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Do cross-border M&As in Europe create long-run shareholder value?

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PREFACE AND ACKNOWLEDGEMENTS

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Abstract

This thesis investigates the effect of mergers and acquisitions in Europe on the stock price performance of acquirers during the time period 2001-2014. More specific, the Buy and Hold Abnormal Return (BHAR) differences between domestic, intra-European and extra-European takeovers are investigated using an advanced matching algorithm. Extra-European takeovers perform significantly negative (-9.97%) on the 1-year time frame, while positive (insignificantly) (12.77%) on the 3-year time frame. Cultural differences have, in contradiction to our expectations, a negative effect over all timeframes on intra-European takeovers while it does not have an effect on extra-European takeovers. Looking more at the determinants of abnormal returns, this paper found that cash paid takeovers outperform stock and mixed payment methods in domestic and intra-European takeovers on the 1-year time frame. Takeovers in the same industry outperform takeovers outside the industry in cross-border takeovers on the 3-year time frame. Acquiring a public target within the monetary union of the Euro results in a 36.87% higher return than acquiring a public target outside the monetary union. The acquisition premium paid by acquirers only plays a significant and negative role for extra-European takeovers on the longest time frame.

Keywords: Mergers and acquisitions, cross-border, Europe, takeovers, domestic, European Union, intra-European, extra-European.

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1 Introduction

One of the most-used ways to create shareholder value is the concept of firms participating in mergers and acquisitions (M&As hereafter). The main reason for conducting an M&A is obtaining synergy benefits related to, for example, obtaining economies of scale and scope, exploiting growth potentials, and diversification of capital and risk. However, the empirical literature argues that M&As do not create value and in fact destroy value.

From the 1990s onwards, there has been a sharp increase in the intensity of M&A activities, and the value of cross-border M&As increased fivefold (Manchin, 2004). The merger wave in the 1990s showed for the first time that Continental European firms were as eager to participate in an M&A as their US and UK counterparts (Golbe & White, 1993; Martynova & Renneboog, 2006). Campa and Moshieri (2008) state that the increasing globalization and the lower entry barriers across countries resulted in an increasing number of cross-border transactions. Furthermore, the introduction of the Euro, globalization, technological innovation, deregulation, privatization, and the financial market boom contributed heavily to the fact that European companies participated in M&As during the 1990s (Martynova & Renneboog, 2006).

Most of the empirical research focuses on M&A activity and performance in the UK and the US. Literature shows that acquirer abnormal returns are negative or zero at best after the announcements of an M&A (Gaughan, 2005; Hackbarth & Morellec, 2008; Firth, 1980; Dodds & Quek, 1985; Limmack, 1991; Campa & Hernando, 2004). In other words, no equity value is created for the acquirer. Observing the stock price performance in the long-run, Gugler et al. (2003) find significant negative returns for US bidders that participate in cross-border M&As in the 3-to-5-year period after the event. In contrast, Chakrabarti et al. (2009) find significant positive results using the buy-and-hold abnormal return (hereafter BHAR) method 1 to 3 years after the deal but with negative median values.

In the general literature, takeovers usually do not create any shareholder value for acquirers. Therefore, the question arises of why a firm would participate in an M&A while there is no (visible) value creation. A possible explanation is overconfidence and empire-building from the management. The literature shows that managerial factors appear to be drivers of (cross-border) acquisitions. Through takeovers, managers increase their power, status and salary and therefore try to maximize their own utility. However, it is hard to understand why firms can participate in M&As for decades without being held back by the shareholders. A more reasonable explanation would be that on average, there are no clear significant positive returns

for the acquirer but that there is shareholder value creation for acquirer firms in the long run for specific M&As. It might be the case that some firms participating in M&As with specific firm, industry, and deal characteristics are creating shareholder value. Specifically, most of the synergies are related to benefits of economies of scale and scope, vertical integration, and the transfer of knowledge that arise specifically at cross-border M&As, as there is much more room to exploit the benefits (Shimizu et al., 2004). Cross-border M&As provide integrating benefits of internalization, synergy and risk diversification and thereby create wealth for both acquirer and target-firm shareholders (Shimizu et al., 2004).

The empirical literature shows that cross-border M&As usually perform worse than domestic M&As (André et al., 2004). Explanations according to the literature, such as cultural differences (Erel et al., 2012) and the lack of information about the target's country-level governance, could lead to overestimating potential synergies. Bidding companies often overestimate the economic benefits of takeovers (Roll, 1986). Furthermore, it is more complicated to value companies outside the domestic country which could result in bigger valuation errors. This could lead to lower returns for the acquirer. By looking at Europe specifically, the countries increasingly behave as a single domestic country while retaining the potential synergies that arise when participating in a cross-border M&A. Therefore, this paper focusses on the effect of cross-border M&As in Europe and investigates whether cross-border M&As within Europe (hereafter intra-European takeovers) have a different effect on acquirers' shareholder value than domestic M&As and M&As with targets outside Europe (hereafter extra-Europe takeovers). Important to note is that Europe is defined as the 27 countries of the European Union. Much research has focussed on the short-term shareholder value, but this paper will investigate the long-run shareholder value as the most important financial performance measure.

The results of this paper show that, as for the general literature, there are no significant positive results for acquirers after an M&A. Furthermore, extra-European takeovers perform significantly negative on the 1-year time frame and positive (insignificantly) on the 3-year time frame. Cultural differences have, in contradiction to our expectations, a negative effect on intra-European takeovers (4.56% on the 1-year time frame and 8.18% on the 3-year time frame) while not affecting extra-European takeovers. Concerning the determinants of abnormal returns, this paper found that cash-paid takeovers outperform stock or mixed payment methods in domestic (10.86%) and intra-European (18.76%) takeovers on the 1-year time frame. Takeovers in the same industry outperform takeovers outside the industry with 18.81% in cross-border takeovers on the 3-year time frame. The return on assets of an acquirer in the year before the merger have a positive and significant effect on the abnormal returns in the

total sample. Acquiring a public target within the monetary union of the Euro result in a 36.87% higher abnormal return than acquiring a public target outside the monetary union on the shortest time frame. The acquisition premium paid by acquirers only play a significant and negative role for extra-European takeovers on the longest time frame.

This paper contributes to the widely and intensively researched subject of M&As. Much research has been performed on M&As of firms based in the US or UK, especially in the short term. In contrast, little research has been conducted on cross-border M&A performance in Europe in the long term. A wide and recent timeframe (2001–2014) is therefore used to investigate the role of cross-border M&As in Europe. The abnormal returns are determined with a modern and advanced event study methodology. Furthermore, to investigate the M&As in a more specific way and to make sure that this paper does not measure omitted variables, different variables are used to explain the abnormal returns. Relative standard variables as book-to-market value, research and development expenses, return on assets, firm size, payment method, relative deal value, privately or publicly held targets, hostile or friendly takeover, and industry diversification are used and combined with more advanced variables such as free cash flow, acquisition premium, Tobin's q, cultural differences, industry category, and exchange rate risk to obtain a clearer overview and better understanding of the behaviour of intra-European, domestic, and extra-European takeovers.

I will start by discussing the relevant literature regarding the performance of acquirers, in particular acquirers based in Europe. In this section, the hypotheses and relevant variables are discussed and applied for the relevant literature. Subsequently, the data and the conditions used to collect the acquirers are discussed. Next, the methodology section discusses the matching algorithm and the regressions used. This paper ends with the conclusions of the results a discussion section.

2 Literature and hypotheses

2.1. Literature

The main reason for firms participating in M&As is gaining synergy: firms expect to create operating and financial synergies. Operating synergies contain the benefits of economies of scale and scope, vertical integration, and the transfer of knowledge. This reduces production and/or distribution costs and results in better post-merger operational performance and therefore shareholder value. Companies oriented towards the domestic market often attempt to participate in cross-border M&As to survive international competition in global markets. They attempt to exploit benefits from differences in tax systems and market inefficiencies such as national controls over labour markets (Scholes & Wolfson, 1990; Servaes & Zenner, 1994). Because of market inefficiencies, investors can benefit from cross-border acquisitions in terms of risk diversification. Shimizu et al. (2004) argue that cross-border M&As create new opportunities because of entering a new market and gaining new knowledge and capabilities. Some firms have to instigate an international takeover in a certain country to avoid trade barriers. For example, in 1985, the Single European Act was introduced, and at that time non-EU firms acquired EU firms to benefit from in the efficiencies of the act (Danbolt, 2004).

Macroeconomic factors such as GDP, inflation rate, and exchange rate play a large role in acquisitions (Boateng et al., 2004). Those macroeconomic factors can have an impact on the wealth creation of acquirers and targets (Kiymaz, 2014). If there is a decline in the exchange rate of a country, the country with the weaker currency is more attractive for foreign acquirers (Danbolt, 2004). Vasconcellos and Kish (1998) investigated cross-border takeovers between four European countries and the US. They investigated the effect of the exchange rate – measured as the foreign currency divided by the dollar – on the actual difference between the number of foreign acquisitions of American firms and the number of American acquisitions of foreign firms. Vasconcellos and Kish (1998) found that the exchange rate does not play a significant role for acquirers in all countries and rather serves as a predictor of trends in acquisitions. The authors found significant negative results for the UK, Italy, and Germany. The resulting higher exchange rate means that foreign currency becomes cheaper, producing a negative effect on the difference between the number of foreign acquisitions of American firms and the number of American acquisitions of foreign firms.

Concerning the downsides of cross-border M&As, Erel et al. (2012) argue that countries have differences in cultures, governance, and taxation, which have a negative effect on the performance of a company. Furthermore, the authors state that M&As are easier if firms have

similar trading approaches and similarity in cultural background. Conn et al. (2005) argue that there is a negative relationship between shareholder value and cultural diversity. The stock markets reflect that differences in regulations and culture between the bidders and targets countries lead to difficulties in the phase after the merger of a cross-border M&A (Baldwin & Caves, 1991; Schoenberg, 1999). Therefore, more similarity between economies promotes value creation in cross-border M&As (Bauer & Matzler, 2014).

Another reason why firms are more likely to participate in cross-border acquisitions than in domestic acquisitions is managerial factors. Through acquisitions, managers try to build an empire and maximize their own utility, which is known as 'agency conflicts' and widely and extensively investigated in papers such as Danbolt (2004). The managers hope that through these acquisitions they can increase their power, status, and salary. This results in acquiring firms overestimating the benefits of the mergers (Roll, 1986). Furthermore, because of information asymmetries and less information in general for cross-border acquisitions, it is harder to value targets abroad than domestic targets. This could result in valuation errors and therefore lower acquirer returns and higher target returns.

In Europe**,** due to cooperations such as the European Union, trade barriers have disappeared, and investing in foreign countries is easier. The Single Market Program in Europe was designed to generate structural changes by eliminating and removing trade barriers in the European Union. Allen et al. (1998) found that this programme had a strong impact on competitive behaviour, while Neary (2007) argues that increasing competition can have a positive impact on the economy. The effect depends on the intensity of competition and the changes in the nature of competitive interaction: smaller economies experienced larger gains than larger economies. Furthermore, the authors state that the European Union might have moved away from a world of segmented markets. Furthermore, Campa and Hernando (2004) argue that the individual economies in Europe move to one common European market, which makes cross-border M&As less risky and less costly to perform. Arora and Vamvakidis (2005) did an investigation regarding the importance of the economic conditions of the trading partners for the country's growths. They used the data for 101 countries during the period of 1960–1999 and found that the growth of a country is positively associated with the growth rates and relative incomes of its trading partners. The monetary union leads to a reduction of trade costs, elimination of the exchange rate risk, and improved price transparency. Furthermore, the monetary union improves the movement of equity capital because of financial integration and reduces macroeconomic uncertainty by, for example, removing exchange risk volatility.

Considering all evidence and theory, I conclude that there are benefits from conducting an M&A but that there are also some costs. Those costs, such as trade barriers, exchange rate risks, macroeconomic factors, and differences in cultural background play a less significant role for Europe. Furthermore, the programme and the results found by, among others, Allen et al. (1998) show that Europe is increasingly acting as a single 'domestic' economy instead of multiple smaller economies that cooperate with each other.

On the empirical side that focusses on the short-term share price post-performance of M&As, the literature is in consensus about the share price effects of the targets, which are large and positive. In contrast, there is little consensus about the share price effects and sign of the acquirers. Studies on Europe (Table 1 of the appendix) show that some papers found significant positive results for bidders, while other papers did not find any significant results or found negative results. Interestingly, domestic M&As outperform cross-border (intra-Europe) M&As. In recent literature, this trend seems to have changed in the past decades. Specifically, all European acquisitions have significant and positive returns. Furthermore, Mateev (2017) – who used a sample of takeovers in the 20th century – state that cross-border acquisitions perform better than domestic acquisitions, but with insignificant differences. The second paper in the 20th century from Matteev and Andonov (2016) found, as in the original trend, that domestic acquisitions perform significantly better than cross-border acquisitions, but the median values of cross-border acquisitions are higher.

This paper focusses on the long-term effects of domestic, intra-European, and extra-European takeovers. The short term (including announcement effects) could be heavily affected by mispricing, while this is less likely for long-term effects. Remarkable is that most of the studies that investigate the long-run performance of cross-border M&As have focussed on the UK and US and used outdated, databases. I find only three studies that investigated the long-run performance in Europe and only one of them focussed on the differences between domestic and cross-border takeovers. Table 1 in the main text shows a meta table regarding the long-run performance of M&As.

Concerning long-term share price performance, the literature is again in consensus about the share price effects of the target. The targets in general have high positive and significant returns in the short and long run. Concerning the bidders' perspective, the bidders (both domestic and cross-border) underperform in comparison with control firms. Only one paper, besides the paper that focusses on Europe, found positive returns for the bidding firms, but the authors only studied acquirers that conduct a takeover with a value of more than 100 million dollars.

Martynova, Oosting, and Renneboog (2006), who investigated domestic takeovers within Europe, found that the profitability of acquirer firms increases by 0.5% after a takeover. The other papers regarding Europe which focussed on one specific industry found that all acquirers destroy value in the long run. Concerning the differences between domestic and cross-border M&As, the literature is in consensus that cross-border M&As underperform in comparison with domestic M&As.

Table 1: Meta Table Literature M&A, Long Term.

Authors	Investigated Time Period	Focussed Countries (Acquirers)	Post-Merger Time Period	General Findings	Determinants
Gugler, Mueller, Yurtoglu, & Zulehner (2003)	1981–1998	US	Long term (3–5 years)	1.Significant negative returns for US bidders that participated in cross-border M&As. 2. No significant differences between domestic and cross-border takeovers	
Andre, Koolj, & L'her (2004)	1980–2000	Canadian	Long term (3 years)	1. Both domestic and cross-border M&As underperform. 2. Cross-border M&As significantly underperform in comparison with domestic M&As	1. Equity financed deals significantly underperform in comparison with cash financed deals 2. Glamour acquirers significantly underperform in comparison with value acquirers.
Conn, Cosh, Guest, & Hughes (2005)	1969–2001	UK	Long term (3 years)	1. Domestic and Cross-border acquisition both underperform, while Cross-Border underperforms more.	1. Public acquisitions have negative returns, while private acquisitions have zero returns. 2. Caused by glamour firms that underperform in public acquisitions but not in private acquisitions. Furthermore, non-cash acquisitions underperform in domestic public acquisitions but not in private acquisitions. 3. Cross-border M&As involving high-tech perform relatively well, similar to firms with low national cultural differences.
Martynova, Oosting, & Renneboog (2006)	1997–2001	Europe	Long term (1 year)	1. Profitability of the acquirers increases by 0.5% after a domestic takeover and decreases by 1.8% after a cross-border takeover (both insignificant). 2. The 'other' deals outperform the UK and France deals in magnitude. But all results were insignificant, so not	1. Relatively large targets increase the profitability, while relatively small targets decline profitability, with a significant difference.

				possible to conclude	
Chakrabarti, Gupta-Mukherjee, & Jayaraman (2009)	1991–2004	World-wide	Long term (1–3 years)	1. Firms have significant positive results (on the largest time frame) after the deal using the BHAR method. Worth noting is that the median values were negative. 2. Explanation could be that they only investigate acquisitions with over 100 million in value.	1. Friendly and cash-financed takeovers and differences in income between countries have a significant and positive effect on the 36-month BHAR. 2. Cultural differences measured as the Hofstede variable is positive and significant, while the language dummy is negative and significant.
Laabs & Schiereck (2010)	1981–2007	Europe (automotive supply industry)	Long term (3 years)	1. Significant positive announcement returns for the acquiring firm, but a significant value destruction of 20% in the long run.	1. Diversifying transactions perform worse than intra-industry transactions. 2. The largest 50% transactions perform worse than the smallest 50% transactions. 3. Experienced bidders perform better than non-experienced bidders.
Bertrand & Betschinger (2012)	2000–2008	Russia	Long term (1 year)	1. Both domestic and cross-border acquisitions reduce performance of the acquirer in comparison with other firms. 2. Cross-border acquisitions perform worse than domestic acquisitions.	1.Size and liquidity have a positive effect on the EBIT (Earnings Before Interest and Taxes) of the bidders in domestic acquisitions. 2. High-tech firms perform better in cross-border takeovers than in domestic takeovers.
Datta, Kodwani, & Viney (2013)	1990–2006	Europe (utility sector)	Long term (1–3 years)	1. The reaction of the utility sector is similar as non-regulated markets and therefore negative in the long run, however the acquirer losses are lower.	

2.1.1. Firm-specific characteristics

In this paper, the raw differences in stock performance across different types of M&As are investigated. To obtain a clearer overview of what drives the results of the M&As and to measure the different effects of domestic and cross-border M&As in Europe, several commonly and rarely used control variables are also included in the regressions. Those variables not only contribute as a control variable, they also help explain the long-term performance of M&As and give a more complete view of the behaviour of the acquirer that participates in different M&As. I will start by briefly explaining the *firm-specific characteristics* that are used in the regressions below.

2.1.1.1. Book-to-market value

A high book-to-market (BM) ratio means that firms have a high book value in comparison with their market value: these firms are so-called value firms. Conversely, firms with a low BM ratio

have a small book value in comparison to their market value. Those firms are labelled as glamour firms. Pablo (2009), who investigated cross-border M&As in Latin America, found that larger companies with high corporate market-to-book ratios are more likely to become involved in a cross-border M&A than in a domestic M&A. Rau and Vermaelen (1998) state that the post-merger performance of value firms is better than those of glamour firms, a finding confirmed by André, Koolj, and L'her (2004). In contrast, Francoeur (2006) only found that BM ratio has a significant and negative effect on the 36 months BHAR. Papers that investigate the difference between domestic and cross-border M&As and share price performance are not known by the author.

2.1.1.2. Firm size

Bigger firms have more resources to investigate potential targets. Especially concerning cross-border M&As, firms have less information available and therefore have to do more research. The results in the literature are mixed. Carnes et al. (2001) investigated the 5-year abnormal stock returns for cross-border M&As with the acquirer in the US. They found that the number of assets of acquirer firms have a significant and positive influence on the post-merger abnormal stock returns. Bertrand and Betschinger (2012) also state that acquirer size has a positive and significant influence on the abnormal returns in all acquisitions. Concerning domestic and cross-border M&As specifically, they show that acquirer size is positive and significant for all domestic transactions, while they found one significant (and positive) result for cross-border M&As. Those authors state that size has a positive impact due to increased asset productivity. In contrast, other papers stated that firm size has a negative impact on M&A performance (Ramaswany & Waegelein, 2003; Moeller et al., 2004). Those authors found that it is hard to match M&A activities with internal growth through economies of scope and scale.

2.1.1.3. Free cash flow and return on assets

Having a large FCF means that companies have access to a large amount of money that can be spent on new developments, including M&As. This also implies that the money can be used more easily for no-value or value-destruction M&As and projects. Empirical studies have provided evidence that having a high FCF is (frequently) used for managerial empire-building (Jensen, 1986; Servaes, 1991). Gregory (2005) found the opposite effects in the long run when investigating the FCF hypothesis: acquirers with high FCF perform better than acquirers with low FCF. In parallel, Martynova, Oosting, and Renneboog (2006) state that cash holdings are negatively related to performance, which suggests that those firms suffer from FCF problems. Lang, Stulz, and Walkling (1991) found that an increase in the FCF of the acquirer results in a decrease in the bidder's gain from the takeover. Another proxy for the profitability and success

of the acquirer is the return on assets. Return on assets is calculated as the net income divided by the total assets. To measure the effect of the profitability of the acquirer on the success of the takeover, the return on assets is incorporated in the regressions.

2.1.1.4. Tobin's q

Tobin's q is a widely used measure for financial performance that equals the market value of a company divided by the replacement costs of its assets. Therefore, Tobin's q expresses, on its most basic level, the relation between market value and intrinsic value. This paper only investigates the effect of the acquirers Tobin's q on the share price performance. Lang, Stulz, and Walking (1991) studied the effects of FCF and Tobin's q on bidder returns. They state that high q firms are likely to have positive Net Present Value (NPV) projects and therefore use their FCF money productively, while low q firms have negative NPV projects and should therefore pay out the cash flow to shareholders rather than conducting an acquisition. Concerning Tobin's q specifically, Lang, Stulz, and Walkling (1989) and Servaes (1991) found that bidder returns are higher for high q firms. Firms with high Tobin's q can leverage their capabilities and explore their growth opportunities by acquiring other firms and therefore perform better. Probing the relation between Tobin's q and FCF, Lang, Stulz, and Walkling (1991) state that firms with high q and high cash flow perform significantly better than firms with low q and high FCF. Furthermore, firms with low q and low cash flow perform better than firms with low q and high cash flow; which is in favour of their predictions and the general FCF problem hypothesis.

2.1.1.5. Research and development expenses

Recent literature shows that R&D expenses of a firm have a positive effect on cross-border M&As. It makes sense that R&D expenses are in general more present in cross-border M&As than in domestic M&As as it is harder to find the correct information and technology outside the domestic country. Including R&D expenses as a variable in our regression could explain a part of the 'relative' success of a cross-border M&A. Takechi (2011) states that for cross-border M&As, R&D activities of firms have a significant positive effect. Furthermore, R&D expenses in Canada is a good proxy for forecasting the success of cross-border M&As (Francoeur, 2006). The authors showed in their research that firms with low R&D, underperform in the long run in comparison with high R&D firms. Steigner and Sutton (2011) investigated the differences between R&D expenses and cultural differences and their interaction on the 3-year BHAR of cross-border M&As. Concerning the results, firms with high R&D perform better than firms with low R&D (the difference is significant). Furthermore, when the cultural difference is high, firms with high R&D perform better than firms with low R&D, also with a significant difference.

2.1.1.6. Industry

There are differences between industries. For example, a shrinking industry probably has fewer potential synergies than a growing industry. Therefore, the market will value a (cross-border) M&A higher in a growing industry than in a shrinking industry. Conn, Cosh, Guest, and Hughes (2005) found that high-tech firms that participate in a cross-border M&A perform relatively well.

2.1.2. Deal-specific characteristics

The deal-specific characteristics that are used in the multivariate regression are explained below.

2.1.2.1. Payment method

Intensive research has been performed regarding the effect of payment methods in an M&A. Offering a bid with equity could give a sign to shareholders that the bidding firm thinks that its share price is overvalued while paying with cash does the opposite and might give a sign to the shareholders that there is less possibility to waste cash in the future. Furthermore, cash payments are frequently financed with debt (Martynova & Renneboog, 2006), which might result in less space for FCF problems for the acquirer in the future (Jensen & Meckling, 1976).

Megginson et al. (2004) state that cash financed mergers have a positive impact on long-term operating performance but have no impact on stockholder returns or firm value. Something similar was found by Martynova, Oosting, and Renneboog (2006), who state that there are no significant differences in the profitability of firms that participate in M&As between different means of payments. Loughran and Vijh (1997) also found that there is no significant relationship between payment methods and post-merger performance. When investigating different types of offers in combination with different payment methods, the authors did indeed find a relation. They state that acquirers on average have positive abnormal returns in the case of a tender offer paid with cash. In the case of a merger offer paid with stock, the acquirers' stock returns underperform.

Mateev (2017), who investigated announcement returns for European and UK M&As, states that stock payments are associated with large announcement effects. This is in contradiction to other papers that have investigated the European market. An explanation is that for acquisitions of unlisted targets, equity is the preferred payment method, and private firms can be obtained at a discount. Further investigation shows that bidders of unlisted targets that use stock rather than cash have larger abnormal returns. For bidders of listed targets, the announcement effect is strongly significant and negative for stock offers only. Mateev and

Andonov (2016), who investigated the difference in short-term returns of European domestic and cross-border acquisitions, found that when a takeover is financed with stock or a mixed payment, cross-border takeovers perform better than domestic takeovers.

Andre, Koolj, and L'her (2004), who investigated the long-run performance of Canadian acquirers, found that M&As that use all-equity as a payment method underperform in comparison to M&As that use cash as a payment method. Other evidence from recent studies shows that all-cash acquisitions generate higher bidder returns than all-equity acquisitions (Andrade et al., 2001; Franks et al., 1991). Martynova and Renneboog (2006) also found that all-cash and combined (cash and equity) offers perform better than all-equity offers in Europe.

2.1.2.2. Target Status

Privately held firms have more information asymmetry than publicly held firms. No market price is available for privately held firms and the shares are frequently held by one investor or investor group. On the one hand, it is harder for the acquirer to determine the right price for a share. On the other hand, negotiations and price discounts are easier as the shares are held by a small group of people. In the short term, empirical research shows that bidder returns are higher for private firms than for publicly held firms (Moeller et al., 2004; Martynova & Renneboog, 2006).

Conn et al. (2005), investigated UK acquirers for domestic, cross-border, public, and private acquisitions in the long-run. The authors state that domestic and cross-border public acquisitions result in negative returns after the M&A, while they found that domestic and cross-border private acquisitions result in zero post-acquisition returns, and therefore actually perform better than public targets. The difference stems from the fact that glamour acquirers underperform in public but not in private acquisitions. Furthermore, acquirers that use non-cash methods of payment underperform in domestic public acquisitions but not in domestic private acquisitions. Mateev and Andonov (2016) found no significant differences between domestic and cross-border acquisitions regarding public and private targets in their investigation. When evaluating domestic and cross-border specifically, private targets result in significant positive returns while public targets have a negative insignificant result. Laabs and Schiereck (2010), who investigated the long-run performance of M&As in the automotive industry in Europe, did not find any effects or differences between private and publicly traded targets. In contrast, Martynova and Renneboog (2006) found that post-announcement returns for privately held firms are more negative than for publicly held firms over a longer time frame.

2.1.2.3. Relative deal value

In our sample, we include both publicly and privately held targets. Therefore, it is hard to determine the relative value of the target. Instead, we investigate the deal value of the M&A related to the market value of the acquirer. The deal value should (in an efficient situation) reflect the value of the target plus a premium. Acquiring a relatively large target can have both benefits and costs. The benefits are that a larger target can lead to more operational and financial synergies, while it could be challenging (and costly) to integrate the target in the core business. Martynova, Oosting, and Renneboog (2006) found that acquisitions of relatively large targets result in better performance, while the acquisitions of a small target led to a performance decline. Laabs and Schiereck (2010) state that the largest 20 transactions perform better than the smallest 20 transactions, but both insignificantly. Steigner and Sutton (2011) investigated the relative deal size, measured as the deal value divided by the total assets of the acquirer and found, similar to Gupta and Misra (2007), that the relative deal size has a negative effect on the operating performance in the first 2 years after the cross-border merger.

2.1.2.4. Industry diversification

Diversification takeovers could lead to extra financial synergy, as they can improve cash flow stability and lower bankruptcy probability (Lewellen, 1971; Higgins & Schall, 1975). However, industry diversification could be costly, increase the inefficiency of internal capital markets (Rajan et al., 2000), and lead to rent-seeking behaviour by managers (Scharfstein and Stein, 2000) or bureaucratic rigidity (Shin & Stulz, 1998). Megginson et al. (2004) investigated mergers that decrease focus and mergers that preserve or increase focus. They state that mergers that decrease focus result in significant losses in shareholder wealth while mergers that preserve or increase focus result in a small improvement in the long-term firm performance. Laabs and Schiereck (2010) found that diversified transactions perform worse than intra-industry transactions, but both results were negative and insignificant. Mateev and Andonov (2016) only found a significant difference between cross-border and domestic M&A for related and unrelated transaction in one-time frame. Concerning cross-border M&As specifically, almost all cumulative average abnormal returns (CAAR) are significant and positive, and the related transaction performs better. Concerning domestic M&As specifically, all results are positive and significant, but domestic M&As perform better in an unrelated transaction. Martynova, Oosting, and Renneboog (2006) and Mateev (2017) state that there is no significant relationship between a focus or diversification strategy and post-M&A performance.

Empirical research shows that the diversification destroys value for European bidders and leads to significant underperformance in comparison with M&As that focus on the core industry of the firm (Martynova & Renneboog, 2006). This implies that shareholders think that they can better diversify their portfolio by themselves and that the firms must focus on their core strategy.

2.1.2.5. Hostile or friendly takeover

Hostile takeovers are excluded from the sample in many studies. However, recent studies have found that this difference plays a significant role in the post-merger stock price performance. Martynova, Oosting, and Renneboog (2006) state that there are significant differences in long-run performance of hostile versus friendly takeovers concerning operational profitability. More specifically, bidder announcement returns are significantly lower in hostile takeovers than in friendly takeovers (Goergen & Renneboog, 2004; Franks & Mayer, 1996; Servaes, 1991). Martynova and Renneboog (2006) state that hostile bidders have negative abnormal returns, while the returns of a friendly M&A have slightly positive returns. Furthermore, Chakrabarti et al. (2009) state in their results that the dummy for a friendly M&A has a significant and positive effect on the BHAR, while the tender dummy has a smaller magnitude and is not significant.

2.1.2.6. Cultural differences

To be sure that the differences between domestic M&As, intra-European M&As and extra-European M&As are measured, potential significant cultural differences (CD) between countries must be investigated. As discussed in the first section of this literature review, differences in cultures can have a negative effect on the performance of a company that participates in cross-border M&As (Erel et al., 2012). However, in the general literature on CD and the performance of the bidder firms, the result is mixed. Conn, Cosh, Guest, and Hughes (2005) state that greater CD between acquirers and targets have a negative impact on long-run stock performance. They suggest that greater CD result in more problems in the merger process and that they are hard to solve. However, Chakrabarti, Gupta-Mukherjee, and Jayaraman (2009) state that bidder firms benefit from CD between the bidder and target in the long run because those mergers result in new routines and repertoires (Morosine, Shane & Singh, 1998). Another reason, according to Chakrabarti, Gupta-Mukherjee, and Jayaraman (2009), is that because of the greater CD, companies are more careful and do more research on the potential target before they actually initiate the merger. In this case, the M&As could be of a higher level, and only the good M&As will proceed.

Steigner and Sutton (2011) investigated cross-border M&As and CD for bidders based in the US. Concerning the 3-year post-merger BHAR, they found that targets with high CD

experience larger negative returns than targets with low cultural difference, but the difference is insignificant. Low and high CD both showed significant negative results. Concerning the difference between high CD/low R&D expenses and high CD/high R&D expenses, we notice that the latter performs significantly better. Furthermore, the results show that low CD/low R&D expenses perform better than high CD/low R&D expenses, but the difference is not significant. Those results suggest that the success of a target with cultural difference depends on the amount of R&D spending by the acquirer.

2.1.2.7. Monetary union and exchange rate risk

The monetary union leads to a reduction of trade costs, elimination of the exchange rate risk, and improved price transparency. Furthermore, the monetary union improves the movement of equity capital because of financial integration and reduces macroeconomic uncertainty by, for example, removing exchange risk volatility. As explained in the first part of the literature review, papers such as Boateng et al. (2014) and Kiymaz (2014) argue that the exchange rate can play a large role in the number of acquisitions. If there is a decline in the exchange rate of a country, the country with the weaker currency is more attractive for foreign acquirers (Danbolt, 2004). However, investing in foreign countries with different currencies is also riskier. It is possible that because of changes in the exchange rate, the foreign currency becomes more expensive or cheaper. Those risks are eliminated in the monetary union.

2.1.2.8. Acquisition Premium

Agency problems between management and shareholders are widely discussed and investigated in the literature. Managerial factors appear to be drivers of (cross-border) acquisitions. Through takeovers, managers increase their power, status and salary and try to maximize their own utility. Bidding companies often overestimate the economic benefits of takeovers (Roll, 1986). Furthermore, it is more complicated to value companies outside the domestic country which could result in bigger valuation errors. This could lead to lower returns for the acquirer in the post-merger time frame. Often, managers overestimate the benefits, and this is reflected in the acquisition premium paid by the bidding firm. Acquisition premium covers behavioural elements as CEO empire building, CEO hubris, CEO overconfidence and other agency problems. Those behavioural elements can lead to overpayment for the target and explain a part of the potential negative abnormal returns for the acquirers that are found in the literature.

2.2. Hypotheses

The literature shows that both cross-border and domestic takeovers do not create (significant) positive returns. The sign and magnitude of the stock price performance after an M&A for acquirers are often different across studies but usually negative. In general, cross-border takeovers underperform in comparison to domestic takeovers, and there is an indication that Europe-based companies perform slightly better than UK-based firms. Furthermore, almost every paper is based on databases containing data from before the 21th century. Especially when investigating European acquirers this is important. The implementation of the Euro – which reduced exchange-rate risks, and the increasing globalization in Europe has not been considered in the literature. Only a few studies – those that focussed on the short term – have investigated a time period in the 21th century. These studies show us some better insights into the developments. Mateev (2017) found positive announcement returns in domestic and cross-border M&As and in some time frames even higher returns for cross-border M&As. Furthermore, Mateev and Andonov (2016) state that the median returns of cross-border M&As within Europe are higher in all short-term time frames in comparison to domestic M&As.

Concerning the theoretical and empirical studies, I conclude that domestic M&As perform better than cross-border M&As but that they both do not have positive effects for the acquirer shareholders. Furthermore, I argue that cross-border intra-European M&As act more like domestic M&As and therefore perform better than cross-border M&As with a target outside of Europe. In fact, it may be that because of the increasing 'globalization' within Europe, cross-border intra-European M&As can benefit from the synergies outside the domestic country, without or with fewer disadvantages. Therefore, such M&As might perform even better than domestic M&As. The first results of the papers in the 21th century show some signs that cross-border M&As are performing better than in the 20th century in comparison to domestic M&As. Furthermore, the results of cross-border and domestic M&As are positive. It might be the case that shareholders, based on experience and papers, still underestimate the potential benefits of cross-border M&As in Europe for the long term.

The first three hypotheses are formulated as follows:

> *Hypothesis 1: There are no significant long-term positive effects for acquirer firms based in Europe that participate in an M&A.*
>
> *Hypothesis 2: Firms that participate in domestic M&As in Europe perform better than firms that participate in cross-border M&As in general.*

Hypothesis 3: Cross-border intra-European M&As perform better than cross-border M&As outside Europe.

The first three hypotheses were formulated with regards to the differences in the stock performance of different types of M&As. The fourth hypothesis, which I will address below, is be formulated with regards to the determinants of the post-merger results.

The shareholders of firms think that they can better diversify their portfolio by themselves and that firms have to focus on their core business. The empirical literature shows that industry diversification M&As underperform in comparison with M&As in the same industry. Mateev and Andonov (2016) state in their results that related cross-border M&As perform better than unrelated cross-border M&As while unrelated domestic M&As perform better than related domestic M&As. However, the differences between domestic M&As and cross-border M&As are only significant in one time frame.

Hypotheses 4: In general, industry diversified (non-focused) cross-border M&As underperform in comparison to non-industry diversified (focused) cross-border M&As. Concerning domestic M&As specifically, unrelated M&As perform better than related M&As.

Theory shows the pros and cons for cultural differences between acquirer and targets. Steigner and Sutton (2011) investigated cross-border M&As and cultural differences for bidders based in the US. The authors found that targets with high cultural differences experience larger negative returns than targets with low cultural difference. In this paper, I argue that cultural differences are smaller for intra-European takeovers than for extra-European takeovers. Furthermore, the cultural difference should not have a negative effect on intra-European M&As.

Hypotheses 5: Cultural difference has a significant negative effect on cross-border M&As outside Europe while not having an effect on intra-European M&As.

The literature shows that firms that participate in cross-border M&As perform better when they have larger R&D expenses, as it is harder for firms to find the correct information and technology outside the domestic country. Regarding the interaction variable between R&D expenses and cultural difference, when there is a high cultural difference between acquirer and target, the R&D expenses could be important. High R&D expenses result in significantly better performance than low R&D expenses. Furthermore, high cultural difference/high R&D

perform better than their counterparts, which suggests that the success of a target with a high cultural difference depends on R&D expenses.

> *Hypotheses 6: R&D expenses have a more positive effect on cross-border M&As than domestic M&As. Furthermore, R&D expenses have a positive effect on the performance of M&As with high cultural differences.*

The last question this paper attempts to answer is the role of the monetary union on the acquirer returns. I argue that in the monetary union the risks are lower, and investing is easier with lower trade barriers.

> *Hypotheses 7: Cross-border takeovers within the monetary union of the Euro have higher acquirer returns than other cross-border takeovers.*

3 Data

3.1. Data

This paper investigates the effect of cross-border M&As with the target inside and outside Europe and with the target in the domestic country of the acquirer. Hereby, I focus on the stock price performance of the acquirers. A sample, collected using Thomson One, is used with all domestic and cross-border M&As of acquirers that are based in the 27 countries of the European Union, the UK, and Ireland between the time period 2001–2014, criteria that are also widely used in the literature (Martynova, Oosting, & Renneboog, 2006; Martynova & Renneboog, 2006; Campa & Hernando, 2014). Importantly, the countries that are investigated are defined as 'Europe' in this thesis.

Conditions of M&A deals incorporated in our sample are as follows:

- All leveraged buyouts, spin-offs recapitalizations, self-tender offers, exchange offers repurchases, and privatizations are excluded
- The deal value is at least 10 million euros;
- The bidder acquires at least 50% of the shares;
- Acquirers have to be public; targets can be both public and private;
- Acquirers' stock price is available on CRSP/Compustat and does not have missing values;
- The financial services and utility companies classified by Standard Industrial Classification 6000 – 6999 and 4900 – 4999 are excluded. This to avoid these regulated industries biasing our results;
- The M&A is completed;
- The firm did not participate in another M&A in the following 5 years to avoid the stock price performance being influenced by other M&As;
- All acquirers with no SEDOL code are deleted.

This resulted in a total sample of 817 transactions. I created four different subsamples to support or reject the hypotheses described in the hypotheses section. The first subsample contains all M&A deals with the target and acquirer based in the same country (domestic: 414 observations). The second subsample contains all cross-border M&A deals (cross-border: 403 observations). The third subsample contains all M&A deals with the target not in the domestic country of the acquirer but one of the other 28 countries of the sample (Intra-European takeovers: 165 observations). The fourth subsample contains all M&A deals with the target not

in the domestic country of the acquirer and not in the other 28 countries of the sample (extra-European: 238 observations).

To obtain better insights and more transparency in the data, I created Tables 2 and 3. In table 2, the number of transactions per year per subsample are displayed: the transactions are quite equally distributed over the years. There is a small peak in transactions during and immediately after the dotcom bubble and the financial crisis. After the crises, there was a short period of fewer transactions. During crises, some acquirer firms see opportunities in target firms that are, for example, in financial distress, a phenomenon also seen during the COVID-19 crisis. Many firms have to restructure because of financial problems, and one way of restructuring is to be taken over by a stronger firm.

Table 2: The used sample displayed per category and year.

Year	Total Sample	Domestic	Cross-Border	Intra-Europe	Extra-Europe
2001	102	45	57	15	42
2002	52	29	23	15	8
2003	34	17	17	10	7
2004	41	24	17	6	11
2005	72	34	38	28	10
2006	76	45	31	12	19
2007	90	58	32	11	21
2008	77	40	37	10	27
2009	24	7	17	6	11
2010	43	26	17	6	11
2011	49	15	34	8	26
2012	47	17	30	10	20
2013	37	17	20	11	9
2014	73	40	33	17	16
Total observations	817	414	403	165	238

In Table 3, the transactions per country (acquirer) per merger type are displayed. In total, of the 29 countries that are investigated, 21 countries performed at least one transaction. As expected, and reported in different papers that investigate European acquirers, a large part (44%) of the total transactions are from the United Kingdom, which should be accounted for during analysis. A dummy is incorporated in the regression if the acquiring nation is the United Kingdom. More information about all determinants can be found in the methodology section

(4.2). Table 2 in the appendix shows the sample displayed per category and target nation. There are 50 different target nations. 30.60% of the targets are based in the United Kingdom.

Table 3: The used sample displayed per category and acquiring nation.

Country	Total sample	Domestic	Cross-Border	Intra-Europe	Extra-Europe
Belgium	11	5	6	2	4
Croatia	1	1	0	0	0
Cyprus	1	1	0	0	0
Czech Republic	2	0	2	2	0
Denmark	17	7	10	4	6
Finland	33	9	24	13	11
France	105	51	54	23	31
Germany	65	20	45	20	25
Greece	17	11	6	2	4
Hungary	2	1	1	0	1
Ireland	12	2	10	4	6
Italy	39	25	14	10	4
Luxembourg	6	0	6	3	3
Malta	1	1	0	0	0
Netherlands	24	7	17	7	10
Poland	26	17	9	7	2
Portugal	9	4	5	2	3
Slovenia	2	2	0	0	0
Spain	23	13	10	7	3
Sweden	62	23	39	24	15
United Kingdom	359	214	145	35	110
Total observations	817	414	403	165	238

For the potential control firms, I sought firms listed on the stock exchanges in the 29 countries in Europe. Furthermore, all firms that have conducted an M&A (cross-border or domestic) during the previous 12 months, as well as the 36 months following the announcement of a takeover, are delisted from this control group. A detailed explanation of the composition of the control firms is given in the methodology section (4.1).

4 Methodology

4.1. Long-Run Abnormal Returns

The first hypothesis that is investigated in this paper is the following: *there are no significant long-term positive effects for acquirer firms based in Europe that participate in an M&A. The abnormal returns after a takeover have to be calculated to get an answer on this hypothesis.* In contrast to the measurement of the short-run performance, the long-run measurement of abnormal returns has not yet been established. Concerning the short-term performance, the Fama et al. (1969) method is most used and investigated in the recent literature, occasionally expanded with extra factors, forming the three-factor or five-factor models (Fama & French, 1993; Fama & French, 2015).

For the long-term measurement of the abnormal returns of acquirers, the methods described above are less suitable and more sensitive to misspecifications. Barber and Lyon (1997) analysed the empirical power and specification of test statistics in event studies in the long run. They found that using test statistics to calculate abnormal returns results in misspecification and that many of the most used methods are conceptually flawed and lead to biased test statistics. Furthermore, using an asset pricing model or a benchmark such as a market index to calculate the BHAR leads to several biases such as the new listing bias, the rebalancing bias, and the skewness bias (Barber and Lyon, 1997). To overcome these errors and biases, we use a method explained in the next paragraph, suggested by Barber and Lyon (1997) and Lyon, Barber, and Tsai (1999) and a method used in different papers such as Francoeur (2006) and Ritter (1991) to determine long term under-pricing of initial public offerings.

This paper calculates the long-run performance of M&A with the event study methodology and the BHAR using a carefully constructed reference portfolio based on firm-specific characteristics. This is done for 1 and 3 years from the period that the M&A is completed. For all firms are involved in an M&A as an acquirer, a control firm is determined based on size, BM, and industry using a so-called firm-specific matching algorithm. Size and BM are factors used and proposed in Barber and Lyon (1997); Lyon, Barber, and Tsai (1991); and Francoeur (2006). Size is calculated as the number of shares outstanding on the 31st of December of the previous year multiplied by the share price on the day that the M&A is stated as complete. Book-to-market ratio is computed from Compustat, using the book value on the 31st of December of the previous year divided by the market value on the date when the M&A is completed.

Furthermore, I added the industry factor to the matching algorithm. I argue that firms that have similar size and BM value can be still very different. Firms in upcoming industries likely have higher (or at least different) returns than firms in established industries with less space for large (technological) improvements and growth. Therefore, by adding industry as an extra factor, I argue that we can control for this and match acquirers with control firms with considerable similarity. This firm-specific matching algorithm eliminates the new listing bias, as the acquirer and the control firm are both listed when the M&A is completed. Furthermore, the rebalancing bias is eliminated as there is no need to rebalance portfolios, and the skewness bias is also potentially eliminated as both firms are likely to behave the same. To avoid the possibility that one control firm can have a large influence on the data set, a control firm can only be chosen once every 3 years.

I will first start by matching an acquirer with a control firm based on size in the range 70–130%, the same range as used by Barber and Lyon (1997) and Francoeur (2006). Subsequently, I will find the firm with the closest BM value in the same industry, based on the three digits SIC code. The firm can be located in one of the 29 countries that are described in the data section. However, as shown by Ritter (1991) among others, not all firms are likely matched with a control firm in the first round. Therefore, I will perform a second round based on size and BM and the two-digit SIC code. The third round is based on size and BM value and the one-digit SIC code. A possibly necessary fourth round will match a control firm based on the closest BM value and size. If a firm in the sample is delisted before the end of the 1 and 3-year period anniversary – for example because of an acquisition, bankruptcy, or going private – I determine the BHAR in the particular month and use that as the realized return in the particular time frame. When a control firm is delisted earlier, I determine a new control firm for the remaining months, a method used by Ritter (1991). This way, we also avoid a potential survivorship bias.

4.1.1. Statistical Significance

A special note has to be made to the statistical tests for long-run abnormal stock returns. Kothari and Warner (1997) argue that the distributions of BHAR are significantly skewed and systematically nonzero. The data in this paper shows that the BHARs are skewed to the left. To overcome this problem and to assess statistical significance, the abnormal returns are compared to a bootstrapped skewness-adjusted *t*-statistic of BHAR (Lyon, Barber & Tsai, 1999).

From the literature regarding M&As and long-term performance, it is clear that no fixed test solves all the potential problems when investigating long-run performance. Therefore, I will not

only perform the bootstrapped skewness-adjusted *t*-statistic but also other standard and adjusted tests to obtain better insight into the significance of the 1 and 3-year BHAR.

Papers such as Laabs and Schiereck (2010); Conn, Cosh, Guest, and Hughes (2005); and Chakrabarti, Gupta-Mukherjee, and Jayaraman (2009) use a standard *t*-test to investigate the significance of the mean. As this is the most standard and commonly used way to investigate the long-run significance, this method is also added in this thesis. Cowan and Sergeant (2001) offer a suggestion to winsorize the abnormal returns in their paper at three standard deviations, which is useful to obtain better insights into the data. This way, the extreme outliers that especially occur in the longer time frames are replaced, and this might solve the potential skewness bias.

4.2. Differences between the types of mergers

The second hypothesis that is investigated in this paper is the following: *firms that participate in domestic M&As in Europe perform better than firms that participate in cross-border M&As in general.* The third hypothesis that is investigated in this paper is the following: *cross-border intra-European M&As perform better than cross-border M&As outside Europe.* To investigate the difference between the types of mergers (domestic, intra-Europe, extra-Europe), the abnormal returns have to be calculated, which is described in section 4.1. A standard *t*-test (for the normal sample and winsorized sample) is used to investigate if the means differ from each other. Furthermore, a nonparametric test, called the Mann-Whitney U test (or the Wilcoxon rank-sum test), is used to investigate the difference between the groups, a test that is also used in Martynova, Oosting, and Renneboog (2006).

4.3. Multivariate Regression

The second phase involves measuring the determinants of the long-run performance and investigating with a multivariate regression whether cross-border M&As within Europe have a different effect on shareholder value than domestic M&As and cross-border M&As with targets outside Europe. The second phase is related to hypotheses 4 to 7 of this thesis. In all the regressions, I include the variables that are mentioned in the literature and hypotheses sections.

First, I will start with the complete dataset. Therefore, we combine all M&As and investigate which variables have a significant influence on the returns. Subsequently, I split the sample into different subsamples such as domestic, cross-border, intra-European, and extra-

European, where intra-European means transactions where the targets are within Europe but not in the domestic country and extra-European means the targets are outside Europe. In this way, it is possible to investigate all different types of takeovers. The standard regression will be as follows:

$$R_{1,3,i,t} = beta0 + beta1 * Domestic_i + beta2 * IntraEurope_i + beta3 * dummyUK_i + beta4 * Industry_{i,j} + beta5 * BooktoMarketValue_{i,t-1} + beta6 * Size_{i,t} + beta7 * RFCF_{i,t-1} + beta8 * ROA_{i,t-1} + beta9 * CD_i + beta10 * R\&DExpenses_{i,t-1} + beta11 * Tobinsq_{i,t-1} + beta12 * PaymentMethod_i + beta13 * TargetStatus_{x,t} + beta14 * RelativeDealValue_i + beta15 * AcquisitionPremium_i + beta16 * IndustryDiversification_i + +beta17 * MonetaryUnion_i + beta18 * Tobinsq_{i,t-1} * RFCF_{i,t-1} + beta19 * R\&Dexpenses_{i,t-1} * CD_i + error_i$$

Where subscript i means the acquirer, j the industry, t is the year of the M&A and x is the target. $Domestic$ is the dummy variable for domestic takeovers. The dummy is 1 if the takeover is labelled as domestic. *IntraEurope* is the dummy variable for intra-European takeovers. The dummy is 1 if the takeover is labelled as intra-Europe. *dummyUK* is the dummy variable for takeovers with the acquirer in the United Kingdom. The dummy is 1 if the acquirer is based in the United Kingdom. This dummy is added in the regressions because of country clustering. *Industry* is the categorical variable that distinguishes between the industries. *BM* is the *book to market value* and is calculated as the book value of the acquirer divided by the market value of the acquirer. Size is measured as the market value in millions of the acquirer. *RFCF*, *CD* and *Tobinsq* are extensively discussed below. *ROA* means the Return On Assets of the acquirer and is calculated as the income divided by the total assets. *R&DExpenses* are the acquirer expenses related to the development of new products or services. *PaymentMethod* is 1 if the transaction is completely paid with cash and 0 when it is paid with stock or stock and cash combined. *TargetStatus* being equal to 1 means that the target is public, while 0 means that the target is private. *RelativeDealValue* is calculated as the deal value divided by the market value of the acquirer. *AcquisitionPremium* is calculated as the offer price minus the 52-week high divided by the 52-week high. *IndustryDiversification* is based on the 2-digit SIC code: if the acquirer and target do not have the same 2-digit SIC code, the transaction is labelled as industry diversification (equal to 1, otherwise it is equal to 0. *MonetaryUnion* is 1 if the takeover is a cross-border takeover within the Eurozone and 0 if the cross-border takeover is not in the Eurozone. The variable *Tobinsq*RFCF* (hereafter TF) is the two separate values discussed above multiplied by each other. The separate variable is 1 if the value is above the

median of the variable and 0 otherwise. *R&DExpenses*CD* (hereafter RDC) is the two separate values discussed above multiplied by each other. The separate variable is 1 if the value is above the median of the variable and 0 otherwise. A detailed explanation of all variables, how they are calculated, and the summary statistics are included in the section below.

The first regression will focus on all M&As combined and investigate which (or if) variables have a significant influence on the returns. In the second and third regression, the focus will be solely on domestic and cross-border M&As, while in the fourth and fifth regression a distinction is made between intra-European and extra-European takeovers, investigated on 1 and 3-year time frames. Now we have a good overview of the behaviour of different determinants on the share price performance of the different types of takeovers. To see if there is a significant difference between the groups in the regressions, a dummy can be added. For example, to investigate the difference between domestic and cross-border M&As, a dummy with the value 1 – if the target is inside the domestic country of the acquirer – is incorporated. This dummy variable is called *Domestic*. To investigate the difference between cross-border M&As with the target outside Europe, and cross-border M&As with the target inside Europe, all domestic M&As are excluded, and a dummy with the value 1, if the target is inside Europe, is included. This dummy variable is called *IntraEurope.* The same dummy variables can be used for the difference of intra-Europe and domestic and extra-Europe and domestic takeovers. The regressions described above are first performed without the variable *AcquisitionPremium* due to data limitations and the impossibility to determine the *AcquisitionPremium* for private targets. As an extra robustness test and to take this variable into account, the regressions are performed again with the variable *AcquisitionPremium.*

As discussed in the data section and section 4.5, there are missing observations for R&DExpenses and FCF due to data limits. To solve this issue and to prevent an overly reduced sample size, I add the mean of the variables (per type of takeover) in the place of the missing variables. Although this reduces the standard error, it is the optimal solution. Furthermore, in the regressions, the BHARs are winsorized on a 5% level. In the BHARs, several outliers would have a disproportional impact on the regressions and potentially poorly specify the regressions. To avoid heteroskedasticity in the error term, robust standard errors are used. Potential multicollinearity problems in the regressions are investigated using the variance inflation factor statistic.

4.4. Determinants and Variables

In this part, a detailed explanation of all variables, how they are calculated, and the summary statistics are given. The calculations of the most obvious and standard variables are included in the description of the summary statistics and/or the regression tables, while the more advanced variables are discussed separately.

4.4.1. Free Cash Flow

Calculating the FCF in theory is doable, but collecting the right data for European firms is more challenging. I use an adjusted method for FCF that is also used by Lang, Stulz, and Walkling (1991) and Lehn and Poulsen (1989). With this method, it is possible to calculate the FCF using Compustat. Cash flow is measured as operating income before depreciation minus interest expenses, taxes, preferred dividends, and dividends for the fiscal year before the tender offer.

$$FCF = IncomeBeforeDepreciation - Interest - Taxes - PreferredDividends - Commondividends$$

(In Compustat-items: #13 - #15 – #16 – (change in #35) - #19 - #21)

The FCF is normalized by the market value of the company in our regressions, as a large or small FCF can mean different things for firms of different sizes. The Relative Free Cash Flow (hereafter RFCF) is used in the regressions. This paper investigates the FCF of the acquirers.

4.4.2. Tobin's q

Calculating the ideal Tobin's q is a very time-consuming and costly process that is usually even too hard for the most dedicated analysts. Methods to calculate Tobin's q are detailed in for example Lindenberg and Ross (1981) but are impossible to do in this thesis due to time constraints and data limitations. Therefore, for the calculation of Tobin's q, the method of Chung and Pruitt (1994) is followed. They investigated and found a way to approximate q instead of doing the complete (and almost impossible) procedure.

$$Tobinsq = (MVE + PS + DEBT)/TA,$$

where MVE stands for the market value (share price * common shares outstanding), PS for the liquidating value of the firm's outstanding preferred stock, DEBT for the value of the firm's short-term liabilities net of its short-term assets + the book value of the firm's long-term debt, and TA for the book value of the total assets of the firm. Chung and Pruitt (1994) investigated this method empirically and compared it with the more theoretically correct model of Lindenberg and Ross (1981). They found that at least 96.6% of the variability of the calculated

Tobin's q in Lindenberg and Ross (1981) is explained by Tobin's q calculated in Chung and Pruitt (1994). This paper only investigates the Tobin's q of the acquirers.

4.4.3. Cultural Difference

Kogut and Singh (1988) investigated the effect of national culture on the choice of entry mode. Therefore, they created a formula to calculate the CD between countries. The authors investigate the four following cultural dimensions based on Hofstede's indices: power distance, uncertainty avoidance, masculinity/femininity, and individualism to set up a composite index for the countries, a method that is also used by Steigner and Sutton (2011), who investigated how national culture impacts internalization benefits in cross-border M&As. In the meantime, Hofstede added two extra cultural dimensions, which are added in the formula: long-term orientation and indulgence. The formula is as follows:

$$CD_j = \frac{\sum_{i=1}^{6} \{((S_{B,i} - S_{T,i})^2 / V_i\}}{6}$$

Where $S_{B,i}$ is the bidder country score for dimension *i*, and $S_{T,i}$ is the target country score for dimension *i*. V_i is the variance of the index score of dimension *i*.

4.5. Summary Statistics

To obtain a better overview and understanding of the data, Table 4 is created with the mean and median of all the relevant variables per merger type. Table 3 in the appendix shows all detailed statistics for the total sample including the skewness and kurtosis. Table 4 in the appendix shows all detailed statistics for the total sample of the modified data that are used in the regressions. Table 5 in the appendix shows the mean and median of all the relevant variables per merger type for the modified data.

Table 4 Summary statistics of the independent variables

The original data variables are displayed in the table. BM is the book-to-market value of the acquirer, where the book value is determined on the 31st of December of the previous year and divided by the market value on the day that the M&A is completed. Size is the market value in millions on the day that the M&A is completed. *ROA* is calculated as the income divided by the total assets of the acquirer, determined on the 31st of December of the previous year. R&DExpenses is subtracted from Compustat and includes all costs during the (previous) year that relate to the development of new products or services. IndustryDiversification is

based on the 2-digit SIC code: if the acquirer and target do not have the same 2-digit SIC code, the transaction is labelled as industry diversification (equal to 1, otherwise equal to 0). TargetStatus being equal to 1 means that the target is public, while 0 means that the target is private. As the standard deal value does not mean the same thing for firms of different sizes, the relative deal value is used which is calculated as the deal value divided by the market value of the acquirer. AcquisitionPremium is calculated as the offer price minus the 52-week high divided by the 52-week high. PaymentMethod is 1 if the transaction is completely paid with cash and 0 when it is paid with stock or stock and cash combined. The hostile or friendly takeover dummy is 1 when the deal is labelled as friendly or neutral, and 0 when the transaction is labelled as hostile. dummyUK is 1 if the acquirer is based in the United Kingdom and 0 otherwise. The calculations of FCF, Tobinsq, and CD are explained in detail in methodology section 4.4. The FCF and Tobinsq are determined at the end of the year before the M&A is completed. The values expressed in money are in euros.

Variable	Total Sample	Domestic	Cross-border	Intra-Europe	Extra-Europe	Observations
BM (mean)	1.93	3.14	0.68	0.75	0.63	817
BM (median)	0.51	0.55	0.45	0.46	0.44	817
Size (mean)	6857.74	6616.17	7105.91	3725.05	9449.78	817
Size (median)	221.23	118.83	422.66	474.05	343.94	817
FCF (mean)	613.77	541.79	681.22	348.62	971.44	370
FCF (median)	24.41	14.66	44.04	43.8	45.61	370
ROA (mean)	0.0047	-0.0055	0.0153	0.0325	0.0033	817
ROA (median)	0.0424	0.0381	0.0460	0.0454	0.0462	817
Tobinsq (mean)	2.18	1.69	2.68	2.26	2.97	817
Tobinsq (median)	1.28	1.20	1.45	1.31	1.55	817
R&DExpenses (mean)	219.44	44.72	321.19	120.48	455	269
R&DExpenses (median)	8.42	3.32	15.7	16.50	15.7	269
IndustryDiversification (0/1)	335/482	184/230	151/252	55/110	96/142	817
PaymentMethod (0/1)	614/203	325/89	289/114	116/49	173/65	817
TargetStatus (0/1)	617/200	308/106	309/94	136/29	173/65	817
DealValue (millions; mean)	358.43	173.06	548.86	764.68	399.23	817
DealValue (millions; median)	33.36	27.31	38.06	37.62	39.15	817
AcquisitionPremium (mean)	0.0646	0.250	-0.146	-0.0920	-0.170	169
AcquisitionPremium (median)	0.0198	0.240	-0.0360	0.0738	-0.0360	169
Hostile or friendly takeover (0/1)	1/816	-	-	-	-	817

CD (Mean)	2.95	0	5.96	6.20	5.79	817
ExchangeRateRisk (takeovers)	348	-	348	-	348	348
MonetaryUnion (takeovers)	53	-	53	53	-	53
dummyUK	359	214	145	35	110	359

The first thing that is noticeable in our data is the fact that many means are much higher or lower than the medians. This could be a problem for the multivariate regressions, as outliers might heavily affect the outcomes of the regressions. BM has a mean of 1.93 in the total sample and 3.14 in the domestic subsample. This is very high in comparison with other literature and most likely heavily influenced by outliers as shown by the median value. Furthermore, the data shows that a few outliers have a large impact on the complete sample and that the data is skewed (Table 3 of the appendix). By winsorizing the variable on an 8% level, the outliers are replaced, and the mean is more reliable (the results are presented in Table 4 and 5 in the appendix). Furthermore, the values of Skewness and Kurtosis show that BM is more normally distributed. The BM value is under 1, which means that the firms are overvalued. Furthermore, extra-European takeovers are the most overvalued, followed by intra-European and domestic takeovers.

Concerning size as an absolute value in Table 4 and as a logarithm in Table 4 and 5 in the appendix, it is clear that companies that are participating in a cross-border M&A are larger than companies that are participating in a domestic takeover. For the multivariate regressions, the logarithm of size is used.

The absolute value of the acquirer's FCF is higher for cross-border M&As than for domestic M&As, with the largest values for extra-European transactions. As a large or small FCF can mean different things for firms of different sizes, the FCF is normalized by the market value of equity and displayed in Table 3 of the appendix. The RFCF is heavily affected by a few outliers and therefore not distributed normally. In table 4 and 5 of the appendix the data of the RFCF is displayed after winsorizing on a 10% level. Now the data is distributed more normally. Table 5 in the appendix shows that the proportion of FCF to the market value is the largest for intra-European takeovers, followed by domestic and extra-European takeovers. An important note is that there are only 370 FCFs observations available in the sample, divided in 179 for domestic, 89 for intra-European and 102 for extra-European transactions. To solve this problem, the mean of the FCF per type of merger is added to the missing variables.

The mean of ROA is much smaller than the median values (table 4) and the data is skewed to the left (table 3 of the appendix). To avoid that the outliers will have a negative effect on the regressions, the data is winsorized on a 10% level. The modified data is shown in table 4 and 5 of the appendix and more normally distributed. Cross-border acquirers have higher ROA than domestic acquirers. Furthermore, the mean of ROA is higher for intra-European takeovers than Extra-European takeovers, while the median values are almost the same.

To avoid Tobin's q being heavily affected by outliers, the variable is winsorized at a 10% level, displayed in Table 4 and 5 of the appendix (no negative values were detected). Although the median shows that Tobin's q is the smallest for domestic takeovers, larger for cross inside, and the largest for cross outside takeovers. All the values (median and mean) are above 1, which suggests that most of the firms have positive NPV investment opportunities. This makes sense since they are participating in a takeover. This also suggests that firms that participate in cross-border M&As have better potential investment opportunities and higher growth options (and therefore might be more highly rewarded).

Firms that participate in cross-border acquisitions have higher R&D expenses in the year before the transaction, which is in line with the theory discussed in the literature. There is a large difference between the mean and median of the R&D, but those outliers belong to the largest firms in our sample and are not unreliable. To make sure that those values will not influence our complete regression, the logarithm of R&D expenses is used in the regression (see Table 4 and 5 in the appendix). Using the logarithm of R&D expenses, the data is distributed more normally. A special note has to be made regarding the number of observations regarding the R&D expenses. Unfortunately, there are only 269 observations for the R&D expenses, consisting of 99 for domestic, 68 for intra-Europe, and 102 for transactions with the target outside Europe. To solve this problem, the mean of the R&D expenses per type of merger is added to the missing variables.

Deal value is larger for cross-border M&As than for domestic M&As. The median is higher for extra-European takeovers, while the mean is higher for intra-European takeovers. A deal can be large in absolute value and at the same time, small in relative value and therefore have little impact on an acquirer. To control for this, the relative deal value is used in the regressions (table 3 of the appendix). To make the data distributed more normally, the logarithm of relative deal value is used (table 4 and 5 of the appendix). The relative deal value of domestic acquirers is larger than for cross-border acquirers. The relative deal value of extra-European acquirers is larger than for intra-European acquirers.

The acquisition premium is higher for domestic takeovers than for cross-border takeovers. More specifically, the acquisition premium is positive for domestic takeovers while it is negative for cross-border takeovers. The acquisition premium is lower (more negative) for extra-European takeovers than for intra-European. This means that the average deal value is lower than the highest market value of the past 52 weeks. The data of the acquisition premium is not distributed normally and affected by a few outliers. Therefore, it is winsorized on a 2.5% level (table 4 and 5 of the appendix). The acquisition premium can only be calculated by targets that are public. Only 200 of our targets are public. Due to data limitations, there are only 168 acquisition premium observations available in the sample, divided in 90 for domestic, 78 for intra-European and 24 for extra-European transactions.

The CD, measured as the Hofstede index, is actually lower for the extra-Europe sample than for the intra-Europe sample. This is in contradiction with the previous expectations described in this thesis. CD is measured using an advanced index of different factors that play a role in the cultural difference between the target and acquirer. The fact that cultural difference is lower between countries in Europe is therefore also not true. In total, there are 403 cross-border takeovers in our sample, and 53 of the cross-border takeovers are within the monetary union of the Euro. In 348 takeovers, there are exchange-rate risks. 349 of the 817 acquirers are based in the United Kingdom, divided in 214 for domestic, 35 for intra-European and 110 for extra-European takeovers.

To summarize, all firms in the sample have a Tobin's q higher than 1 and therefore positive NPV investment and growth opportunities. Specifically, extra-European acquirers have the highest Tobin's q, followed by intra-European acquirers and domestic acquirers. Firms participating in cross-border transactions are larger and have higher R&D expenses. The acquisition premium is positive for domestic takeovers while it is negative for cross-border takeovers. Furthermore, the most interesting data result is the fact that the cultural difference in the intra-European sample is smaller than the cultural difference in the extra-Europe sample.

5 Results

In this part, the results that are collected will be discussed and displayed. First of all, the general results regarding the 1 and 3-year BHARs are discussed, followed by the difference between the different types of mergers. Subsequently, all the different variables are discussed, and whether the variables have a different effect on the different type of mergers is investigated. This section concludes with the multivariate regressions where all variables are combined and investigated on the potential relationship with the 1 and 3-year BHARs. The results of the 5-year BHAR are available upon request.

5.1. Long term abnormal returns

The first hypothesis that is investigated in this paper is the following: *there are no significant long-term positive effects for acquirer firms based in Europe that participate in an M&A.* In Table 5, the results of the 1- and 3-year BHAR are displayed. The first p-value is based on the bootstrapped skewness-adjusted *t*-statistic as discussed in detail in the methodology chapter and Lyon, Barber, and Tsai (1999). The second *p*-value is based on the standard t-test.

On the 1-year time frame, the domestic and intra-European acquirers have positive abnormal returns. The domestic acquirers perform the best with 10.47%, followed by intra-European takeovers with 3.44%. The extra-European takeovers underperform significantly in comparison with their control firms with -9.97%. An important note is that only the abnormal returns in the extra-Europe sample are statistically significant. On the 3-year time frame, the complete sample underperforms with -24.12%. These results are largely driven by the domestic and intra-European takeovers. Domestic takeovers underperform with -36.97% while intra-European takeovers perform even worse with -45.10%. Interestingly, the extra-European takeovers overperform in comparison with the control firms with 12.77%. The extra-European takeovers perform worst on the shortest time frame and the best on the longest time frame.

Table 5: General Results of the 1 and 3-year BHARs.

*The first p-value is based on the bootstrapped skewness adjusted t-statistic. The second p-value is based on the standard two-sided t-test. * Means that the p-value is significant on a 10% level. ** Means that the p-value is significant on a 5% level. *** Means that the p-value is significant on a 1% level.*

	Complete Sample	**Domestic**	**Cross-border**	**Intra-Europe**	**Extra-Europe**

1-Year BHAR	**3.09%**	**10.47%**	**-4.48%**	**3.44%**	**-9.97%**
p-value	0.895	0.801	0.714	0.764	0.005***
p-value	0.8194	0.6887	0.4497	0.8008	0.0035***
3-Year BHAR	**-24.12%**	**-36.97%**	**-10.93%**	**-45.10%**	**12.77%**
p-value	0.158	0.161	0.642	0.061*	0.497
p-value	0.1389	0.1764	0.5312	0.1389	0.5368
Observations	817	414	401	163	238

This paper investigates the long-run post-merger stock price performance, and therefore the means can be heavily affected by outliers. In Table 6, the winsorized BHARs are displayed. The results are almost the same as those shown in Table 5. The complete sample overperformed on 1-year time frame and underperformed significantly on the 3-year time frame. Specifically, the domestic takeovers still overperform on the 1-year time frame, while the intra-European takeovers underperform, which is more in line with the literature. Extra-European takeovers still perform worst on the 1-year time frame (significantly), while they perform the best on the 3-year time frame. Extra-European takeovers now also underperform with -1.11% on the longest time frame. According to the results of Table 5 and Table 6 there are no positive significant abnormal returns for takeovers. This is in line with other authors that investigate the long-term performance of M&As.

Table 6: Results of the 1 and 3-year BHARs.

The BHAR are winsorized at three times the standard deviation. The *p*-value is based on the standard *t*-test. * Means that the p-value is significant on a 10% level. ** Means that the p-value is significant on a 5% level. *** Means that the *p*-value is significant on a 1% level.

Winsorized *t* - test	Complete Sample	Domestic	Cross-border	Intra-Europe	Extra-Europe
1- year BHAR (Mean)	**1.54%**	**9.55%**	**-6.69%**	**-1.97%**	**-9.96%**
p-value	0.74	0.2503	0.1078	0.8253	0.0035**
3-year BHAR (Mean)	**-11.71%**	**-13.46%**	**-9.90%**	**-22.58%**	**-1.11%**
p-value	0.10*	0.2510	0.2165	0.1394	0.8953
Observations	817	414	401	163	238

5.2. Difference

Here, we evaluate the results of the differences between the mergers to get an answer on the second and third hypothesis. The second hypothesis that is investigated in this paper is the following: *firms that participate in domestic M&As in Europe perform better than firms that participate in cross-border M&As in general.* The third hypothesis that is investigated in this paper is the following: *cross-border intra-European M&As perform better than cross-border M&As outside Europe.* To investigate the difference between the mergers more detailed and empirical, Table 7 is created.

Concerning 1-year BHARs, domestic takeovers perform better than cross-border takeovers. Domestic takeovers outperform extra-European takeovers significantly with 20.44%. Furthermore, intra-European takeovers perform better than extra-European takeovers. Concerning 3-year BHARs, cross-border takeovers perform better than domestic takeovers, a result driven by the extra-European takeovers. Extra-European takeovers outperform the domestic takeovers with a significant (Mann-Whitney test) return of 49.73%. The intra-European takeovers perform worse than extra-European and domestic takeovers. Although some interesting results are presented in Table 7, domestic takeovers do not significantly outperform cross-border takeovers. In addition, intra-European M&As do not perform better than other M&As and in fact perform worse on the longest time frame. The results are partially in line with the other literature. The meta table in the literature section shows that the general literature often found that cross-border takeovers underperform (most of the time no significant differences) in comparison with domestic takeovers. This paper finds the same result for the 1-year time frame, but also that extra-European takeovers perform better than domestic takeovers on the 3-year time frame.

Table 7: Differences between the different types of mergers

Mean difference between the different types of mergers for the 1 and 3-year buy-and-hold abnormal returns. * The *p*-value is based on the standard *t*-test. ** the *p*-value is based on the Wilcoxon rank-sum (Mann-Whitney) test. *** the *p*-value is based on the *t*-statistic of the winsorized sample.

Difference (mean)	(Domestic – Cross-border)	(Domestic-cross-border inside)	Domestic-cross-border outside)	(Cross-border inside - cross-border outside)
1-year BHAR	**14.94%**	**7.03%**	**20.44%**	**13.41%**
p-value*	0.5815	0.8680	0.5543	0.2658
p-value**	0.1076	0.4695	0.0758*	0.4520
p-value***	0.0828*	0.4208	0.0830*	0.3439

3-year BHAR	**-26.04%**	**8.13%**	**-49.73%**	**-57.86%**
p-value*	0.4244	0.8636	0.2058	0.1027
p-value**	0.1628	0.7346	0.0773*	0.2591
p-value***	0.8029	0.6628	0.4611	0.1876

5.3. Determinants and Variables

In the previous section, the stand-alone returns from the different types of mergers are investigated. Here, the effect of different determinants and variables on the returns are discussed and is therefore related to hypotheses 4 to 7. The relevant variables and detailed empirical results are displayed in Tables 9–20 of the appendix. The variables will be discussed separately. In the first part of each variable, the results of the variables *within* the different types of takeovers are discussed. In the second part of each variable, the results of the variables *between* the different types of takeovers are discussed.

5.3.1. Payment method

Table 12 in the appendix shows the univariate results of the variable PaymentMethod. No significant differences are found. However, concerning domestic and intra-European takeovers specifically, all cash-paid takeovers perform better than stock or mixed payment takeovers, which is in line with – among others – Martynova and Renneboog (2006). Looking specifically to extra-European takeovers, stock or mixed payments perform better than cash-paid takeovers, which is in line with Mateev and Andonov (2016). Concerning the differences between the merger types, domestic and intra-European takeovers that are financed with cash perform significantly better than extra-European takeovers on the shortest time frame. On the longest time frame, extra-European takeovers that are financed with stock perform significantly better than intra-European takeovers. The results suggest that in domestic and intra-European takeovers it is better to pay with cash, while paying with stock or mixed payments is better in extra-European takeovers.

5.3.2. Industry diversification

Table 13 in the appendix shows the results of the differences between industry diversification and intra-industry takeovers. Within all types of mergers, firms that completed a takeover within the same industry perform better than firms that completed a takeover outside the industry

(insignificant results). The insignificant differences are in line with Martynova, Oosting, and Renneboog (2006) and Mateev (2017), but in contradiction with Laabs and Schiereck (2010) and Megginson et al. (2000) who stated that industry diversification takeovers underperform significantly in comparison with intra-industry takeovers. Mateev and Andonov (2016) who investigated domestic takeovers specifically found that unrelated takeovers perform better, something which is in contradiction with our results. Important note is that they investigated the short run. Concerning the differences between the merger types, no significant results were found. Regarding takeovers in the same industry, domestic acquirers perform better than cross-border takeovers. Regarding takeovers outside the same industry, intra-Europe takeovers perform the worst, followed by domestic takeovers and extra-European takeovers. Mateev and Andonov (2016) found that cross-border takeovers perform (insignificantly) better than domestic takeovers in the same industry, while this is the opposite for unrelated takeovers.

5.3.3. Target Status

Table 14 in the appendix shows the differences between private and public targets. Domestic and intra-European public takeovers perform better than private takeovers, with a significant difference on the 1-year time frame for intra-European takeovers. This result is not in line with the general literature, but in line with Martynova and Renneboog (2006), who also investigated European acquirers. In line with – among others – Conn et al. (2005) and Mateev and Andonov (2016) are the results for the extra-European takeovers which show that private takeovers perform better than public takeovers on both time frames (insignificant differences). Concerning the differences between the merger types, domestic public takeovers perform better than cross-border public takeovers in general, while there are mixed results for private targets. Acquirers in intra-European transactions with a public target perform significantly better than acquirers in extra-European transactions on a 1-year time frame. Concerning the private targets, intra-European takeovers significantly underperform in comparison with extra-European takeovers on a 3-year time frame. Mateev and Andonov (2016) also found mixed results between domestic and cross-border acquisitions regarding public and private targets in their investigation. The results suggest that in domestic and intra-European takeovers it is better to acquire a public target, while private targets are better for extra-European takeovers.

5.3.4. Book-to-market value

Table 15 in the appendix shows the results for the variable BM. Domestic takeovers (significant on the 1-year time frame) with a high BM value perform worse than low BM acquirers, while

this is the other way around for cross-border takeovers. Literature that investigated the differences between domestic and cross-border takeovers regarding share price performance are not known. In general, value firms overperform in comparison with glamour firms (Rau & Vermaelen, 1998; André, Koolj, and L'her, 2004). Furthermore, Pablo (2009) investigated cross-border M&As and found that companies with low book-to-market ratios are more likely to become involved in a cross-border M&A than in a domestic M&A. Concerning the differences between the merger types in general, high BM acquirers perform better in cross-border takeovers, while low BM acquirers better in domestic takeovers. The results show a significant difference between domestic and cross-border takeovers for low BM acquirers (driven by a significant difference with intra-European takeovers). Furthermore, on the shortest time frame, low BM value acquirers perform significantly better in domestic takeovers in comparison with cross-border transactions. The results suggest that acquirers with low BM could better participate in domestic takeovers, while the opposite is true for acquirers with a high BM.

5.3.5. Tobin's q

Table 16 in the appendix shows the results for the variable *Tobinsq*, measured as the Tobinsq for the acquirer**.** Regarding domestic takeovers, high Tobinsq firms perform better than low Tobin's q firms. Regarding cross-border takeovers, high Tobin's q firms perform worse than low Tobinsq acquirers on almost every time frame, with a significant difference between high and low on the 1-year time frame for all cross-border takeovers and on the 3-year time frame for extra-European takeovers. High Tobinsq firms are likely to have more growth opportunities than low Tobinsq firms. Firms participating in domestic takeovers seem to explore those opportunities better than firms participating in cross-border takeovers. Lang, Stulz, and Walkling (1989) and Servaes (1991) found that bidder returns are higher for high Tobinsq firms, which is only the case for domestic takeovers in this paper. Concerning the differences between the merger types, domestic acquirers with a Tobin's q value below 1 underperform in comparison to cross-border takeovers. Furthermore, acquirers with a high Tobin's q perform significantly better in domestic takeovers than cross-border takeovers, driven by the worse performance of extra-European takeovers. Acquirers with low growth opportunities can better participate in cross-border takeovers. While acquirers with high growth opportunities can better participate in domestic takeovers. Results that are in line with the results of BM value.

5.3.6. Relative deal value

Table 17 in the appendix shows the results for the variable RelativeDealValue. Domestic takeovers perform almost equally on the shortest time frame, while relatively high deal value takeovers perform worse on the longest time frame. Regarding cross-border takeovers, relatively high deal value takeovers perform better than low deal value takeovers, with only a significant difference for extra-European takeovers on the 1-year time frame. The mixed results are in line with the contradicting and conflicting evidence in other papers such as Steigner and Sutton (2011) and Martynova, Oosting, and Renneboog (2006). Concerning the differences between the merger types and especially regarding relative high deal value acquirers, intra-European takeovers perform better than domestic takeovers. Moreover, extra-European deals perform the worst on the shortest time frame, while they perform the best on the largest time frame (insignificantly). Regarding relative low deal value acquirers, domestic takeovers perform better than intra and extra-European takeovers (significantly on the shortest time frame). Moreover, intra-European takeovers perform significantly better than extra-European takeovers on the shortest time frame.

5.3.7. Relative free cash flow

Table 18 in the appendix shows the results for the variable RFCF. Domestic takeovers with a high RFCF perform worse than takeovers with low RFCFs. Extra-European takeovers with a relatively high RFCF perform better than takeovers with relatively low RFCFs. Although the differences are insignificant, it seems that domestic takeovers suffer from FCF problems (Martynova, Oosting, & Renneboog, 2006; Lang, Stulz, & Walkling, 1991), while cross-border takeovers with high FCF perform better (Gregory, 2005). Concerning the differences between the merger types, and especially regarding high RFCF, acquirers participating in domestic takeovers perform better than in intra-European takeovers, while extra-European transactions perform worse on the shortest time frame and the best on the longest time frame. Concerning the results of acquirers with a relatively low FCF, intra-European transactions perform better than extra-European transactions.

5.3.8. Return on Assets

Table 19 of the appendix shows the results for the variable ROA. For all merger types, acquirers with high ROA perform worse on the shortest time frame while they perform the best on the longest time frame. It seems that the profitability of the acquirer first has a negative impact on the abnormal returns while it has a positive impact on the long run. Concerning the differences between the merger types, and especially regarding high ROA acquirers, domestic takeovers perform the best on all time frames. Intra-European takeovers perform better than

extra-European takeovers on the short term, while they perform worse on the longest time frame. Regarding low ROA acquirers, domestic takeovers perform the best on the short term, while extra-European takeovers perform the best on the long run. Domestic and intra-European takeovers underperform heavily on the longest time frame. The results suggest that acquirers with high ROA should perform a domestic takeover, while low ROA acquirers should perform an extra-European takeover.

5.3.9. Research and development expenses

Table 20 in the appendix shows the results for the variable R&DExpenses. In extra-European transactions, acquirers with high R&D expenses perform insignificantly better than acquirers with low R&D expenses. No significant differences existed between the variables. For all other types of mergers, the results are mixed. The result that acquirers with high R&D expenses perform better than low R&D expenses in extra-European takeovers makes sense and is in line with the literature (Francoeur, 2006; Takechi, 2011; Steigner & Sutton, 2011). For those takeovers it is harder to find the correct information and technology. Concerning the differences between the merger types, and especially regarding high R&D expenses, intra-European transactions perform the best on the shortest time frame, while they perform worse on the longest time frame. Extra-European transactions perform the worst on the shortest time frame, while they perform the best on the longest time frame. Regarding the results of acquirers with low R&D expenses, domestic takeovers perform the best on the shortest time frame and the worst on the longest time frame. Furthermore, intra-European transactions perform better than extra-European transactions. It seems that (high) R&D expenses don't play an important role in domestic and intra-European, while it is important for the performance of extra-European takeovers.

5.3.10. Cultural difference

Table 21 in the appendix shows the results for the variable CD. Intra-European and extra-European transactions perform the worst with high cultural difference on the shortest time frame, while the best on the longest time frame. The results suggest that high CD first result in more problems in the merger process (lowest returns), but in the long-term results in better operational synergies and higher returns. This result is in line with what – among others – Chakrabarti, Gupta-Mukherjee, and Jayaraman (2009) stated in their research. Concerning the differences between the merger types, takeovers with high cultural difference perform better in extra-European transactions than in intra-European transactions. Regarding low

cultural difference, intra-European transactions perform better on the shortest time frame and the worst on the longest time frame.

5.3.11. Firm size

Table 22 in the appendix shows the results for the variable Size. Regarding cross-border takeovers, large acquirers perform better on the shortest time frame but worse on the longest time frame. The opposite is true for domestic takeovers. The mixed results are in line with the literature. Some papers stated that size has a positive influence, while other papers stated that size has a negative influence. This paper found the difference between the 1 and 3-year time frame and domestic and cross-border takeovers. Concerning the differences between the merger types, intra-European transactions perform the best on the shortest time frame but the worst on the longest time frame. Furthermore, extra-European takeovers perform the best on the longest time frame. Concerning small firms specifically, domestic firms perform the best on the shortest time frame while they perform the worst on the longest time frame. Furthermore, intra-European transactions perform worse than extra-European transactions.

5.3.12. Monetary union and exchange rate risk

Tables 23 and 24 in the appendix show the results for the variables MonetaryUnion and ExchangeRateRisk. For the variable MonetaryUnion, 'Yes' means that the takeover is cross-border but within the monetary union of the Euro. For the variable ExchangeRateRisk, 'Yes' means that the currency of the acquirers and target's countries are not the same. For both variables, no significant results were found. Regarding the signs of the abnormal returns for the MonetaryUnion variable, cross-border takeovers within the monetary union perform worse than outside the monetary union. Concerning intra-Europe, takeovers within the monetary union perform worse on the shortest time frame but the best on the longest time frame. Furthermore, takeovers within the monetary union perform worse than domestic takeovers on the shortest time frame but better on the longest time frame. Regarding the signs of the abnormal returns for the exchange rate risk variable, cross-border takeovers with exchange rate risks perform worse than those without exchange rate risks.

5.3.13. Acquisition Premium

Table 25 in the appendix shows the results for the variable AcquisitionPremium. Regarding domestic takeovers, high acquisition premiums result in lower abnormal returns. An interesting

result is that the opposite is true for cross-border takeovers. It seems that the premium that is paid for targets outside the domestic takeovers is not influenced by potential agency problems, but by higher potential synergies and other advantages. Concerning the differences between the merger types, and especially regarding high acquisition premium, intra-European takeovers perform the best and have positive returns. Domestic takeovers are performing negatively on both time frames. Extra-European takeovers perform slightly negative on the shortest time frame while they perform positive on the longest time frame. Regarding takeovers with low acquisition premium, domestic takeovers are performing best and positively on both time frames. Intra-European takeovers perform the worst.

5.4. Multivariate Regressions

In the previous sections of the results, the stand-alone returns and the differences within the variables are discussed. Here, the variables are combined and estimated in a multivariate ordinary least squares (OLS) regression and is therefore also related to hypotheses 4 to 7. In Tables 27 and 28 in the appendix, the results of the combined takeover types for the 1 and 3-year BHAR are displayed. Tables 8 and 9 show the different types separately.

5.4.1. Separate types of takeovers

First, I will discuss the results of the different types of takeovers separately. The detailed results are displayed in Tables 8 and 9 below. Unfortunately, the explanatory power of all the regressions is very low. Even if the variables are investigated separately and combined in different compositions, the explanatory power remains low.

The regression with the total sample for the 1-year BHARs shows significant results for the Agri, Mining and Transportation dummy, ROA, CD and PaymentMethod. Acquirers that are active in the transportation and mining industry perform significantly better than firms active in the manufacturing industry, while a firm in the Agri industry perform significantly worse.

Having a larger ROA (return on assets) has a positive influence on the post-merger performance. An increase of 0.1 in ROA results in a 5.14% increase in abnormal returns. A higher CD (cultural differences) results in smaller abnormal returns, a result that is further displayed in regression 3 (cross-border) and regression 4 (intra-Europe). CD does not have a significant on extra-European takeovers. A one shift in CD results in 4.56% lower abnormal returns for intra-European takeovers. It seems that firms in intra-Europe takeovers suffer from problems in the merger process while this is not the case for extra-European takeovers. Paying

with cash results in a 7.08% increase of abnormal returns. Specifically, in domestic takeovers this is 10.86% and in intra-European takeovers 18.76%. Results that are in line with the literature. Again, this does not have any influence on extra-European takeovers. A very large, significant and positive coefficient for extra-European takeovers was found for the RFCF (relative free cash flow) variable. The RFCF value is generally small. Therefore a 1-unit shift is rare; a shift of 0.001 is more common. Having a larger RelativeDealValue has a positive significant effect on the abnormal returns for extra-European takeovers.

For intra-European takeovers some other significant results are found. Tobinsq has a significant and negative effect on the post-merger abnormal returns of intra-European takeovers. Acquiring a public target results in 21.68% higher abnormal returns than acquiring a private target. Furthermore, having high R&D expenses and a high CD results in a significant increase of 27.03% of the abnormal returns. A result in line with the paper of Steigner and Sutton (2011). A high cultural difference between the acquirer and target leads to better synergies and abnormal returns when the firm spend a lot on R&D expenses.

Table 8: The results of the OLS regressions with the 1-year BHARs.

The BHARs are winsorized at a 5% level to prevent that outliers have an overly large influence on the results. The different types, on the first line, are all the types combined and separate. All standard errors are robust. Regarding the different industry dummies, the default option is the manufacturing industry. The descriptions of the variables and how they are calculated is included in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

1-year BHAR										
Variable	**Total Sample (1)**		**Domestic (2)**		**Cross-border (3)**		**Intra-Europe (4)**		**Extra-Europe (5)**	
	Coefficient	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**
dummyUK	-0.0126	0.764	-0.0288	0.615	0.0035	0.956	0.1442	0.176	-0.0911	0.297
Agri	**-0.3495**	**0.093***	-0.1854	0.529	-0.1271	0.284	-	-	-0.1818	0.282
Mining	**0.1344**	**0.083***	**0.3240**	**0.006*****	0.0215	0.825	0.0781	0.766	0.0050	0.965
Construction	-0.0150	0.857	-0.0008	0.994	-0.0263	0.854	-0.1642	0.335	0.0326	0.872
Transportation	**0.1444**	**0.023****	0.1079	0.247	0.1436	0.109	-0.0260	0.834	0.2767	**0.066***
WholesaleTrade	0.0443	0.582	0.0443	0.715	-0.0059	0.955	0.0158	0.932	-0.0363	0.826
RetailTrade	-0.0419	0.618	-0.0706	0.522	-0.0324	0.801	-0.0261	0.903	-0.0737	0.671
Services	-0.0105	0.813	-0.0023	0.972	-0.0259	0.686	-0.0876	0.373	-0.0018	0.984
BM	-0.0006	0.992	-0.0217	0.754	0.0132	0.884	-0.0390	0.781	0.0786	0.503
Size	-0.0078	0.585	-0.0161	0.497	-0.0017	0.926	-0.0236	0.441	0.0099	0.693
RFCF	0.4735	0.542	-0.4536	0.703	1.3175	0.212	-0.4349	0.800	**2.8863**	**0.057***
ROA	**0.5142**	**0.069***	0.5370	0.204	0.4857	0.207	1.0694	0.112	0.1036	0.825
CD	**-0.0078**	**0.089***	-	-	**-0.0186**	**0.042****	**-0.0456**	**0.005*****	-0.0074	0.524
R&DExpenses	0.0028	0.857	-0.0308	0.272	0.0205	0.281	0.0154	0.673	**0.0400**	**0.068***
Tobinsq	-0.0303	0.227	-0.0120	0.772	-0.0407	0.228	-0.1120	0.054*	0.0131	0.759
IndustryDiversification	0.0325	0.367	0.0045	0.933	0.0578	0.246	0.0931	0.275	-0.0121	0.849
RelativeDealValue	-0.0067	0.662	-0.0200	0.403	0.0112	0.581	-0.0478	0.113	**0.0481**	**0.071***
PaymentMethod	**0.0708**	**0.063***	**0.1086**	**0.048****	0.0541	0.329	**0.1876**	**0.025****	-0.0308	0.678
TargetStatus	0.0175	0.707	0.0391	0.560	-0.0072	0.909	**0.2168**	**0.033****	-0.0373	0.653
MonetaryUnion	-0.0011	0.986	-	-	-0.0340	0.643	0.0004	0.997	-	-
Tobinsq*RFCF	0.0001	0.999	-0.0218	0.721	0.0087	0.872	0.1	0.270	-0.0283	0.683

R&DExpenses*CD	0.0083	0.823	-	-	0.1027	0.206	**0.2703**	**0.033****	-0.0043	0.969
Constant	-0.0683	0.595	0.0724	0.697	-0.1367	0.483	0.1072	0.756	-0.3103	0.202
R-Squared	0.0314		0.0399		0.0540		0.1760		0.0820	
Adj. R2	0.0045		-0.0064		0.0017		0.0550		-0.0030	
Observations	816		413		403		165		238	

Regarding the 3-year BHARs, displayed in table 9, the transportation dummy is still significant and even larger than in the shortest time frame. Interestingly, the result is now driven by domestic takeovers. Furthermore, Agri firms outperform in cross-border takeovers and RetailTrade firms underperform in intra-European takeovers. The effect of a higher ROA is larger in the 3-year BHAR time period. An increase of 0.1 in ROA results in a 11.13% increase in abnormal returns. A significant influence was found for industry diversification. Concerning the total sample, performing an M&A in the same industry results in 14.94% higher abnormal returns than doing an M&A in another industry. For cross-border takeovers, this is even higher (18.81%), while there are no effects for domestic takeovers. CD has a significant negative effect of 8.18% (larger) in intra-European takeovers, while it does not have a significant effect on the total sample anymore. The effect for intra-European takeovers suggests that they not only suffer from implementation problems, but that there are also more problems in the longer term. CD does not have an effect on extra-European takeovers. Having above-median R&D expenses and cultural differences (combined) results in a 48.24% increase in abnormal returns for intra-European takeovers (27.03% on the 1-year time frame). Interestingly, this does not have an influence on extra-European takeovers. Furthermore, Size and RelativeDealValue have a significant and negative effect on the abnormal returns in intra-European takeovers.

Table 9: The results of the OLS regression with the 3-year BHARs.

The BHARs are winsorized on a 5% level to prevent that outliers have an overly large influence on the results. The different types, on the first line, are all the types combined and separate. All standard errors are robust. Regarding the different industry dummies, the default option is the manufacturing industry. The descriptions of the variables and how they are calculated is included in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

3-year BHAR										
Variable	**Total Sample (1)**		**Domestic (2)**		**Cross-border (3)**		**Intra-Europe (4)**		**Extra-Europe (5)**	
	Coefficient	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**
dummyUK	-0.0505	0.505	-0.0702	0.495	-0.0186	0.873	0.2901	0.187	-0.1206	0.442
Agri	0.0704	0.779	0.2521	0.499	**0.6094**	**0.016****	-	-	0.4580	0.159
Mining	0.0944	0.533	0.0503	0.842	0.0387	0.845	0.1259	0.857	-0.0245	0.913
Construction	-0.1566	0.255	-0.1367	0.456	-0.1661	0.347	-0.1924	0.493	-0.1224	0.640
Transportation	**0.2086**	**0.071***	**0.3267**	**0.050****	0.0873	0.602	-0.0095	0.967	0.1577	**0.527**
WholesaleTrade	0.0003	0.998	-0.0860	0.684	0.0022	0.991	0.2928	0.410	-0.2429	0.286
RetailTrade	0.0110	0.938	0.1074	0.538	-0.2440	0.367	**-0.9676**	**0.050****	-0.0321	0.907
Services	0.0287	0.715	0.1086	0.355	-0.0904	0.418	-0.0377	0.821	-0.1324	0.397
BM	-0.0942	0.355	-0.2064	0.114	0.0925	0.592	-0.1194	0.681	0.2650	0.194
Size	-0.0174	0.492	0.0172	0.675	-0.0345	0.306	**-0.1166**	**0.045****	0.0141	0.744

RFCF	1.4742	0.301	3.1497	0.141	0.7946	0.692	4.7923	0.177	1.3393	0.601
ROA	**1.1286**	**0.023****	**1.201**	**0.094***	0.8866	0.212	1.2193	0.345	0.8345	0.334
CD	0.0060	0.504	-	-	-0.0291	0.108	**-0.0818**	**0.007*****	-0.0033	0.883
R&DExpenses	0.0143	0.575	-0.0424	0.360	0.0074	0.823	0.0011	0.984	0.0232	0.573
Tobinsq	-0.0515	0.234	-0.0134	0.831	-0.0636	0.344	-0.1046	0.402	0.0153	0.851
IndustryDiversification	**0.1494**	**0.023****	0.1422	0.132	**0.1881**	**0.043****	0.2010	0.180	0.1047	0.381
RelativeDealValue	-0.0093	0.724	0.0256	0.541	-0.0381	0.281	**-0.1349**	**0.011****	0.0239	0.605
PaymentMethod	0.0161	0.830	-0.0029	0.981	0.0606	0.536	0.2494	0.102	-0.1044	0.444
TargetStatus	0.1058	0.217	0.1413	0.237	0.0941	0.460	0.1911	0.381	0.0863	0.570
MonetaryUnion	-0.1854	0.144	-	-	-0.1926	0.155	-0.0797	0.632	-	-
Tobinsq*RFCF	-0.0450	0.532	-0.0253	0.826	-0.0633	0.492	-0.1474	0.364	-0.0424	0.706
R&DExpenses*CD	-0.0864	0.210	-	-	0.2134	0.166	**-0.4824**	**0.052***	0.0344	0.873
Constant	-0.1205	0.592	-0.4311	0.172	0.0232	0.948	0.2068	0.742	-0.3654	0.370
R-Squared	0.0324		0.0512		0.0551		0.1770		0.0703	
Adj. R2	0.0056		0.0054		0.0029		0.0561		-0.0158	
Observations	816		413		403		165		238	

5.4.2. Takeovers combined

Second, I will discuss the results of the different types of takeovers combined, displayed in Tables 27 and 28 in the appendix. Table 27 shows the results of the regression regarding the 1-year BHAR.

Regarding the significant result (10% level) for the DC dummy in the second regression, the dummy is 1 if it is a domestic takeover and 0 if the takeover is labelled as intra-European. The dummy displays that a domestic takeover has 19.2% lower abnormal returns than intra-European takeovers, an interesting finding as the raw mean returns are higher for domestic firms than for intra-European takeovers. No other dummies that make the distinction between the different types of takeover are significant. Furthermore, similar significant values are found. Table 28 displays the results of the OLS regression for the longest time frame. The second regression again shows a significant value (10% level) for the DC dummy. The dummy displays that a domestic takeover has 35.15% lower abnormal returns than intra-European takeovers, an indication that – after controlling for all variables – domestic performs worse than intra-European transactions.

5.5. Multivariate Regression with AcquisitionPremium

As discussed in the literature, AcquisitionPremium is an important proxy for different behavioural elements that could influence the post-merger performance of the acquirer. Therefore, the regressions discussed above are performed again including the variable AcquisitionPremium. The regressions are displayed in table 29 until 32 in the appendix. Importantly, the AcquisitionPremium can only be calculated for public targets and therefore only public targets are incorporated in the regressions.

Table 29 of the appendix show that in the cross-border sample (also in the total sample), takeovers within the monetary union perform 36.87% better. Furthermore, CD has a negative significant effect on intra-European takeovers. Table 30 of the appendix show that BM has a negative effect on the abnormal returns in the cross-border sample. Tobinsq and AcquisitionPremium have a negative effect on extra-European takeovers. Investigating the difference between the types of mergers with the dummy variables, table 31 shows that there are no significant results. But interestingly, in regression 2, takeovers with the acquirer in the UK underperform with 20.11% in comparison with acquirers outside the UK. In table 32, no significant results are found for the dummy variables that make the distinction between the different types of mergers.

6 Conclusion and Discussion

6.1. Conclusion

This thesis investigates takeovers with the acquirer based in Europe during the time period 2001–2014. Specifically, this paper investigates if cross-border M&As in Europe create long-run shareholder value and if there are differences between domestic, intra-European, and extra-European takeovers. This is done because the theory states that cross-border takeovers have the largest potentials, but empirical results show that domestic takeovers perform better. Both underperform in comparison with their control firms. With the developments in Europe of the past decades, Europe is increasingly becoming a single large domestic country. Therefore, I argued that it might be the case that acquirers can benefit from the cross-border potentials without having the large downsides and with the benefits of completing a domestic takeover. To measure the abnormal returns, an advanced matching algorithm was used based on size, book-to-market value, and industry to detect the best control firm possible. This paper focusses on the long run (1 and 3-year BHAR) as this has been little investigated, especially for European acquirers.

The first hypothesis that is investigated in this paper is the following: *There are no significant long-term positive effects for acquirer firms based in Europe that participate in an M&A.* The results show that there are no positive significant results for acquirers based in Europe. The complete sample, driven by domestic and intra-European takeovers, is insignificantly positive on the 1-year time frame, while cross-border takeovers in general are insignificantly negative from the beginning, results that are in line with general literature. On the 3-year time frame, only the extra-European takeovers are positive and insignificant. Therefore, the first hypothesis is accepted.

The second hypothesis states: *Firms that participate in domestic M&As in Europe perform better than firms that participate in cross-border M&As in general.* On the shortest time frame, the sign of the difference between domestic and cross-border takeovers is positive, while on the largest time frame the sign is negative (cross-border perform better than domestic). On the shortest time frame, only the *t*-statistic of the winsorized sample is significant (10% level). On the largest time frame, no significant results were found. The second hypothesis is rejected as there are no clear significant differences between domestic and cross-border takeovers.

The third hypothesis states: *Cross-border intra-European M&As perform better than extra-European M&As.* On the shortest time frame, intra-European transactions perform

insignificantly better than extra-European takeovers. On the longest time frame, intra-European M&As perform insignificantly worse than extra-European M&As. Therefore, the third hypothesis is rejected.

The results show a large significant difference within the cross-border sample. As in the literature, intra-European transactions underperform (insignificantly) in comparison with domestic transactions. However, extra-European takeovers only underperform (significantly) on the 1-year time frame and perform the best of all merger types on the 3-year time frame, suggesting that those transactions have the largest implementation problems or highest costs, followed by the largest potentials and the best results. In the literature, cross-border takeovers usually underperform in comparison with domestic takeovers, with both significant and insignificant differences found in the literature (Conn et al., 2005; Bertrand & Betschinger, 2012; Andre et al., 2004). Dividing the sample between intra-European and extra-European transactions has not been done before, and this result gives a better understanding of the behaviour of cross-border transactions. After controlling for all variables, the regressions show that domestic takeovers have a significantly negative influence on the abnormal returns in comparison with intra-European takeovers. However, the result is only significant on a 10% level and the explanatory power of the regressions is very low, it could be the first sign that takeovers within Europe are doing it better than domestic takeovers.

The fourth hypothesis states: *In general, industry diversified (non-focused) cross-border M&As underperform in comparison to non-industry diversified (focused) cross-border M&As. Concerning domestic M&As specifically, unrelated M&As perform better than related M&As.*
The univariate results show that firms in the same industry perform (insignificantly) better than firms outside the industry. The multivariate results show that on the longest time frame, related (or focused) takeovers perform significantly better than non-related (non-focused) takeovers, a result driven by cross-border takeovers. According to the general literature, firms that participate in industry diversification transaction perform worse, which is in line with our results. However, Mateev and Andonov (2016), who divided the sample into domestic and cross-border, found that domestic takeovers perform better in unrelated industries. An explanation for the difference is the fact that they investigated the very short term. The fourth hypothesis is rejected.

The fifth hypothesis states: *Cultural differences has a significant negative effect on cross-border M&As outside Europe, while it does not have an effect on intra-European M&As.* This hypothesis is rejected as the opposite is true. Cultural differences have a significantly negative effect on intra-European transactions, while they do not have an effect on extra-European

transactions. An explanation can be given because according to Hofstede's measure of cultural difference, the cultural differences in intra-European takeovers are lower than in extra-European takeovers.

The sixth hypothesis state: *R&D expenses have a more positive effect on cross-border M&As than domestic M&As. Furthermore, R&D expenses have a positive effect on the performance of M&As with high cultural differences*. This hypothesis is rejected. In the regressions, R&D expenses do not have an effect. Furthermore, concerning high/low R&D expenses separately, the results only show that high R&D expenses have a more positive effect (significant) on extra-European transactions than intra-European transactions. Similar to the results in Steigner and Sutton (2011), the combination of high cultural differences and high R&D expenses results in higher abnormal returns. However, in contradiction to Steigner and Sutton (2011), this is only true for intra-European takeovers and not extra-European takeovers.

The seventh and final hypothesis states: *Cross-border takeovers within the monetary union of the Euro have higher acquirer returns than other cross-border takeovers.* This hypothesis is also rejected. No significant results or differences were found for takeovers within the monetary union when investigating the complete sample. The results of the regressions with only the public targets show that cross-border takeovers within the monetary union perform significantly better than outside the monetary union. Therefore, it seems that the acquirer does have an advantage if the target is public, while is does not have an advantage if the target is private.

6.2. Discussion and Further Research

A firm-specific matching algorithm is a good way to determine control firms, but not necessarily the only good way. Especially when investigating the long run, it is optimal for the robustness of the results to use different methods to determine the control returns. Furthermore, much uncertainty is based on the correct measurement of the test statistics. In this thesis I used multiple to obtain a better understanding of the empirical research; however, with more time and knowledge, alternative methods for investigating the test statistics could be devised.

The main contribution of this thesis to the literature is making the distinction between intra-European and extra-European transactions and finding that extra-European transactions perform better than domestic and intra-European transactions. The results of the regressions give a first impression that domestic takeovers perform worse than intra-European takeovers. Furthermore, the univariate results for among others target status and payment method show that domestic and intra-European takeovers act in the same way, while extra-European

takeovers do not. More research is necessary for reliable conclusions. Further research could focus on the US and see if there are differences within the same state, compared to other states, and outside the state. My last recommendation is that research could investigate more (and better) variables such as institutional ownership and the Herfindahl-Hirschman index. Those variables could explain more about the behaviour of the shareholders and the performance of the shares.

References

Allen, C., Gasiorek, M., & Smith, A. (1998). The competition effects of the Single Market in Europe. *Economic Policy*, *13*(27), 439–486.

Andrade, G., Mitchell, M., & Stafford, E. (2001). New Evidence and Perspectives on Mergers. *Journal of Economic Perspectives*, *15*(2), 103–120.

André, P., Kooli, M., & L'Her, J. (2004). The Long-Run Performance of Mergers and Acquisitions: Evidence from the Canadian Stock Market. *Financial Management, 33*(4), 27-43.

Arora, V., Vamvakidis, A. (2005). How Much Do Trading Partners Matter for Economic Growth?. *IMF Economic Review,* 52**,** 24–40.

Baldwin, J. R., & Caves, R.E.. (1991). Foreign Multinational Enterprises and Merger Activity in Canada. In L. Waverman (ed.), *Corporate Globalization Through /Mergers and Acquisitions*, pp. 89-122. Calgary: University of Calgary Press.

Barber, B. M., & Lyon, J. D. (1997). Detecting long-run abnormal stock returns: The empirical power and specification of test statistics. *Journal of Financial Economics*, 43(3), 341-372.

Bauer, F., & Matzler, K. (2013). Antecedents of M&A success: The role of strategic complementarity, cultural fit, and degree and speed of integration. *Strategic Management Journal*, *35*(2), 269–291.

Bertrand, O., & Betschinger, M. A. (2012). Performance of domestic and cross-border acquisitions: Empirical evidence from Russian acquirers. *Journal of Comparative Economics*, 40(3), 413-437.

Betton, S., Eckbo, B. E., & Thorburn, K. S. (2008). Corporate Takeovers. *Handbook of Empirical Corporate Finance*, 1, 291–429.

Campa, J. M., & Hernando, I. (2004). Shareholder value creation in European M&As. *European Financial Management*, 10(1), 47-81.

Campa, J. M., & Moschieri, C. (2008). The European M&A industry: Trends, patterns and shortcomings. *IESE Business School*, University of Navarra.

Carnes, T. A., Black, E. L., & Jandik, T. (2001). The long-term success of cross-border mergers and acquisitions. Available at SSRN 270288.

Chakrabarti, R., Gupta-Mukherjee, S., & Jayaraman, N. (2008). Mars–Venus marriages: Culture and cross-border M&A. *Journal of International Business Studies*, *40*(2), 216–236.

Chung, K. H., & Pruitt, S. W. (1994). A simple approximation of Tobin's q. *Financial Management*, 23(3), 70-74.

Coeurdacier, N., De Santis, R., & Aviat, A. (2009). Cross-border mergers and acquisitions and European integration. *Economic Policy*, 24(57), 56-106.

Conn, R. L., Cosh, A., Guest, P. M., & Hughes, A. (2005). The impact on UK acquirers of domestic, cross-border, public and private acquisitions. *Journal of Business Finance and Accounting*, 32(5–6), 815–870.

Cowan, A. R., & Sergeant, A. M. (2001). Interacting biases, non-normal return distributions and the performance of tests for long-horizon event studies. *Journal of banking & finance*, *25*(4), 741-765.

Danbolt, J. (2004) Target Company Cross-border Effects in Acquisitions into the UK, *European Financial Management,* 10(1): 83-108.

Datta, S., Kodwani, D., & Viney, H. (2013). Shareholder wealth creation following M&A: evidence from European utility sectors. *Applied Financial Economics*, *23*(10), 891–900.

Eckbo, B. E., & Thorburn, K. S. (2000). Gains to Bidder Firms Revisited: Domestic and Foreign Acquisitions in Canada. *The Journal of Financial and Quantitative Analysis*, *35*(1), 1-25.

Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of Cross-Border Mergers and Acquisitions. *The Journal of Finance*, 67(3), 1045–1082.

Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review*, 10(1), 1-21.

Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33, 3-53.

Fama, E. F., & French, K. R. (2015). A five-factor asset pricing model. *Journal of Financial Economics*, 116(1), 1-22.

Francoeur, C. (2006). The long-run performance of cross-border mergers and acquisitions: Evidence to support the internalization theory. *Corporate Ownership & Control*, 4(2), 312-323.

Franks, J., Harris, R., & Titman, S. (1991). The postmerger share-price performance of acquiring firms. *Journal of Financial Economics*, 29(1), 81-96.

Franks, J., & Mayer, C. (1996). Hostile takeovers and the correction of managerial failure. *Journal of Financial Economics*, 40(1), 163-181.

Goergen, M., & Renneboog, L. (2004). Shareholder wealth effects of European domestic and cross-border takeover bids. *European Financial Management*, 10(1), 9-45.

Golbe, D.L. & White, L.J. (1993). Catch a Wave: The Time Series Behaviour of Mergers. *Review of Economics and Statistics*, 75(3), 493-497.

Gregory, A. (2005). The long run abnormal performance of UK acquirers and the free cash flow hypothesis. *Journal of Business Finance & Accounting*, 32(5-6), 777-814.

Gugler, K., Mueller, D. C., Yurtoglu, B. B., & Zulehner, C. (2003). The effects of mergers: an international comparison. *International Journal of Industrial Organization*, *21*(5), 625–653.

Gupta, A., & Misra, L. (2007). Deal Size, Bid Premium, and Gains in Bank Mergers: The Impact of Managerial Motivations. *The Financial Review*, *42*(3), 373–400.

Higgins, R. C., & Schall, L. D. (1975). Corporate bankruptcy and conglomerate merger. *The Journal of Finance*, 30(1), 93-113.

Higson, C., & Elliott, J. (1998). Post-takeover returns: The UK evidence. *Journal of Empirical Finance*, 5(1), 27-46.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review,* 76(2), 323-329.

Kiymaz, H. (2004). Cross-border acquisitions of US financial institutions: Impact of macroeconomic factors. *Journal of Banking and Finance*, 28(6), 1413–1439.

Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of international business studies*, *19*(3), 411-432.

Kothari, S. P., & Warner, J. B. (1997). Measuring long-horizon security price performance. *Journal of Financial Economics*, 43(3), 301-339.

Laabs, J.-P., & Schiereck, D. (2008). The long-term success of M&A in the automotive supply industry: determinants of capital market performance. *Journal of Economics and Finance*, *34*(1), 61–88.

Lang, L. H., Walkling, R. A., & Stulz, R. M. (1989). Managerial performance, Tobin's Q, and the gains from successful tender offers. *Journal of Finance*, 24, 127-154.

Lang, L. H., Stulz, R., & Walkling, R. A. (1991). A test of the free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics*, *29*(2), 315-335.

Lewellen, W. G. (1971). A pure financial rationale for the conglomerate merger*. The journal of Finance,* 26(2), 521-537.

Loughran, T. and Vijh, A. M. (1997) Do long term shareholders benefit from corporate acquisitions? *Journal of Finance*, 52, 1765–90.

Lyon, J. D., Barber, B. M., & Tsai, C. L. (1999). Improved methods for tests of long-run abnormal stock returns. *The Journal of Finance*, 54(1), 165-201.

Ma, J., Pagan, J. A., & Chu, Y. (2009). Abnormal Returns to Mergers and Acquisitions in Ten Asian Stock Markets. International Journal of Business, 14(3), 236-250.

Manchin, M. (2004). Determinants of European cross-border mergers and acquisitions. *Directorate General Economic and Financial Affairs (DG ECFIN), European Commission*, 212.

Martynova, M., Oosting, S., & Renneboog, L. (2007). The long-term operating performance in European mergers and acquisitions. *International Mergers and Acquisitions Activity Since 1990*, 79–116.

Martynova, M., & Renneboog, L. (2006). Mergers and acquisitions in Europe. Advances in corporate finance and asset pricing. *Elsevier*, 6,13-75.

Mateev, M. (2017). Is the M&A announcement effect different across Europe? More evidences from continental Europe and the UK. *Research in International Business and Finance*, 40, 190-216.

Mateev, M., & Andonov, K. (2016). Do cross-border and domestic bidding firms perform differently? New evidence from continental Europe and the UK. *Research in International Business and Finance*, 37, 327-349.

Megginson, W. L., Morgan, A., & Nail, L. (2004). The determinants of positive long-term performance in strategic mergers: Corporate focus and cash. *Journal of Banking & Finance*, 28(3), 523-552.

Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2004). Firm size and the gains from acquisitions. *Journal of Financial Economics*, 73(2), 201-228.

Morosini, P., Shane, S., & Singh, H. (1998). National Cultural Distance and Cross-Border Acquisition Performance. *Journal of International Business Studies*, *29*(1), 137–158.

Neary, J. P. (2007). Cross-border mergers as instruments of comparative advantage. *The Review of Economic Studies,* 74(4), 1229-1257.

Pablo, E. (2009). Determinants of cross-border M&As in Latin America. *Journal of Business Research*, 62(9), 861-867.

Rajan, R., Servaes, L., & Zingales, L. (2000). The Cost of Diversity: The Diversification Discount and Inefficient Investment. *The Journal of Finance*, 55(1), 35-80.

Ramaswamy, K. P., & Waegelein, J. F. (2003). Firm financial performance following mergers. Review of Quantitative Finance and Accounting, 20(2), 115-126.

Rau, P. R., & Vermaelen, T. (1998). Glamour, value and the post-acquisition performance of acquiring firms. *Journal of Financial Economics*, 49(2), 223-253.

Ritter, J. R. (1991). The long-run performance of initial public offerings. *The Journal of Finance*, 46(1), 3-27.

Roll, R. (1986). The hubris hypothesis of corporate takeovers. *Journal of business*, 197-216.

Scharfstein, D. S., & Stein, J. C. (2000). The dark side of internal capital markets: Divisional rent-seeking and inefficient investment. *The Journal of Finance*, 55(6), 2537-2564.

Schoenberg, R. (1999). Cultural Compatibility in International Acquisitions. *International Business Organization*, 294–306.

Scholes, M. S., Wilson, G. P., & Wolfson, M. A. (1990). Tax planning, regulatory capital planning, and financial reporting strategy for commercial banks. *The Review of Financial Studies*, 3(4), 625-650

Servaes, H. (1991). Tobin's Q and the Gains from Takeovers. *The Journal of Finance*, *46*(1), 409-419.

Servaes, H., & Zenner, M. (1994). Taxes and the Returns to Foreign Acquisitions in the United States. *Financial Management*, *23*(4), 42-56.

Shimizu, K., Hitt, M. A., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future. *Journal of International Management*, *10*(3), 307–353.

Shin, H. H., & Stulz, R. M. (1998). Are internal capital markets efficient?. *The Quarterly Journal of Economics*, 113(2), 531-552.

Steigner, T., & Sutton, N. K. (2011). How Does National Culture Impact Internalization Benefits in Cross-Border Mergers and Acquisitions?. *Financial Review,* 46(1), 103-125.

Takechi, K. (2011). R&D intensity and domestic and cross-border M&A of Japanese firms before domestic M&A deregulation. *Japan and the World Economy*, 23(2), 112-118

Vasconcellos, G. M., & Kish, R. J. (1998). Cross-border mergers and acquisitions: the European–US experience. *Journal of Multinational Financial Management*, 8(4), 431-450.

Appendix

Table 1: Meta Table Literature Review M&A Short Term.

Authors	Investigated time period	Focussed Countries (Acquirers)	Long Term/Short Term	General Findings	Determinants
Eckbo & Thorburn (2000)	1964-1982	Domestic: Canada Cross-border: US	Short Term	1. Domestic M&As have significant positive announcement returns, while bidders from a foreign country have not.	1. Domestic returns are the highest for stock offers. 2. And for the smallest equity size relative to the target.
Goergen & Renneboog (2004)	1993-2000	Europe	Short Term	1. Intra-European Takeover bids have a significant announcement effect of 0.7%. 2. Listed bidders have higher returns in cross-border M&As than in domestic M&As, with only cross-border bidders have significant results in some time frames.	1. High market-to-book ratio of the target results in a negative share price reaction of the bidder. 2. Announcement returns are significant lower for hostile takeovers than for friendly takeovers. 3. Bidding firms have higher returns with equity offers than for cash offers.
Martynova & Renneboog (2006)	1993-2001	Europe	Short Term	1. Domestic M&As perform better in the short term than intra-European cross-border mergers or acquisitions, but both negative.	1. Hostile takeovers have a larger (and better) price reaction than friendly transactions. 2. On the largest time frame all-cash payments perform the best and mixed payment worst. 3. Diversification takeovers destroys value in comparison with related takeovers.
Campa & Hernando (2014)	1998-2000	Europe	Short Term (One month)	1. No significant returns for acquirers. 2. National takeovers have higher returns than cross-border takeovers, insignificant returns.	1. Sectors that are heavily regulated and have obstacles such as cultural, legal or transaction barriers perform worse than other sectors. 2. Friendly acquisitions have a significant negative effect on the acquirer, while relative size has a positive

					significant effect on almost all-time frames.
Mateev & Andonov (2016)	2003-2010	Europe	Short Term	1. All Europe acquisitions have significant positive returns. 2.Domestic acquisitions outperform cross-border acquisitions significantly. The median values of cross-border acquisitions are higher.	1. Cross-border perform better than domestic in acquisitions paid with stock. 2. Targets located in continental Europe perform better than targets located in UK/Ireland. 3. GDP annual growth rate have a significant negative effect on the bidders' announcement returns.
Mateev (2017)	2002-2010	Europe	Short Term	1. All continental Europe acquisitions have significant positive returns. 2. Cross-border acquisitions perform better than domestic acquisitions, but insignificant.	1. Stock payments perform significantly better than cash and mixed payments.

Table 2: The used sample displayed per category and target nation.

Country	Total sample	Domestic	Cross-Border	Intra-Europe	Extra-Europe
Australia	12	0	12	0	12
Austria	5	0	5	0	5
Belarus	1	0	1	0	1
Belgium	12	5	7	7	0
Bermuda	2	0	2	0	2
Bolivia	1	0	1	0	1
Brazil	8	0	8	0	8
Bulgaria	2	0	2	2	0
Canada	14	0	14	0	14
China	7	0	7	0	7
Colombia	2	0	2	0	2
Croatia	1	1	1	0	1
Cyprus	2	1	1	1	0
Czech Republic	6	0	6	6	0
Denmark	14	7	7	7	0
Finland	15	9	6	6	0
France	65	51	14	14	0
Germany	48	20	28	28	0
Greece	11	11	0	0	0
Guernsey	1	0	1	0	1
Hong Kong	1	0	1	0	1
Hungary	3	1	2	2	0
India	3	0	3	0	3
Indonesia	1	0	1	0	1
Ireland	12	2	10	10	0
Israel	3	0	3	0	3
Italy	35	25	10	10	0
Jamaica	1	0	1	0	1
Japan	3	0	3	0	3
Jersey	1	0	1	0	1
Kenya	1	0	1	0	1
Kuwait	1	0	1	0	1
Luxembourg	2	0	2	2	0
Malawi	1	0	1	0	1
Malaysia	1	0	1	0	1
Malta	2	1	1	1	0
Mexico	1	0	1	0	1
Namibia	1	0	1	0	1
Netherlands	15	7	8	8	0
Norway	13	0	13	0	13
Philippines	1	0	1	0	1
Poland	20	17	3	3	0
Portugal	6	4	2	2	0
Romania	2	0	2	2	0
Russian Fed.	4	0	4	0	4
Serbia	1	0	1	0	1

Seychelles	1	0	1	0	1
Singapore	2	0	2	0	2
Slovenia	2	2	0	0	0
South Africa	6	0	6	0	6
Spain	24	13	11	11	0
Sweden	30	23	7	7	0
Switzerland	7	0	7	0	7
Taiwan	4	0	4	0	4
Turkey	2	0	2	0	2
United Kingdom	250	214	36	36	0
United States	121	0	121	0	121
United Arab Emirates	2	0	2	0	2
Venezuela	1	0	1	0	1
Zambia	1	0	1	0	1
Total observations	817	414	403	165	238

Table 2: Detailed summary statistics of the original data.

BM is the book-to-market value. Size is the market value. FCF is the free cash flow of the acquirer. RFCF is the free cash flow of the acquirer normalized with the market value of the acquirer. Tobinsq and R&DExpenses are measured for the acquirer. The RelativeDealValue is the deal value divided by the market value of the acquirer. CD is the cultural differences between the acquirer and target. ROA is the return on assets of the acquirer. AcquisitionPremium is the offer price minus the 52-week high divided by the 52-week high. Detailed explanations about how the variables are calculated can be found in the methodology section.

Variable	Mean	Median	Std. Dev	Min	Max	Skewness	Kurtosis	Observations
BM	1.928	0.5064	23.884	-0.193	484.336	20.01	403.93	817
Size	6857.744	221.236	61238.69	3.427	92866.24	17.90	363.86	817
FCF	613.771	24.412	3989.178	-1310.94	13201	14.06	230.37	370
RFCF	0.0793	0.0747	0.112	-0.649	0.756	-0.918	19.11	370
Tobinsq	2.180	1.281	5.577	0.241	10.621	13.60	217.121	817
R&DExpenses	219.445	8.422	1536.647	0.014	23567	13.50	201.09	269
Deal Value	358.427	33.359	2949.256	10	74558.58	20.98	504.16	817
RelativeDealValue	1.0885	0.20748	6.792	0.000631	13.813	19.05	429.18	817
CD	5.956	5.456	4.231	0.266	19.335	0.73	2.93	403
ROA	0.00472	0.0424	0.208	-2.705	0.627	-5.396	51.58	817
AcquisitionPremium	0.0646	0.0198	0.760	-0.9996	4.735	2.165	13.678	169

Table 3: Detailed summary statistics of the modified data.

BM is winsorized on an 8% level. The logarithm of Size, R&DExpenses and RelativeDealValue is used. RFCF, ROA and Tobinsq are winsorized on a 10% level. AcquisitionPremium is winsorized on a 2.5% level.

Variable	Mean	Median	Std. Dev	Min	Max	Skewness	Kurtosis	Observations
BM	0.620	0.506	0.432	0.125	1.605	0.976	3.019	817
Size (ln)	5.617	5.399	2.236	1.232	14.146	0.481	3.302	817
RFCF	0.0777	0.0826	0.0243	0.034	0.124	0.048	2.84	817
TobinsQ	1.609	1.281	0.946	0.612	3.685	1.068	3.026	817
R&DExpenses	1.928	1.242	1.575	-5.298	10.0676	0.45	6.86	817
RelativeDealValue (ln)	-1.739	-1.573	1.925	-10.56	5.10	-0.46	4.24	817
CD	2.952	0.6706	4.200	0	19.3351	1.45	4.33	817
ROA	0.0308	0.0424	0.0701	-0.1133	0.125	-0.745	2.767	817
AcquisitionPremium	0.025	0.0198	0.598	-0.980	1.482	0.0841	2.5	169

Table 5: Summary statistics of the modified data per merger type.

Mean	Total Sample	Domestic	Cross-border	Intra-Europe	Extra-Europe
BM (mean)	0.620	0.664	0.574	0.581	0.570
BM (median)	0.506	0.548	0.450	0.456	0.436
Size (mean)	5.617	5.038	6.212	6.246	6.189
Size (median)	5.399	4.778	6.047	6.161	5.840
RFCF (mean)	0.0777	0.0808	0.0745	0.0840	0.0679
RFCF (median)	0.0826	0.0826	0.0656	0.0885	0.0656
Tobinsq (mean)	1.609	1.449	1.774	1.648	1.861
Tobinsq (median)	1.281	1.196	1.453	1.313	1.550
R&DExpenses (mean)	1.928	1.120	2.758	2.807	2.724
R&DExpenses (median)	1.242	1.120	2.724	2.807	2.724
RelativeDealValue (mean)	-1.739	-1.341	-2.148	-2.218	-2.100
RelativeDealValue (median)	-1.573	-1.162	-2.002	-2.109	-1.927
CD (mean)	2.952	0	5.913	6.200	5.786
CD (median)	0.671	0	5.441	5.239	5.714
ROA (mean)	0.0308	0.0274	0.0342	0.0414	0.0292
ROA (median)	0.0424	0.0381	0.0460	0.0454	0.0462
AcquisitionPremium (mean)	0.0250	0.175	-0.146	-0.092	-0.170
AcquisitionPremium (median)	0.0198	0.240	-0.0360	0.0737	-0.0360

Table 6: The 1 and 3-year BHAR with the bootstrapped skewness adjusted t-statistic.

*Cross-border takeovers are the takeovers with the target not in the same country as the acquirer. Intra-European takeovers are takeovers with the target not in the same country as the acquirer, but still in Europe. Extra-European takeovers are takeovers with the target not in the same country as the acquirer and outside Europe. The Observed Coef., Bootstrapped Standard Error, T-statistic and P-value are based on the bootstrapped skewness adjusted t-statistic. * means that the p-value is significant on a 10% level, ** means that the p-value is significant on a 5% level, *** means that the p-value is significant on a 1% level.*

	Complete Sample	Domestic	Cross-border	Intra-Europe	Extra-Europe
1- year BHAR (Mean)	**0.0309**	**0.1047**	**-0.0448**	**0.0344**	**-0.0997**
Observed Coef. (Bootstrapped)	0.1834	0.3410	-0.529	0.395	-3.030
Bootstrap Std.Err.	1.395	1.356	1.442	1.317	1.0686
T-statistic	0.13	0.25	-0.37	0.30	-2.84
P-value	0.895	0.801	0.714	0.764	0.005***
3-year BHAR (Mean)	**-0.2412**	**-0.3697**	**-0.1093**	**-0.4510**	**0.1277**
Observed Coef. (Bootstrapped)	-1.754	-1.75	-0.610	-2.074	0.871
Bootstrap Std. Err.	1.243	1.248	1.313	1.107	1.284
T-statistic	-1.41	-1.4	-0.46	-1.87	0.68
P-value	0.158	0.161	0.642	0.061*	0.497
Observations	817	414	401	163	238

Table 7: The 1 and 3-year BHARs with the standard t-test.

Cross-border takeovers are the takeovers with the target not in the same country as the acquirer. Intra-European takeovers are takeovers with the target not in the same country as the acquirer, but still in Europe. Extra-European takeovers are takeovers with the target not in the same country as the acquirer and outside Europe. The t-statistic is based on standard t-test. * means that the p-value is significant on a 10% level, ** means that the p-value is significant on a 5% level, *** means that the p-value is significant on a 1% level.

	Complete Sample	Domestic	Cross-border	Intra-Europe	Extra-Europe
1- year BHAR (Mean)	**0.0309**	**0.1047**	**-0.0448**	**0.0344**	**-0.0997**
Std.Err.	0.135	0.2611	0.0592	0.136	0.0338
T-statistic	0.23	0.40	-0.7566	0.2527	-2.949
P-value	0.8194	0.6887	0.4497	0.8008	0.0035
3-year BHAR (Mean)	**-0.2412**	**-0.3697**	**-0.1093**	**-0.4510**	**0.1277**
Std. Err.	0.1629	0.273	0.1743	0.3033	0.2064
T-statistic	-1.48	-1.35	-0.63	-1.487	0.6185
P-value	0.1389	0.1764	0.5312	0.1389	0.5368
Observations	817	414	401	163	238

Table 8: Differences of the 1 and 3-year BHARs based on the standard t-test between the types of M&As.

The t-statistic is based on standard t-test. H0: The means are equal. H1: The means are unequal. * means that the p-value is significant on a 10% level, ** means that the p-value is significant on a 5% level, *** means that the p-value is significant on a 1% level.

Difference standard T-test	(Domestic – Cross Border)	(Domestic- Intra-Europe)	(Domestic-Extra-Europe)	(Intra-Europe - Extra Europe)
1- year BHAR Difference (Mean)	**0.1494**	**0.0703**	**0.2044**	**0.1341**
Std.Err.	0.2710	0.4226	0.3454	0.1203
T-statistic	0.5514	0.1662	0.5916	1.1142
P-value	0.5815	0.8680	0.5543	0.2658
3-year BHAR Difference (Mean)	**-0.2604**	**0.0813**	**-0.4973**	**-0.5786**
Std. Err.	0.3258	0.4730	0.3927	0.3538
T-statistic	-0.7993	0.1719	-1.2665	-1.6354
P-value	0.4244	0.8636	0.2058	0.1027

Table 9: Differences of the 1 and 3-year BHARs based on the Wilcoxon rank-sum (Mann-Whitney) test between the types of M&As.

The z-value is based on the Wilcoxon rank-sum (Mann-Whitney) test. H0: The means are equal. H1: The means are unequal. * means that the p-value is significant on a 10% level, ** means that the p-value is significant on a 5% level, *** means that the p-value is significant on a 1% level.

Difference (mean)	(Domestic – Cross Border)	(Domestic- Intra-Europe)	(Domestic-Extra-Europe)	(Intra-Europe - Extra Europe)
1-Year BHAR (Z-value)	-1.610	-0.724	-1.776	-0.753
P-Value*	0.1076	0.4695	0.0758	0.4520
3-Year BHAR (Z-value)	1.396	0.340	1.767	1.130
P-Value*	0.1628	0.7346	0.0773	0.2591

Table 10: The 1 and 3-year BHARs based on the winsorized sample and standard t-test.

The sample is winsorized on 3 times the standard error. The t-statistic is based on standard t-test. * means that the p-value is significant on a 10% level, ** means that the p-value is significant on a 5% level, *** means that the p-value is significant on a 1% level.

Winsorized t-test	Complete Sample	Domestic	Cross-border	Intra-Europ	Extra-Europe
1- year BHAR (Mean)	**0.01538**	**0.0954986**	**-0.0669**	**-0.01967**	**-0.0996**
Std.Err.	0.0468	0.08296	0.0415235	0.0889788	0.0338
T-statistic	0.3284	1.1511	-1.6118	-0.2210	-2.9489
P-value	0.74	0.2503	0.1078	0.8253	0.0035**
3-year BHAR (Mean)	**-0.117081**	**-0.1346356**	**-0.0990**	**-0.2257717**	**-0.0111**
Std. Err.	0.0712313	0.1171187	0.0800	0.1520184	0.08497
T-statistic	-1.6437	-1.1496	-1.2380	-1.4852	-0.1317
P-value	0.10*	0.2510	0.2165	0.1394	0.8953
Observations	817	414	401	163	238

Table 11: The 1 and 3-year mean differences of the winsorized BHARs based on the standard t-test between the types of M&As.

The BHARs are based on the winsorized sample as explained in the previous table description. The t-statistic is based on standard t-test. H0: The means are equal. H1: The means are unequal. * means that the p-value is significant on a 10% level, ** means that the p-value is significant on a 5% level, *** means that the p-value is significant on a 1% level.

Difference winsorized T-test	(Domestic – Cross Border)	(Domestic- Intra-Europe)	(Domestic-Extra-Europe)	(Intra-Europe - Extra Europe)
1- year BHAR Difference (Mean)	**0.1624275**	**0.1151663**	**0.1951926**	**0.0800263**
Std.Err.	0.0935353	0.1429469	0.1124103	0.0844547
T-statistic	1.7365	0.8057	1.7364	0.9476
P-value	0.0828*	0.4208	0.0830	0.3439
3-year BHAR Difference (Mean)	**-0.117081**	**0.0911361**	**-0.1234435**	**-0.2145795**
Std. Err.	0.1425575	0.208899	0.167396	0.1625574
T-statistic	-0.2496	0.4363	-0.7374	-1.3200
P-value	0.8029	0.6628	0.4611	0.1876

Table 12: The variable PaymentMethod investigated in more detail.

Cash means that the takeover is financed with 100% cash, while stock/mixed are all other takeovers. The means of Cash & Stock/mixed payments are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	Cash	T-value	Stock/mixed	T-value	Difference (p-value)
BHAR 1-year	0.146	1.1097	0.09332	0.2822	0.9340
BHAR 3-year	-0.338	-0.8407	-0.3782796	-1.1459	0.9521
B. Cross-Border					
Event Window	Cash	T-value	Stock/mixed	T-value	Difference (p-value)
BHAR 1-year	-0.0299337	-0.5927	-0.0506503	-0.6319	0.8750
BHAR 3-year	0.0039425	0.0520	-0.1539114	-0.6377	0.4074
C. Intra-Europe					
Event Window	Cash	T-value	Stock/mixed	T-value	Difference (p-value)
BHAR 1-year	0.1095839	1.3563	0.0026483	0.0139	0.7208
BHAR 3-year	0.0486051	0.4200	-0.6620157	-1.5478	0.2857
D. Extra-Europe					
Event Window	Cash	T-value	Stock/mixed	T-value	Difference (p-value)
BHAR 1-year	-0.1351086	-2.1905**	-0.086388	-2.1392*	0.5219
BHAR 3-year	-0.0297263	-0.2948	0.1867828	0.6635	0.6412
Difference					
E. Cash	A-B	A-C	A-D	C-D	
BHAR 1-year	0.1757	0.8461	0.0863*	0.0158**	
BHAR 3-year	0.3503	0.4829	0.6205	0.6110	
F. Stock					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.6884	0.8727	0.6927	0.5870	
BHAR 3-year	0.5912	0.6415	0.2561	0.0847*	

Table 13: The variable IndustryDiversification investigated in more detail.

Same industry means that the target is in the same 2-digit SIC code as the acquirer, while diversification means that the target and acquirer do not have the same 2-digit SIC code. The means of same industry/diversification are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	Same Industry	T-value	Diversification	T-value	Difference (p-value)
BHAR 1-year	0.3035	1.5969	-0.1439065	-0.2677	0.3952
BHAR 3-year	0.140678	0.8733	-1.007632	-1.7439	0.0365**
B. Cross-Border					
Event Window	Same Industry	T-value	Diversification	T-value	Difference (p-value)
BHAR 1-year	0.0041237	0.0465	-0.1264209	-2.3001**	0.2863
BHAR 3-year	0.0952466	0.4312	-0.4505504	-1.5941	0.1298
C. Intra-Europe					
Event Window	Same Industry	T-value	Diversification	T-value	Difference (p-value)
BHAR 1-year	0.1345803	0.6898	-0.1659458	-1.3988	0.2995
BHAR 3-year	-0.160776	-0.6383	-1.031396	-1.3629	0.1768
D. Extra-Europe					
Event Window	Same Industry	T-value	Diversification	T-value	Difference (p-value)
BHAR 1-year	-0.0969343	-2.2259**	-0.10377	-1.9254*	0.9212
BHAR 3-year	0.2935741	0.8637	-0.117774	-1.2630	0.3292
Difference					
E. Same Industry	A-B	A-C	A-D	C-D	
BHAR 1-year	0.1427	0.5816	0.1022	0.1961	
BHAR 3-year	0.8702	0.3007	0.6499	0.3087	
F. Diversification					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.9766	0.9822	0.9571	0.5879	
BHAR 3-year	0.4183	0.9833	0.2690	0.1202	

Table 14: The variable TargetStatus investigated in more detail.

Public means that the target is in public, while private means that the target is private. The means of public/private are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	Public	T-value	Private	T-value	Difference
BHAR 1-year	0.2358893	1.2370	0.059494	0.1725	0.7685
BHAR 3-year	0.1921972	0.8344	-0.5630563	-1.5734	0.2277
B. Cross-Border					
Event Window	Public	T-value	Private	T-value	Difference
BHAR 1-year	0.1596925	0.7152	-0.106995	-2.9315***	0.0567*
BHAR 3-year	0.0359334	0.2684	-0.1534262	-0.6857	0.6466
C. Intra-Europe					
Event Window	Public	T-value	Private	T-value	Difference
BHAR 1-year	0.7636975	1.0753	-0.121106	-1.9182*	0.0129**
BHAR 3-year	0.1397336	0.4276	-0.5769445	-1.5990	0.3701
D. Extra-Europe					
Event Window	Public	T-value	Private	T-value	Difference
BHAR 1-year	-0.1097866	-2.1443**	-0.095902	-2.2606**	0.8553
BHAR 3-year	-0.0103774	-0.0803	0.179513	0.6414	0.6827
Difference					
E. Public	A-B	A-C	A-D	C-D	
BHAR 1-year	0.7943	0.3106	0.1636	0.0705*	
BHAR 3-year	0.5708	0.9118	0.5162	0.6072	
F. Private					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.6308	0.7291	0.7365	0.7324	
BHAR 3-year	0.3318	0.9812	0.1552	0.0934*	

Table 15: The variable BM (book-to-market value) investigated in more detail.

High means that BM is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.3269455	-0.8994	0.654834	1.7764*	0.0619*
BHAR 3-year	-0.4352404	-1.0554	-0.2861134	-0.8621	0.7867
B. Cross-Border					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.0546542	0.4371	-0.1226733	-3.1400***	0.1373
BHAR 3-year	0.0871377	0.2397	-0.2630723	-2.1048**	0.3194
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.2173608	0.7315	-0.1072383	-1.4640	0.2382
BHAR 3-year	-0.4788858	-0.8076	-0.4293806	-1.5104	0.9358
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0569161	-1.0440	-0.1334661	-3.1424***	0.2618
BHAR 3-year	0.4752681	1.0399	-0.1467815	-1.9596*	0.1348
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.3758	0.4198	0.6187	0.2825	
BHAR 3-year	0.3592	0.9571	0.1853	0.1982	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.0202**	0.1430	0.0696*	0.7419	
BHAR 3-year	0.9442	0.7777	0.7236	0.2668	

Table 16: The variable Tobinsq investigated in more detail.

High means that Tobinsq is above one, while low means that the value is below one. The literature review gave the insights that it is more worthful to evaluate Tobinsq in this way instead of the above/below median way. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-Value	Difference
BHAR 1-year	0.4191593	1.6322	-0.466579	-0.8230	0.1046
BHAR 3-year	-0.2785502	-1.1377	-0.5352076	-0.8514	0.6534
B. Cross-Border					
Event Window	High	T-value	Low	T-Value	Difference
BHAR 1-year	-0.1152377	-3.5090***	0.1577472	0.7564	0.0435**
BHAR 3-year	-0.2179583	-2.2369**	0.2032554	0.3300	0.2910
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0991095	-1.6124	0.3504798	0.8065	0.1317
BHAR 3-year	-0.3681766	-1.6025	-0.6470139	-0.7433	0.6758
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.1254611	-3.3889***	-0.0139601	-0.1779	0.1649
BHAR 3-year	-0.1227379	-1.9105*	0.9607681	1.1125	0.0266**
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.0297**	0.1869	0.0814*	0.6965	
BHAR 3-year	0.8110	0.8234	0.6045	0.2202	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.3711	0.4217	0.6268	0.3856	
BHAR 3-year	0.4176	0.9258	0.1971	0.1940	

Table 17: The variable RelativeDealValue investigated in more detail.

High means that RelativeDealValue is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.1076865	0.2454	0.100397	0.8385	0.9890
BHAR 3-year	-0.609111	-1.3397	-0.0328115	-0.2198	0.2988
B. Cross-Border					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.0424355	0.3120	-0.1058846	-3.2600***	0.2179
BHAR 3-year	0.0919148	0.2756	-0.2501638	-1.3698	0.3348
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.1417906	0.4315	-0.0390118	-0.7996	0.5159
BHAR 3-year	-0.3650613	-0.8989	-0.5097251	-1.1850	0.8156
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0248049	-0.4627	-0.1530324	-3.5507***	0.0614*
BHAR 3-year	0.4011814	0.8250	-0.0671637	-0.9526	0.2642
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.9042	0.9681	0.8473	0.5494	
BHAR 3-year	0.2547	0.7843	0.1939	0.2609	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.0588*	0.3931	0.0687*	0.0838*	
BHAR 3-year	0.3838	0.2104	0.8469	0.2335	

Table 18: The variable RFCF (relative free cash flow) investigated in more detail.

High means that the RFCF is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.1416153	0.4383	-0.0496386	-0.6036	0.7728
BHAR 3-year	-0.389695	-1.1565	-0.2861288	-2.1247**	0.8811
B. Cross-Border					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0113641	-0.1456	-0.139656	-2.8011***	0.3421
BHAR 3-year	-0.107697	-0.4600	-0.1136882	-1.3833	0.9880
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.0936351	0.5073	-0.1235422	-1.4983	0.4791
BHAR 3-year	-0.5920739	-1.4297	-0.0747401	-0.5934	0.4491
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.08215	-2.0502**	-0.1517414	-2.4425**	0.3725
BHAR 3-year	0.2188493	0.8006	-0.1428993	-1.3082	0.4477
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.6622	0.9306	0.6143	0.2701	
BHAR 3-year	0.5019	0.7421	0.2269	0.0894*	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.3276	0.5585	0.3514	0.7811	
BHAR 3-year	0.2536	0.2998	0.4328	0.6836	

Table 19: The variable ROA (return on assets) investigated in more detail.

High means that the ROA is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-Value	Difference
BHAR 1-year	0.0998	1.0652	0.1109	0.2246	0.9831
BHAR 3-year	0.0964	0.5872	-0.7923	-1.5837	0.1049
B. Cross-Border					
Event Window	High	T-value	Low	T-Value	Difference
BHAR 1-year	-0.0748	-1.9924	-0.0118	-0.1008	0.5959
BHAR 3-year	-0.0674	-1.1116	-0.1552	-0.4309	0.8017
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.0022	0.0376	0.0712	0.2500	0.8015
BHAR 3-year	-0.0904	-0.9698	-0.8631	-1.3483	0.2047
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.1299	-2.7235	-0.0674	-1.4064	0.3565
BHAR 3-year	-0.0510	-0.6362	0.3187	0.7613	0.3717
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.0771*	0.5042	0.0659*	0.0826*	
BHAR 3-year	0.3374	0.4620	0.4980	0.7498	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.8188	0.9625	0.7927	0.5642	
BHAR 3-year	0.3126	0.9388	0.1399	0.1081	

Table 20: The variable R&DExpenses investigated in more detail.

High means that the R&DExpenses is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.0519469	0.6577	0.3777604	0.2334	0.6509
BHAR 3-year	-0.2770143	-1.4716	-0.8965316	-0.6294	0.4103
B. Cross-Border					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0241325	-0.3447	-0.1447841	-2.1264**	0.4433
BHAR 3-year	-0.1149839	-0.5510	-0.0815413	-0.6197	0.9425
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	0.0545019	0.3476	-0.0896721	-0.6765	0.7150
BHAR 3-year	-0.5302282	-1.5112	0.038271	0.2026	0.5179
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0822893	-2.1979**	-0.1723401	-2.1952**	0.2939
BHAR 3-year	0.1921239	0.7613	-0.1414475	-0.8129	0.5245
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.4725	0.9872	0.2226	0.3348	
BHAR 3-year	0.5638	0.4943	0.1373	0.0870*	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.7401	0.8646	0.7759	0.5709	
BHAR 3-year	0.5583	0.6986	0.6581	0.5237	

Table 21: The variable CD (cultural differences) investigated in more detail.

High means that CD is above the median, while low means that the value is below the median. Domestic takeovers are not investigated as they do not have a CD. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Cross-Border					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.1263126	-3.1262***	0.0387809	0.3452	0.1635
BHAR 3-year	0.0560857	0.2090	-0.2787559	-1.2593	0.3376
B. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.1258549	-1.7841*	0.1966192	0.7444	0.2374
BHAR 3-year	-0.4051882	-1.2761	-0.497336	-0.9547	0.8798
C. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.1266265	-2.6270***	-0.0718408	-1.5142	0.4190
BHAR 3-year	0.3724966	0.9429	-0.1255631	-1.3273	0.2284
Difference					
D. High	B-C				
BHAR 1-year	0.9925				
BHAR 3-year	0.1550				
E. Low					
	B-C				
BHAR 1-year	0.2405				
BHAR 3-year	0.4098				

Table 22: The variable Size investigated in more detail.

High means that the Size is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	Large	T-value	Small	T-value	Difference
BHAR 1-year	-0.0341392	-0.9178	0.1920895	0.4518	0.6736
BHAR 3-year	-0.1430261	-1.9350*	-0.5124577	-1.1577	0.5106
B. Cross-Border					
Event Window	Large	T-value	Small	T-value	Difference
BHAR 1-year	0.021178	0.2399	-0.1503	-2.4822**	0.1589
BHAR 3-year	-0.2144679	-1.2074	0.059078	0.1671	0.4459
C. Intra-Europe					
Event Window	Large	T-value	Small	T-value	Difference
BHAR 1-year	0.1691911	0.8550	-0.2142523	-1.7103*	0.1795
BHAR 3-year	-0.4607591	-1.1459	-0.4329474	-0.9724	0.9652
D. Extra-Europe					
Event Window	Large	T-value	Small	T-value	Difference
BHAR 1-year	-0.0911441	-2.3723**	-0.1121224	-1.8210*	0.7611
BHAR 3-year	-0.0275662	-0.4135	0.3532788	0.7099	0.3656
Difference					
E. Large	A-B	A-C	A-D	C-D	
BHAR 1-year	0.6276	0..2271	0.2882	0.1445	
BHAR 3-year	0.7553	0.3519	0.2519	0.2278	
F. Small					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.5313	0.6493	0.6594	0.4163	
BHAR 3-year	0.3652	0.9334	0.2677	0.2833	

Table 23: The variable MonetaryUnion investigated in more detail.

Yes means that the takeover is within the monetary union of the Euro, while No means that it is outside the monetary union. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	Total	T-Value			
BHAR 1-year	0.104658	0.4008			
BHAR 3-year	-0.3696822	-1.3541			
B. Cross-Border					
Event Window	Yes	T-value	No	T-value	Difference
BHAR 1-year	-0.1398168	-1.2463	-0.0304	-0.4604	0.5329
BHAR 3-year	-0.1902211	-1.1646	-0.0969978	-0.4868	0.8569
C. Intra-Europe					
Event Window	Yes	T-value	No	T-value	Difference
BHAR 1-year	-0.1398168	-1.2463	0.1168491	0.6045	0.3803
BHAR 3-year	-0.1902211	-1.1646	-0.574379	-1.3045	0.5558
Difference					
D. Yes	A-B	A-C			
BHAR 1-year	0.7487	0.7487			
BHAR 3-year	0.9366	0.9366			
E. No					
	A-B	A-C			
BHAR 1-year	0.7718	0.8178			
BHAR 3-year	0.6078	0.4778			

Table 24: The variable ExchangeRateRisk investigated in more detail.

Yes means that the currency of the acquirer and target is not the same, while no means the opposite. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). All t-values and p-values are based on the standard t-test.

A.Domestic					
Event Window	Total	T-Value			
BHAR 1-year	0.104658	0.4008			
BHAR 3-year	-0.3696822	-1.3541			
B. Cross-Border					
Event Window	Yes	T-value	No	T-value	Difference
BHAR 1-year	-0.0309	-0.4661	-0.1323693	-1.2234	0.5571
BHAR 3-year	-0.0882624	-0.4407	-0.2421029	-1.4915	0.7624
C. Intra-Europe					
Event Window	Yes	T-value	No	T-value	Difference
BHAR 1-year	0.1168491	0.6045	-0.1398168	-1.2463	0.3803
BHAR 3-year	-0.574379	-1.3045	-0.1902211	-1.1646	0.5558
Difference					
D. Yes	A-B	A-C			
BHAR 1-year	0.7704	0.8178			
BHAR 3-year	0.5873	0.4778			
E. No					
	A-B	A-C			
BHAR 1-year	0.7549	0.7487			
BHAR 3-year	0.9989	0.9366			

Table 25: The variable AcquisitionPremium investigated in more detail.

High means that the AcquisitionPremium is above the median, while low means that the value is below the median. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type). In section E and F, the p-value of the differences between the types are displayed. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	High	T-value	Low	T-Value	Difference
BHAR 1-year	-0.0489	-0.7782	0.8424	1.4711	0.0528*
BHAR 3-year	-0.2034	-0.9867	0.4648	1.2985	0.0858*
B. Cross-Border					
Event Window	High	T-value	Low	T-Value	Difference
BHAR 1-year	0.7612	1.0702	-0.1395	-2.4700	0.1020
BHAR 3-year	0.3899	1.2353	-0.1834	-1.2204	0.0686*
C. Intra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	1.9338	1.1403	-0.1513	-1.4858	0.2327
BHAR 3-year	0.8206	1.1705	-0.5392	-2.1178	0.0819*
D. Extra-Europe					
Event Window	High	T-value	Low	T-value	Difference
BHAR 1-year	-0.0666	-0.6387	-0.1358	-2.0057	0.5755
BHAR 3-year	0.0860	0.4053	-0.0711	-0.3984	0.6060
Difference					
E. High	A-B	A-C	A-D	C-D	
BHAR 1-year	0.1239	0.0136**	0.8902	0.1701	
BHAR 3-year	0.1079	0.0657*	0.4611	0.2591	
F. Low					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.0422**	0.3126	0.0775*	0.9083	
BHAR 3-year	0.0649*	0.1152	0.1710	0.1863	

Table 26: The variable dummyUK investigated in more detail.

Yes means that the acquirer is in the United Kingdom, while no means that the acquirer is not in the United Kingdom. The means of the BHAR are displayed in the boxes. Difference shows the p-value of the differences between the means (within the merger type. All t-values and p-values are based on the standard t-test.

A. Domestic					
Event Window	Yes	T-value	No	T-Value	Difference
BHAR 1-year	-0.0650	-0.1488	0.2862	1.0507	0.5022
BHAR 3-year	-0.6343	-1.2957	-0.0866	-0.4082	0.3167
B. Cross-Border					
Event Window	Yes	T-value	No	T-Value	Difference
BHAR 1-year	-0.0715	-1.6434	-0.0298	-0.3335	0.7354
BHAR 3-year	-0.0985	-1.1698	-0.1153	-0.4297	0.9630
C. Intra-Europe					
Event Window	Yes	T-value	No	T-value	Difference
BHAR 1-year	0.0433	0.4105	0.0320	0.1876	0.9730
BHAR 3-year	0.0636	0.3649	-0.5895	-1.5451	0.3803
D. Extra-Europe					
Event Window	Yes	T-value	No	T-value	Difference
BHAR 1-year	-0.1081	-2.3351	-0.0925	-1.8940	0.8188
BHAR 3-year	-0.1500	-1.5625	0.3663	0.9789	0.2130
Difference					
E. Yes	A-B	A-C	A-D	C-D	
BHAR 1-year	0.9902	0.9204	0.9438	0.1371	
BHAR 3-year	0.3716	0.5661	0.4812	0.2789	
F. No					
	A-B	A-C	A-D	C-D	
BHAR 1-year	0.2254	0.4866	0.2702	0.4865	
BHAR 3-year	0.9359	0.2148	0.2581	0.0749*	

Table 27: The results of the OLS regression with the 1-year BHARs.

The BHAR are winsorized on a 5% level to prevent that outliers have a to large influence on the results. The different types, written down in the first line, are combined and tested on their difference with the first and second (dummy) variable. All standard errors are robust. Regarding the different industry dummies, the 'default' option is the manufacturing industry. The descriptions of the variables and how they are calculated is written down in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

1-year BHAR								
Variable	Domestic + Cross-border (1)		Domestic + Intra-Europe (2)		Domestic + Extra-Europe (3)		Intra-Europe + Extra-Europe (4)	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Domestic	-0.0468	0.537	**-0.1920**	**0.089***	0.0184	0.828	-	-
Intra-Europe	-	-	-	-	-	-	0.0259	0.663
dummyUK	-0.0133	0.752	0.0146	0.769	-0.0421	0.370	0.0059	0.927
Agri	**-0.3489**	**0.095***	**-0.4582**	**0.079***	-0.3293	0.105	-0.1060	0.397
Mining	0.1290	0.094*	**0.2491**	**0.015****	**0.1488**	**0.077***	0.0234	0.809
Construction	-0.0159	0.849	-0.0353	0.703	0.0015	0.987	-0.0297	0.837
Transportation	**0.1414**	**0.026****	0.0778	0.276	**0.1780**	**0.025****	0.1400	0.127
WholesaleTrade	0.0393	0.630	0.0400	0.690	0.0441	0.638	-0.0050	0.961
RetailTrade	-0.0441	0.601	-0.0739	0.465	-0.0365	0.685	-0.0344	0.786
Services	-0.0130	0.770	-0.0254	0.632	0.0009	0.987	-0.0299	0.647
BM	-0.0003	0.996	-0.0313	0.605	0.0180	0.759	0.0147	0.871
Size	-0.0079	0.581	-0.0167	0.356	-0.0055	0.747	-0.0010	0.957
RFCF	0.5402	0.484	-0.2881	0.768	0.6295	0.486	1.1284	0.313
ROA	**0.5080**	**0.072***	**0.6273**	**0.080***	0.4038	0.196	0.4825	0.212
CD	-0.0113	0.115	**-0.0224**	**0.040****	-0.0048	0.559	**-0.01928**	**0.036****
R&DExpenses	-0.0015	0.929	-0.0246	0.296	0.0007	0.969	0.0202	0.291
Tobinsq	-0.0304	0.225	-0.0416	0.201	-0.0104	0.718	-0.0420	0.217
IndustryDiversification	0.0335	0.352	0.0306	0.494	0.0071	0.862	0.0565	0.258
RelativeDealValue	-0.0071	0.645	-0.0277	0.137	0.0011	0.952	0.0114	0.573
PaymentMethod	**0.0709**	**0.062***	**0.1215**	**0.006*****	0.0424	0.328	0.0529	0.339
TargetStatus	0.0182	0.696	0.0639	0.260	0.0024	0.964	-0.00547	0.931
MonetaryUnion	-0.0103	0.878	-0.0350	0.660	X	X	-0.0485	0.555
Tobinsq*RFCF	-0.0002	0.997	0.0099	0.846	-0.0145	0.740	0.01389	0.799
R&DExpenses*CD	0.0322	0.557	0.0618	0.329	-0.0067	0.916	0.1065	0.191
Constant	-0.0448	0.744	0.1867	0.318	-0.0903	0.555	-0.1322	0.500
R-Squared	0.0318		0.0536		0.0266		0.0545	
Adj. R2	0.0037		0.0143		-0.0075		-0.00004	
Observations	816		578		651		403	

Table 28: The results of the OLS regression with the 3-year BHARs.

The BHAR are winsorized on a 5% level to prevent that outliers have a to large influence on the results. The different types, written down in the first line, are combined and tested on their difference with the first and second (dummy) variable. All standard errors are robust. Regarding the different industry dummies, the 'default' option is the manufacturing industry. The descriptions of the variables and how they are calculated is written down in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

3-year BHAR								
Variable	Domestic + Cross-border (1)		Domestic + Intra-Europe (2)		Domestic + Extra-Europe (3)		Intra-Europe + Extra-Europe (4)	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Domestic	-0.1833	0.184	**-0.3515**	**0.093***	-0.0362	0.812	-	-
Intra-Europe	-	-	-	-	-	-	0.1002	0.364
dummyUK	-0.0531	0.483	-0.0163	0.859	-0.0926	0.274	-0.0278	0.814
Agri	0.0731	0.774	-0.1136	0.657	0.0738	0.763	**0.5277**	**0.041****
Mining	0.0733	0.628	0.0056	0.981	0.0709	0.654	0.0310	0.875
Construction	-0.1599	0.243	-0.1425	0.379	-0.1537	0.321	-0.1527	0.381
Transportation	**0.1967**	**0.088***	0.2014	0.128	**0.2778**	**0.045****	0.1013	0.551
WholesaleTrade	-0.0195	0.892	0.0848	0.662	-0.1264	0.401	-0.0011	0.996
RetailTrade	0.0024	0.986	-0.0307	0.858	0.1146	0.416	-0.2364	0.377
Services	0.0186	0.815	0.0712	0.450	0.0457	0.613	-0.0751	0.503
BM	-0.0932	0.360	**-0.2079**	**0.077***	-0.0782	0.473	0.0869	0.616
Size	-0.0178	0.484	-0.0301	0.357	0.0064	0.825	-0.0373	0.274
RFCF	1.7359	0.227	2.9199	0.118	2.2099	0.170	1.5267	0.473
ROA	**1.1044**	**0.025****	**1.1535**	**0.060***	**1.1427**	**0.035****	0.8989	0.206
CD	-0.0077	0.573	**-0.0365**	**0.084***	0.0161	0.281	-0.0265	0.144
R&DExpenses	-0.0022	0.936	-0.0305	0.433	0.0065	0.839	0.0085	0.798
Tobinsq	-0.0521	0.229	-0.0411	0.458	-0.0343	0.458	-0.0588	0.377
IndustryDiversification	**0.1535**	**0.019****	**0.1614**	**0.045****	0.1186	0.103	**0.1932**	**0.037****
RelativeDealValue	-0.0109	0.682	-0.0295	0.370	0.0208	0.493	-0.0391	0.267
PaymentMethod	0.0168	0.823	0.0645	0.488	-0.0502	0.570	0.0652	0.510
TargetStatus	0.1087	0.206	0.1448	0.165	0.1030	0.268	0.0872	0.492
MonetaryUnion	**-0.2216**	**0.082***	-0.1918	0.192	X	X	-0.1360	0.360
Tobinsq*RFCF	-0.0458	0.526	-0.0693	0.466	-0.0304	0.707	-0.0833	0.371
R&DExpenses*CD	0.0073	0.943	0.0468	0.700	0.1001	0.384	0.1984	0.198
Constant	-0.0285	0.903	0.0908	0.772	0.2221	0.373	0.0059	0.987
R-Squared	0.0344		0.0480		0.0424		0.0573	
Adj. R2	0.0064		0.0085		0.0088		0.0026	
Observations	816		578		651		403	

Table 29: The results of the OLS regressions per merger type with the variable AcquisitionPremium for the 1-year BHARs.

The BHARs are winsorized on a 5% level to prevent that outliers have an overly large influence on the results. The different types, on the first line, are all the types combined and separate. All standard errors are robust. Regarding the different industry dummies, the default option is the manufacturing industry. The OLS regressions are including the variable AcquisitionPremium. The descriptions of the variables and how they are calculated is included in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

1-year BHAR										
Variable	**Total Sample (1)**		**Domestic (2)**		**Cross-border (3)**		**Intra-Europe (4)**		**Extra-Europe (5)**	
	Coefficient	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**
dummyUK	-0.1088	0.269	-0.1905	0.157	-0.0067	0.966	-0.1914	0.718	0.2493	0.278
Agri	0.0750	0.668	0.3992	0.217	-	-	-	-	-	-
Mining	0.1970	0.163	**0.5027**	**0.051***	0.0799	0.609	-0.1396	0.741	0.0226	0.906
Construction	0.0017	0.993	0.0192	0.936	-	-	-	-	-	-
Transportation	-0.0857	0.615	-0.2246	0.539	-0.1675	0.276	0.3119	0.622	0.3657	0.279
WholesaleTrade	0.2073	0.281	0.0993	0.552	-	-	-	-	-	-
RetailTrade	-0.1249	0.454	-0.3132	0.223	0.0278	0.910	-	-	0.1149	0.716
Services	-0.0032	0.977	-0.0736	0.662	0.0960	0.535	0.5599	0.544	0.0573	0.760
BM	0.1244	0.391	0.2069	0.383	-0.0314	0.872	0.7362	0.353	-0.0270	0.936
Size	-0.0001	0.998	-0.0554	0.230	0.0254	0.502	0.0404	0.705	0.0245	0.691
RFCF	-1.3177	0.508	-4.7842	0.112	1.6116	0.562	-1.1254	0.877	0.5573	0.903
ROA	0.7449	0.300	1.2607	0.274	0.3111	0.745	-0.4586	0.761	0.7069	0.564
CD	-0.0137	0.227	-	-	0.0063	0.794	**-0.1043**	**0.065***	0.0261	0.338
R&DExpenses	0.0127	0.692	-0.0003	0.995	0.048	0.268	0.0162	0.935	0.0436	0.397
Tobinsq	0.0053	0.933	0.1395	0.292	-0.0429	0.586	0.2031	0.608	-0.0232	0.839
IndustryDiversification	-0.0641	0.433	-0.1005	0.460	-0.0334	0.728	0.5480	0.373	-0.2278	0.122
RelativeDealValue	0.0489	0.138	0.0442	0.432	0.0662	0.122	0.1050	0.294	0.0339	0.583
AcquisitionPremium	-0.0200	0.776	-0.0963	0.365	0.0509	0.662	0.3279	0.187	-0.0185	0.908
PaymentMethod	0.0977	0.270	0.1788	0.260	0.1227	0.260	-0.0590	0.836	0.1368	0.394
TargetStatus	-	-	-	-	-	-	-	-	-	-
MonetaryUnion	**0.3603**	**0.036****	-	-	**0.3687**	**0.028****	0.1921	0.596	-	-
Tobinsq*RFCF	0.0277	0.783	-0.0503	0.774	-0.0062	0.964	0.1514	0.756	0.0643	0.742
R&DExpenses*CD	0.0112	0.894	-	-	-0.1101	0.599	0.8200	0.152	-0.1082	0.659
Constant	0.0289	0.930	0.4768	0.391	-0.3541	0.428	-1.0479	0.718	-0.5441	0.320
R-Squared	0.1004		0.2198		0.2093		0.8264		0.1834	
Adj. R2	-0.0299		0.0081		-0.0453		0.2014		-0.2022	
Observations	168		90		78		24		54	

Table 30: The results of the OLS regressions per merger type with the variable AcquisitionPremium for the 3-year BHARs.

The BHARs are winsorized on a 5% level to prevent that outliers have an overly large influence on the results. The different types, on the first line, are all the types combined and separate. All standard errors are robust. Regarding the different industry dummies, the default option is the manufacturing industry. The OLS regressions are including the variable AcquisitionPremium. The descriptions of the variables and how they are calculated is included in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

3-year BHAR										
Variable	**Total Sample (1)**		**Domestic (2)**		**Cross-border (3)**		**Intra-Europe (4)**		**Extra-Europe (5)**	
	Coefficient	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**	**Coefficient**	**p-value**
dummyUK	-0.1137	0.526	0.0852	0.739	-0.3092	0.312	0.3912	0.791	-0.1097	0.757
Agri	**-0.9185**	**0.006*****	0.3902	0.688	-	-	-	-	-	-
Mining	0.1397	0.587	-0.1125	0.793	0.2378	0.479	1.2034	0.301	-0.3269	0.329
Construction	-0.2051	0.588	-0.1364	0.764	-	-	-	-	-	-
Transportation	-0.3018	0.386	-0.3359	0.598	-0.3372	0.339	0.3136	0.808	-0.5304	**0.361**
WholesaleTrade	-0.4883	0.198	-0.3691	0.454	-	-	-	-	-	-
RetailTrade	-0.1996	0.465	**-0.6038**	**0.098***	-0.0268	0.952	-	-	-0.3952	0.476
Services	-0.1018	0.591	-0.0221	0.936	-0.0691	0.826	1.4429	0.474	-0.3445	0.276
BM	-0.1036	0.725	0.4571	0.258	**-0.8511**	**0.042****	0.4944	0.773	-0.7845	0.195
Size	0.0006	0.989	0.0808	0.369	-0.0338	0.632	-0.1450	0.571	0.0145	0.878
RFCF	0.8179	0.811	2.3321	0.660	-0.0293	0.995	15.9536	0.372	-3.516	0.634
ROA	0.9079	0.449	0.1040	0.956	0.9272	0.588	-1.8047	0.709	1.4281	0.467
CD	-0.0260	0.339	-	-	-0.0699	0.253	-0.1327	0.352	-0.0467	0.477
R&DExpenses	0.0490	0.373	0.0162	0.892	0.0588	0.554	0.5153	0.376	0.0980	0.406
Tobinsq	0.0230	0.846	0.3394	0.246	-0.2130	0.145	0.2192	0.820	**-0.3786**	**0.055***
IndustryDiversification	0.1322	0.431	0.3502	0.174	0.1947	0.395	0.1093	0.901	0.2664	0.370
RelativeDealValue	0.0492	0.437	0.0927	0.434	0.1037	0.268	0.2201	0.451	0.1141	0.308
AcquisitionPremium	-0.1431	0.260	-0.1863	0.359	-0.2985	0.191	0.4882	0.497	**-0.7192**	**0.004*****
PaymentMethod	-0.08152	0.640	-0.0517	0.874	-0.0624	0.754	-0.4281	0.585	-0.2877	0.222
TargetStatus	-	-	-	-	-	-	-	-	-	-
MonetaryUnion	0.1811	0.618	-	-	0.0982	0.783	0.6044	0.429	-	-
Tobinsq*RFCF	-0.1247	0.508	-0.1553	0.667	-0.2479	0.258	0.4631	0.673	-0.0919	0.740
R&DExpenses*CD	0.0865	0.558	-	-	0.3662	0.430	1.2256	0.423	0.3017	0.563
Constant	-0.0260	0.962	-1.4314	0.157	**1.3850**	**0.091***	-2.7275	0.645	1.3960	0.105
R-Squared	0.0678		0.11108		0.1994		0.7727		0.2459	
Adj. R2	-0.0672		-0.1305		-0.0584		-0.0456		-0.1102	
Observations	168		90		78		24		54	

Table 31: The results of the OLS regressions with the variable AcquisitionPremium for the 1-year BHARs.

The BHARs are winsorized on a 5% level to prevent that outliers have an overly large influence on the results. The different types, on the first line, are all the types combined and separate. All standard errors are robust. Regarding the different industry dummies, the default option is the manufacturing industry. The OLS regressions are including the variable AcquisitionPremium. The descriptions of the variables and how they are calculated is included in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

1-year BHAR								
Variable	Domestic + Cross-border (1)		Domestic + Intra-Europe (2)		Domestic + Extra-Europe (3)		Intra-Europe + Extra-Europe (4)	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Domestic	0.0834	0.678	-0.4056	.219	0.1764	0.420	-	-
Intra-Europe	-	-	-	-	-	-	0.0985	0.503
dummyUK	-0.1051	0.295	**-0.2011**	**0.082***	-0.0510	0.650	0.0198	0.898
Agri	0.0798	0.651	0.0891	0.728	0.0009	0.996	-	-
Mining	0.2066	0.136	**0.4030**	**0.043****	0.2019	0.208	0.0857	0.588
Construction	-0.0016	0.994	0.0193	0.933	0.0007	0.997	-	-
Transportation	-0.0799	0.642	-0.1239	0.584	-0.1198	0.686	-0.2025	0.226
WholesaleTrade	0.1994	0.305	0.1478	0.398	0.1657	0.393	-	-
RetailTrade	-0.1216	0.465	-0.3118	0.272	-0.1104	0.496	0.04218	0.865
Services	0.0040	0.971	-0.0892	0.574	0.0041	0.973	0.07978	0.600
BM	0.1243	0.394	0.1458	0.474	0.1402	0.420	-0.0479	0.813
Size	0.0014	0.959	-0.0507	0.229	-0.0008	0.980	0.0248	0.519
RFCF	-1.3856	0.486	-4.3224	0.104	-1.8069	0.430	1.0751	0.694
ROA	0.7343	0.310	1.1747	0.198	0.8373	0.325	0.4010	0.679
CD	-0.0067	0.714	**-0.0478**	**0.040****	0.0039	0.867	0.0017	0.946
R&DExpenses	0.0194	0.567	0.0030	0.952	0.0082	0.824	0.0429	0.325
Tobinsq	0.0062	0.923	0.0943	0.398	0.0144	0.843	-0.0508	0.530
IndustryDiversification	-0.0691	0.402	-0.0318	0.804	-0.1390	0.132	-0.0398	0.688
RelativeDealValue	0.0509	0.129	0.0360	0.461	0.0378	0.330	0.0606	0.181
AcquisitionPremium	-0.0240	0.739	-0.0094	0.918	-0.0681	0.400	0.0541	0.650
PaymentMethod	0.1032	0.256	0.1688	0.215	0.0861	0.399	0.1228	0.264
TargetStatus	-	-	-	-	-	-	-	-
MonetaryUnion	**0.3804**	**0.033****	0.1543	0.469	-	-	**0.3167**	**0.089***
Tobinsq*RFCF	0.0280	0.782	-0.0511	0.745	0.0683	0.527	0.0140	0.917
R&DExpenses*CD	-0.0293	0.824	0.0297	0.873	-0.0123	0.931	-0.0718	0.737
Constant	-0.0280	0.939	0.8452	0.199	-0.0970	0.807	-0.3097	0.498
R-Squared	0.1015		0.2078		0.0937		0.2143	
Adj. R2	-0.0357		0.0120		-0.0636		-0.0566	
Observations	168		114		144		78	

Table 32: The results of the OLS regressions with the variable AcquisitionPremium for the 3-year BHARs.

The BHARs are winsorized on a 5% level to prevent that outliers have an overly large influence on the results. The different types, on the first line, are all the types combined and separate. All standard errors are robust. Regarding the different industry dummies, the default option is the manufacturing industry. The OLS regressions are including the variable AcquisitionPremium. The descriptions of the variables and how they are calculated is included in the methodology section. The p-value is based on the standard t-statistic. * Means that a value is significant on a 10% level. ** Means that a value is significant on a 5% level. *** Means that a value is significant on a 1% level.

3-year BHAR								
Variable	Domestic + Cross-border (1)		Domestic + Intra-Europe (2)		Domestic + Extra-Europe (3)		Intra-Europe + Extra-Europe (4)	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Domestic	-0.1932	0.636	-0.0640	0.921	0.0342	0.928	-	-
Intra-Europe	-	-	-	-	-	-	-0.2440	0.475
dummyUK	-0.1222	0.500	0.0064	0.977	-0.0644	0.742	-0.3747	0.260
Agri	**-0.9296**	**0.006*****	-0.6628	0.164	**-1.0109**	**0.005*****	-	-
Mining	0.1175	0.643	0.3193	0.375	-0.1554	0.577	0.2235	0.508
Construction	-0.1974	0.604	-0.0635	0.884	-0.2372	0.552	-	-
Transportation	-0.3152	0.367	-0.1820	0.673	-0.3305	0.546	-0.2504	0.489
WholesaleTrade	-0.4700	0.213	-0.2885	0.549	-0.5225	0.187	-	-
RetailTrade	-0.2072	0.445	-0.5973	0.129	-0.2885	0.261	-0.0623	0.890
Services	-0.1186	0.546	0.0673	0.791	-0.1863	0.339	-0.0288	0.927
BM	-0.1035	0.727	0.2103	0.584	0.0984	0.751	**-0.8101**	**0.050****
Size	-0.0027	0.956	0.0008	0.992	0.0208	0.686	-0.0323	0.640
RFCF	0.9752	0.774	2.7950	0.550	1.9865	0.608	1.2993	0.755
ROA	0.9326	0.444	0.7278	0.635	0.7136	0.620	0.7045	0.693
CD	-0.0424	0.336	-0.0790	0.192	0.0038	0.914	-0.0584	0.353
R&DExpenses	0.0336	0.619	0.0604	0.569	0.0269	0.717	0.0717	0.478
Tobinsq	0.0209	0.862	0.3609	0.125	0.0174	0.897	-0.1934	0.187
IndustryDiversification	0.1439	0.395	0.2888	0.231	0.1058	0.556	0.2106	0.345
RelativeDealValue	0.0446	0.483	0.0655	0.490	0.0414	0.561	0.1177	0.219
AcquisitionPremium	-0.1340	0.306	-0.1053	0.542	-0.2028	0.168	-0.3064	0.170
PaymentMethod	-0.0944	0.596	0.0005	0.998	-0.2057	0.290	-0.0626	0.749
TargetStatus	-	-	-	-	-	-	-	-
MonetaryUnion	0.1346	0.719	0.2768	0.564	-	-	0.2270	0.595
Tobinsq*RFCF	-0.1254	0.508	-0.4254	0.182	-0.0272	0.895	-0.2979	0.200
R&DExpenses*CD	0.1804	0.409	-0.0291	0.897	0.0564	0.790	0.2713	0.561
Constant	0.1059	0.875	-0.8154	0.504	-0.2847	0.678	1.2751	0.118
R-Squared	0.0696		0.1374		0.0819		0.2073	
Adj. R2	-0.0726		-0.0758		-0.0775		-0.0661	
Observations	168		114		144		78	