

UNIVERSITY OF LJUBLJANA  
FACULTY OF ECONOMICS

MASTER'S THESIS

**THE ACQUISITION PREMIUM IN THE UNITED KINGDOM**

Ljubljana, September 2017

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# TABLE OF CONTENTS

<b>INTRODUCTION</b> .....	<b>1</b>
<b>1 DEFINITIONS AND GENERAL TERMS</b> .....	<b>2</b>
1.1 Difference between acquisition, merger and leveraged buyout .....	2
1.2 Types of mergers .....	3
1.3 Hostile takeover and takeover defences .....	4
<b>2 MOTIVES FOR MERGER ACTIVITY</b> .....	<b>6</b>
2.1 Growth, Synergy and Diversification.....	7
2.2 Market power and Technological change .....	8
2.3 Hubris and Tax motives .....	8
<b>3 LEGAL ASPECTS</b> .....	<b>9</b>
3.1 Obtaining control over a company .....	9
3.2 Merger Control.....	10
<b>4 VALUATION METHODS</b> .....	<b>11</b>
4.1 Financial ratio analysis .....	11
<b>5 ACQUISITION PREMIUM</b> .....	<b>13</b>
5.1 Acquisition premium.....	14
5.2 Average acquisition premium .....	15
5.3 Effect of capital structure on acquisition premium .....	17
5.4 Market reactions to acquisition announcements .....	17
5.5 Bidding and negotiating effect on the acquisition premium .....	19
5.6 Difference in acquisition premium of private and public firm.....	20
5.7 How does the firm's size affect the acquisition premium? .....	21
5.8 Method of payment .....	21
5.9 Sector acquisitions.....	22
5.10 Difference in acquisition premium in IPO and acquisition.....	24
5.11 Negative acquisition premium .....	25
5.12 Why is the acquirer prepared to pay a high premium? .....	26
5.13 Can high paid premium cause long-term underperformance? .....	28
<b>6 ANALYSIS OF THE DATA</b> .....	<b>29</b>
6.1 Analysis of the acquired companies by years .....	30
6.2 Average acquisition premium .....	32
6.3 Analysis by industry.....	33
6.3.1 Number of acquisitions by industry.....	34
6.3.2 Size of acquisitions by industry .....	39
6.4 Acquisition premium by industry.....	43

6.4.1 Analysis of the acquisition premium by the firm's type.....	47
6.5 Analysis of the performance and health of acquirer .....	47
6.5.1 Analysis of the acquirer by years.....	48
<b>CONCLUSION.....</b>	<b>49</b>
<b>REFERENCE LIST .....</b>	<b>51</b>

## LIST OF TABLES

Table 1. Global industry groups .....	34
---------------------------------------	----

## LIST OF FIGURES

Figure 1. Acquisition premium.....	14
Figure 2. Value of M&A deals in the US by industry .....	24
Figure 3. Number of acquisitions distributed according to size .....	32
Figure 4. Acquisition premium by acquisition group.....	33
Figure 5. Percentage of acquisitions by industry in 2009.....	35
Figure 6. Percentage of acquisitions by industry in 2010.....	36
Figure 7. Percentage of acquisitions by industry in 2011.....	36
Figure 8. Percentage of acquisitions by industry in 2012.....	37
Figure 9. Percentage of acquisitions by industry in 2013.....	37
Figure 10. Percentage of acquisitions by industry between 2009 and2013.....	38
Figure 11. Average acquisition size by industry in 2009 .....	39
Figure 12. Average acquisition size by industry in 2010 .....	40
Figure 13. Average acquisition size by industry in 2011 .....	40
Figure 14. Average acquisition size by industry in 2012 .....	41
Figure 15. Average acquisition size by industry in 2013 .....	41
Figure 16. Average acquisition size in the 5-year period .....	42
Figure 17. Acquisition premium by industry in 2009.....	43
Figure 18. Acquisition premium by industry in 2010.....	44
Figure 19. Acquisition premium by industry in 2011.....	44
Figure 20. Acquisition premium by industry in 2012.....	45
Figure 21. Acquisition premium by industry in 2013.....	46
Figure 22. Average acquisition premium by industry between 2009 and 2013 .....	46
Figure 23. Acquisition premium by the firm's type .....	47
Figure 24. Acquirer performance .....	48

## INTRODUCTION

We can achieve business growth in many ways, one of them being organic expansion. However, organic expansion may not always be the fastest way and it is especially challenging in foreign markets, since there are different sets of rules, customs and regulations, which we need to follow. Due to this fact, mergers and acquisitions (hereinafter: M&A) are becoming more and more popular. It is often the fastest option for companies in order to avoid the challenges of setting up a company in a new market, to either invest in or buy a business that is already operating in the foreign market. More about the motives for mergers and acquisitions can be read in the thesis' motives section.

The twenty-first century opened with the two trends that are still firmly in place: the importance of Internet and mergers. In the 1980s, the billion dollar acquisitions were infrequent. By the 1990s, they were already more common, with many of them reaching up to two digits in billions. In 1998, the value of the largest 976 deals out of 2,323 transactions were 357 billion American dollars (hereinafter: \$) and by 2000, the aggregate value of mergers reached up to \$1,78 trillion, as it is stated in Brown (2007). In the same year, there was a 'millennium' deal where AOL bought Time Warner for \$182 billion, which is still one of the biggest deals in M&A history (Brown, 2007).

Although the United States of America (hereinafter: USA) are the capital of M&A activity, Europe is not far behind. According to the European Commission, it reached the peak in 2007 with 402 successfully conducted mergers. In the following paper, I am analysing the United Kingdom (hereinafter: UK) M&A market. I decided to analyse the UK market and its M&A activity, being one of the most developed markets in Europe and legally the closest to the USA market. In the recent years, there is evidence, which shows that the UK's policy has changed in favour of stimulating the M&A activity. There are certain facts that can support this claim, such as the corporate tax getting lower every year, from 28 % in 2009 to the lowest 21 % in 2014 (Garkusha, Joyce, & Lloyd, 2015).

The global financial crisis, which hit the financial sector in 2008, left deep consequences on the financial markets and institutions, with the M&A market being no exception. In my research, I tried to analyse and understand how the company's size affects the acquisitions premium. In other words, I have been researching how much funds the acquiring companies are willing to invest in the target company and if that amount is significantly higher than the target company's real value. I focused on the M&A market from 2009 to 2013. My analysis consists of data for 146 companies that were taken over, ranging from small local companies, to large global corporations. I decided to focus on the companies of different sizes, because I wanted to show the difference in the acquisition premium among the companies of different sizes. The companies vary from limited partnerships to companies, which are trading on stock exchanges.

The biggest challenge was evaluating the company's fair value. There are many different methods for evaluating the company. However, due to the available data, the choice for

valuation was quite limited. In order to prevent inconsistency, I chose to evaluate all companies with one valuation method, this being the net assets value method. In the first analysis, I was comparing the acquisition premium across different companies of different sizes. In the second analysis, I tried to see if the acquisition was successful for the acquiring company. I presented the methodology in detail in chapter 5. After that, I tried to understand how the acquisition affected the companies that were acquiring the target company. I took a closer look at the company's health after the acquisition and tried to determine whether the takeover had any effect or not.

I divided the thesis in different chapters. I start with the introduction, which describes the thesis' main purpose, the used methodology and the theory behind the analysis. The second chapter presents the definitions and other important terms used in the M&A vocabulary. The third chapter is about the legal aspects regarding M&A. Later, there is a chapter about valuating the company. Chapter 5 describes more about the acquisition premium, what it is and the average premium paid in acquisitions. What are the motives for mergers and what affects the premium? The following chapter describes the analysis of the gathered data and the calculations used. In the last chapter, I conclude the thesis with the findings.

## **1 DEFINITIONS AND GENERAL TERMS**

Acquisition occurs when one company takes a controlling ownership interest in another firm, legal subsidiary of another firm or selected assets of another firm. According to DePamphilis (2003), it may involve the purchase of another firm's assets or stock, with the acquired firm continuing to exist as a legally owned subsidiary of the acquirer. A firm that attempts to acquire or merge with another one is called an acquiring company or acquirer, while the target or the target company is the firm that is being solicited by the acquiring company (DePamphilis, 2003).

Gaughan (1999) defines merger as a combination of two corporations in which only one corporation survives and the merged corporation goes out of existence. Therefore, the acquiring company assumes the assets and liabilities of the merged company. In a typical merger, the target company's shareholders exchange their shares with the shareholders of the acquiring company.

### **1.1 Difference between acquisition, merger and leveraged buyout**

In order to understand the M&A activity and process, one must first look at the difference between merger and acquisition. According to Reed (1989), the difference between acquisition and merger is that acquisition is a generic term used to describe the transfer of ownership, while merger is a narrower, more technical term for a particular procedure that may or may not be part of acquisition.

Moreover, it is possible to distinguish between different types of mergers, as DePamphilis (2003) distinguishes between statutory and subsidiary merger. Statutory merger is the one in which the acquiring company assumes the target's assets and liabilities in accordance with the state's statutes in which it is incorporated. A subsidiary merger occurs when the target becomes the parent's subsidiary.

It is also important to keep in mind that according to Gaughan (1999), merger differs from and should not be mistaken for consolidation, which is a business combination where two or more companies join to form an entirely new company. All of the previously existing companies are dissolved and only the newly formed entity continues to operate.

Leveraged buyout (hereinafter: LBO) is a transaction in which a company's capital stock or its assets are purchased with the borrowed money, causing the company's new capital structure to be primarily debt. A buyer's merger and the target company will immediately follow acquisition of all assets by the company created for that sole purpose, so that the acquired company's assets become available to the buyer in order to secure the loan (Reed, 1989).

LBO's can be divided into:

- **management leveraged buyout**, where the existing management team becomes shareholders;
- **employee buyout**, where the employees buy out owners and
- **restructurings**, where the assets' major part are sold off to retire the debt (Reed, 1989).

## 1.2 Types of mergers

We can categorize mergers as horizontal, vertical or conglomerate mergers. A horizontal merger would happen if two competitors merge, for example companies working in the same industry or the same market (Gaughan, 1999). Companies would need to get an approval from anti-trust agencies that the merger is not significantly reducing the competition (Gaughan, 1999).

Vertical mergers would happen if two companies have buyer – seller relationships. Companies that do not own operations in each major segment of the value chain, may integrate backwards by acquiring the supplier or integrate forward by acquiring the distributor (Gaughan, 1999). For example, car manufacturers have many suppliers for different kinds of parts, chassis, engine, gearbox, windows, tyres and more. If a car manufacturer acquires a tyre producer, this would be a vertical integration. Another great example of practice in use is in the fashion industry, Inditex, which operates brands like Zara, Massimo Dutti, Bershka and others. Zara has developed a very responsive supply chain that enables them to deliver new products as soon as the trend emerges. To do so, Zara did not use subcontractors from Asia, but built their own automated factories (Petro, 2012). Those automated factories produce grey goods and

unfinished products that they send to partners across the world. They add colours and other final changes and therefore, they ship the final products to the stores (Petro, 2012).

Avinadav, Chernonog, and Perlman (2016) have been analysing the effect of different kinds of merger and acquisition activity, specifically forward acquisition, backward acquisition and vertical cooperation between a retailer and a manufacturer. The analysis focuses on the global M&A markets in the technology, where many of the software companies (Google, Microsoft, Facebook) acquired software developers (Waze, Skype, WhatsApp). The study's results showed that under merger, the payoff of each party in the supply chain is higher than in any other type of acquisition (Avinadav et al., 2016). Merger is preferable to acquisition in terms of the final products' quality, but it is not preferable because of higher retail prices. In contrast to that, forward and backward acquisition results in lower retail prices for consumers and higher quality products (Avinadav et al., 2016).

Conglomerate merger would happen if companies, which are not competitors, or do not have a buyer – seller relationship, meaning that they operate in unrelated industries, merge (DePamphilis, 2003). One of the most famous conglomerates is Berkshire Hathaway, run by Warren Buffet. Berkshire Hathaway has been operating as a textile company and later on, moved through acquisition to insurance, finance, utility and energy, transportation, retailing and many other industries (Schaefer, 2016). It is a great example of how the company can grow in different industries and sectors and still achieve a high shareholder return.

### **1.3 Hostile takeover and takeover defences**

We can classify takeovers as being friendly or hostile. Friendly takeovers are negotiated settlements that are often characterized by bargaining, which remains undisclosed until the agreement of purchase and signing the sale. In the friendly takeover, deal terms are negotiated, how the new company will be divided and the plan is set. However sometimes, things do not go according to the plan. It may happen that another acquirer occurs and would like to gain the target. We consider it as a hostile takeover when the target's management or board of directors do not approve or agree with an acquisition. A hostile takeover occurs when the initial approach was unsolicited, the target was not seeking a merger at the time or the target's management contested the approach. The acquirer may try to get around the management by going directly to the target's shareholders and by buying the shares in the marketplace. A tender offer accomplishes it. This is an offer to buy the company's shares with the intent to take the company's control as stated in DePamphilis (2003) and Reed (1989). However, hostile bids are generally a minority of the UK public acquisitions. According to Levy, Kutner and Scargil (2016), the target board recommended 85 % of all public acquisitions in 2014 in the UK.

On 4 November 1999, American Home Products and Warner-Lambert announced to their intention to merge and create the world's largest pharmaceutical company. Not much later, Pfizer launched a hostile takeover bid for Warner-Lambert. Pfizer offered Warner-Lambert's shareholders 15 % more per share than American Home Products. American Home Products

and Warner-Lambert tried to prevent this by signing a \$2 billion breakup. In the end, Pfizer acquired Warner-Lambert and paid a \$1,8 billion fee to American-Home (Pfizer, 2000).

We can see from the previous example that actions taken by management of American Home Products and Warner-Lambert merged. However, none of this worked, Warner-Lambert's shareholders were better off and they received a higher acquisition premium. On the other hand, it cost Pfizer's shareholder more, since the company had to pay acquisition premium and the breakup fee. Management entrenchment theory suggests that managers take actions using various types of takeover defences that are designed to ensure their longevity with the firm. Shareholders lose when the shares' value declines in response to the management's actions. On the other hand, shareholder's interest theory argues that they gain when the management resists the takeover attempts. Resistance actions are viewed to be in the shareholders' interest if they are undertaken to wait for a higher offer from the initial bidder or the competing bidders (DePamphilis, 2003).

Takeover defences can be grouped into preventive defences and active defences. Preventive defences are created before the hostile bid; active defences are created after the hostile bid. Takeover defences are designed to raise the overall cost of the takeover attempt and to provide the target firm with more time to install additional takeover defences (Gaughan, 1999).

Preventive defences fall into three categories (DePamphilis, 2003):

- poison pills,
- shark repellents,
- golden parachutes.

Poison pills represent a new class of securities issued by a company to its shareholders, which do not have any value unless an investor acquires a specific percentage of the firm's voting stock (DePamphilis, 2003). Netflix has seen a recent practice of poison pill in action in November 2012. Netflix has adopted a stockholder's rights plan, which prevents activist shareholders from starting a hostile takeover. In case that an individual investor would buy more than 10 % or an institutional investor would buy more than 20 % of the Netflix's shares and the deal would not have been backed down by the company's board, Netflix could flood the market with new shares and make the takeover more expensive (Boorstin, 2012).

Shark repellents are specific types of takeover defences that can be adopted by amending either a corporate charter or its bylaws and are mostly put in place to reinforce the ability of a firm's board of directors in order to retain control (DePamphilis, 2003). The most typical are staggered board elections, restrictions on shareholder's actions, anti-greenmail provisions, super voting stock and many more. Staggered board could delay the assumption of control by the majority of shareholders, but they may circumvent it by increasing the size of board. Restrictions on shareholders' actions include limiting their ability to call special meetings. Anti-greenmail provision restricts the company to repurchase its shares with the premium. Super voting stock

means that the company issues several classes of stock having different voting rights. The objective is to concentrate the stock with the greatest voting rights in the hands of those who are most likely to support management (DePamphilis, 2003, 2010).

Another preventive defence tactics are golden parachutes, which are employee severance arrangements that are triggered whenever a change in control takes place. A change in control is defined to occur whenever an investor accumulates more than a fixed percentage of the company's voting stock. There are also silver and tin parachutes, which cover far more or even all the employees, however paying them less, usually only a few monthly wages (DePamphilis, 2015).

If firms can use many different tactics before they make the potential bid, it can sometimes be too late for the preventive actions. The firms need to react with active defences, which are actions, taken in response to a bid. They include greenmail, which is the practice of paying a potential acquirer to leave you alone. A target company seeking to avoid being taken over by a specific bidder may try to be acquired by another company, which acts as a white knight and is a more appropriate suitor. White acquirers are companies that agree to purchase a large block of the target's stock. Another action may also be buying back plans where the company reduces the number of the target's shares available for purchase by bidder. Restructuring may involve taking company private, the sale of attractive assets, undertaking a major acquisition or even liquidating the company (DePamphilis, 2003).

Different defence tactics have different side effects. One of them is also the fact that they can be very costly, which has a negative impact on shareholder's wealth. DePamphilis (2003) argues that poison pills have the greatest positive impact on shareholder's wealth, whereas most of other defences have either no measurable impact or a negative one.

## **2 MOTIVES FOR MERGER ACTIVITY**

There are hundreds of motives as to why companies are active in M&A. There is at least one motive behind every M&A. We need to have a look at this from the company's perspective, since each company has its own motives, plans and vision. According to Simonyan (2014), the acquirer will be willing to acquire the target if it estimates that the combined entity will be worth more than the two separate firms will. There are many theories why mergers and acquisitions take place at all. One of the most basic motives for mergers and acquisitions is growth. Moreover, one firm can acquire another one with the hopes of experiencing synergies, whether operational or financial ones. It often occurs that firms buy other companies outside their primary line of business, which is called diversification. The fundamental aim of mergers and acquisitions is the generation of synergies that can generate corporate growth, increase market share, increase profitability and improve shareholder's wealth (Alexandridis, Petmezas, & Travlos, 2010). Most mergers and acquisitions are the result of a number of different motivations. I present the most common ones in this chapter.

## 2.1 Growth, Synergy and Diversification

The first group of motives for M&A are growth, synergy and diversification. These are one of the most common motives for M&A.

One of the most fundamental reasons for M&A is growth. Companies, trying to expand, face the two possible ways of growing its business, which is either internal growth or growth through M&A. Internal growth usually takes a lot of time and resources and it is a very uncertain process for a company whose aim is to grow. That is why growth through mergers and acquisitions may be a faster way for a company, especially if it is seeking for a window of opportunity for a limited period, so there is no time for internal growth. There are many examples where the companies have to make a quick decision to exploit a window of opportunity in order to grow its business, unless the opportunity may disappear. The opportunity usually arises with an innovation that changes concepts, processes and products. Another example may occur when the company wants to expand to another country or geographic region. In many cases, it is faster and less risky to expand through acquisition and merger than through internal growth (Gaughan, 1999).

Synergy is a simplistic notion that the combination of two companies can create a greater shareholder's value than if they were operating separately.

We further divide synergy into operating synergy and financial synergy:

- **Operating synergy** consists of economies of scale and economies of scope. Economies of scale refer to the spreading of fixed costs over increasing production levels. We most frequently see economies of scale in manufacturing operations, although they can be important in any business having substantial fixed overhead expenses. Expenses per unit are declining which reflects in improving labour productivity as workers and managers learn how to improve the workflow. Costs per unit are falling until the organization becomes too large and inefficient. We can see economies of scale in very high-fixed cost industries such as pharmaceuticals, chemical, aircraft, utilities and steelmaking industry. Economies of scope are the firm's ability to utilize one set of inputs to produce a broader range of products and services (Gaughan, 1999; DePamphilis, 2003).
- **Financial synergy** refers to the mergers and acquisitions' impact on the capital's cost of the acquiring firm or the newly formed firm. Cost of capital could be reduced if merged firms have uncorrelated cash flows, create financial economies of scale or become better at matching investment opportunities with internally generated funds (DePamphilis, 2003).

Diversification means growing outside the company's current industry category. Companies often diversify based on reducing shareholder's risk by stabilizing overall revenue through shifting from cyclical industry to a more stable industry. If their cash flows are uncorrelated, their combined cash flow may be less volatile than their cash flow viewed separately. Shareholders do not prefer that companies diversify for them, because they can more efficiently

spread their investments and risk among industries. Companies can diversify from their core product and market into new product lines and markets that have higher growth prospects. When a firm is facing a slower growth in the current market, it can accelerate growth by selling the current product in new markets. Firms can achieve higher growth rates by developing new products for the current market. In both actions, the firm assumes an additional risk (DePamphilis, 2003).

## **2.2 Market power and Technological change**

Another reason for merger activity is market power, which can also be referred to as monopoly power and is defined as the ability to set and maintain price above competitive levels. On the long run in the competitive industry, competitive sellers only earn normal returns. They set the price equal to marginal cost. Therefore, market power refers to the ability to set prices higher than marginal cost (Gaughan, 1999).

The technology has disrupted the status quo throughout the history. Certain technological advances have created new competitors, products, markets and industries at a blinding pace. As the pace of technological change accelerates, mergers and acquisitions are often viewed as a way of rapidly exploiting new products and markets made possible by the emergence of new technologies. Large corporations are often unable to exhibit the creativity and speed of a smaller, nimbler niche player. They often look to mergers and acquisitions as a fast and sometimes less expensive way to acquire new technologies and expertise to fill up the gaps in their current product offering or to enter new business (DePamphilis, 2003).

## **2.3 Hubris and Tax motives**

This group of motives are the one that managers usually do not like to talk about publicly. It consists of hubris, which could also be called as an excessive pride, arrogance and tax motives, which are becoming more and more popular nowadays. Hubris hypothesis is the explanation of why mergers may happen even if the current market value of the target firm reflects its true economic value. As of Hubris, managers believe that their own valuation and potential synergies of a target firm are superior to the market's valuation and predictions. Consequently, acquiring firm often tends to overpay for the target company because of over optimism in evaluating potential synergies. Senior managers tend to be very competitive and sometimes self-important. The desire not to lose can result in a bidding war that can drive the purchase price of an acquisition well over the actual economic value (Gaughan, 1999).

In an auction environment where there are many bidders, there is likely to be a wide range of bids for the target company. Given the difficulty, all participants have in estimating the target's actual value and the competitive nature of the process, the winning bid is often substantially above the expected value of the target company. The winner is cursed in the sense that he paid more than the company is actually worth (DePamphilis, 2003).

We can sometimes hear tax motive to be the sole merger motive from the media. Certain studies have shown that acquisitions may be an effective means to secure tax benefits. Tax benefits as loss carry forward and investment tax credits can be used to reduce the combined taxable revenues. Another tax shelter can be created if the acquisition purchased method is the assets' book value, which can later be revalued to their current market value. Depreciation of these assets' value as a result will shelter future income generated by the combined companies (Gaughan, 1999).

The transaction's taxable nature will play a more important role in determining if the merger takes place in any tax benefits that accumulate to the acquiring company. Properly structured transaction can allow the target shareholders to defer any capital gain resulting from the transaction, if transaction is not tax-free, the seller will normally require a higher purchase price (DePamphilis, 2003).

We have to distinguish between tax structuring and tax planning. Tax planning ensures that an overall tax rate of the combined company is equal or lower than the blended tax rates of the two companies before the deal. Tax structuring goal is to avoid as many onetime tax costs as possible (Eccles, Lanes, & Wilson, 1999). We saw such recent practice in Pfizer-Allergan attempt. Pfizer was seeking to relocate headquarters from New York to lower taxed Ireland, by merging with Allergan. The deal did not go through, since the government of the United States took steps to clamp down tax avoidance deals (Kollewe & Treanor, 2016). This was only one of the many M&A guided by tax motives.

### **3 LEGAL ASPECTS**

This chapter looks at the legal aspects of obtaining the company's control, announcing and making the offer, merger control and notification, review process and the role of the European commission in the merger activity in Europe and United Kingdom.

#### **3.1 Obtaining control over a company**

There are two ways to obtain the company's control. The first one is with the contractual offer, which is an offer to all of the target company's shareholders to acquire their assets. For an offer to succeed, the bidder must accept 50 % of the voting rights in the target company, however, it may choose a higher threshold. The second one is the court approved scheme of arrangement, a statutory mechanism involving a shareholder's vote and court approval, under which 100 % of the target company's share capital is acquired by the bidder. Scheme of arrangement requires the approval of majority in number, representing 75 % in value of each share class of shareholders attending and voting at the shareholders meeting, together with the court approval (Levy et al., 2016).

However, mandatory offer is required when the acquirer aggregates 30 % or more of the target firm's voting rights. When the bidder creates an intention to make an offer, they have to notify

the target board and make an announcement. The announcement has to include the offer's terms, the bidder's identity, all the offer's conditions and cash confirmation (Levy et al., 2016).

### **3.2 Merger Control**

Merger control regimes are necessary to prevent anti-competition consequences and concentrations. National agencies (Office of Fair Trading in the UK) or international agencies (European Commission) are entrusted to review mergers.

Companies that are about to merge are suggested to ask for permission from the Office of Fair Trading in the UK prior to the actual merger. They are not obligated to do this before the merger, however, if the Office of Fair Trading reviews the merger and estimates that there are anti-competitive effects, they may stop the merger in this kind of form as explained in Merger Control in the United Kingdom (Lovells, 2010).

Mergers that meet relevant jurisdiction tests are a subject to an initial review by the Office of Fair Trading. The UK merger control regime applies to different relevant merger situations. The first situation is that two or more enterprises cease to be distinct. The second situation, where the UK merger control regime applies, is when the enterprise's turnover being taken over in the UK exceeds £70 million. Last but not least, the control regime applies when both parties involved engage in supplying or consuming goods of the same description and supply or consume between them at least 25 % of those goods or services in the UK. After the Office of Fair Trading's review, the Competition Commission may refer to them to an in-depth review. The focus is to find out if the merger has anti-competitive effects (Lovells, 2010).

The Office of Fair Trading starts with a preliminary review; the test under the UK merger control regime is whether the transaction has resulted in a competition's substantial lessening. If the transaction has yet to take place, the test is whether it would result in a major lessening of a competition if it was to take place. If the Office of Fair Trading concludes that there is a lessening of the competition with this merger, the case is referred to the Competition Commission (Lovells, 2010).

Once the Competition Commission receives the case, they have 24 weeks to investigate and examine transactions and publish a report. The Competition Commission has the power to impose remedies of the parties. Such remedies might include a requirement to divest all or a part of the acquired business. If they identify concerns about the competition, they may prohibit the merger. The merger is possible, however with some behavioural undertakings given. On the other hand, if the Competition Commission concludes that the transaction does not lead to a substantial lessening of the competition, they will allow the transaction (Lovells, 2010).

However, the purchaser takes the risk that the competition authorities might object to the merger subsequently, in that case, they might need to dispose all or a part of the acquired business.

With this in mind, the purchaser will often notify the transaction to the Office of Fair Trading and make sure they receive an approval, according to Lovells (2010).

Multi-billion euro mergers may also fall in the hands of merger control of the European Commission. The European Commission can examine larger mergers within the European Union, where turnover thresholds are: worldwide turnover of the merging firms over 5 billion euro or EU – wide turnover of each firm at least 250 million euro (European Commission, 2013).

European Commission's work is very similar to the national merger control. The merger has to be reported to the Commission. There are two phases of investigations. The first phase and the second phase, this is more of an in-depth analysis of merger's effect on the competition. The Commission's final decision may be the permission to the merger, prohibition of the merger or remedies such as divestitures of certain business or segments of companies (European Commission, 2013). From 1 April 2012 on, the UK Office of Fair Trading and Competition Commission are formed into one entity, named Competition and Markets Authority (hereinafter: CMA). All the procedures remain the same (Lovells, 2010). To summarize, smaller M&A attempts, which do not have anti-competitive effects, should not face any problems. Multi-billion international attempts that would have anti-competitive effects may face some hiccups and can expect more in-depth investigation from the European Commission. For example, in March 2017, there was a merger attempt between London Stock Exchange and Deutsche Börse, which was blocked by the European Commission. The 21 billion pound merger would significantly reduce the competition and create a monopoly on fixed income instrument market (Ruddick, 2017).

## **4 VALUATION METHODS**

Valuation is a highly specialized process. There are people valuing banks and insurance companies, while others concentrate on manufacturing, printing companies, accounting firms and law practices. There are rules of thumb for pricing restaurants, gas stations, grocery stores and tech companies (Reed, 1989).

According to Damodaran (2002), the bidding firm or an individual has to decide on a fair value for the target firm before making a bid and the target firm has to decide a reasonable value for itself before deciding to accept or reject the offer. Before the deal is completed, there is a legal and accounting due to the diligence process that is usually pursued. Attorneys and accountants usually run through a series of items that must be gathered.

### **4.1 Financial ratio analysis**

One of the main tools of the financial analysis is financial ratio analysis. It enables us to compare the target company with the competitors in the same industry or to companies of the same size. Ratio analysis usually shows us the relative comparison of the companies in the same

sector or industry. It shows us the company's health, how profitable the company is and how managed is the company.

Financial ratios can be classified into the following groups:

- liquidity ratios,
- activity ratios,
- debt ratios,
- profitability ratios.

For the analysis of financial ratios, the important ratios are the following: Price to book, Price to sales, Price to earnings, Book value, Liquidation value and Discounted cash flow valuation presented below.

The price to book per share ratio relates the current market value of stock to the net amount per share of common stock. A company with a very high share price relative to its asset value is likely to be the one that has been earning a very high return on its assets. A lower ratio could mean that the stock is undervalued or that there is something fundamentally wrong with the company. This ratio gives some idea whether you are paying too much for what would be left if the company went bankrupt immediately (Price to book ratio, n.d.; Larrabee & Voss, 2013).

The ratio price to sales compares the company's stock price to its revenues. It is calculated by dividing the market capitalization with the last year's revenues. Price to sales is most relevant when it is used to compare companies in the same sector. A low ratio may indicate undervaluation, while a high ratio may suggest overvaluation (Price to sales ratio, n.d.).

The ratio price to earnings compares the company's current share price to the value per share earnings. According to Larrabee and Voss (2013), many analysts use P/E approach to value common stock directly and to estimate future earnings. The ratio varies widely between different companies and industries. However historically, the market P/E has been between 15–25 (P/E ratio, n.d.; Larrabee & Voss, 2013).

Book value, also called shareholder equity or net worth, is the value per share that would be received if the assets were liquidated and liabilities would be repaid. However, book value merely tends to reflect the values for which the assets are held in the books. It uses the assets' historic cost. In some cases, a company may be worth less than the book value, although in some industries, the company prices can be expressed as multiples of book values (Gaughan, 1999).

Liquidation value is another method of estimating the company's value. It is a measure of what would be derived if the firm's assets were liquidated at market prices and all liabilities and preferred stocks were paid. Liquidation value can be more accurate than book value if it accurately reflects the market value of the firm's assets (Gaughan, 1999).

Discounted cash flow (hereinafter: DCF) analysis uses future free cash flow projections and discounts them with an appropriate risk rate to arrive at present value as equation (1) shows. If the value arrived through DCF analysis is higher than the investment cost, the opportunity may be a good one. The cash flows will vary from asset to asset from dividends for stocks, coupons and face value for bonds. The discount rate will be a function of the riskiness of the estimated cash flows with higher rates for riskier assets and lower rates for safer projects. The discount rate consists of three components: risk-free rate, risk premium for taking risk and company specific risk. Cash flows from operations represent the difference between operating cash inflows and outflows. These are relevant for estimating corporate value because they represent cash available for shareholders and debt holders. Cash flows are discounted by the capital cost or a weighted cost of debt average and the company's equity (Reed, 1989; Damodaran, 2002; Larrabee & Voss, 2013).

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n} \quad (1)$$

CF = cash flow

r = discount rate

The last step to complete the DCF calculation is the terminal value, equation (2). Estimating the capitalization rate, its growth and the discount rate, are critical in the development of an accurate terminal value (Larrabee & Voss, 2013).

$$Terminal\ Value = \frac{CF_n}{i-g} \quad (2)$$

$CF_n$  = cash flow in period n

i = discount rate

g = constant growth rate from time n to infinity

## 5 ACQUISITION PREMIUM

This section consists of the theoretical background from the literature, followed by the findings from the academic research. During my research, I have examined a great amount of scientific literature regarding acquisition premiums. This extends to simple questions, such as what is acquisition premium, to in-depth factors that affect the acquisition premium, such as the industry in which the company is operating, how the company's size affects the acquisition premium, how the type of payment affects the acquisition premium and many more. We know

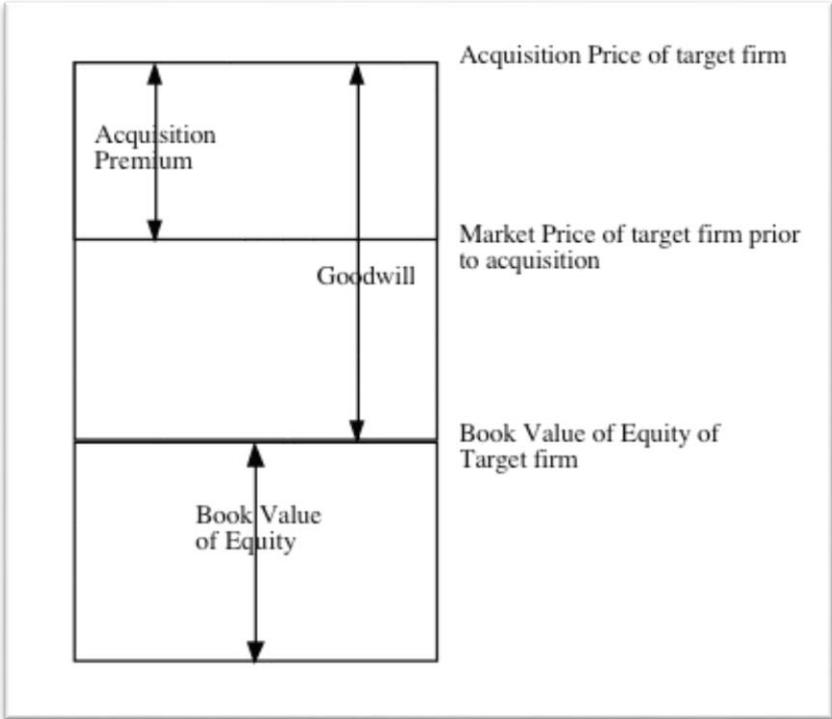
numerous factors that affect the acquisition premium; I took a closer look at the ones that affect the acquisition premium the most.

### 5.1 Acquisition premium

The difference between acquisition price and market price prior to the acquisition is called acquisition premium. Acquisition price is the price that will be paid by the acquiring firm for each of the target's shares and it is usually based on the negotiations between acquiring firm and target firm's managers, according to Damodaran (2002).

Damodaran (2002) argues that the difference between the target company's acquisition price and the book value of the target company's equity is called goodwill.

Figure 1. Acquisition premium



Source: A. Damodaran, *Investment valuation: Tools and techniques for determining the value of any asset*, 2002, p. 716.

Diaz, Sanfilippo and Lopez (2009) argue that the premium refers to the bid price, which is above the market value of the target company's shares to ensure the operation's success and gain control over the acquired organization.

Acquisition premium is a value in excess of the company's market value that is paid for the right to control and proportionately enjoy the business' profits. Bidders often cite the anticipated synergy as the reason for the premium's payment. According to Gaughan (1999),

considering the track record of some acquisitions that have not turned out as anticipated, the market sometimes questions the reasonability of synergies, especially when it is used as a justification of unusually high premiums (Gaughan, 1999).

We can also measure acquisition premium through cumulative abnormal return. Abnormal return is the difference between the observed return and the expected return estimated by the market model in the estimation window, usually around the merger's announcement or any other public activities (Yilmaz & Tanyeri, 2016).

Some authors use this method to evaluate how the market sees the acquisition, acquisition price and premium. Cumulative abnormal returns (hereinafter: CAR) can be used for short-term and long-term observations of a specific company (Alexandridis et al., 2010; Yilmaz & Tanyeri, 2016).

Both methods are efficient in evaluating companies that are listed, whereas evaluating the acquisition premium of private companies is difficult. Since you do not have stocks that are traded with, you do not have the market price of stock. You would usually have to evaluate the company from yearly reports and evaluate the goodwill, which is important in the acquisition process (Damodaran, 2010).

However, there is no requirement that a company must pay a premium for acquiring another company; sometimes they may even get a discount. It can also occur that even after the premium is accepted, the company's value drops before the acquisition is final, then the acquiring company may withdraw its offer (Acquisition Premium, n.d.).

## **5.2 Average acquisition premium**

Varaiya (1987) states that the acquisition premium is a percentage difference between the trading price of the target's stock before the announcement of the acquisition and the price per share paid by the acquiring company. Companies pay a 50 % premium on average, but the premiums vary widely and those over 100 % are common.

During the process of acquiring a company, acquirers hire bankers with the goal of assuring them to pay the lowest premium for the target, but on the other hand, targets also hire bankers to help them get the highest possible premium for their company (Porrini, 2005).

“Ultimately, the key success in buying another company is knowing the maximum price you can pay and then having the discipline not to pay a penny more” (Eccles et al., 1999, page 14). The premiums, which are being paid in the acquisitions, are important. This is not only because they serve as statements of pricing and a reflection of acquirer's expectation, but also because they can affect the ultimate acquisition performance. The target firms usually tend to benefit from the merger due to high merger premiums paid by the acquirers. Antoniou, Arbour and

Zhao (2008) argue that this is followed by abnormal returns, which are earned in a few days surrounding the merger announcements (Hayward & Hambrick, 1997; Antoniou et al., 2008).

Generally, there is no consensus regarding the relationship between the premiums paid and the bidders' returns. On one hand, there is the fact that merger premiums may proxy for synergies between the bidder and its target, promoting a positive relationship between the premium and returns. On the other hand, high premiums may proxy for overpayments in mergers, thereby increasing the likelihood of a value-destroying deal, which should lead to a negative relationship between the premium and returns (Diaz et al., 2009).

Moeller, Schlingemann and Stulz (2004) find that the average and median premium paid for the US public acquisitions with announcements between 1980 and 2001 was 68 %, 61 % for large firms, and 62 % and 52 % for small firms. Massive growth and cost savings must be generated to materialize the merger transaction to be justified.

Alexandridis et al. (2010) conducted a study of mergers between 1990 and 2007 of publicly listed targets across 39 countries. The study showed that the mean premiums paid in public acquisitions were 45 % in the United States, 42 % in the UK and 37 % in Canada, in comparison with the rest of the world with 31.9 % premium. We find similar results in Simonyan's study (2014), where she examined acquisitions in the US from 1985 to 2005 and reported an average premium of 35.5 %. There were years when the average premium was relatively low (12 % in 2004) and years when the premium was relatively high (53.5 % in 2001). Between 1990 and 2002, acquisition premiums averaged in 53.2 % with 40 % of acquirers paying premiums over 50 % and 10 % of acquirers paying premiums over 100 %, as a recent study of global acquisitions by Porrini (2005) shows.

Rossi and Volpin (2004) in Alexandridis et al. (2010) document that acquisition premiums are persistently higher in the United States and the United Kingdom, where the volume of transactions and the degree of competition are higher and the shareholder protection regime is stricter.

People would think the higher the premium, the more certain the deal is. In fact, there is no linear relationship between the premium's size and the deal's success. Half of the time, deals with high premium fail and of course vice versa. Therefore, the question is not if the acquisition premium was too high, rather if they paid more than it is worth for the target company (Eccles et al., 1999).

Researches also show that premiums differ significantly for hostile and friendly acquisitions. Premiums for hostile deals tend to be 30 % higher than for friendly offers. This implies that hostile acquirers are more likely to overpay for the target company (Palepu, Healy, Bernard, & Peek, 2007).

### **5.3 Effect of capital structure on acquisition premium**

Raad (2012) in his empirical study investigated the effect of debt to acquisition premium. Results on successfully completed global acquisitions from 1995 to 2005 showed significantly different acquisition premium between firms with lower debt ratio (debt ratio below 55 %) and higher debt ratio (debt ratio higher than 55 %). An average premium paid to shareholders of highly leveraged firms was 43 % and the average premium paid to shareholders of low leveraged group is 29 %.

If we add management ownership to leverage, we get interesting results. If management ownership is high (higher than 18 %), findings show that there is a significant difference between the average premium (42 %) paid to the target company, shareholders company with high debt ratios and the average acquisition premium of 27 % paid to the company with low debt ratios. However, when the management ownership is low, the difference in target premiums is not significant. When managerial ownership is lower than 18 %, the impact of leverage on target premium is less clear compared to high management ownership (Raad, 2012).

Gondhalekar, Sant and Ferris (2004) held a similar study, when they investigated the average acquisition premium on cash only acquisition in the USA. Companies with below median cash flow and above median market to book ratios suffer from underinvestment, with too little cash available to support their mainly positive net present value (hereinafter: NPV) projects. Because these companies have attractive internal projects, they have fewer needs for external acquisitions and when they acquire a target, they are likely to pay less (average acquisition premium of 39 %). In comparison to the above, the median cash flow and below the median market to book ratio firms, which are likely to overinvest and pay an average acquisition premium of 58 %. They concluded the study with the fact that firms with low market to book ratios and high free cash flow are overinvested and pay higher premiums. Firms with little free cash flow are underinvested, because they can generate internal positive NPV projects and pay less for external acquisition (Gondhalekar et al., 2004).

Uysal's (2010) study presents that overleveraged firms are less likely to make acquisitions; they pay lower premiums (on average 6.2 %) and are less likely to use cash in their offers. Surprisingly, the capital market reacts favourably to an announcement of acquisitions from overleveraged acquirers. All findings in this study suggest that managers of overleveraged acquirers are more selective in their choices of acquisitions.

### **5.4 Market reactions to acquisition announcements**

How markets react to a specific acquisition and acquisition premium is difficult to predict. Market reactions to an acquisition announcement of the acquirer's shareholders depend on more than just a potential of the synergies from the acquisition. It is also affected by the ability of the acquiring firm's manager to capture some of the synergies for their shareholders, whether the

market anticipates the acquisition and whatever the shareholders react rationally to acquisition announcements. If investors expect a broad range of mergers and acquisitions to create synergies, then they react positively to acquisition announcements. If they expect more optimistic results, then the short run rise in price is reversed in the long run as the acquisition's track record becomes known (Rosen, 2007).

However, Laamanen (2007) tried to understand acquisitions of technology based companies in the US between 1989 and 1999. According to his research, when a technology-based company has a high market to book ratio, the acquisition will cause a negative reaction, even though the actual premium would be rather low. On the other hand, if the target company is moderately valued and even though the acquisition premium appears to be higher, the market reactions are more positive.

Target stock price run-ups usually follow the initial takeover bids. Run-up is usually a short-term sudden increase in price of stock, which is a reflection of takeover rumours and speculations. Run-ups are substitutes for already planned offer premium and do not require the bidder to raise the planned offer price before making the first bid. However, if you as a bidder find yourself in doubt, should you go forward with the offer as planned or do you take the recent movements in stock price into account and adjust the bidding strategy? The results of Eckbo (2008) show that there is a strong positive association between offer premium and run-ups, a US dollar increase in the run-up is associated with an increase of 0.8 US dollar in the initial offer price. CAR can also measure market reactions.

Abnormal return is the difference between the observed return and the expected return estimated by the market model in the estimation window, usually around the merger's announcement. Yilmaz and Tanyeri (2016) were studying the effects of the merger's announcement between 1992 and 2011 for 47 world countries. Cumulative abnormal return of bidder and target combined in 3-day-period window is 1.7 % on average of 18,430 deals. If different assets of the target were sold (partial sale), the combined 3-day cumulative abnormal return was 1 %, which is lower than cumulative abnormal return of the whole firm's sale. The results show that acquisitions create more value for target shareholders; an average 3-day cumulative abnormal return of target firm is 11.6 % compared to 4.1 % in partial sales of the target. In addition to that, authors also compared cumulative abnormal returns of target firm in developed market (8.1 %) and emerging market countries (2.8 %). Bidders abnormal return in developed market is 1.4 % compared to 0.9 % in emerging countries. The difference between the cumulative abnormal returns of developed and emerging market countries may be explained by the differences in the market efficiency, information leakages and corporate governance structure (Eckbo, 2008; Yilmay & Tanyeri, 2016).

Uygur, Meric and Meric (2014) presented the differences in the abnormal market returns earned by the US target companies acquired by domestic and foreign companies after 2008. The research analysed 132 companies during the years 2005 and 2011, 87 of these companies were acquired by other US companies and 45 by foreign companies. In the calculation of CAR, for

assessing the impact surrounding the merger announcement date, they used a five-day period surrounding the announcement day as the event window. The results show that the targets acquired by the domestic buyers receive more favourable market reaction of 14 % abnormal positive return, while the target acquired by the foreign buyers receive lower 9 % abnormal positive return.

## **5.5 Bidding and negotiating effect on the acquisition premium**

Raad (2012) states that opposing the tender offer may result in higher average premium for shareholders of the target company. He found a statistically significant difference in acquisition premium. 49 of 94 target companies opposed the tender offer received. Those shareholders of targets that opposed received the average premium of 53 %, while those who did not oppose, received the average premium of 31 %. In addition, initial average premiums (44 %) were consistently lower than the final offer premiums (47 %) in tender offers. If there are many rivals bidding for the target, the rival bidder has a higher probability of winning the auction than the initial bidder, since the acquisition price is known and they can give a better price or better payment options (Eckbo, 2008; Raad, 2012).

Merger agreements in the US must include fiduciary out clause, which means that the target board is legally obligated to remain open for higher offers from other bidders, until the target shareholders voted for the proposed deal, while it is possible in the UK to lock up the deal by using irrevocable undertaking (Eckbo, 2008; Davis & Dodd, 2009).

An interesting behaviour was investigated in Calcagno and Falconieri's research (2014), where they explained the bargaining process. The acquirer starts the negotiations by making an unsolicited offer for the target company. The target company's management can accept the offer, opt out and call for the private auction, or it can reject the offer, but continue to negotiate by making the counter offer. The acquirer can follow this negotiation game to the end of either private auction or tender offer. The results of their study are as follows: the acquisition premium between negotiated deals and private auctions are not statistically different, which is possible to explain with the fact that premium in negotiated deals incorporates the payoff from going to an auction when this threat is credible. The acquisition premium increases with a potential competition and decreases with information costs needed to pay for competing bidders to get into the auction and is independent on the negotiations' length. Moreover, the level of target resistance does not affect the acquisition premium, proxied by the control benefits for the target firm's managers if they have strong private synergies with the acquirers. The acquirer can deter the competition by placing pre-empt bidding whenever the target chooses to opt out for an auction. In addition, when the acquirer has weak synergies, he does not pre-empt the bidding competition in case of an auction and as a result, high control benefits increase takeover premium. The study concludes that many deals are negotiated at the first round of negotiations.

Ang, Cheng and Nagel (2008) tested the timing, bargain hunting and negotiating skills, when they were analysing if the acquirers possess any of those skills. Good timing skills show if the

acquirer manages to finance the acquisition with their stock when their own stock is the most overvalued. The superior bargain hunting skill is shown if the acquirer is able to spot less expensive targets. Good negotiation skills are exhibited if the acquirer does not pay excessive takeover premiums as if it is, advantages from good timing and bargain hunting are given away. The results of 894 acquisitions between the years 1981 and 2001 show that companies engaging in unrelated acquisitions have an inferior deal-making ability, they tend to acquire more overvalued targets and pay higher premiums. This could be because the diversifying acquirers are not as familiar with their targets as the non-diversifying acquirers (Ang et al., 2008).

## **5.6 Difference in acquisition premium of private and public firm**

Capron and Jung (2007) argue that between 60 % and 75 % of the global acquired companies are privately held. Draper and Paudyan (2006) have come to the same conclusion; about 80 % of all takeovers are privately held firms.

Capron and Jung (2007) have conducted a study on 92 acquisitions across the world between 1988 and 1992. Their study shows that acquirers choose their targets based on information deal attributes and merging company attributes. Acquirers prefer private targets in familiar industries, whereas they turn to public companies when entering new industries. This is expected, since the acquirers want to be certain that they have correctly evaluated the company's assets.

There is a key difference between a private and a public company acquisition, for instance what is the quantity and quality of information available, since the information about a public company is widely available, whereas the managers can better control the information about a private company (Reuer & Ragazzino, 2007).

There is a term called a private company discount; Capron and Jung (2007) stated for a fact that private companies purchase on average 18 % book multiples or 20 % earnings multiples. A prominent explanation had been that private firms suffer from a lack of market liquidity.

Interesting are the results of Lys and Yehuda's analysis (2012), which analysed 1481 acquisitions between 2002 and 2006. Their findings were that the average acquisition premium paid for a private company is approximately three times larger than acquisition premium for a public company. Higher premiums paid for private companies also generate higher synergies than acquisitions of public companies. However, there is more risk involved than in the acquisition of public companies.

Bargeron, Schilingemann, Stulz and Zutter (2008) were trying to analyse the difference in the premium paid if the acquirer is a private or a public company. The findings show that the target shareholders earn 35 % higher premiums if a public company makes the acquisition rather than a private. One of the reasons is the fact that while 37.4 % of the offers by private companies are withdrawn, the same happens to only 16.9 % of the offers by a public company. Considering

these facts, we can assume that the failure is costlier for public companies. In addition, private acquirers are typically involved in smaller deals.

If we take a closer look in the gains of the bidder shareholders, they gain when they are buying a private firm and lose when they are buying a public firm. This is due to a liquidity discount of illiquid market of private firms resulting in a higher return to bidder shareholders (Fuller, Netter, & Stegemoller, 2002).

## **5.7 How does the firm's size affect the acquisition premium?**

If Moeller and others (2004) are correct, there is a negative association between acquirer's size and gains to acquisition. The premium paid increases with the firm's size.

Alexandridis, Fuller, Terhaar and Travlos (2012) conducted a study of 3691 public acquisitions between 1990 and 2007 in the US. An average premium for large targets with the average size of \$3 billion is 36.5%, compared to the average premium for small targets with the average size of \$35.9 million is 52.6 %. The difference in acquisition premium is statistically significant. According to their explanations, that is the case when the acquirers show reluctance to commit funds toward acquisitions of larger companies during the recessions and they show preference for small targets for which they are prepared to pay more.

The mergers' tendency to fail is more accurate among mega deals priced over 500 million USD, which end up costing shareholders, since they tend to destroy the value on a significant scale for the last thirty years. Reasons for that are overpayment, inability to extract acquisition gains, integration complexity and the fact that large mergers are typically a subject to an extensive publicity and investor's scrutiny. However, the study's authors found out that for the first time this trend may have ended and acquiring firms consummating public acquisitions more recently increase shareholder's value. They were studying the acquisition in the US between 1990 and 2015. One of the possible explanations for this reversal of the trend might be the aftermath of the financial crisis that led to better acquisition decisions and better corporate governance among acquired companies (Alexandridis, Antypas, & Travlos, 2016).

There is also the effect of withdrawals, where large deal withdrawals are associated with significant shareholder gains, while acquirers that withdraw from small deals suffer considerable losses, which confirms that investors view acquisitions of large targets as less favourable (Alexandridis et al., 2016). That all leads to the conclusion that the additional complexity associated with a large target makes it more difficult for acquirers to attain the assumed economic benefits.

## **5.8 Method of payment**

According to the theory of Savor and Lu (2009) and Alexandridis et al. (2012) on acquisition premium, acquisitions financed in cash are larger than those that are paid in the share for share

transactions, as target shareholders are to be compensated for the immediate tax implications of cash offers. However, the results of Alexandridis et al. (2012) studies show that cash payments are associated with a relative discount, which is possible to explain with target shareholders requiring higher acquisition premium to accept the bidder equity as acquisition currency. Moreover, statistics from their study suggest that large companies are less likely to be acquired with cash and small target companies are less likely to be acquired by stock.

Draper and Paudyal (2006) found out that there is a significant difference in payment methods of private and listed companies. The bidders for private companies gain significantly larger positive excess returns for cash deals, while bidders for listed firms with payments in shares suffer significant losses. They confirmed that bidders acquiring very small firms relatively to their size do not achieve any noticeable gain. However, acquirers with low relative size earn significantly higher excess returns although this difference is limited to a short window period surrounding the announcement of bids.

If we look at the gains of the bidder shareholders, they gain when they are buying with stock and lose when they are buying with cash. Bidders using stock rather than cash to acquire private targets will generate higher returns and if the returns are higher, the target's size will be greater. If they acquire the privately held company with cash, shareholders will face the immediate tax implications. However, if shareholders receive stock instead of cash, the tax implications are deferred. If tax deferral option is valuable for the shareholders, they may accept the discounted price and this lower price will be reflected in higher bidder returns. Fuller et al. (2002) suggest bidders using equity to buy private companies to get the best price, followed by buying private companies with cash, followed by buying public companies with cash and last, buying public companies with equity (Fuller et al., 2002).

## **5.9 Sector acquisitions**

Alexandridis et al. (2012) conducted a study of 3691 public acquisitions between 1990 and 2007 in the US. On average, the lowest acquisition premium was paid within the financial (39.6 %) and manufacturing (40.8 %) sectors, while the highest were paid in the technological sector (52.3 %). However, we have to know the fact that the observing period of acquisitions was in the "dot com" bubble, where the valuations of the technological sector were unreasonably higher.

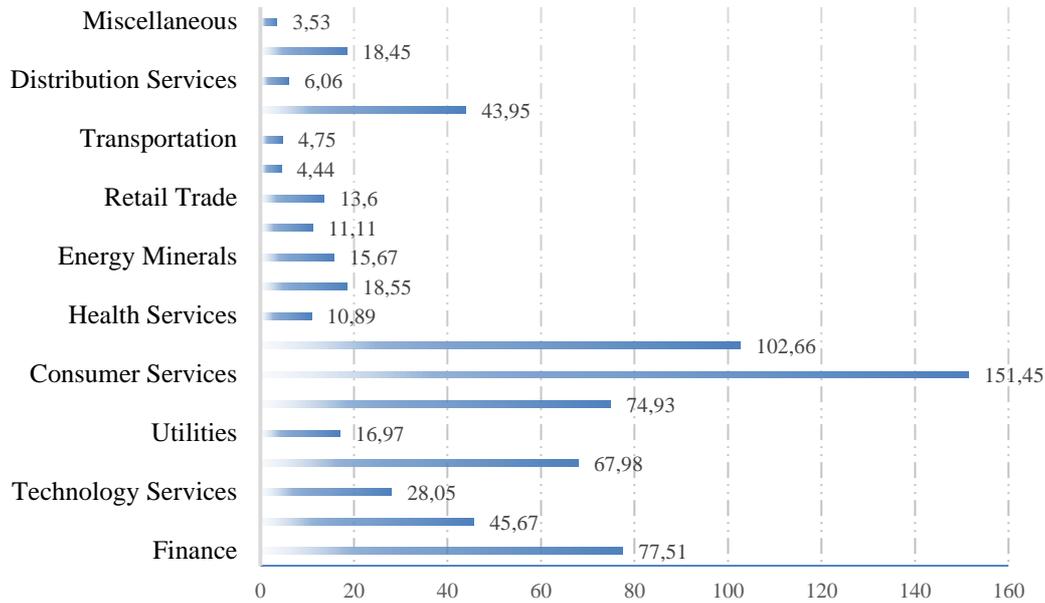
Laamanen (2007) argues that the target company's R&D investments and acquisition premium are positively related. The technology-based companies usually have high market to book ratios, which can cause negative market reactions, even though the acquisition premium is low. Laamanen (2007) calculated an average acquisition premium of 36.2 % or 43.6 % for firms operating in technology-based sector on the announcement day and one week prior the announcement day.

Schoenberg and Reeves (1999) found out that even though the acquisition activity in the UK was steadily rising over the years (1991–1995), it was concentrated just on certain industry sectors. They outline five factors that may explain the variation in acquisition rates across the industry sectors: Industry profitability, Industry growth, Capital intensity, Industry concentration and Industry deregulation. The study based on the data from 200 industry sectors shows deregulation as the most important factor for discrimination between industries with high and low acquisition activity. The highest acquisition activities were found in pharmaceutical, banking and electricity sectors. At the top of all sectors are pharmaceutical products resulting with 43 acquisitions with an average value of acquisition of 380. While on the other hand, sectors such as medical equipment (4 acquisitions), education and agricultural equipment (only 1 acquisition) have seen little or no activity.

As already stated, the average acquisition premium in the United States has been in the range of 30–50 % of target market values, where the highest premium was paid for firms in the technology sectors (Laamanen, 2007).

The year-end report of M&A trends in Deloitte (2016), which is based on a survey done with 1000 executives in the US shows the most acquisition activities in the technology, pharmaceutical and biotechnology industry following healthcare, technology services and then finance. The forecast for the future is bright, 75 % of all respondents expect the deal activity to increase in 2017. The technology acquisition has tripled in the importance since 2015 and 99 % of the survey's respondents see the technology as the top sector for convergence; the most likely convergence is with telecommunication. The Figure 2 below shows the merger's value and acquisition deals in the US as of December 2016 by industry (in billion USD).

Figure 2. Value of M&A deals in the US by industry



Source: Deloitte, *M&A trends, Year-end report 2016*, 2016, p. 15.

McCarthy and Aalbers (2015) conducted a study on technological acquisitions on 3683 acquisitions between years 2003 and 2008. They were looking at the patenting behaviour of the companies four years before the acquisition and after the acquisition. They measured the success and failure according to new patent applications. Results were that only 21 % of companies in their sample filled more new patents that forecasted in the year after the acquisition McCarthy and Aalbers (2015). 79 % of the companies did not fill more applications as forecasted in the year after the acquisition McCarthy and Aalbers (2015). In addition to that, they analysed the effect of geography on acquisitions. Cross-border acquisitions resulted in 3.15 additional patent fillings, which may be explained by the insights brought by cultural differences (McCarthy & Aalbers, 2015).

## 5.10 Difference in acquisition premium in IPO and acquisition

Over the last ten years, private companies were more likely to be acquired than to go public. The US National Venture Capital Association states that there were more exits by venture capital backed companies through acquisitions than by IPOs in each of the last ten years. They were trying to find answers if there is a difference in quality between the acquired companies and companies going public. They were careful in matching the acquired companies and companies going public together in order to analyse the valuations used and find out the premium (Bayar & Chemmanur, 2012).

Their empirical findings show the IPO valuation premium essentially disappears for larger venture capital backed private companies, with deal value above \$50 million, for companies

with deal value below \$50 million, the IPO valuation premium exists. However, for these companies, the average premium for venture capital backed companies is significantly smaller than the average premium for non-venture capital backed companies. Authors were able to find out that the IPO premium vanishes for larger companies even though they have been venture backed. Bigger companies can choose between acquisition and IPO, while smaller companies have smaller possibilities to go public.

However, how does a firm choose between the acquisition and the IPO? Usually the companies with higher pre-exit sales growth and firms, which are larger, are more likely to choose an IPO over acquisition. Companies operating in industries that are more competitive and in those industries characterized by the absence of dominant player are more likely to choose an IPO over acquisition. Some companies are harder to value, for instance more capital-intensive firms and those operating in industries, while greater private benefits of control are more likely to choose IPO over acquisition. Moreover, the last conclusion of Bayar and Chemmanur (2012) is that companies, which were venture backed, are more likely to choose an IPO.

### **5.11 Negative acquisition premium**

Negative premium occurs when shareholders receive a bid from the acquirer for their share, which is below the initial pre-announced market price or other valuation method (Weitzel & Kling, 2012).

Negative acquisition premium or an acquisition discount was found in 8.4 % of 1937 mergers' studies between 1995 and 2011 conducted by Weitzel and Kling (2012). Their theoretical explanation for the negative premium is overvaluation, hidden earn outs and market liquidity.

Overvaluation occurs when the market overvalues the target. Bidders usually have the possibility of due diligence which affects the price according to which they are prepared to offer for the target (Weitzel & Kling, 2012).

Bidders sometimes pay with shares of the newly established joint entity. Target shareholders gain from the synergies of the aforementioned entity. That is referred to as hidden earn outs, which can be large enough to compensate for a negative premium (Weitzel & Kling, 2012).

Bruton, Oviatt and White (1994) analysed 51 acquisitions of financially distressed companies and confirmed the theory that acquisitions in a related distressed company performs better than acquisitions in an unrelated distressed company. Related acquisitions in distressed companies are more carefully conceived and executed than other acquisitions. The most common reason for badly performed unrelated acquisitions of a distressed company is lack of knowledge and unavailability of specific skills for a successful turnaround.

In liquid markets, the investors can sell their assets without a significant loss in the value of their investment. However, if there is a limited interest, they may find it difficult to sell without

offering a liquidity or marketability discount. If markets are less liquid, the target is forced to bargain for its price. There may be a situation called a fire sale. The fire sale means that there is a company in distress or going bankrupt and market price is below the fundamental value (Weitzel & Kling, 2012). Ayton and Rao-Nicholson (2017) argued that the acquirers in the post-crisis period in the Eurozone could have earned positive abnormal returns by acquiring companies operating in the European Union. The financial crisis, which happened in 2007, weakened the European economies and left a deep impact on company's valuations (Ayton & Rao-Nicholson, 2017). A study has been conducted on 1263 acquisitions in 22 countries in the European Union between 2004 and 2012. Results showed that the acquirers from non-Eurozone countries acquiring Eurozone companies had achieved positive abnormal returns. This was mainly due to the euro depreciation in the crisis and cheap financial capital available to acquirers (Ayton & Rao-Nicholson, 2017).

### **5.12 Why is the acquirer prepared to pay a high premium?**

The price is usually set based on the negotiations between the acquiring company and the target company's managers. The price may be higher than the initial price offered by the acquirer if there are other biddings for the same target company (Damodaran, 2002).

The acquirers are sometimes prepared to pay a higher premium for the company, which they are acquiring. This could happen for a number of reasons. One of them is the number of potential synergies from the integration of two firms (Krishnan, Hitt, & Park, 2007).

A different reason for the companies' willingness to pay a higher premium could be the fact that with a successful acquisition, they will be able to achieve such high levels of growth, which they could not have achieved organically through an increase in demand for their products and services. Companies that are struggling with achieving the desired levels of growth by themselves often turn to other growth strategies, such as acquisitions (Varaiya, 1987).

Another reason for paying high premiums may be hubris, which infects extremely confident managers who highly estimate their ability to extract acquisition benefits and consequently pay large premiums (Hayward & Hambrick, 1997). Malmendier and Tate (2007) came to the same conclusions when they were analysing 477 large publicly traded companies in the US between 1980 and 1994. They classified CEOs to rational or overconfident ones based on the received information. The conclusions are that overconfident CEOs have trouble estimating merger synergies, misperceive some merger opportunities with negative synergies to the value creating and have trouble estimating the target firm's value, which leads to the overpayment, especially if there are more bidders for the target firm (Malmendier & Tate, 2007). Overconfident CEOs are also faster to take on acquisitions if they can provide financing. An increased merger frequency lowers an average deal quality and lowers average market reactions to the announcement of merger bid (Malmendier & Tate, 2007).

Regarding this topic, the study conducted by Kim, Halebian and Finkelstein (2011) focused on 878 completed acquisitions from 1994 to 2005. The researchers found out that the managers, who were desperate enough to think their choices are limited and their only way out was a merger, were more likely to shop poorly and pay too much for acquisitions. According to their study, we know two conditions under which companies may become desperate enough to grow and become willing to take on a greater risk, which is paying high acquisition premiums. The first condition occurs when a company's organic growth is significantly lower than its peer's firm or its own historic organic growth. The second condition occurs when a company's dependence on acquisitions for growth is significantly higher than either peer's firms or its own historical acquisition dependence. In a similar study, Laamanen (2007) concluded that there is a statistically significant positive correlation between R&D investments of the target company and acquisition premium paid by the acquirers.

Moreover, the authors Andriosopoulos and Shuai (2015) were investigating the impact of institutional ownership on the UK mergers and acquisitions. One of the conclusions was that domestic institutional ownership was on average 39 %, while foreign institutional ownership was on average 10%. The main finding of their studies is that institutional ownership has a positive influence on the likelihood of a cross-border merger and acquisition and that full control acquisition has effective monitoring skills and an active role in the company's decision-making strategies.

Simonyan (2014) conducted a study of acquisition premium's determinants. She identified four factors that affect the acquisition premium, which are:

- market misevaluation,
- momentum,
- deregulation and
- industry consolidation.

Market misevaluation may affect the takeover premium by influencing the perceived magnitude of synergistic gains, therefore, periods of market overvaluation may result in lower premium and periods of market undervaluation may result in higher premium (Simonyan, 2014). We can measure market valuations with different ratios, usually with price to book ratios. Simonyan (2014) used investor sentiment as a measure of the market, where investor's optimism manifests in market overvaluation and investor's pessimism is associated with market undervaluation. Stock market volatility is related to acquisition premium through investor's sentiment, stock market volatility increases when investors become more bearish, and decreases when investors become bullish. Empirical results confirmed that premium is higher during periods of investor's pessimism (market undervaluation) and lower during investor's optimism (market overvaluation) (Simonyan, 2014).

Momentum is a phenomenon in the financial markets when stock returns in the current period are positively correlated with returns in the previous periods (Simonyan, 2014). Momentum is

the rate of acceleration of a security's price or volume. In general, momentum refers to a force or speed of movement, which is the speed at which the price of asset is changing (Momentum, n.d.). The momentum effect suggests that it was strongly going up in the past and will probably continue to go up in the near future (Momentum Effect in Stocks, n.d.).

Rosen (2006) in Simonyan (2014) shows that the acquirer's stock prices are more likely to increase when announcing an acquisition if the recent acquisitions by others were received well, which can be used as evidence of merger momentum. Empirical results indicate that acquisition premium exhibits a momentum effect, which means a positive correlation with the average premium in other acquisitions conducted in the previous years.

Deregulation creates opportunities for efficient improvements in industries, which were a subject to a limited competition and inefficient practices by years of regulation, for example, the energy sector with limited prices, regulation in financing companies etc. Empirical results show that acquisitions in regulated industries, immediately prior to deregulation events, were associated with significantly lower premium, while in acquisitions conducted after such events, the received premium was similar to other industries (Simonyan, 2014).

Consolidation is a result of political or economic shocks that create too many firms and excess capacity. Consolidation allows large gains by eliminating duplicate functions, cutting cost and improving efficiency. Empirical results show that acquisitions in larger industries with many firms are associated with greater premium (Simonyan, 2014).

### **5.13 Can high paid premium cause long-term underperformance?**

There are still many open questions if paying too much for the target company can hurt the acquirer in the future. This means that the acquirer is overpaying for the target and can cause the company's underperformance for a couple of years. Overpayment is just a redistribution of wealth from shareholder of the acquiring firm to shareholder of the acquired firm. Therefore, it does not affect the diversified shareholder's wealth. However, acquisition that reduces the total value of the acquired and acquiring firm makes the diversified shareholder worse off (Moeller et al., 2004).

Antoniou et al. (2008) created a study of 396 successful UK public mergers between 1985 and 2004. They examined whether high premium-paying acquirers earn significant lower returns than lower premium paying acquirers do in the 3-year period after the merger. They concluded that high merger premiums paid are unlikely to be responsible for the long-run underperformance. They did not find any evidence that high premium-paying acquirers underperform compared to the low premium paying ones up to 3 years after the merger. They have only been able to confirm the theory that mergers do not benefit the shareholders in the long run possibly because the combined firms were unable to successfully marry and extract the projected synergies, perhaps due to idealistic pre-merger expectations.

Hayward and Hambrick (1997) also claim that acquisitions sometimes yield positive returns for acquirers. However, general acquisitions have a negative effect on the shareholder's wealth of the acquiring companies.

When the acquiring company pays a premium for the target company, it must achieve synergies that compensate for the acquisitions' costs and premium paid. Krishnan et al. (2007) conducted a study on 174 acquisitions on workforce reductions in the merged companies. Executive officers search for means to create synergies that can be easily implemented and one of those is an excess workforce reduction. In their study, they are trying to show that a lot of valuable knowledge can be lost in workforce reductions, which leads to a lower firm performance.

High premium payment gives a rise to a wealth transfer to the stockholders of the acquired company. As Diaz et al. (2009) explain that many empirical studies have found out that stockholders of the acquiring company are negatively affected, while the stockholders of the target obtain extraordinary positive returns.

Moeller et al. (2004) show that there is no synergy gain for acquisitions by large firms, while there are synergy gains for acquisitions by small companies. Synergy effects were calculated as cumulative abnormal return (market residuals) over the event window relatively to the announcement day.

Several studies covering mergers and acquisitions in the last 75 years have concluded that well over half of mergers and acquisitions failed to create their expected value according to Eccles et al. (1999). On the other hand, this trend finished after the effects of the financial crisis as Alexandridis et al. (2016) proved.

## **6 ANALYSIS OF THE DATA**

This section presents the analysis of UK's M&A market in the selected period. It is about testing the theory from previous chapters of this thesis and comparing it to the sample's results. The sample consists of private and public companies from the UK, which were acquired in the period of five years, from year 2009 to year 2013. 146 acquisitions form the sample. The sample is representative, because it includes acquisitions of many different kinds of companies, from small private companies to big publicly traded companies.

The data gathering started with reading about the acquisitions from financial portals. After that, I had to verify the information by reading the company news from the company's official websites and press statements. When I had all the information and the terms about the acquisition, I have included the selected companies in the sample. For the further analysis, I tried to gather annual reports, which were easy to get for public companies; however, it was difficult to get annual reports for private companies. I have been using Amadeus database to

get financial reports of the acquired companies. I have been interested in the balance sheet and income statement.

Research questions, which I focused the analysis on, are:

- What is the average acquisition premium in the UK in the selected period?
- How does the company's size affect the acquisition premium?
- What is the average acquisition premium for private companies and what is the average acquisition premium for public companies?
- Which industry has the most acquisitions and which the least? What industry has the highest and what industry has the lowest acquisition premiums?
- How did the acquisition affect the company?

In order to answer research questions, I used the descriptive statistics. I used the same method of calculating the acquisition premium for all the companies in the sample. I could compare the market price prior the acquisition to the price of share when acquired. However, I did not have the market prices for all of the companies in the sample, since there was a great percentage of companies that were privately held. Acquisition premium has been calculated as the premium paid for the company divided with the value of the net assets. I made the calculations in the local currency, the British Sterling Pound.

## **6.1 Analysis of the acquired companies by years**

In the year 2009, I collected data for 21 companies that were taken over where the average acquisition amount was 54 million British pounds (hereinafter: £). Some of those companies are Tiscali operator, Cashcade, Razorfish, Plymouth Citybus and others. I divided acquisition into groups of different sizes, which we can see from Figure 3. The groups are divided into acquisitions until £50 million, from £51 to £100 million, from £101 million to £1 billion and mega acquisition more than billion £. In the first group, until £50 million acquisition, there are 15 companies, with the average of £18 million acquisition. In the second group from £51 to £100 million acquisition, there are 4 companies with the average of £80 million acquisition. In the third group, from £101 to £1 billion acquisition, there are 2 companies averaging £277 million acquisition.

In 2010, 34 companies that were taken over had the average acquisition amount £515 million. Some of those companies are Cadbury, Kettle Foods, Tomkins, DataCash and others. In the first group, there are 17 companies with up to £50 million acquisition with the average of £12 million acquisition. In the second group, from £51 to £100 million mergers, there are 7 companies with the average of £63 million acquisition. In the third group, from £101 to £1 billion acquisition, there are 8 companies averaging in £293 million acquisition. In the last group, over billion pounds, there are 2 companies averaging in £7 billion acquisition.

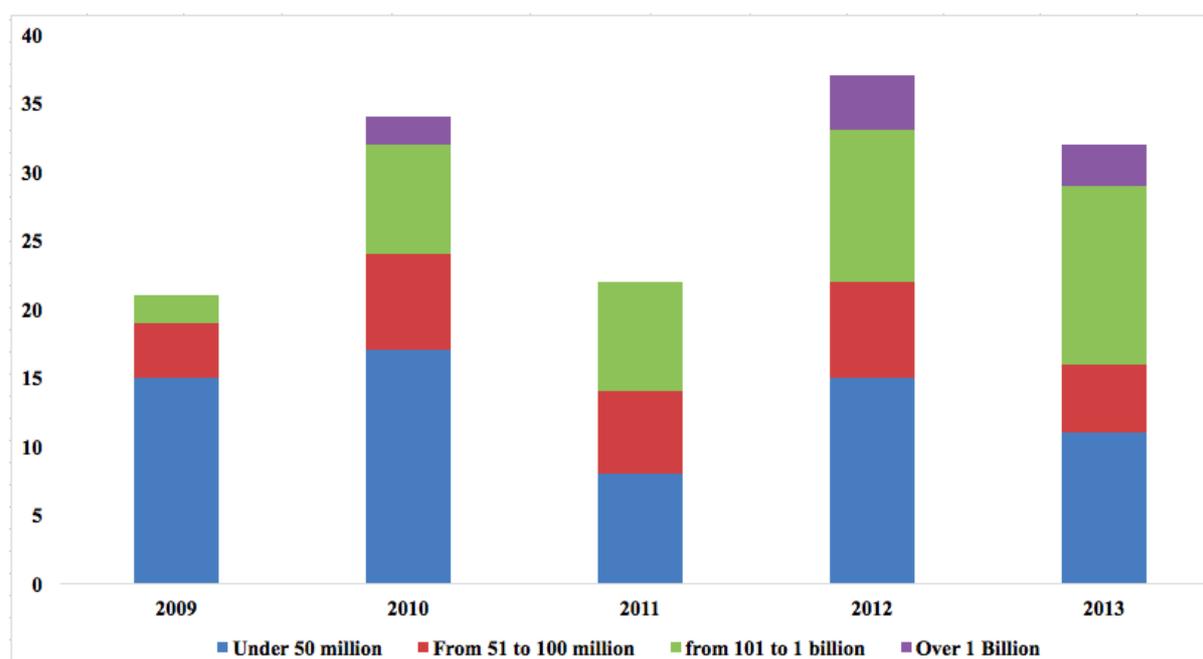
Continuing with the year 2011, I found the data for 22 companies that were taken over and the average acquisition amount was £187 million. Some of those companies are Moody International, Priory Group, Forth Ports, Travelex and others. In the first group, there are 8 companies with up to £50 million acquisition, with the average of £20 million acquisition. In the second group, from £51 to £100 million acquisition, there are 6 companies with the average of £68 million acquisition. In the third group, from £101 to £1 billion acquisition, there are 8 companies averaging in £442 million acquisition.

In the year 2012, 37 companies that were taken over had the average acquisition amount of £338 million. Some of those companies are Aegis, Logica, Invensys, Mercury Pharmah and others. In the first group, there are 16 companies with up to £50 million acquisition, with the average of £25 million acquisition. In the second group, from £51 to £100 million acquisition, there are 7 companies with the average of £70 million acquisition. In the third group, from £101 to £1 billion acquisition, there are 11 companies averaging in £359 million acquisition. In the last group of over £1 billion acquisition, there are 4 companies averaging in £2 billion acquisition.

Lastly, I found the data for 32 companies that were taken over in 2013, where the average acquisition amount was £745 million. Some of those are Virgin Media, AZ electronics, Dr. Martens and others. In the first group, there are 11 companies with up to £50 million acquisition, with the average of £24 million acquisition. In the second group, from £51 to £100 million acquisition, there are five companies with the average of £70 million acquisition. In the third group, from £101 to £1 billion acquisition, there are 13 companies averaging in £248 million acquisition. In the last group, over a billion pounds acquisition, there are 3 companies averaging in £6.6 billion acquisition.

To conclude, I have the data for 146 acquisitions during the selected period, where the acquisition price average was £407 million. Regardless of the year in which there was acquisition or all together, in the first group of under £50 million acquisition, there are 66 companies with the average of £19.7 million acquisition. In the second group, from £51 to £100 million acquisition, there are 29 companies with the average of £69.7 million acquisition. In the third group, from £101 to £1 billion acquisition, there are 42 companies averaging in £324 million acquisition. In the last group, over a billion pounds, there are 9 companies averaging in £4.7 billion acquisition.

Figure 3. Number of acquisitions distributed according to size



Source: Amadeus n.d., own calculations, 2017.

## 6.2 Average acquisition premium

Acquisition premium is the difference between the acquisition price and market price. I covered more theory in chapter 5 of this thesis.

I was analysing what were the acquisition premiums, comparing them between years and with different size groups. I started with calculating the net assets of an acquired company. I found the needed data in the annual reports and Amadeus database. The amount of money paid for the company divided by the net assets is the acquisition premium, which can also be shown as a percentage by dividing the acquisition premium by net assets. I formed groups of acquisitions by the acquisition's size.

As it can be seen from Figure 4, there were 21 acquisitions in the year 2009; the highest average acquisition premium paid was in the group from £100 million to £1 billion (28.2 %). The lowest average acquisition premium paid in this year was 3.93 % in the group from £50 million to £100 million acquisition. The average acquisition of the observed year 2009 was 7.27 %.

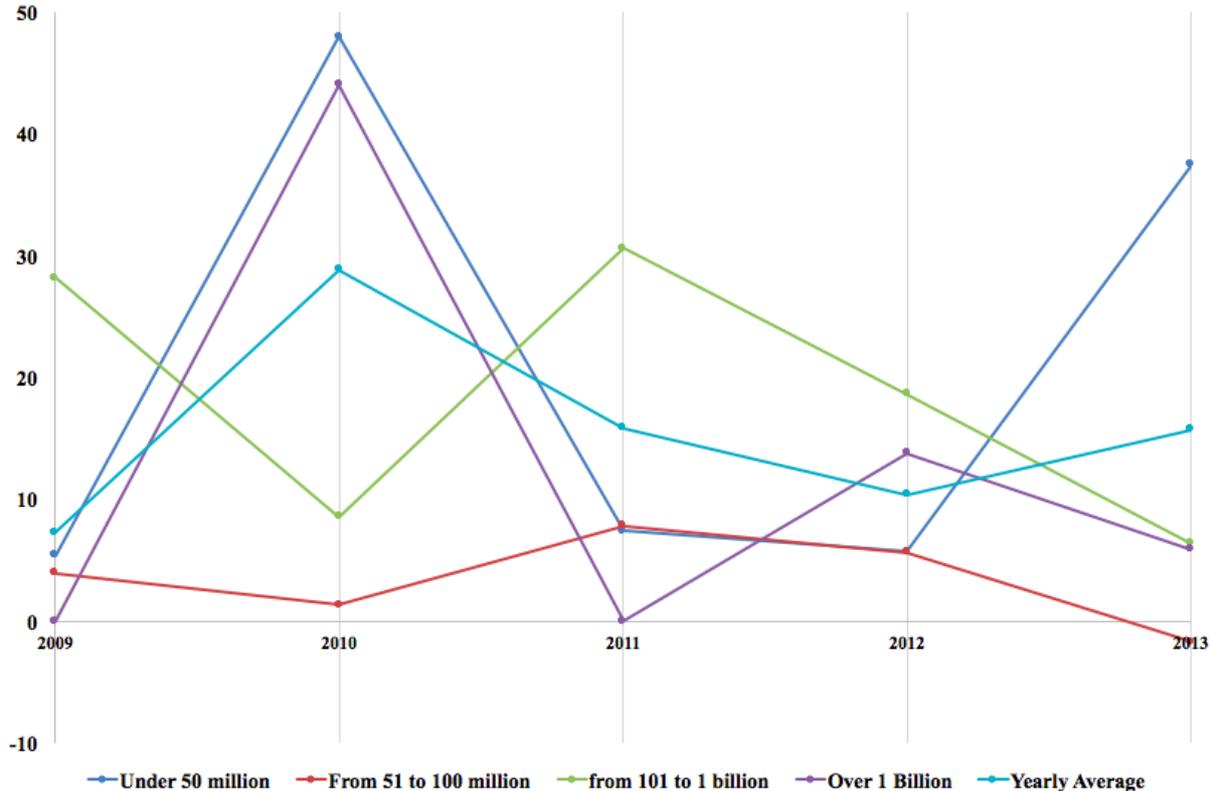
There were 34 acquisitions in the year 2010, where the highest average acquisition premium paid was in the group under £50 million acquisition (47.94 %). The lowest average acquisition premium paid in this year was 1.34 % in the group from £50 million to £100 million acquisition. The average acquisition premium of the year 2010 was 28.85 %.

There were 22 acquisitions in 2011, where the highest average acquisition premium paid was in the group from £100 million to £1 billion (30.60 %). The lowest average acquisition premium paid in this year was 7.3 % in the group under £50 million acquisition. The average acquisition premium of the year 2011 was 15.85 %.

There were 37 acquisitions in the year 2012, where the highest average acquisition premium paid was in the group from £100 million to £1 billion (18.61 %). The lowest average acquisition premium paid in this year was 5.6 % in the group from £50 million to £100 million acquisition. The average acquisition premium of the year 2012 was 10.40 %.

There were 32 acquisitions in the year 2013, where the highest average acquisition premium paid was in the group under £50 million acquisitions (37.42 %). The lowest average acquisition premium paid in this year was -1.7 % in the group from £50 million to £100million acquisition. The average acquisition of the year 2012 was 15.73 %.

Figure 4. Acquisition premium by acquisition group



Source: Amadeus n.d., own calculations, 2017.

### 6.3 Analysis by industry

There are two major sector classification schemes. One is known as the Global Industry Classification schemes (hereinafter: GICS) and divides 51,000 global securities into 10 sectors, 24 industry groups, 67 industries and 156 subindustries. MSCI and Standard & Poor developed

it. The other is the Industry Classification Benchmark (hereinafter: ICB) that classifies 75,000 securities into 10 industries, 19 super sectors, 41 sectors and 114 subsectors. Dow Jones and FTSE developed it. They are both internationally recognized standards allowing investors to compare the industry trends between subsectors. Even though classifications are similar, there are some major differences. That is why it is important to know which sector you are referring to before making the decision (Riedl, 2015). Industries are classified into industry groups by what they produce or by the markets that purchase their products. GICS sectors are more market oriented. The company is assigned to a subindustry based on their primary business activity and subindustry automatically determines its industry, industry group and sector (MSCI, 2016). Christensen (2010) found out that almost 20 % of firms are not classified as expected.

The acquisition premium varies from industry to industry. I ranked all the acquired companies into the industry classification by GICS. With the objective on the sample's size, I have chosen to classify my companies into 24 industries (as shown in *Table 1*), as explained by Standards & Poor's Global Industry Classification Standards.

Table 1. Global industry groups

<b>Automobile &amp; Components</b>	<b>Food &amp; Staples retailing</b>	<b>Real estate</b>
Banks	Food, Beverage & Tobacco	Retailing
Capital Goods	Health Care Equipment & services	Semiconductors & Semiconductor Equipment
Commercial Services & Supplies	Household & Personal products	Software and Services
Consumer Durables & Apparel	Insurance	Technology Hardware & Equipment
Consumer Services	Materials	Telecommunication Services
Diversified Financials	Media	Transportation
Energy	Pharmaceuticals, Biotechnology & Life sciences	Utilities

Source: *Standards & Poor's Global Industry Classification Standards*, 2006.

### 6.3.1 Number of acquisitions by industry

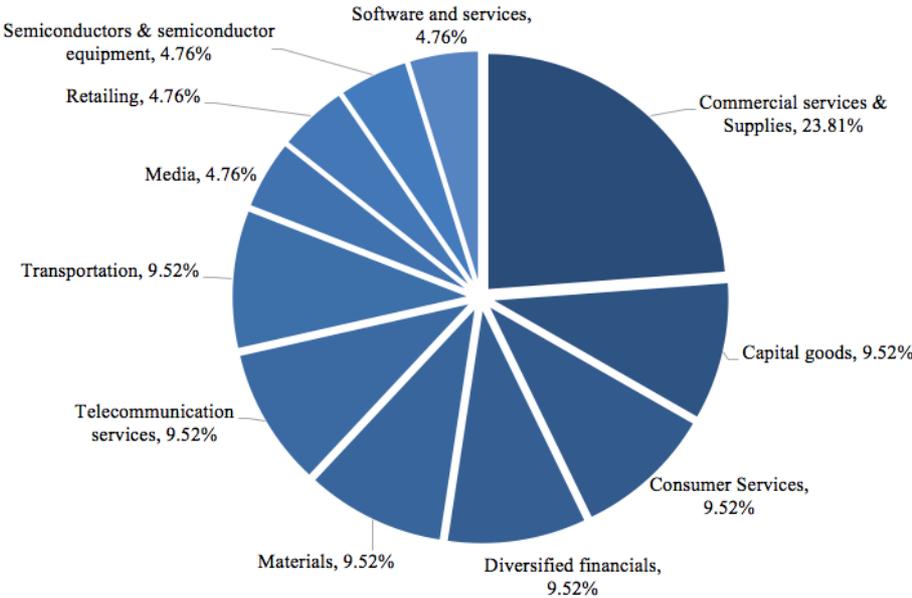
For each of the observed years, I analysed how many acquisitions were there by different industries.

Even though the industry is classified in sectors, some of their boundaries are beginning to become blurred. We are talking about the industry convergence. The first convergence started back in 1980 between the industry of communications, computing and publishing/broadcasting content. The prediction was that all three industries would combine by the year 2000. This proved to be correct. They all started dealing with creating, manipulating and storing the binary data. A common reliance on digital systems and in particular the Internet will continue to drive

the industrial convergence for many years to come. Nowadays, the three broad industry sectors of media, manufacturing and medicine started to converge. The industry convergence is leading towards mixing organic and inorganic technologies (Barnatt, 2016).

As shown in Figure 5, there were 21 acquisitions in 2009, where acquired companies were classified into 12 industries. The industry with the most acquisitions was Commercial Services & Supplies, followed by Capital Goods and Consumer Services.

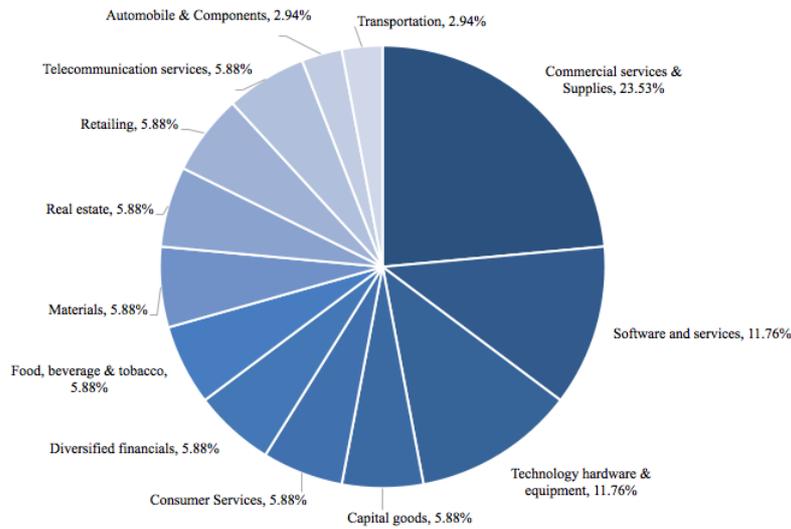
Figure 5. Percentage of acquisitions by industry in 2009



Source: Amadeus n.d., own calculations, 2017.

There were 34 acquisitions in the year 2010 (as shown in Figure 6), where acquired companies were classified into 13 industries. Industry with the most acquisitions was Commercial Services & Supplies, followed by Software and Services and Technology Hardware & Equipment.

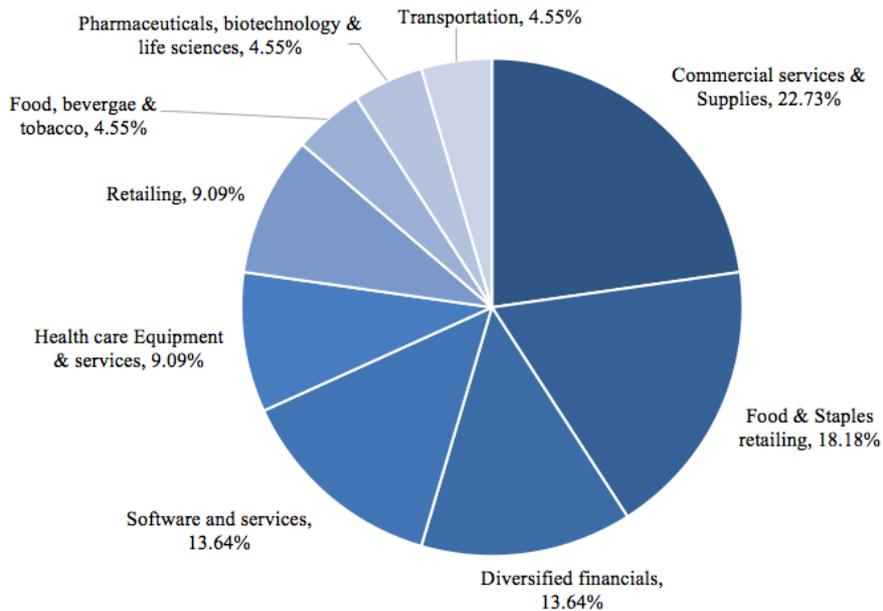
Figure 6. Percentage of acquisitions by industry in 2010



Source: Amadeus n.d., own calculations, 2017.

As we can see in Figure 7, there were 22 acquisitions in the observed year 2011, where acquired companies were classified into 9 industries. Industry with the most acquisitions was Commercial Services & Supplies, followed by Food & Staples Retailing and Diversified Financials.

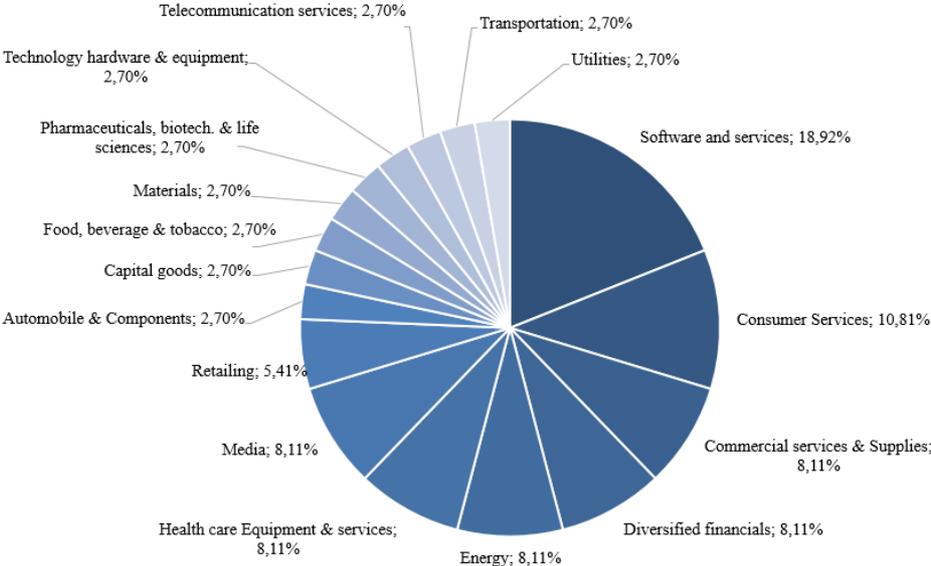
Figure 7. Percentage of acquisitions by industry in 2011



Source: Amadeus n.d., own calculations, 2017.

There were 37 acquisitions in the observed year of 2012, where acquired companies were classified into 18 industries as shown in Figure 8. Industry with the most acquisitions was Software and Services, followed by Consumer Services and Commercial Services & Supplies.

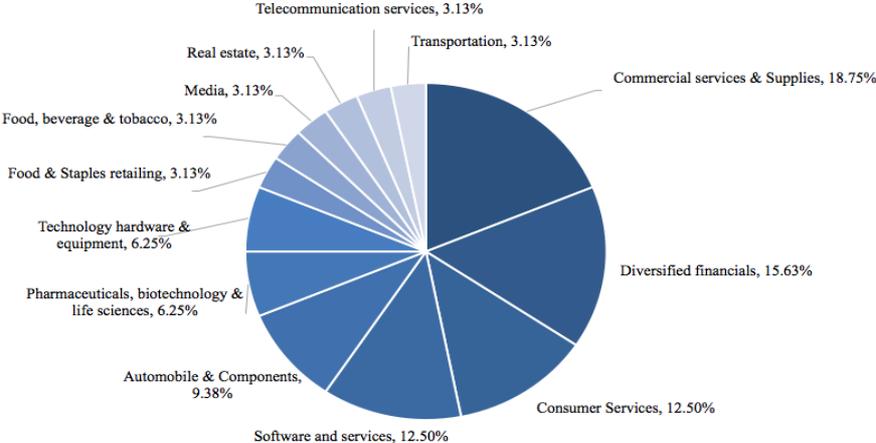
Figure 8. Percentage of acquisitions by industry in 2012



Source: Amadeus n.d., own calculations, 2017.

There were 32 acquisitions in the observed year 2013, where acquired companies were classified into 13 industries, as can be seen in Figure 9. The industry with the most acquisitions was Commercial Services & Supplies, followed by Diversified Financials and Consumer Services.

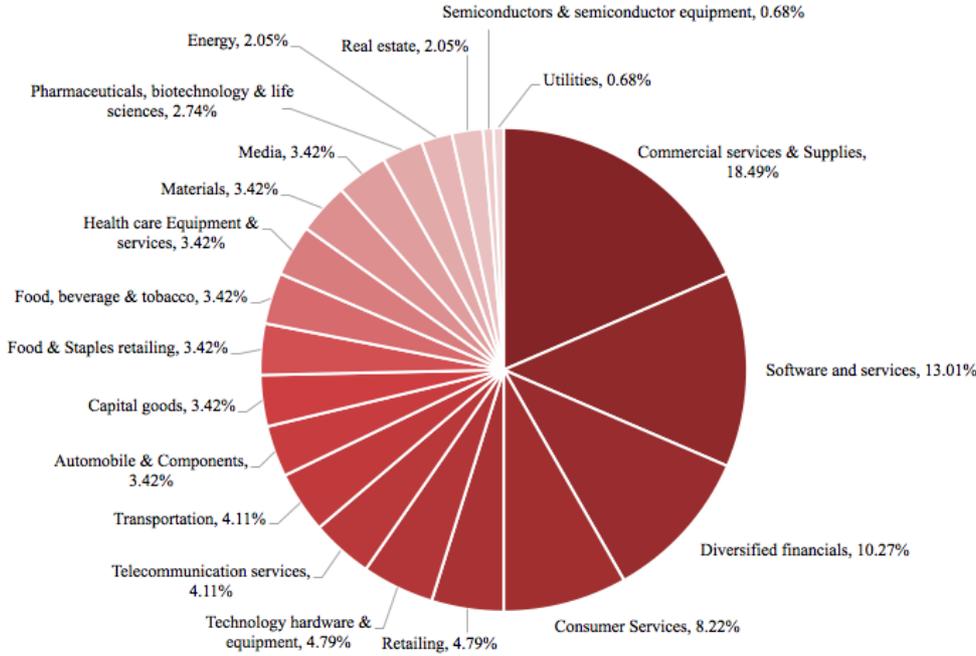
Figure 9. Percentage of acquisitions by industry in 2013



Source: Amadeus n.d., own calculations, 2017.

When observing the 5-year period, there were 146 acquisitions. Industries with the most acquisitions were Commercial Services & Supplies (18.49 %), Software and Services (13.01 %) and Diversified Financials (10.27 %). Industries with the least acquisitions were Utilities (0.68 %), and Semiconductors Industry (0.68 %). We can see data in Figure 10.

Figure 10. Percentage of acquisitions by industry between 2009 and 2013



Source: Amadeus n.d., own calculations, 2017.

Estrella’s (2001) research shows that mergers of different industry sectors are arising because of combining common factors and their potential diversification gains. The basic question, which type of merger is most profitably for banks and other financial firms, determines the potential partners even from different industries. The research examined four industries as a source of prospective matches: life insurance, property and casualty insurance, securities and commerce. It is likely that in combining firms from different industries, the bigger one may overwhelm the effect of diversification. But, when combining equally big firms, they both gain, that also implies for large-scale banks and insurance companies. The results suggest that combining industries is a positive decision, but not by all means.

Future trends presented in the year-end report of M&A Trends (Deloitte, 2016) also predict the industry convergence in the following years, especially in technology. This survey anticipates the converging technology with telecom providers (29 %) and with companies in professional services, energy and resources, media and entertainment, and manufacturing (10 %). We also expect convergence in cross-related sectors, for example, between life science and health care and pharmaceutical companies. Undoubtedly, digital disruption, changes in government

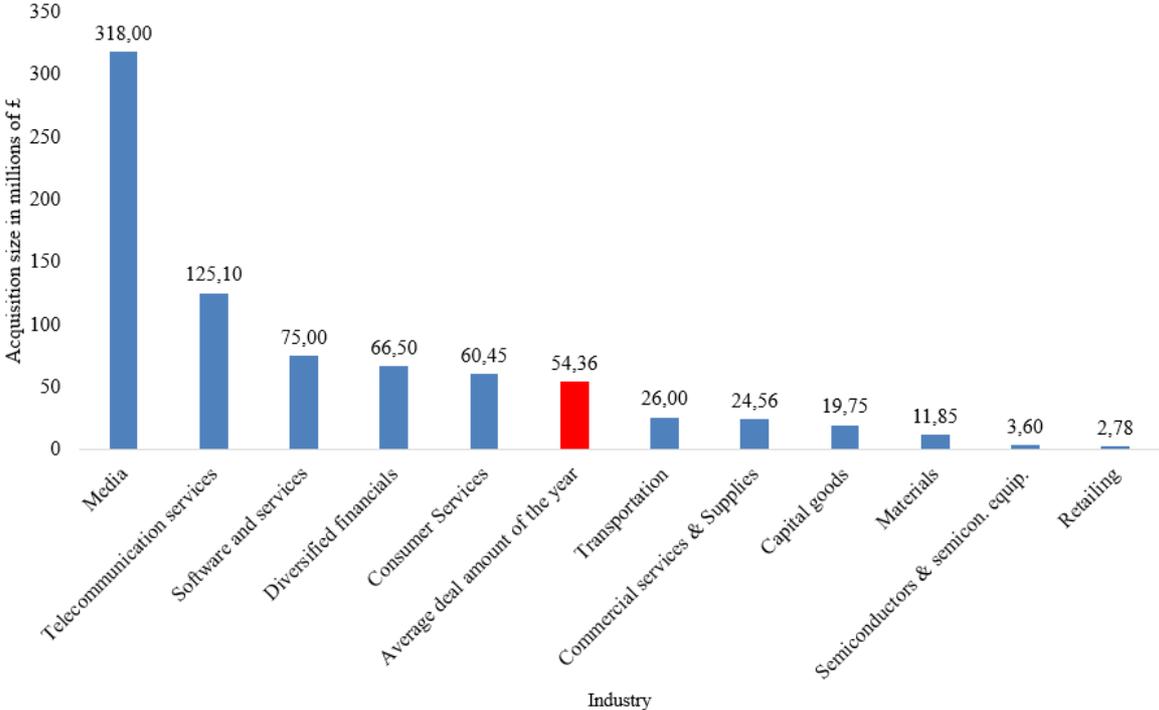
regulation and the continuous pursuit of growth will likely see this trend of industry convergence continue for the near future.

**6.3.2 Size of acquisitions by industry**

There are many different sizes of companies operating in different industries. On one hand, we have billion pound acquisitions and on the other hand, we have smaller, only million pound acquisitions.

The average acquisition size in 2009 was £54.36 million. If we compare industry to industry, the biggest acquisitions made were in Media (£318 million acquisitions) and Telecommunication services (£125 million acquisitions), while the least was in Retailing (£2.7 million acquisitions). We can see data in Figure 11.

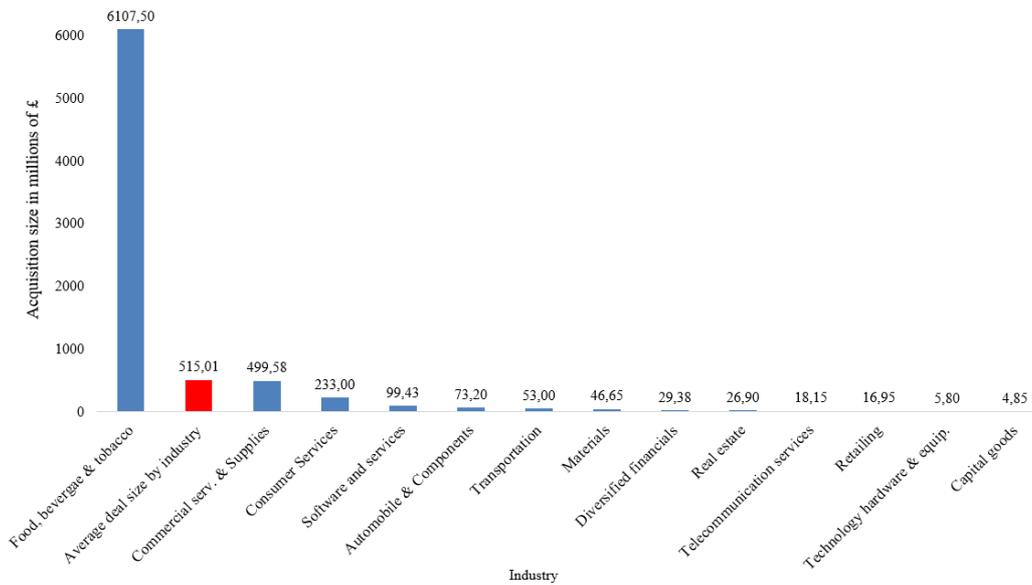
Figure 11. Average acquisition size by industry in 2009



Source: Amadeus n.d., own calculations, 2017.

As we can see in Figure 12, the average acquisition size in 2010 was £515 million. If we compare industry to industry, the biggest acquisitions were made in Food, Beverage, Tobacco (£6 billion acquisitions) and Commercial Services & Supplies (£499 million acquisitions), while the lowest was in Capital Goods (£4.8 million acquisitions).

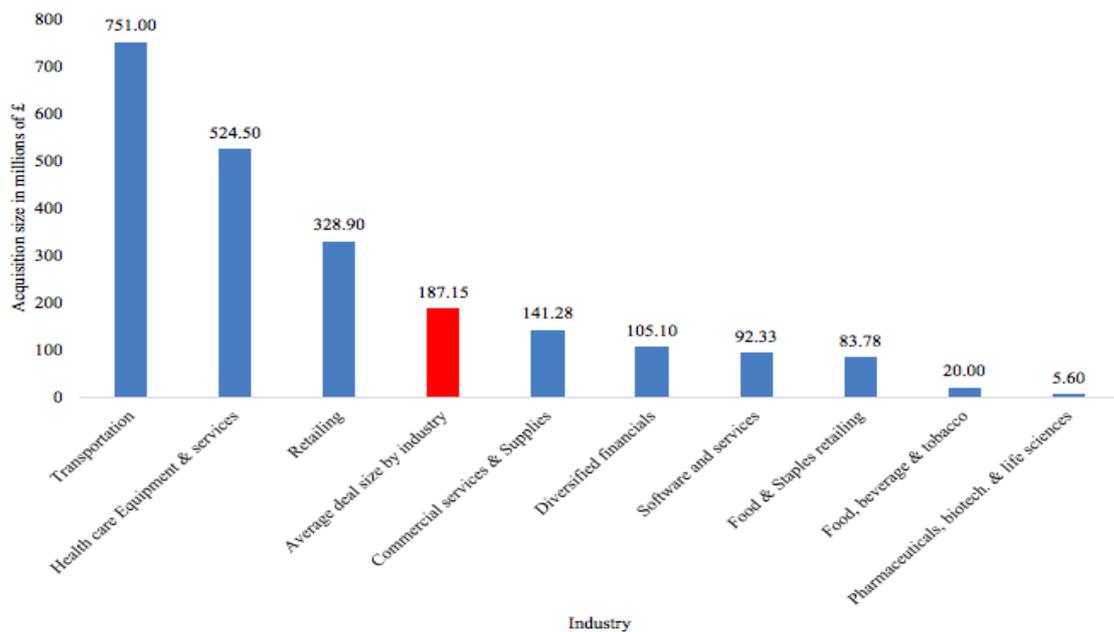
Figure 12. Average acquisition size by industry in 2010



Source: Amadeus n.d., own calculations, 2017.

The average acquisition size in 2011 was £187 million. If we compare industry to industry, the biggest acquisitions were made in Transportation (£751 million acquisitions) and Health Care Equipment and Services (£524 million acquisitions), while the least was in Pharmaceuticals, Biotechnology & Life sciences (£5.6 million acquisitions). We can see data in Figure 13.

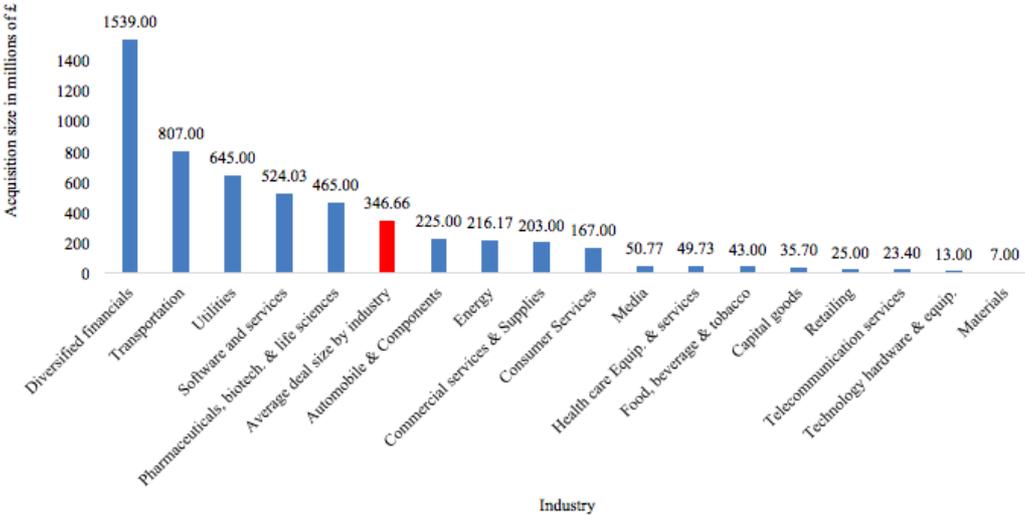
Figure 13. Average acquisition size by industry in 2011



Source: Amadeus n.d., own calculations, 2017.

The average acquisition size in 2012 was £346.6 million. If we compare industry to industry, the biggest acquisitions were made in Diversified Financials (£1.5 billion acquisitions) and Transportation (£807 million acquisitions), while the least was in Materials (7 million pound acquisitions). We can see data in Figure 14.

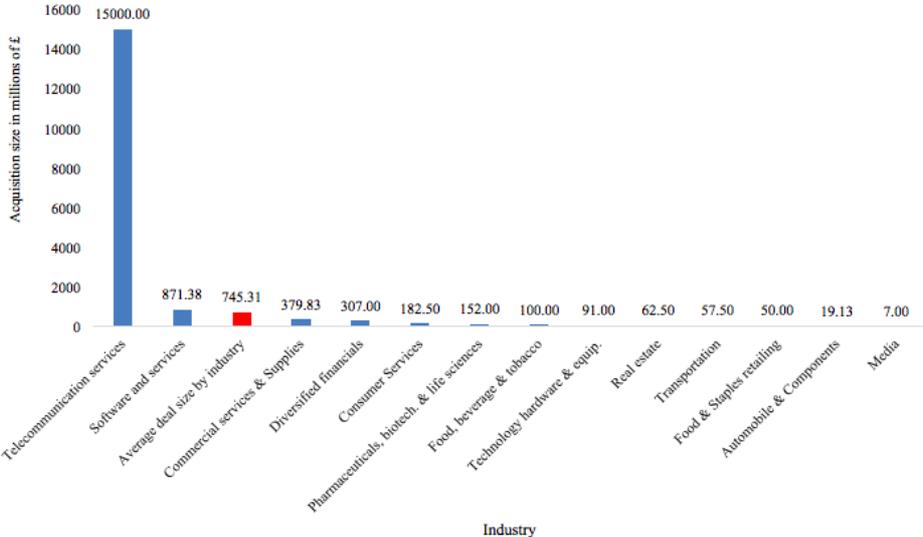
Figure 14. Average acquisition size by industry in 2012



Source: Amadeus n.d., own calculations, 2017.

The average acquisition size in 2013 was £745.3 million. If we compare industry to industry, the biggest acquisitions were made in Telecommunication Services (£15 billion acquisition) and Software and Services (£871 million acquisition), while the least was in Media (£7 million acquisition). We can see this in Figure 15.

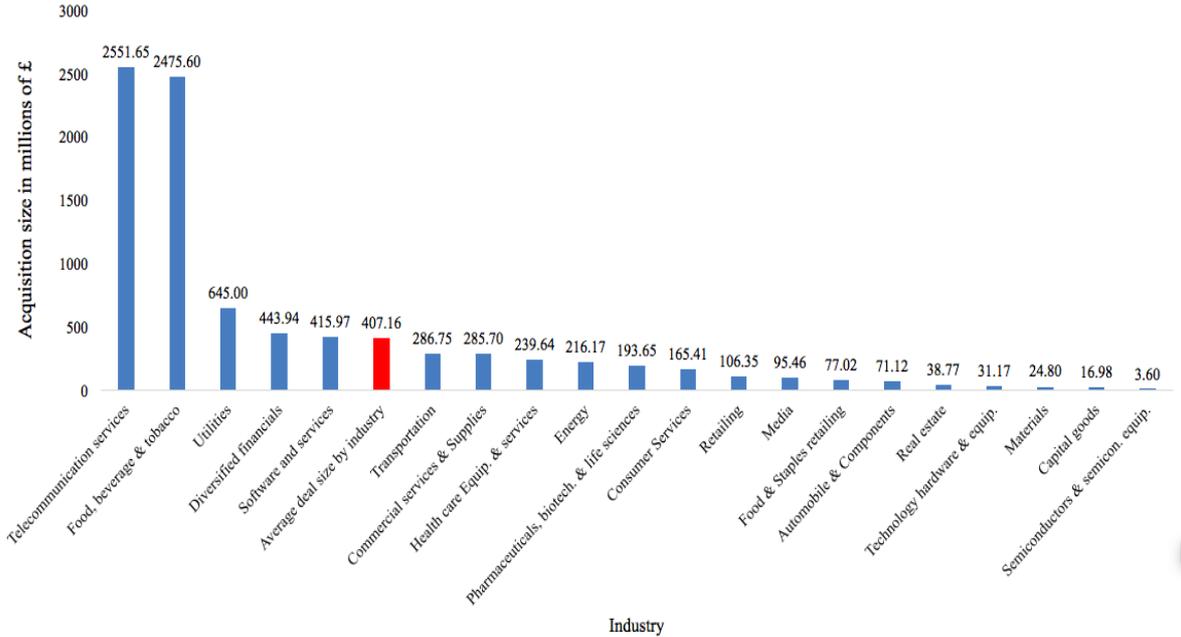
Figure 15. Average acquisition size by industry in 2013



Source: Amadeus n.d., own calculations, 2017.

To summarize, in the 5-year observing period, there were 146 acquisitions. The average acquisition deal in the 5-year period was £407.1 million (as shown in Figure 16). If we compare industry to industry, the biggest acquisitions were made in Telecommunication Services (£2.5 billion acquisition) and Food, Beverage & Tobacco (£2.4 billion acquisition), while the least was in Semiconductors (£3.6 million acquisitions) and Capital Goods (£16.9 million acquisitions).

Figure 16. Average acquisition size in the 5-year period



Source: Amadeus n.d., own calculations, 2017.

Over the past several years, corporate cash reserves have consistently increased according to Deloitte (2016) in the US. This corresponds to cash balance (by S&S 500) that marked the second largest hoard in the last 10 years. Most of the companies will primarily seek M&A opportunities (43 %). They will go further, not just combining industries, but also looking for deals abroad in the selected cluster of countries and regions. Most of the companies are planning that at least some of their company’s M&A deals will involve acquiring targets that are operating principally in the foreign market. The first choice as a target market will be Canada (40 %), followed by the UK (31 %), China (25 %) and Japan (24 %). Just among private equity market, the UK was the most attractive foreign target. The biggest desires for international markets have the energy and resources companies, most of them targeting Canada and Australia.

M&A is an important strategy, which deals with combining, buying and selling of companies combining or within particular sector. The combining of a smaller company with a larger one cannot just boost the financial power, but the market share and business power as well. This allows the newly formed company to further develop and expand. The value of M&A

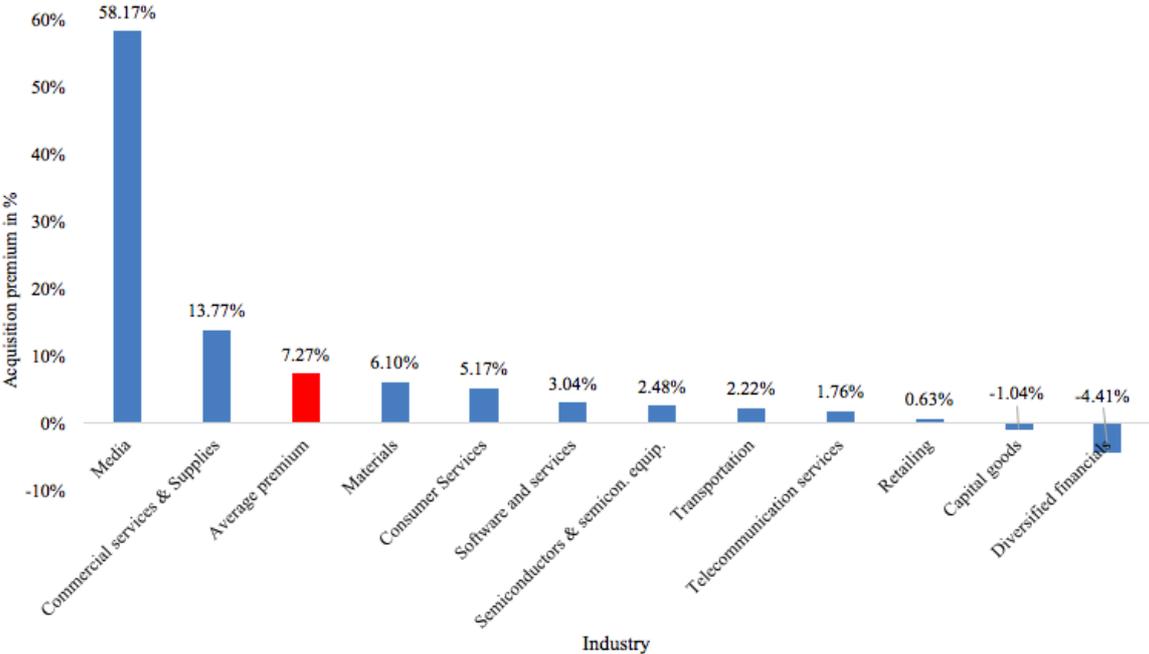
worldwide increased from 2010 to 2015; in 2010, it was \$3.43 trillion, while in the 2015, it was \$6.14 trillion, and all indicators suggest further growth (Value of mergers and acquisitions worldwide, n.d.).

### 6.4 Acquisition premium by industry

Different industries have different revenues, margins and profits. Therefore, there are differences in the acquisition premium from industry to industry.

I classified the data into 11 industries in 2009. There is industry Media that showed high acquisition premium, which was 58.17 %, followed by Commercial Services and Supplies with 13.77 % acquisition premium (as shown in Figure 17). There were also industries with negative acquisition premium, such as Capital Goods and Diversified Financials. The average acquisition premium in 2009 was 7.27 %.

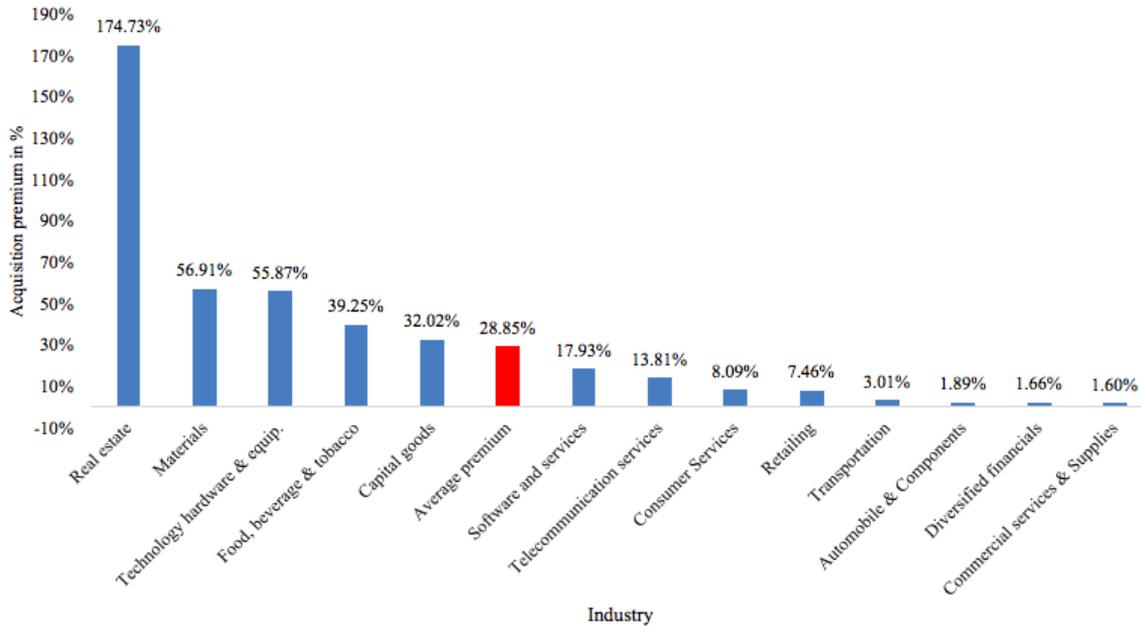
Figure 17. Acquisition premium by industry in 2009



Source: Amadeus n.d., own calculations, 2017.

In the observed year 2010, the data is classified into 13 industries. There is Real Estate industry that showed very high acquisition premium, which was 174.73 %, followed by Materials with 56.91 % acquisition premium (as shown in Figure 18). There were no industries with negative acquisition premium. The average acquisition premium in the observed year 2010 was 28.85 %.

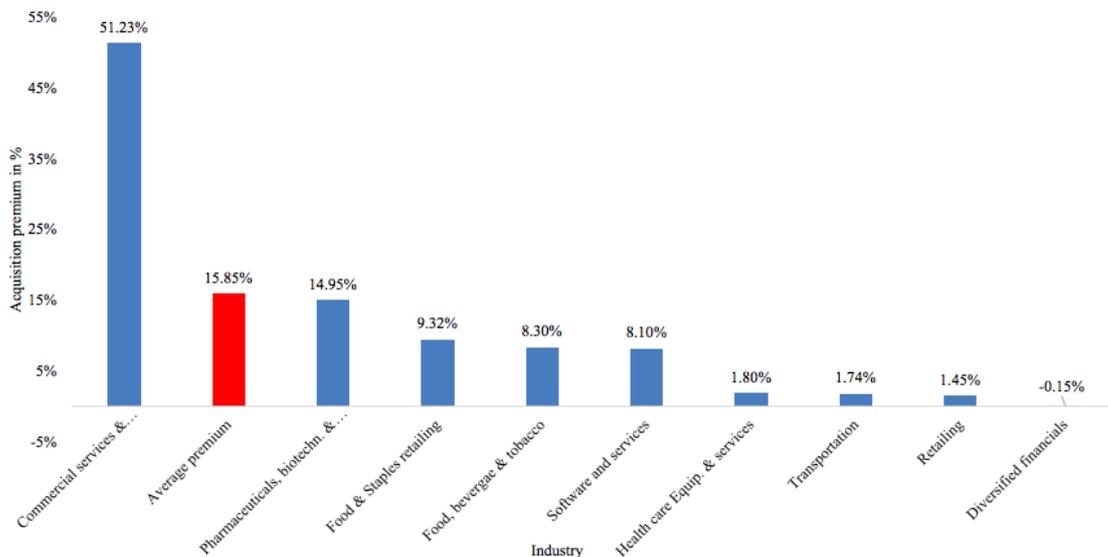
Figure 18. Acquisition premium by industry in 2010



Source: Amadeus n.d., own calculations, 2017.

Data is classified in only 9 industries in the observed year 2011. Industry Commercial Services & Supplies achieved high acquisition premium, which was 51.23 %, followed by Pharmaceuticals, Biotechnology & Life sciences with 14.95 % acquisition premium (as shown in Figure 19). There was industry with negative acquisition premium, such as Diversified Financials. The average acquisition premium in 2011 was 15.85 %.

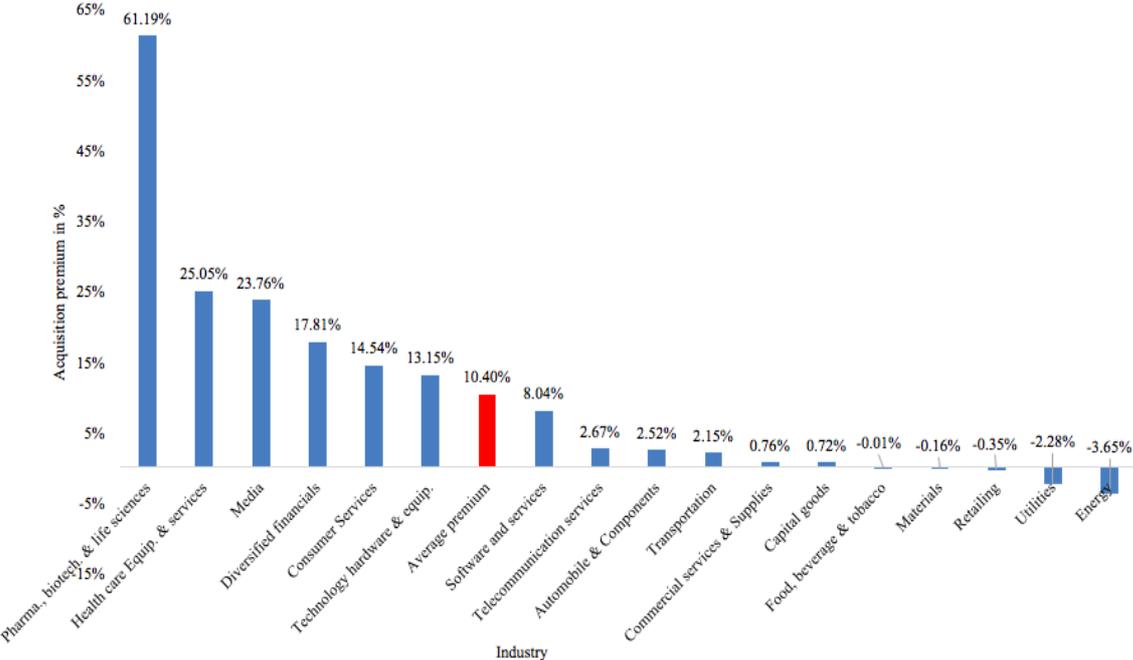
Figure 19. Acquisition premium by industry in 2011



Source: Amadeus n.d., own calculations, 2017.

In the observed year 2012, the data is classified into 17 industries. There is Pharmaceuticals industry, Biotechnology & Life sciences that showed high acquisition premium, which was 61.19 %, followed by Health Care Equipment & services with only 25.05 % acquisition premium (as shown in Figure 20). There were also few industries with negative acquisition premium, such as Energy with -3.56 % and Utilities with -2.28 %. The average acquisition premium in the year 2012 was 10.40 %.

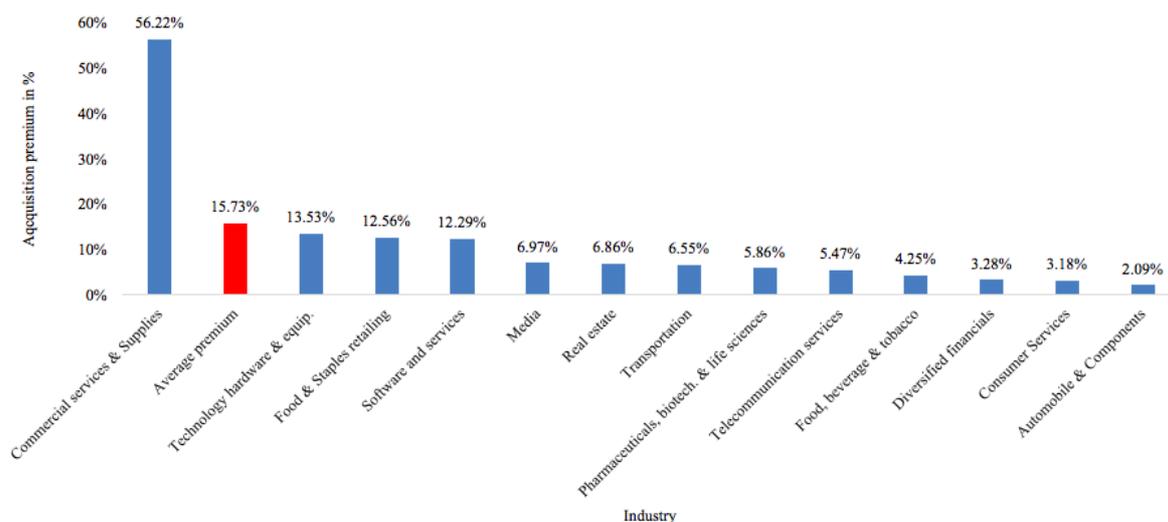
Figure 20. Acquisition premium by industry in 2012



Source: Amadeus n.d., own calculations, 2017.

Data is classified into 13 industries in the observed year 2013. Commercial Services & Supplies achieved high acquisition premium, which was 56.22 %, followed by Technology Hardware & Equipment with 13.53 % acquisition premium (as shown in Figure 21). There was no industry with negative acquisition premium. The average acquisition premium in the year 2013 was 15.73 %.

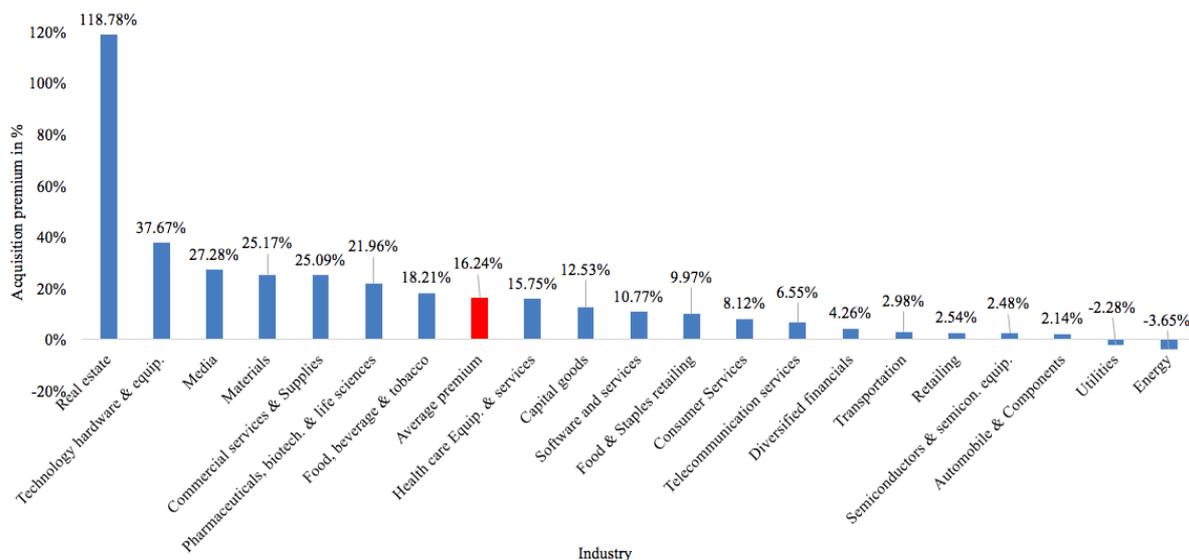
Figure 21. Acquisition premium by industry in 2013



Source: Amadeus n.d., own calculations, 2017.

In the 5-year observing period, there were 146 acquisitions. Acquisitions were classified into 20 industry groups. The average acquisition premium was 16.24 %. There were industries with high premium: Real estate (118.78 %), Technology Hardware & Equipment (37.67 %) and industries with negative premium, which is Energy (-3.65 %) and Utilities (-2.28 %). We can see this in Figure 22.

Figure 22. Average acquisition premium by industry between 2009 and 2013

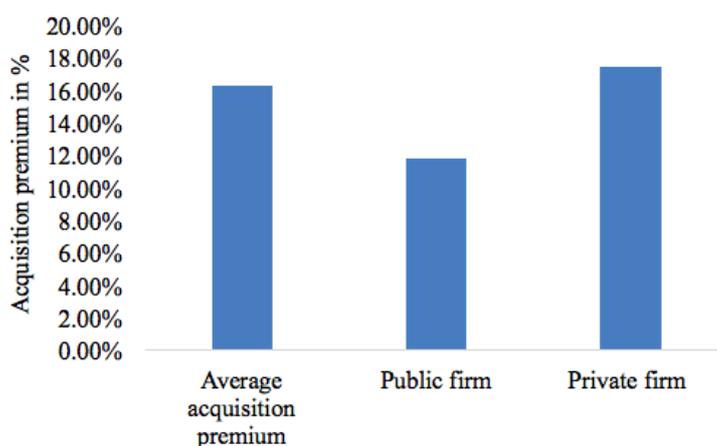


Source: Amadeus n.d., own calculations, 2017.

### 6.4.1 Analysis of the acquisition premium by the firm's type

According to the theory, the acquisition premium differs between private and public firms (Capron & Jung, 2007). In my sample, there are 146 acquisitions. 30 or 20 % of them are acquisitions of public companies that were trading on London Stock Exchange. The average acquisition premium of all companies was 16.24 %, the average acquisition premium of public companies was 11.76 %, and the average acquisition premium of private companies was 17.39 % (as shown in Figure 23). However, sample of acquisitions of public companies is small.

Figure 23. Acquisition premium by the firm's type



Source: Amadeus n.d., own calculations, 2017.

### 6.5 Analysis of the performance and health of acquirer

The aim of the second analysis is the assessment of the acquirer's physical performance before and after the acquisition. I was trying to investigate if the acquisition was successful or not. In this analysis, there are only companies of which the acquisition took place in the observed year 2011. The sample includes 22 companies.

To be able to do that, I found annual reports for those companies for the year 2010, which is one year before the acquisition and the annual report from the year 2013, which is two years after the acquisition. In the observing interval, I tried to show a pattern of increasing productivity, higher operating revenues, net income and increasing assets. I cannot say with certainty that the acquirer is growing and performing better because of this specific acquisition. Companies acting as the acquirer in 2011 are very big global companies, such as Amazon, MasterCard, Itochu, GlaxoSmithKline, Virgin and 17 more, who successfully commit many acquisitions in a year. Therefore, I cannot say that good results are just because of the acquisition of one company. I observed five indicators of the company performance, which are the change of operating revenue, net income, total assets, net assets, and cash flow. I did the analysis on the average date of all companies for a specific year. Therefore, I did not examine specific acquisition, but all 22 companies as a whole.

**6.5.1 Analysis of the acquirer by years**

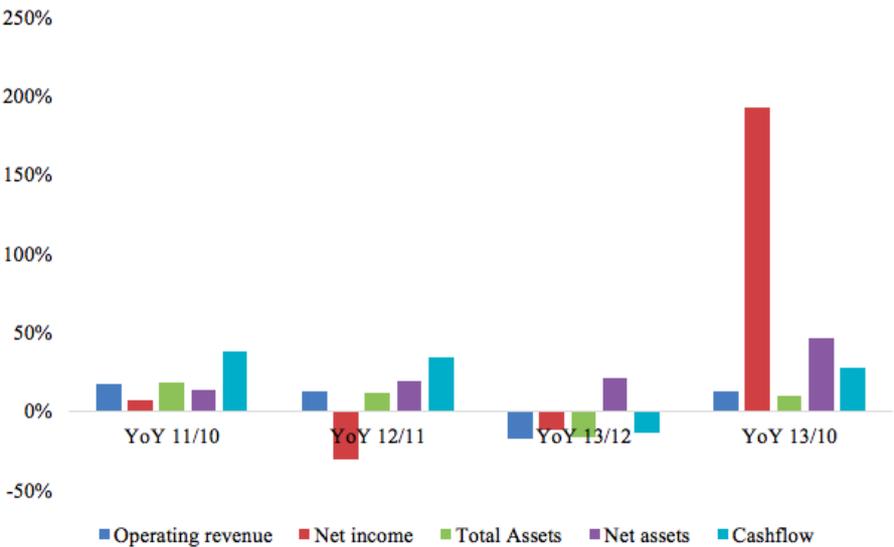
Operating revenues increased on average for 17.05 %, net income increased on average for 6.57 %, total assets increased on average for nearly 17.86 %, net assets increased on average for 13.37 %, and cash flow increased on average for 37.89 % in the year of acquisition (2011), compared to the year 2010.

Operating revenues increased on average for 12.33 %, net income decreased on average for 31.05 %, total assets increased on average for 11.11 %, net assets increased on average for 19.35 %, and cash flow increased on average for 34.03 % in the year 2012, a year after the acquisition, compared to the year 2011.

Operating revenues decreased on average for 17.67 %, net income decreased on average for 11.80 %, total assets decreased on average for 16.82 %, net assets increased on average for 21.22 %, and cash flow increased on average for 13.53 % in the period of two years after the acquisition (2013), compared to the year 2012.

To conclude, operating revenue increased on average for 12.07 %, net income increased on average for 192.42 %, total assets increased on average for 9.89 %, net assets increased on average for 46.46 %, and cash flow increased on average for 26.62 %, three years after the acquisition, in the year 2013, compared to 2010. As you can see from Figure 24, all of the indicators are positive after three years of acquisition. There was a growth factor present and the companies are performing better.

*Figure 24. Acquirer performance*



Source: *Amadeus n.d.*, own calculations, 2017.

## CONCLUSION

As already pointed out in the thesis, acquisition premium is a numerical value, which can be higher or lower (however, on average higher) of the company's market value that is paid for the right to control the firm. The most common reason that explains why there is an acquisition premium at all, are the future synergies that will be generated if the acquisition is successful (Gaughan, 1999).

The conclusions I have gathered from analysing the UK market were that there is a positive acquisition premium. The average premium of 146 acquisitions between 2009 and 2013 is 16.24 %. It is lower than in the theoretical researches, which I used in this thesis. Alexandridis et al. (2010) showed that the average premiums paid in public acquisitions of the UK firms in the period from 1990 to 2007 is 37 %. This can be explained with the fact that Alexandridis was using only publicly traded firms, while I have been using private and publicly traded firms. In addition, the method of calculating the used acquisition premium was different from the one Alexandridis used.

Theoreticians cannot decide what types of firms get higher acquisition premiums, either publicly traded or private ones. Capron and Jung (2007) argued that private firms should be sold with lower acquisition premium because of market liquidity. On the other hand, Lys and Yehuda (2012) argued that in their research, private firms received approximately three times larger acquisition premium than publicly traded firms. My research produced different results: the average acquisition premium of all companies combined was 16.24 %, the average acquisition premium of public companies was 11.76 % and the average acquisition premium of private companies was 17.39 %. My sample was smaller than Lys and Yehuda's, and only 20 % of my sample was publicly traded firms.

Alexandridis et al. (2012) conducted a study of 3691 public acquisitions between 1990 and 2007 in the US. The average premium for large targets with the average size of \$3 billion is 36.5 % compared to the average premium for small targets with the average size of \$35.9 million, which is 52.6 %. I found similar results in my study: the acquisition premium for the above median acquisition is 11.87 %, while the acquisition premium for smaller firms (below median acquisitions) is 20.38 %.

An interesting fact is that there are differences in the average acquisition premium paid between sectors. The lowest acquisition premium paid, according to Alexandridis (2012), was within the financial (39.6 %) and manufacturing (40.8 %) sectors, while the highest were paid in technological sector (52.3 %). The theory confirms my research; Real estate had the highest acquisition premium (118.78 %), followed by Technology Hardware & Equipment (37.67 %). The lowest acquisition premium was a negative acquisition premium in sectors Utilities (-2.28 %) and Energy (-3.65 %). If Alexandridis and I would have changed the observed period, we might get different results about which sector has the highest and which has the lowest

acquisition premium. There are cyclical and defensive sectors, which would perform in line with the economy, since the economy moves in cycles.

According to the theory, effects of high premium acquisitions are mixed. Acquisitions sometimes yield positive returns for acquirers, however generally, acquisitions have been found to have a negative effect on the shareholder's wealth of the acquiring firms (Hayward & Hambrick, 1997). Antoniou et al. (2008) did not find any evidence that high premium paying acquirers underperform the low premium paying ones. They have only been able to confirm the theory that mergers do not benefit shareholders in the long run. In my research, I took a closer look at the business performance of the acquired firms three years after the acquisition. By measuring only operating revenue, net income, size of total assets, size of net assets and cash flow combined, firms are performing better than before the acquisition. On average, there was an increase in all those performance measurements. However, since combined firms are global firms, which do more acquisitions in a year, I could not argue these positive results are solely from the acquisitions, which I looked into. The effect on the shareholders of the acquired firm would be difficult to analyse. I would have to forecast the firm's future business and compare it with the acquired firm's business, which I would make on many assumptions.

This thesis brought to light the fact that it is difficult to generalize acquisitions and their effect on shareholders of the acquired firm. I think every acquisition is specific and we have to treat and examine it in that way. To finish with words of Eccles et al. (1999): "It's never the last deal. Deals fall apart all the time and what's more, divestures are nearly as common as acquisitions in today's market".

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