladih bila skoraj nična. V letih 2013 in 2014 lahko opazimo tri prevzeme iz strani finančnih skladov. V letih 2015 in 2016 se je število prevzemov iz strani finančnih skladov v vsakem povzpelo na število šest (Appendix 3).

Posledično sem se odločila, da omenjeno industrijo raziščem v svoji magistrski nalogi, kjer sem si postavila sledeči raziskovalni vprašanji:
- Je prevzem s strani finančnega sklada izboljšal poslovanje ciljnega podjetja?
- Je prevzem s strani finančnega sklada izboljšal poslovaje ciljnega podjetja, v primerjavi z industrijo?

V svoji magistrski nalogi sem tako predstavila delovanje industrije finančnih skladov (*ang. private equity funds)*. Investitorji z vlaganjem v zasebne investicijske sklade dodatno razpršijo svoje tveganje s komplementarnim vlaganjem k že obstoječem tradicionalnemu portefliju (Figure 4). Donosnost za investitorje skladi dosežejo z ustvarjanjem dodatne vrednosti podjetij, ki jih držijo v svojem portfelju naložb.

Industrija zasebnega kapitala je doživela svojo prvo eksplozivno rast med leti 1980 in 1990, obdobje v katerem je prevladala predvsem industrija tveganega kapitala. Med leti 1980 in 1984 se je ti. »kapital na vploklic« (*ang. capital commitment*) povišal iz $600m na $3bn. V tem obdobju so se razvile tudi za industrijo še danes zelo pomembne prakse kot so mezaninsko financiranje, ter razvoj odkupov z zadolžitvijo (*ang. leveraged buyout*). Ugodno okolje nizkih kapitalskih dobičkov in razpoložljivost dolžniških sredstev je povzročila rast uporabe odkupov z zadolžitvijo pri prevzemanju podjetij.

Recesija v začetku 1990ih je povzročila zaton industrije zasebnega lastniškega kapitala. Mnogo prevzemov iz preteklega obdobja je propadlo, industrija pa se je začela soočati s pomanjkanjem vlagateljev.

Zasebni lastniški kapital se je na evropskem trgu pojavil v 1990ih, kot posledica liberalizacije predpisov na področju vlaganj pokojninskih in zavarovalniških družb. Poleg tega sta nizka inflacija in evropska regulativa na področju prostega pretoka kapitala povzročili preusmeritev investitorjev iz naložb s stalnim donosom v kapitalske naložbe.

Dandanes je najbolj razširjena ureditev finančnih skladov je t.i. struktura investicijskih komanditnih družb (*ang. limited partnership structure*). V strukturi kot komandisti sodelujejo investitorji, ki se ob ustanovitvi sklada zavežejo k vložitvi določene vsote v finančni sklad. Pri prepoznavanju potencialnih histrorastočih podjetih za lasten portfelij naložb finančnemu skladu svetuje družba za upravljanje zasebnega lastniškega kapitala

(*ang. private equity management company*), po navodilih katere finančni sklad investira v prepoznana potencialna podjetja, ki jih kasneje združi v svojem portfeliju naložb (Figure 8).

Kapital investitorjev je zbran preko posebnih posredniških nosilcev, med katerimi je najbolj razširjena uporaba finančnih skladov. Finančni sklad ima ponavadi določeno dobo trajanje, ponavadi okoli 10 let. V prvi fazi, ki traja približno do leta in pol, finančni sklad določi usmeritve svojih naložb in zbere kapital s strani investitorjev. Sledi investicijska faza, v kateri sklad investira v potencialna visokorastoča podjetja, prepoznana s strani družbe za opravljanje zasebnega lastniškega kapitala. Sledi faza upravljanja s porteflijskimi podjetji, v kateri sklad tesno sodeluje z managementom portfelijskih podjetij in stremi k povečanju vrednosti družb v portfeliju. V zadnji fazi finančni sklad izstopi iz portfeljskih družb. Najbolj pogosto finančni skladi izstopajo preko sekundarnih odkupov (*ang. secondary buyout*), kar v industriji zasebnega lastniškega kapitala predstavlja odkup s strani drugega finančnega sklada. Prav tako pogost je izstop s prodajo deleža (*ang. trade sale*), ki predstavlja odkup s strani kupca, že dejavnega v industriji v kateri poluje portfelijsko podjetje. Najbolj spoštovan izstop preko začetne javne ponudbe delnic na borzi (*ang. initial public offering*), saj le-ta investitorjem doprinese najvišji donos (Figure 12).

Narava ustvarjanja vrednosti zasebnih finančnih skladov za svoje portfeljska podjetja, je v magistrski nalogi bila razložena na osnovi okvira predlaganega v delu Berg in Gottschald-a (2005). V predlaganem okviru Berg in Gottschald ločita med dvema glavnima vzvodoma, ki ustvarjata vrednost portfelijskim podjetjem – vzvod ustvarjanja vrednosti (*ang. value creation*) in vzvod zajemanja vrednosti (*ang. value capturing*).

Vzvod ustvarjanja vrednosti je setavljen iz primarnih vzvodov (*ang. primary levers*) in sekundarnih vzvodov (*ang. secondary levers*). Primarni vzvodi neposredno vplivajo na poslovanje podjetja in so tudi izmerljivi. Med primarne vzvode štejemo finančni inženiring, optimizacijo operativne učinkovitosti, ter strateško razlikovanje portfelijskega potjetja. Primeri primarnih vzvodov so optimizacija zadolženosti portfelijskega podjetja, optimizacija sredstev in stroškov portfelijskega podjetja, ter tudi kardovska zamenjava na ravni upravljanja. Kot sekundarni vzvod na portfelijsko podjetje vplivata znižanje stroškov agenta s pomočjo ustrezne strukture finančnih spodbud, ter mentoring iz strani finančnega sklada.

Vzvod zajemanja vrednosti predstavlja primere finančne arbitraže s strani sklada, ki jih sklad doseže s pomočjo sprememb na podlagi tržnega vrednotenja, lastnimi zmogljivostmi pri sklepanju kupovanja in prodaje podjetij, optimizacijo ekomije obsega pri lastništvu različnih portfelijskih družb dejavnih v enaki industriji, ipd.

Akademske raziskave iz naslova prevzemanja finančnih skladov lahko zasledimo predvsem v tujini, glavnina raziskav pa kaže na to, da prevzem in strani zasebnega

finančnega sklada pozitivno vpliva na več vidikov ciljnega podjetja, in tako tudi izboljša poslovanje v prihodnje. V literaturi najdemo različne pristope s katerimi akademiki analizirajo v kolikor se je poslovanje določene družbe po prevzemu s strani finančnega sklada izboljšalo.

Tako lahko zasledimo pristop iz vidika dejanskih učinkov prevzema na ciljno podjetje, kjer raziskave potrujejo izboljšanje na področju skupne faktorske produktivnosti (*ang. total factor productivity*) (Lichtenberg in Siegel, 1990; Harris, Siegel in Wright, 2005; Davis, Haltiwanger, Handlez, Jarmin, Lerner in Miranda 2014), izboljšanje na področju delovnega okolja (Amess, Brown in Thompson, 2007), in pozitiven trend na področju raziskav in ravoja (Long in Ravenscraft, 1993; Wright, Thompson in Robbie, 1992; Zahra, 1995).

Poleg tega lahko zasledimo tudi pristop iz vidika izboljšanja uspešnosti ciljnega podjetja, kjer so raziskave po prevzemu pokazale izboljšanje na področju prihodkov iz poslovanja (Kaplan, 1989), poslovnih denarnih tokov (Smith, 1990; Opler, 1992), in na različne računovodske kazalnike (Wright, Wilson in Robbie, 1996; Guo et al. 2011).

Sledeč literaturi sem se v empiričnem delu tudi sama odločila za pristop iz vidika izboljšanja učinkovitosti ciljnega podjetja, kjer sem na primeru prevzema s strani sklada zasebnega kapitala na slovenskem trgu, natančneje prevzem podjetja Telemach Slovenija s strani Mid Europa Partners leta 2009, preučila kako je le-ta vplival na delovanje prevzetega podjetja Telemach Slovenia.

Z uporabo kombinacije računovodske metodologije predlagane v Guo et al. (2011) in Al-Hroot (2016), sem izračunala 22 računovodskih kazalnikov s preučevanjem javno dostopnih računovodskih izkazov (bilanca stanja, izkaz poslovnega izida, izkaz denarnih tokov), ki sem jih izbrala za preučitev naslednjih področij: profitabilnost, poslovna uspešnost, zaposleni, investicije, vzvod in likvidnost. Spremembe v izračunanih kazalnikih so bile analizirane z uporabo t-testa, ki je služil za preučitev statistične značilnosti v spremembi povprečne vrednost kazalnika pred prevzemom (2006 do 2009) in po prevzemu (2010 do 2012).

Rezultati analize so v skladu z rezultati že obstoječih raziskav in literature, saj je analiza pokazala statistično značilno izboljšanje v 41% od 22 izračunanih računovodskih kazalnikov. V 45% računovodskih kazalnikov sem zasledila statistično neznačilno izboljšanje, v 14% pa je bilo opaženo statistično neznačilno poslabšanje. Na osnovi rezultatov sem lahko sprejela Hipotezo 1 in zaključila, da se je poslovanje Telemach-a Slovenija po prevzemu izboljšalo.

V nadaljevanju empiričnega dela sem v analizo uvedla hipotetično ustvarjen primerjalni indeks, sestavljen iz vrednosti računovodskih kazalnikov konkurenčnih podjetij. Med

primerjavo poslovanja Telemach-a Slovenije in primerjalnega indeksa je moč opaziti, da je že pred prevzemom bilo poslovanje Telemach-a Slovenije boljše v 12 od 21 izračunanih računovodskih kazalnikov. Po prevzemu pa je boljše poslovanje v Telemach-u Slovenije v primerjavi s primerjalnim indeksom v 13 od 21 kazalnikov. Poleg tega pa je analiza pokazala, da se je v primeru kazalnikov v katerih je Telemach Slovenije presegal vrednost primerjalnega indeksa že pred prevzemom, presežek dodatno izboljšal po prevzemu. Posledično sem lahko sprejela Hipotezo 2 in zaključila, da se je poslovanje Telemach-a Slovenije po prevzemu izboljšalo, v primerjavi s hipotetičnim primerjalnim indeksom.

Vendar je dodatna analiza statistične značilnosti, ki je bila opravljena na razliki med računovodskimi kazalniki Telemach-a Slovenije in primerjalnega indeksa, pokazala statistično značilno razliko le v primeru 3 od 22 izračunanih računovodskih kazalnikih. Kljub temu, da se je poslovanje Telemach Slovenije izboljšalo po prevzemu, se sama razlika med Telemach Slovenija in primerjalnim indeksom ni statistično povečala. Tako rezultat nakazuje veliko verjetnost, da velik del izboljšanja poslovanje v Telemach Slovenije izvira iz z industrijo povezani gibanj.

Vendar pa ima magistrsko delo določene omejitve, ki jih je potrebno upoštevati pri interpretaciji rezultatov. Primerjalni indeks izračunan v empiričnem delu naloge predstavlja vrednost konkurentov analiziranega podjetja. V časovnem okviru analize (2006-2012) je imel Telemach Slovenije na trgu tri večje konkurente – Telekom Slovenije, Amis in T-2. Za namen kalkulacije primerjalnga indeksa je bil T-2 izvzet iz analize, saj se je pojavil komaj v sredi leti 2007, kar bi lahko vplivalo na doslednost primerjalnega indeksa, ki je bil izračunan od leta 2006 dalje. Tako primerjalni indeks sestoji iz vrednosti le dveh konkurentov, torej Amis in Telekom Slovenije, med katerima je Amis posloval občutno slabše. Prav tako se je empirični del naloge se je osredotočil na vpliv prevzema sklada zasebnega kapitala, in rezultati kot tak ne predstavlja širše razlage vpliva prevzemov na poslovanje ciljnega podjetja.

Nadalnja aktivnost skladov zasebnega kapitala na slovenskem trgu predstavlja potencial za prihodnje raziskave, saj je sama industrija v veliki meri javnosti še dokaj neznana, in neraziskana. Poleg tega, to magistrsko delo predstavlja zanimiv potencial za razširitev raziskave, saj je sklad zasebnega kapitala Mid Europa Partners izstopil iz investicije leta 2013 v ti. sekundarnem odkupu (*ang. Secondary buyout – SBO)* s prodajo skladu zasebnega kapitala imenovanemu KKR. Prej omenjeni sekundarni odkup tako služi kot potencialni primer za raziskavo vpliva sekundarnega odkupa na poslovanje Telemach-a Slovenije.

APPENDIX 2: List of Abbrevations Used

AIF	Alternative Investment Fund
AIFM	Alernative Investment Fund Manager
AIFMD	Alternative Investmend Fund Managers Directive
ARD	American Research and Development Corporation
BIMBO	Buy-in Management Buyout
CAPEX	Capital Expenditures
CAPM	Capital Assets Pricing Model
DCF	Discounted Cash Flow
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depretiation, Amortization
EBRD	European Bank for Reconstruction and Development
EU	European Union
FCF	Free Cash Flows
GP	General Partner
IBO	Institutional Buyout
IPO	Initial Public Offering
IRR	Internal Rate of Return
LBO	Leveraged Buyout
LIBOR	The London Inter-bank Offered Rate
LMBO	Leveraged Management Buyouts
LP	Limited Partner
M&A	Mergers and Acquisitions
MBI	Management Buy-in
MBO	Management Buyout
NWC	Net Working Capital
PC	Portfolio Company
PE	Private Equity
R&D	Research and Development
ROA	Return on Assets
ROACE	Return on Average Capital Employed
RONA	Return on Net Assets
SBA	Small Business Administration
SBIC	Small Business Investment Companies
SBO	Secondary Buyout
SEE	Southeastern Europe
SG&A	Selling, general and administrative expenses
SIPO	Secondary Initial Public Opening
USD	United States Dollars
WACC	Weighted Average Cost of Capital

APPENDIX 3: Financial Sponsors Activity on Slovene Market

Date	Target Company	Bidder Company
30.11.2016	Javna Razsvetljava d.d., ENLUX d.d.	CEE Equity Partners Ltd
26.10.2016	Sava Turizem d.d.	Slovenian Sovereign Holding, d.d.; York Global Finance Offshore
17.10.2016	ETI Elektroelement d.d.	Andlinger & Company, Inc.
14.09.2016	Intersport ISI	Enterprise Investors Sp. z o.o.
25.07.2016	Paloma, higienski papirji, d.d.	Eco-Invest, a.s.
18.04.2016	Tomplast d.o.o.	KJK Capital Oy
15.12.2015	Trimo d.d.	Innova Capital Sp zoo
10.12.2015	Raiffeisen Banka d.d.	Biser Bidco
27.11.2015	Paloma, higienski papirji, d.d.	Abris Capital Partners
30.07.2015	Elan, d.o.o.	Merrill Lynch International; Wiltan Enterprises Limited
30.06.2015	Nova Kreditna Banka Maribor d.d.	Apollo Global Management, LLC; EBRD
16.03.2015	Diagnosticni Center Bled doo	ARX Equity Partners; Joseph Priel (Private Investor)
23.12.2014	Addiko Bank AG	Advent International Corporation; EBRD
03.12.2014	Iskra ISD d.o.o.	KJK Capital Oy
30.01.2014	Fotona d.d.	The Gores Group LLC; Technology4Medicine, LLC
06.11.2013	Nacionalna Financna Druzba d.o.o.	Neta Yatirim; Elements Capital Partners
31.05.2013	Addiko Bank AG	Anadi Financial Holdings Pte. Ltd.
27.02.2013	Gorenje Kuhinje, d.o.o.; Gorenje Notranja oprema d.o.o.	CoBe Capital LLC

APPENDIX 4: Accounting Ratios Used

In observation of the impact that the acquisition has on Telemach Slovenia the following ratios have been used to observe the changes that were taking place. In the ratio calculation, the balance sheet items are represented as an average between the period "t" and period "t-1", with "t" representing the specific year, and "t-1" one year before the specific year.

- Profitability ratios

Net profit margin (Equation 8) shows percentage of each sales unit that contributed to net income. It directly shows how efficiently a business converts its sales into profits (Stolowy and Lebas, 2013, p. 76-77).

$$Net\ Profit\ margin = \frac{Net\ Profit}{Net\ Sales} \qquad (8)$$

Operating profit margin ratio (Equation 9) indicates how much profit a company makes on each unit of sales, solely by its operations. Therefore, the operating income is represents the Earnings Before Interest and Taxes (EBIT) indicator. EBIT measures the company's operational profit taking into account solely profit generated by its operations by ignoring the interest and tax expenses incurred (Penman 2010, p. 316).

$$Operating\ profit\ margin = \frac{Operating\ Income}{Net\ Sales} \qquad (9)$$

Return on Assets (ROA) shows company's profitability relatively to its assets, therefore it directly indicates how efficiently company is using its assets (Equation 10) (Stolowy et al., 2010, p. 77).

$$ROA = \frac{Net\ Profit}{Total\ Assets} \qquad (10)$$

For additional indication of company's effective usage of its assets, Return on Net Assets (RONA) ratio will be calculated, showing how effectively the company is using its Net Working Capital (hereinafter: NWC) and tangible fixed assets to generate profit, ignoring its long term leverage policy (Equation 11) (Dent 2014, p. 77).

$$RONA = \frac{Net\ Profit}{Fixed\ Assets + Net\ Working\ Capital} \qquad (11)$$

The additional ratio Return on Average Capital Employed (ROACE) is included, which shows company's profitability on its average capital employed. Capital Employed describes long-term funding of the company, without distinguishing between the equity and long-term debt. Therefore, the ratio shows how effectively the company is using its

long-term debt financing. The average capital employed is calculated by company's Total Assets reduced for Current Liabilities (Equation 12) (McKenzie 2010 p. 352, Stolowy et al. 2010 p. 77).

$$ROACE = \frac{EBIT}{Total\ Assets - Current\ Liabilities}$$ (12)

Fixed Asset Turnover Ratio (Equation 13) shows how efficiently the company is using its Tangible Fixed Assets to generate its operating profit, measured by company´s EBIT level (Penman 2010, p. 375).

$$Fixed\ Asset\ Turnover = \frac{EBIT}{Tangible\ Fixed\ Assets}$$ (13)

- Operational performance ratios

Profit per employee (Equation 14) shows how much operational profit the company is making per employed person, and is also a direct measurement of employees' productivity (Bucknall 2006, p. 51-52).

$$Profit\ per\ employee = \frac{EBIT}{Number\ of\ Employees}$$ (14)

In addition, a good measurement of employee's productivity is a Sales per employee ratio (Equation 15), which shows how much sales the company is producing per employee. The ratio is included to additionally allow for direct comparison of productivity to its peers (Stolowy et al 2013, p. 608).

$$Sales\ per\ employee = \frac{Sales}{Number\ of\ Employees}$$ (15)

The Fixed Asset Turnover (Equation 16) calculated under Operating efficiency ratio differentiates itself from the Fixed Asset Turnover ratio calculated within profitability ratios, as this ratio shows the Sales generated per Tangible Fixed Assets, whereas the first takes into account the EBIT level generated per Tangible Fixed Assets (Warren, Reeve & Duchac 2015, p. 418).

$$Fixed\ Asset\ Turnover\ ratio = \frac{Sales}{Tangible\ Fixed\ Assets}$$ (16)

Operating ratio shows the proportion of operational expenses per sales (Equation 17). The lower the ratio, the better company's ability to generate profit if the revenues decrease (Khan and Jain 2008, p. 619).

$$Operating\ ratio = \frac{Operating\ Expenses}{Sales} \tag{17}$$

Labor

Average number of employees represents the number of people employees, and serves to see the trend of expanding scope of the business.

Labor cost per employee (Equation 18) ratio shows the company's costs per its employees, and serves as a good measurement to compare industry peers (Gildersleeve 1999, p. 104).

$$Costs\ per\ employee = \frac{Labor\ cost}{Number\ of\ employees} \tag{18}$$

Investments

Capital expenditures (CAPEX) to sales ratio (Equation 19) measures the level of investment the company is making in relation to its sales level. It shows directly how aggressively the company is investing in acquisition of new assets. The movement in the ratio itself does not indicate a positive or negative sign for the company's future prospects, as it does not show the effectiveness of investments. However, the ratio is included to compare company`s CAPEX behavior between during the analyzed period (Marr 2012, p. 75).

$$Capital\ expenditures\ to\ sales = \frac{CAPEX}{Sales} \tag{19}$$

In order to at least partially mitigate (Equation 20) for the efficiency of investing operations, the Cash flow to CAPEX ratio has been introduced. It shows the company's ability to acquire more assets with using only cash flow from operating activities, instead of increasing their debt levels or issuing new equity. An increase in the ratio indicates a greater stability of the company to engage in investing activities solely on its operations generated cash flow (Penman 2010, p. 701).

$$Cash\ flow\ to\ capital\ expenditures = \frac{Cash\ from\ operations}{CAPEX} \tag{20}$$

Leverage ratios

The following leverage ratios calculated show how much capital comes in forms of loans, and how good the company is doing in terms of meeting their obligations.

The interest coverage ratio (Equation 21) shows how a company can cover interest on its outstanding debt. It is calculated by dividing company's EBIT by the interest in the corresponding period, therefore directly indicating how many times a company could pay its interest solely by using its earnings levels (Penman 2010, p. 702).

$$Interest\ coverage\ ratio = \frac{EBIT}{Annual\ debt\ interest\ payments} \tag{21}$$

In order to see the financial structure of the company the leverage ratio (Equation 22) and financial leverage ratio (Equation 23) have been calculated. The leverage ratio directly shows how much capital of the company comes in form of equity and how much in forms of debt. With the optimized ratio between them the company can benefit from so called tax shield, created by the tax deductible nature of interest payments. However, on the other hand too much debt can be dangerous for the company, in case it cannot finance its obligations. In addition, the financial leverage ratio has been calculated, representing the proportion between financial debt and equity (Penman 2010, p. 317 & 702).

$$Debt\ to\ Equity\ ratio = \frac{Total\ liabilities}{Shareholders\ equity} \tag{22}$$

$$Financial\ Debt\ to\ Equity\ ratio = \frac{Financial\ liabilities}{Shareholders\ equity} \tag{23}$$

The proprietary ratio (Equation 24) is an estimation of the capitalization used to support the business, and is calculated by dividing shareholder's equity by total tangible assets. A high ratio indicates that the company has a sufficient support in the form of equity to support its business, whereas the low ratio indicates exactly the opposite (Ramsden 1998, p. 52).

$$Proprietary\ ratio = \frac{Shareholders\ equity}{Total\ tangible\ assets} \tag{24}$$

The last two ratios in this section will analyze the efficiency of company's cash flow levels. The cash flow to debt ratio (Equation 25) shows how long the company would need to repay its debt levels, if all the generated cash flow would be dedicated to debt repayments. The operating cash flow ratio (Equation 26) is similar, showing how well the company manages to cover only its current liabilities with cash flow generated from operations (Penman 2010, p. 701-702).

$$Cash\ flow\ to\ debt\ ratio = \frac{Cash\ flow\ from\ operations}{Total\ liabilities} \tag{25}$$

$$Operating\ cash\ flow\ ratio = \frac{Cash\ flow\ from\ operations}{Current\ liabilities} \tag{26}$$

Liquidity ratios

Liquidity ratios show the company's ability of meeting its short term liabilities, and are analyzed in relation to liquid assets to evaluate the coverage of short term debts in case of emergency.

Current ratio (Equation 27) measures the company's ability to pay back its current liabilities with its current assets. It is therefore an estimate of company's ability to turn its products into cash (Penman 2010, p. 701).

$$Current\ ratio = \frac{Current\ assets}{Current\ liabilities} \qquad (27)$$

To test Telemach's liquidity more strongly, the acid test (Equation 28) ratio calculation has been added. The acid test ratio is a more robust way of measurement, as it takes into account only liquid assets, while ignoring all illiquid assets (Stolowy 2013, p. 608).

$$Acid\ Test\ ratio \equiv \frac{(Cash + Accounts\ receivable + Short\ term\ investments)}{Current\ liabilities} \qquad (28)$$