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Monitoring institutions and their added value on deal performance

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Abstract

Studies on M&A performance show that acquisitions often do not create value for the acquiring shareholders because of misalignment between shareholders and management. Institutional shareholders could be a solution to this misalignment as they monitor management and seek to maximize value for the shareholders. However, past studies have found contradicting results when examining their effect on firm performance. When defining institutional monitoring shareholders as institutions of whom the investment is in the top 10% of the institution's portfolio and represents over 5% of the company's shares, we find evidence supporting the theory that these institutional shareholders can increase M&A performance of acquirors. The presence of these institutional shareholders decreases the number of "bad" deals performed by the acquiring company, it increases the acquisition premium and increases the short-term and long-term abnormal stock returns of the acquiring company. This thesis provides evidence to support theories predicting favorable effects of institutional monitors on firm performance.

The views stated in this thesis are those of the author and not necessarily those of the supervisor, second assessor, Erasmus School of Economics or Erasmus University Rotterdam.

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1. Introduction

In 2021 London Stock Exchange Group (LSEG) purchased Refinitiv for a price of \$27bn. In the same month shareholders saw stock values decline by 25 per cent (Elder, 2021). Unfortunately, this outcome is more often the rule, than the exception in large M&A transactions. According to recent research by McKinsey & Company (2022) pursuing large M&A deals only has a 50 per cent chance of outperforming industry peers that do not perform M&A activity. Deloitte Consulting (2022) analyzed over 1,200 acquisitions over the past 24 years and found that on average acquiring parties lose 1.6% peer-adjusted return from the week before the deal announcement to the week after, whereas target companies earn on average 20%. Yet the amount spent on M&A keeps increasing, reaching a total value of \$5tn globally in 2021. If M&A returns for acquiring shareholders is on average negative, why does the amount spent on M&A transactions still increase?

An explanation for this could be the misalignment between managers and shareholders (Jensen and Meckling, 1976). This misalignment, referred to as the principal-agent problem, occurs because of a disbalance between the interests of managers and shareholders. Where shareholders stand by corporate decisions that increase firm value, managers may want to make other decisions as they put their own interests ahead of the company's best interests. This misalignment being seen in the LSEG Refinitiv acquisition, where the stock fell, but the CEO base salary increased to reflect LSEG's increased size.

To align the interest of management and shareholders and maximize firm performance, monitoring is necessary. There are institutions that invest in companies and monitor the activities of the firm's management. These institutions are known as institutional monitoring investors. Institutional monitoring investors are corporates like pension funds, mutual funds, and other large investment firms that are incentivized to monitor the companies they invest in because of the size of their investment.

The effect of the presence of these institutional monitoring investors has been analyzed in financial research. However, this has led to contradictory results. According to Fich, et al. (2015) the contradictory results can be explained by the way institutional monitoring is defined. Previous research categorizes institutional investors as monitoring shareholders when these institutions hold at minimum 5% of the company's shares. Fich, et al. (2015) formulated a new proxy for institutional monitoring. They center the fraction of the shareholders' portfolio represented by the firm, rather than the fraction of the firm held by the shareholders. Their study reveals that institutional monitoring is most pronounced when a company represents a significant proportion of the investor's portfolio. They explain this finding by the fact that

institutional investors do not have the time and resources to monitor all their investments intensively. They are to a greater extent incentivized to monitor the largest investments of their portfolio as these investments are the riskiest and offer the highest return potential.

This paper examines the added value of monitoring shareholders in acquiring parties of an M&A deal. In contrast to prior research that defines a monitoring shareholder as an investment firm holding a significant share of the company (Rock, 1990; Short and Keasey, 2005; Chen, Dong and Lin, 2020), this research uses the definition of monitoring shareholders by Fich, et al. (2015). Furthermore, this paper adds to M&A literature by investigating the effects of monitoring shareholders on acquiring firm performance. Like the research of Fich, et al. (2015) the vast majority of academic literature focuses on the acquisition returns of target companies (Smith, 1996; Judge, Ferreira, Massa and Matos, 2010; Gaur and Muller-Kahle, 2010). However, as stated before, M&A deals are on average value destroying for acquiring shareholders. This thesis will examine how the presence of monitoring institutions in acquiring companies affects the M&A returns for these firms.

1.1. BACKGROUND

Extensive research about the value creation of M&A has already been performed. Studies show that, on average, the M&A returns for acquiring shareholders are significantly negative or insignificant (Datta, et al., 1992; Hitt, et al., 2001). Moeller, et al. (2005) evaluated the M&A returns of acquiring shareholders and found that the average acquiring shareholder loses 12 cents for every dollar spent on an acquisition. As mentioned before, a possible explanation for the value destruction of M&A could be the principal-agent problem (Jensen and Meckling, 1976).

To overcome the principal-agent problem Shleifer and Vishny (1986) proposed a model suggesting that large institutional shareholders can help solve the misalignment issue if they hold a significant stake in the company. A significant stake is identified as the ownership of at least 5% of the company's shares outstanding. Institutional shareholders are corporates like pension funds, mutual funds, and other large investment firms. These parties have more bargaining power over the company than individual investors have, as they often hold a significant stake in the company, have dedicated teams of investment professionals to engage in constructive dialogues with management, and they actively participate in shareholder voting. Therefore, they are suited to ensure that management acts in the best interest of the firm and its shareholders, promoting value-maximizing decision making and decreasing value destruction. To enforce this, institutional investors must monitor the companies they have invested in.

Monitoring is the process through which shareholders actively participate in management decision-making by gathering information about the organization (Chen, et al., 2007). Large institutional investors are more likely to bear the costs of monitoring, relative to smaller shareholders, making the positive effect more significant.

However, results of this model are contradictory. Appel, et al. (2016) support the model, stating that companies with greater passive institutional shareholder ownership exhibit long-term performance improvements. Demsetz and Villalonga (2001) on the other hand find no significant effect of ownership structures on firm performance. Schmidt and Fahlenbrach (2017) even state that passive ownership negatively influences shareholder value. For clarification an overview of the reviewed sources is visualized in [Table A.1](#) of Appendix A.

Distinctive from prior research this paper analyses the effect of institutional monitoring in acquiring companies using the proxy defined by Fich, et al. (2015) for institutional monitoring shareholders. This new proxy identifies an institution as institutional monitoring shareholder in case the investment of the institution meets the following two criteria. Firstly, the investment must be equal to or greater than 5% of the acquiring company's share value. Secondly, the investment must fall within the top 10% of the institution's investment portfolio. The rationale behind these criteria is that the investment must be great enough to influence the acquiring company's decision making. Furthermore, the size of the investment must incentivize the institution to monitor the acquiring company. It is expected that institutions are motivated to monitor the top 10% of their investment portfolio.

Using data from 2009 to 2020, a period in which no major scandals or changes in regulation occurred, we created a data sample of 12,661 deals in which 12% of the acquiring companies are being monitored by an institutional investor. Together, these acquirors performed 21% of the deals in the sample.

To start, the relation between monitoring ownership and the probability to complete a M&A deal is analyzed. In line with the findings of Fich, et al. (2015) we find a significant correlation between the presence of institutional monitoring shareholders and the probability of completing a deal. Where Fich, et al. (2015) report evidence that the presence of monitoring investors in target firms increases the probability of deal completion, we find evidence of a negative correlation between total institutional monitoring ownership in acquiring firms and deal completion. After defining so called "bad" deals, results suggest that the presence of institutional monitors decreases the number of value-destroying deals being competed.

Thereafter, the correlation between the ownership of these monitoring shareholders and the takeover premium offered by the acquiring company is analyzed. In contrast to our

expectations, we observe a statistically significant positive correlation between the presence of monitoring shareholders and the acquisition premium. This effect combined with the lower deal completion rate can be explained by the fact that acquirors with institutional monitoring investors complete less “bad” deals and are willing to pay a higher price for the targets they want to acquire. These findings contradict the results of Stulz, et al. (1990) who report a negative correlation between institutional ownership on the acquiror’s side and the acquisition premium paid for a target company.

Next, the relation between monitoring ownership and acquiror abnormal returns is regressed. We report a statistically significant positive relation between monitoring shareholder ownership and both short-term and long-term abnormal returns. This indicates that the presence of institutional shareholders with monitoring incentives increases the abnormal acquisition returns for the acquiring party. The findings are in line with the results of André and Ben-Amar (2008) which state that shareholders of the acquiring party enjoy positive abnormal announcement returns from a M&A deal in the presence of institutional ownership.

Lastly, the analysis is extended by including an interaction term of institution independency and shareholder monitoring. As stated by Brickley, et al. (1988) institutions might be dependent of their portfolio companies beyond their role as institutional shareholder. These dependent institutions therefore may choose not to interfere with management resulting in lower monitoring effects on the company’s M&A performance. After controlling for institution independency, the results show that the presence of institutional monitoring investors is positively correlated with the acquisition premium. However, in case one of the institutional investors is independent, the growth of the premium decelerates. Additionally, it is analyzed whether the independency of institutional investors has a marginal effect on the abnormal returns of the acquiring party. In this regression the interaction term does not show any significant correlation with the acquiror’s abnormal returns. Therefore, it cannot be concluded that the independency of institutional monitoring investors has a marginal effect on the acquisition returns.

1.2. CONTRIBUTION

This study contributes to the literature on institutional investors and their effect on firm performance. Prior research has demonstrated that the size of a shareholder's stake can influence the shareholder’s incentive to actively monitor a company (Mehran, 1992). Active monitoring can empower shareholders to vote on antitakeover amendments (Brickley, et al., 1988), shape

R&D expenditures (Bushee, 1998; Aghion, et al., 2013), and adjust executive compensation policies (Cronqvist and Fahlenbrach, 2009), which can ultimately impact the company's overall value. Nguyen and Shiu (2022) provide evidence supporting the theory that institutional investors play a crucial role in enhancing firm valuation and strengthening corporate governance practices as they confirm that institutional ownership positively influences a firm's one-year future valuation as well as the effectiveness of corporate governance principles.

In context of M&A performance, the presence of institutional shareholders has not proven a definite outcome. Duggal and Millar (1999) were one of the first to research the effect of institutional shareholders on acquiring firm performance. They were unable to find any evidence supporting the idea that institutional investors affect M&A performance. Kohers and Kohers (2000) reported that institutional ownership increases the payment of acquisition premiums in high-tech industries for targets with higher growth potential, but this also elevates acquisition risk. These riskier investments did not benefit acquiring firm performance as Kohers and Kohers (2000) documented a negative relation between institutional shareholder ownership and acquiring firm excess return. Research by Wright, et al. (2002) supports the idea that the presence of institutional investors increases firm risk taking, but unlike Kohers and Kohers (2000), they state that institutional investors positively influence the profitability of acquisitions. This is in line with the findings of André and Ben-Amar (2008). They document a positive relationship between the ownership of institutional investors and acquiring firm abnormal returns.

A reason for these contradictory results could be the measure of institutional monitoring. Recent research by Fich, et al. (2015) has revealed new insights into the impact of institutional monitoring on target firm performance by using a new proxy for shareholder monitoring. Their study suggests that the size of an investment in the company relative to the size of the investor's portfolio is a better indicator for its incentive to actively monitor the firm instead of the size of an investor's stake in comparison to the total value of the company. They categorize an institutional investor as monitoring shareholder when the investment in the company is in the top 10% biggest investments of the institution's portfolio. Using this proxy for monitoring, they evaluated the impact of monitoring institutions on target firm acquisition returns. Surprisingly, the effect of monitoring shareholders in acquiring companies on M&A performance of the acquiring party has not yet been analyzed using this new proxy, even though M&A activity is on average value-destroying for acquiring companies (Datta, et al. 1992; Hitt, et al. 2001).

This thesis adds to literature by examining the effect of acquiror monitoring on the acquiror's M&A performance using the proxy of institutional monitoring as introduced by Fich, et al. (2015).

2. Theoretical framework

The importance of institutional investors in corporate governance and corporate decision making has been growing (Ferreira and Matos 2008; Ruiz Mallorquí and Santana Martín 2009, 2011; Hamdani and Yafeh 2013; Shu 2013). As confirmed by empirical research, institutional investors can engage in active monitoring (Almazán, Hartzell and Starks, 2005) to align the interests of managers with the interests of shareholders in corporate decision making (Hoskisson, Hitt, Johnson and Grossman, 2002). Active monitoring has increased over time as institutional investors have become more involved with their portfolio companies (Mallin, 2016). Companies with a higher level of institutional investor ownership are expected to exhibit better financial performance. However, several studies have failed to find a significant correlation between the proportion of institutional ownership and firm performance.

2.1. RETURNS OF M&A

A long popular element of strategic expansion via inorganic growth has been the acquisition of other companies or merging with another firm. It is expected that this strategy will increase firm value and therefore generate abnormal returns for shareholders in the acquiring company. However, empirical evidence on this hypothesis has been mixed. Bruner (2004) reviewed academic literature on the effect of corporate M&A on shareholder value. He found that the evidence provided in prior literature on acquiring shareholder returns shows an inconsistent pattern. About 40% of academic literature concludes that M&A results in negative announcement returns of buyers in contrast to the positive or insignificant effect on target returns (Cybo-Ottone and Murgia, 2000; Houston and Ryngaert, 2001; Beitel, et al., 2004). When focusing on developed markets Alexandridis, et al. (2010) find that public acquisitions generate at most zero abnormal returns for acquiring firms. The stock financed deals even report significant losses around the announcement of the deal.

Mandelker (1974) and Asquith (1983) explain the negative stock returns of acquiring shareholders on deal announcement with the fact that corporate control of public companies is extremely competitive. To acquire a target, companies tend to offer high bid prices, resulting in positive returns for target companies, but zero or negative returns for acquiring companies.

Roll (1986) states that managers overpay for acquisitions due to their excessive optimism regarding their ability to create value through acquisition, which is commonly referred to as the hubris hypothesis. Hietala, et al. (2003) have provided empirical evidence that supports this explanation. They analyzed and discussed a case where the acquiror highly overpaid on a target firm even though the acquiring CEO owned over two-thirds of the acquiring company. As this CEO was majority shareholder of the acquiring firm, it was expected that the CEO would decrease the acquisition costs as much as possible to maximize the returns. The unexpected result is however consistent with the hubris and overconfidence hypothesis. Heaton (2002) further built upon this hypothesis and argues that overly optimistic managers invest in projects that have negative net present values. Malmendier and Tate (2008) also found a link between managerial overconfidence and M&A performance, indicating that overconfident managers are more likely to engage in value-destroying mergers compared to their less confident peers.

2.2. MISALIGNMENT

The shareholder theory of Friedman (1970) asserts that a company's primary responsibility is to maximize firm value and increase shareholder returns. However, as we've seen in acquisition decision making, managers do not always act in the best interest of shareholders. Empirical evidence shows that managers make decisions based on personal benefits, leading to a loss of value for the company (Hietala, et al., 2003; Malmendier and Tate, 2008). This is proven by the fact that, on average, M&A strategies result in negative returns for acquiring shareholders. The principal-agency conflict is a well-known explanation for this. It describes the misalignment of interest between managers and owners (shareholders) where managers make decisions that do not align with the shareholders' interests (Shleifer and Vishny, 1986).

A critical variable in the principal-agent relationship is the presence of information asymmetry. Information asymmetry occurs when there is adverse selection or a moral hazard. Adverse selection implies that the agent (in this case management) knows more about its own characteristics or behavior than the principal (the shareholders). Moral hazard signifies that the agent knows more about its own decisions than the principal. It occurs for example when the agent engages in risky behavior because he or she knows that he or she is protected against the potential costs of that risky decision.

Shareholders can use a variety of strategies to ensure that management is focused on increasing firm value. Often shareholders have voting power, which allows them to advocate for the appointment of directors who prioritize the interests of shareholders. They can also choose to monitor the firm to ensure that value is being created.

2.3. MONITORING

A possible strategy to reduce information asymmetry and improve firm performance in an agency framework is the presence of large shareholders, in particular institutional investors (Jensen and Meckling, 1976). According to the efficiency-augmentation hypothesis by Duggal and Millar (1999) institutional investors enhance firm performance in two different ways. First, the large stake in the company incentivizes institutional investors to actively monitor the firm's management as their wealth is dependent on the firm's performance. Monitoring is the act of gathering information on the company and based on that information actively influencing management in their decision-making process (Chen, et al., 2007). Second, large institutions have abundant resources to perform high quality research to find both efficiencies and inefficiencies in the firm.

Active monitoring restricts the freedom of management to make their decisions independently as they must consider the incentives of their shareholders. Consequently, if institutional investors are monitoring their portfolio firms, the corporate decisions, including M&A strategies, will be more value creating for companies with institutional investors compared to companies without institutional investors (Wright, et al., 2002). Afza and Nazir (2012) analyzed the correlation between the corporate governance characteristics of acquiring companies in Pakistan and the changes in their operating performance resulting from M&A. Their findings revealed a positive relation between the presence of independent large shareholders and the post-merger performance of acquiring companies.

In contrary, according to the efficiency abatement hypothesis, institutional investors do not actively monitor their investments as they have a short-term vision. Duggal and Millar (1999) argue that institutional investors are more likely to short their shares in underperforming firms rather than invest in monitoring actions and contribute to the performance of their holdings. Institutional investors have a short-term goal of outperforming a self-selected benchmark with their investments, sometimes only in one financial quarter. Because of this short-term view institutional investors are actively trading their investments, leading to overreaction. For example, if the share price of a company is decreasing, the institutions will short their shares in the company to prevent (more) value loss. The supply surplus will lead to an even greater share price decline. As a result, institutional shareholders are not capable of actively monitoring their investments.

Monitoring a company involves regularly reviewing its financial statements, the corporate governance practices, and other key performance indicators to ensure that the

company is operating in the best interests of its shareholders. Such actions benefit the shareholders through share price appreciation, but monitoring is costly. Institutional investors have to spend time and resources on analyzing the company. Additionally, after uncovering mismanagement issues or other forms of unbeneficial decision making, the monitoring shareholders must act on this, bringing additional costs. Because of this, the monitoring argument faces two problems. The first one is known as the free-rider issue (Grossman and Hart, 1980). As monitoring increases a company's share price, all shareholders benefit from this action, but the costs are borne solely by the monitoring shareholder. This encourages shareholders to free ride. The second problem occurs because not all institutional shareholders are incentivized to monitor the company. This can have various reasons. For example, when an institution also benefits from the relationship with the firm's management, one may prefer maintaining a strong corporate relationship over monitoring (Cornett, Marcus, Saunders and Tehranian, 2007). These types of institutions are referred to as dependent institutional shareholders (Andreani and Neuberger, 2006; Chen, et al., 2007).

2.4. HYPOTHESES DEVELOPMENT

Monitoring institutions can influence the price offered by acquiring firms in M&A transactions. The institutions can exert their influence either by using their voting power or, or by pressuring the acquiring managers to offer a certain premium on a target. The premium refers to the value of the bid price that exceeds the market value of target's shares. According to literature, the acquisition premium is a popular explanatory variable for the deal returns of both acquiring and target shareholders (Hayward and Hambrick, 1997; Mueller and Sirower, 2003; Moeller, et al., 2005). On the one hand, monitoring institutions are motivated to ensure value-creating acquisitions and may therefore be willing to pay a premium above a target's market price to ensure the acquisition, especially if the merger includes synergies for the acquiring party. However, if synergies or other gains from the merger do not exist, and the target company is correctly valued by the market before the merger, every amount spent above the market value is a loss to the acquiring shareholders. In a model that considers other factors affecting the acquisition price, the impact of monitoring shareholders should be to reduce the acquisition premium. This view is supported by the theory of the winner's curse, stating that in a situation of an auction, subjective factors like emotions, irrationalities and rumors can increase bidding prices far above the intrinsic value, causing negative returns for the acquiring party (Capen, Clapp and Campbell, 1971). These theories have led to the first hypothesis:

H1: *Institutional monitoring is negatively correlated with the acquisition premium paid.*

Monitoring institutions have the power to affect the acquisition premium associated with a M&A deal, but their influence does not extend to the potential synergistic benefits that the merger may bring. This implies that while the expenses of the deal can be decreased, the advantages and value derived from the merger remain the same. Should these institutions succeed in lowering the acquisition premium while substantial synergies of the merger stay intact, it is anticipated that the abnormal returns of the acquiring company will see an increase.

Furthermore, theory suggests that shareholders are incentivized to accept acquisitions that enhance the value of their investments, thereby positively impacting their overall net worth. And above all, shareholders want to decrease the number of acquisitions that will destroy the company's value. Given that institutional monitoring shareholders are able to influence the decision-making process regarding which deals to pursue, it is expected that the presence of such monitoring shareholders will contribute to enhance the returns for the acquiror.

H2: *Institutional monitoring is positively correlated with the acquiror's abnormal returns surrounding the announcement of a M&A deal.*

These hypotheses will be tested by analyzing four different regression models. The process is described in [Part 3](#) of the thesis.

3. Methodology and Data

To analyze if and how institutional monitoring shareholders influence firm performance, multiple regression models will be used. First, it is assessed whether the presence of institutional investors with monitoring incentives is correlated with the probability to complete a deal. Next, it is tested if their presence affects the transaction premium offered by the acquiror. Lastly, the effect of institutional monitoring on the acquiror's abnormal returns is analyzed in which the returns will be measured in both short-term and long-term abnormal returns. In order to perform these analyses a data sample must be created including various transactions with and without institutional monitoring shareholders, as well as multiple other variables.

3.1. SAMPLE SELECTION

The sample consists of deals announced in the period of June 2009 until January 2020, which spans the period post-Great Recession and pre-COVID-19 pandemic. In this period no major

regular changes or market shocks occurred. The sample will only include publicly traded US companies, both for acquirors and targets. Hence, no cross-border deals will be included in the sample. The reason for this is that cross-border deals tend to generate different abnormal returns than domestic deals, as noted by Eun, et al. (1996) and Kiymaz and Mukherjee (2000).

The research will focus solely on M&A deals where the acquiror aims to own over 50% of the target company's shares, with a minimum deal value of \$1 million, and will exclude deals where the acquiror already holds a majority share in the target company before the acquisition. Completed acquisitions must lead to a majority ownership (50% or more) of the target company. As per Masulis, et al. (2007) the sample excludes spinoffs, repurchase deals, recapitalization deals, exchange offers, privatizations and self-tenders.

The sample excludes target firms in the financial industry (SIC codes 6000 – 6999) and firms in the utilities industry (SIC codes 4900 – 4949). Investment behavior of companies operating in these industries may differ from other industries or be unconventional due to the extensive regulation of these sectors (Fich, et al., 2015). Therefore, deals of companies in these industries have a high potential of creating outliers. All the deal data will be obtained from the Eikon Refinitiv database. Following these criteria results in a M&A data sample of 12,661 deals executed by 7,787 acquiring companies.

Information on institutional shareholders and their portfolios is retrieved from the Thomson Reuters Institutional Holdings 13F database. This database is also known as CDA/Spectrum database and contains information on ownership by institutional managers with \$100 million or more in assets under management. This provides a comprehensive range of data, including information on the portfolios of the institutional investors during each quarter of every financial year. It states the size of every investment in terms of share quantity and value, as well as the total outstanding shares of every portfolio company and the corresponding share price for each quarter. After incorporating this information in the M&A data sample, it becomes evident that over 20% of the 12,661 deals involve an acquiring company under institutional investor monitoring. Furthermore, out of all the acquiring companies, approximately 12% has an institutional monitoring shareholder.

A more detailed breakdown of the data sample is shown in [Table 1](#). The number of deals in the data sample slightly decreases over the years 2013 – 2019. As shown in [Figure 1](#) the number of announced deals was lower in 2009 compared to the number of deals in the other years of the sample period. This can be explained by the fact that the sample period starts in June 2009 and therefore does not include all deals announced in that financial year.

Furthermore, in [Table 2](#) it is noticeable that the amount of monitoring institutions per acquiring company, as well as the fraction of the company owned by monitoring institutions increases over the years 2009 – 2018. This is in line with the findings of Mallin (2016) who suggest that the ownership and monitoring activities of institutional investors have increased over the past few years. The average values of 2019 are slightly lower. The average value of the proportion of monitoring shareholders relative to all shareholders of the acquiror remains stable over the full sample period.

Figure 1 – Deal characteristics over time

This graph shows the total number of deals, number of acquirors and number of monitors in the data sample per year, as well as the number of acquirors with an institutional monitoring shareholder.

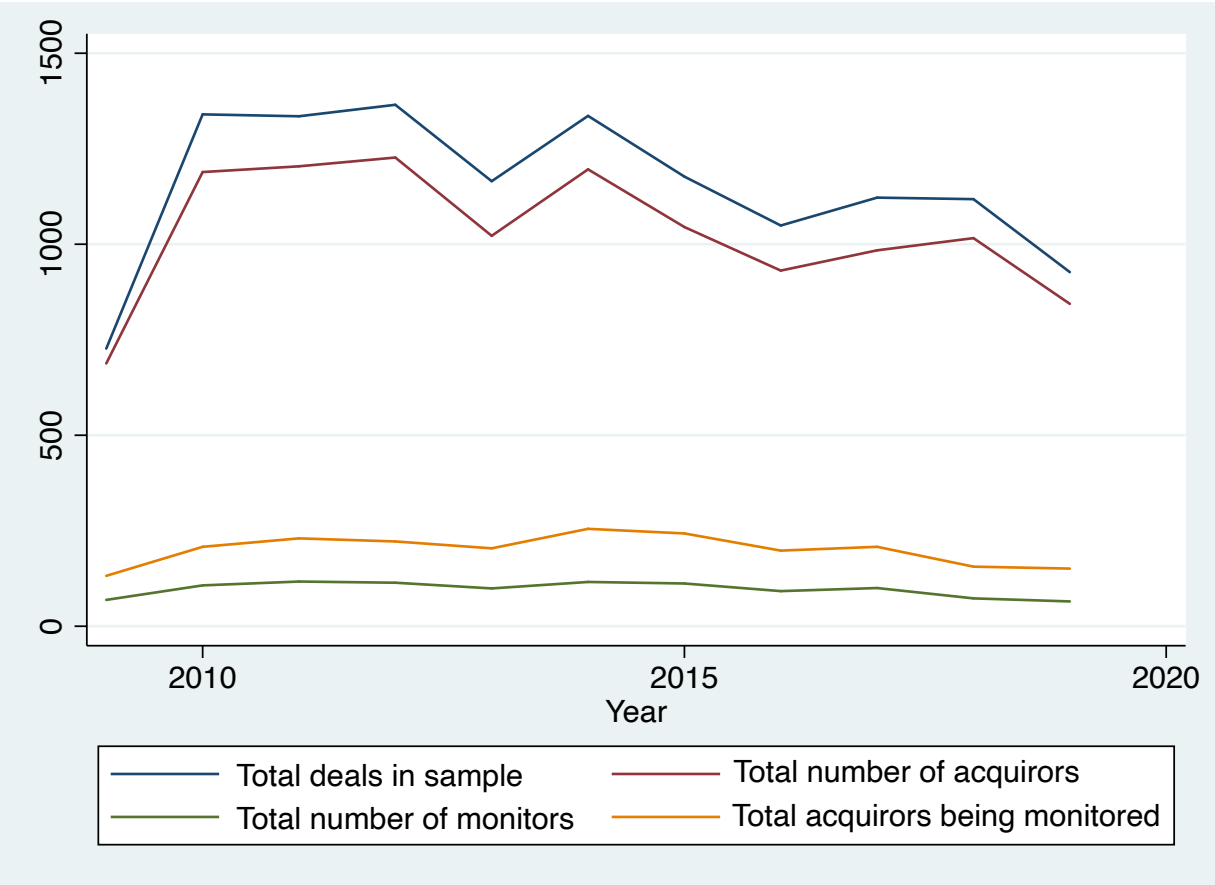


Table 1

This table provides an overview of the data sample over the period of 2009 – 2019. Per year the number of deals, number of acquirors and number of monitors in the data sample are described, as well as the number of deals in which the acquiring party has an institutional monitoring shareholder and the number of acquirors with an institutional monitoring shareholder.

Year	Deal count	Number of Acquirors	Number of Monitors	Deals Monitored	Acquirors Monitored
2009	727	688	69	142	132
2010	1,340	1,189	107	253	208
2011	1,335	1,204	117	268	230
2012	1,365	1,227	114	269	222
2013	1,165	1,022	99	237	204
2014	1,336	1,196	116	298	255
2015	1,177	1,045	112	290	243
2016	1,049	931	92	246	198
2017	1,122	984	100	248	208
2018	1,118	1,016	73	190	156
2019	927	844	63	173	150
Full sample	12,661	7,787	425	2,614	914

Table 2

This table provides the average values of the monitoring proxies per year over the full data sample. The full data sample consists of 7,787 acquiring companies and 425 monitoring institutions. Monitoring institutions per acquiror is the average number of institutional monitoring shareholders an acquiror has per year. The fraction owned by monitoring institution is the average amount of shares held by all institutional monitoring shareholders divided by the total amount of shares outstanding of the acquiror. The proportion of monitoring shareholders is the average number of institutional monitoring shareholders an acquiror has divided by the total number of shareholders.

Year	Monitoring institutions per acquiror	Fraction owned by monitoring institution	Proportion of monitoring shareholders
2009	1.444	0.123	0.010
2010	1.589	0.139	0.009
2011	1.619	0.142	0.015
2012	1.643	0.133	0.009
2013	1.637	0.138	0.009
2014	1.732	0.134	0.008
2015	1.807	0.150	0.008
2016	1.935	0.158	0.007
2017	1.996	0.161	0.008
2018	2.095	0.178	0.007
2019	1.902	0.170	0.006

3.2. DEPENDENT VARIABLES

The study will conduct multiple tests to examine the impact of institutional monitoring on deal performance. The initial test will investigate whether monitoring institutions influence the probability of an acquiror successfully completing a deal. The second test will assess whether monitoring institutions affect the acquisition premium an acquiror is willing to pay for a target company. Lastly, the study will evaluate if and how monitoring institutions influence value creation through M&A deals. Value creation will be measured in short-term abnormal returns via the acquiror's cumulative abnormal returns (CAR) and long-term abnormal returns via the three-year buy-and-hold abnormal returns (BHAR) of the acquiror.

Deal completion

Theory of Hartzell, et al. (2004) predicts that monitoring investors are motivated to help and facilitate deal completion for a target company. Institutional investors in fact have the power to influence deal completion of their portfolio companies. Since these investors are not interested

in benefits other than financial profits, these parties will opt for deal completion at favorable terms for all shareholders. Like target companies, acquiring companies often have institutional shareholders with monitoring roles. However, where institutional shareholders of target companies promote deal completion and higher acquisition prices (Fich, et al., 2015), institutional shareholders of acquiring companies are expected to bargain for value enhancing deals and lower acquisition prices, in favor of the acquiring shareholders. Moreover, if a deal is predicted not to be financially profitable for the acquiring company monitoring investors might disagree with acquisitions submitted by management.

Given that the interests of the acquiring shareholders are not in line with the interests of the target company and monitoring investors will withhold management from making overconfident or empire building decisions, we will test whether the chances of completing an acquisition will be affected by the presence of institutional monitoring investors in the acquiring company. This will be done by estimating a logit model to determine the likelihood of completing an acquisition. In this model, the dependent variable, deal completion, is set to one in case the firm successfully acquires a target company and zero otherwise.

The primary independent variable is the presence of a monitoring institution within the acquiring company, which is measured using four proxies. The first proxy for institutional monitoring is the standard proxy, namely blockholder ownership (Rock, 1990; Short and Keasey, 2005; Chen, Dong and Lin, 2020). As blockholder ownership questioned to be a good measure of institutional monitoring, three new proxies will be examined as well, consistent with the approach of Fich, et al. (2015). These proxies are (1) the total number of monitoring institutions holding the acquiror's stock, (2) the percentage of equity ownership held by all monitoring institutions, and (3) the proportion of monitoring institutions holding a share in the acquiring company relative to all the shareholders of the acquiror. An institutional investor is categorized as monitoring shareholder when the investment meets the following two criteria: (1) the investment is in the top 10% largest investments of the institution's portfolio, and (2) the institution holds over 5% of the company's shares. Additionally, the model will consider control variables, such as deal and market characteristics, target and acquiror characteristics, and governance characteristics of the acquiring company. Further elaboration on the institutional monitoring proxies and control variables will be provided in [Part 3.3. Table B.1.](#) of Appendix B provides an overview of the variables used in the regressions with a description of each variable.

Deal completion (0,1)

$$\begin{aligned} &= \alpha + \beta_1 * \text{Monitoring institution proxy} + \beta_2 * \text{Defensive tactic (0,1)} + \beta_3 \\ &* \text{Challenged deal (0,1)} + \beta_4 * \text{Cash only (0,1)} + \beta_5 * \text{Stock only (0,1)} + \beta_6 \\ &* \text{Tender offer (0,1)} + \beta_7 * \text{Friendly deal (0,1)} + \beta_8 * \text{Same industry (0,1)} \\ &+ \beta_9 * \text{Relative size} + \beta_{10} * \text{Annual change in GDP} + \beta_{11} * \text{Acquiror CAR} + \beta_{12} \\ &* \text{Acquiror size} + \beta_{13} * \text{Target in a highly liquid industry (0,1)} + \beta_{14} \\ &* \text{Acquiror board size} + \beta_{15} * \text{Acquiror independent board (0,1)} + \beta_{16} \\ &* \text{Acquiror busy board (0,1)} + \varepsilon_i \end{aligned}$$

Acquisition premium

As demonstrated by Malmendier and Tate (2008) and Harford, et al. (2012), not all completed acquisitions generate value for the acquiring company. Monitoring investors are motivated to use their influencing power to ensure successful completion of a value creating deal and maximize acquisition returns. They can do this by either increasing the value created or reducing its costs of the acquisition. Value creation through M&A deals is primarily driven by synergies, which cannot be influenced by monitoring investors (Fich, et al., 2015). The main cost item related to M&A is the bid price. According to the synergy hypothesis, this price is determined by the potential synergies of the deal. If the acquiring company overpays on the deal, the returns for acquiring shareholders will be negatively affected as the potential synergies do not increase, but the price paid does. Monitoring shareholders are incentivized to minimize the takeover premium (Diaz, et al., 2009).

As formulated in Part 2.4 we hypothesize that the presence of institutional monitoring investors is negatively correlated to the acquisition premium. To test this hypothesis an OLS model will be used. The dependent variable in this model is the acquisition premium paid by the acquiror. The acquisition premium is the ratio of the offer price that exceeds the targets' market value to the target market value. To account for possible premature information disclosure, the target market value four weeks prior to the announcement of the deal is used. Data on target value is retrieved from the Eikon Refinitiv data base.

The model will use the same four proxies for institutional monitoring as used in the model for deal completion. It will control for deal and market characteristics as well as for target and acquiror characteristics, and the governance structure of the acquiring company. These control variables are further elaborated in [Part 3.3. Table B.1.](#) of Appendix B provides an overview of the variables used in the regressions with a description of each variable.

Acquisition premium

$$\begin{aligned} &= \alpha + \beta_1 * \text{Monitoring institution proxy} + \beta_2 * \text{Target } Q + \beta_3 \\ &* \text{Target leverage} + \beta_4 * \text{Target net operating cash flow} + \beta_5 * \text{Acquiror size} \\ &+ \beta_6 * \text{Acquiror } Q + \beta_7 * \text{Acquiror leverage} + \beta_8 \\ &* \text{Acquiror net operating cash flow} + \beta_9 \\ &* \text{Acquiror prior year market adjusted return} \\ &+ \beta_{10} * \text{Relative size} + \beta_{11} * \text{Cash only (0,1)} + \beta_{12} * \text{Stock only (0,1)} + \beta_{13} \\ &* \text{Tender offer (0,1)} + \beta_{14} * \text{Friendly deal (0,1)} + \beta_{15} * \text{Hostile deal (0,1)} \\ &+ \beta_{16} * \text{Challenged deal (0,1)} + \beta_{17} * \text{Defensive tactic (0,1)} + \beta_{18} \\ &* \text{Same industry (0,1)} + \beta_{19} * \text{Merger of equals (0,1)} + \beta_{20} \\ &* \text{Target in highly liquid industry (0,1)} + \beta_{21} * \text{Acquiror board size} + \beta_{22} \\ &* \text{Acquiror independent board (0,1)} + \beta_{23} * \text{Acquiror busy board (0,1)} + \varepsilon_i \end{aligned}$$

To understand the influence of institutional monitoring on the value creation of M&A deals, it is necessary to first define the concept of value creation in the context of such deals. In this thesis, the value created by an acquisition will be measured by two performance metrics of the acquiror: the cumulative abnormal return (CAR) and the three-year buy-and-hold abnormal return (BHAR).

Cumulative abnormal returns

To evaluate the effect of institutional monitoring on the short-term value creation of M&A decisions, the abnormal returns of the deals will be analyzed. In line with Chen, et al. (2007) the abnormal returns are cumulated over a three-day time window surrounding the announcement date (-1, 0, +1), resulting in the cumulative abnormal return (CAR). In the three-day event window, it is evaluated whether the stock price changes of the acquiring company are abnormally large in comparison to the expected returns. The expected return is the return that is estimated in case the event (the acquisition announcement) did not happen. To estimate this expected return the market-adjusted model is used in which $R_{i,t}$ is the return of firm i at time t and $R_{m,t}$ is equal to the market-portfolio return at time t :

$$\begin{aligned} \text{Market Model: } E(R_{i,t}|X_t) &= \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \\ \text{Abnormal return: } AR_{i,t} &= R_{i,t} - \alpha_i + \beta_i R_{m,t} \end{aligned}$$

For α and β estimation the stock return data before the event date is needed. This specific time period is called the estimation window. The estimation window is equal to 140 trading days and ends 60 trading days before the start of the three-day event window. Because information can leak into the market well before the event happens, the estimation window must stop well before the event time-window. The stock price information used comes from the CRSP daily stock database. To calculate the CAR the AR of the three days surrounding the deal announcement are summated. The CAR is a widely used metric for firm performance in financial research. By using the CAR, the impact of the deal on the acquiring company's returns can be isolated and therefore, the value created (or destroyed) by the deal can be estimated.

To analyze the effect of institutional monitoring on short-term acquisition returns an OLS model is used with the acquiror's CAR as dependent variable. In the CAR model the same four proxies for institutional motoring will be used. Like the regression on acquisition premium, this regression shall control for deal and market characteristics, as well as target and acquiror characteristics, and governance structure of the acquiring company.

Acquiror CAR (-1; +1)

$$\begin{aligned}
 &= \alpha + \beta_1 * \text{Monitoring institution proxy} + \beta_2 * \text{Target Q} + \beta_3 \\
 &* \text{Target leverage} + \beta_4 * \text{Target net operating cash flow} + \beta_5 * \text{Acquiror size} \\
 &+ \beta_6 * \text{Acquiror Q} + \beta_7 * \text{Acquiror leverage} + \beta_8 \\
 &* \text{Acquiror net operating cash flow} + \beta_9 \\
 &* \text{Acquiror prior year market adjusted return} \\
 &+ \beta_{10} * \text{Relative size} + \beta_{11} * \text{Cash only (0,1)} + \beta_{12} * \text{Stock only (0,1)} + \beta_{13} \\
 &* \text{Tender offer (0,1)} + \beta_{14} * \text{Friendly deal (0,1)} + \beta_{15} * \text{Hostile deal (0,1)} \\
 &+ \beta_{16} * \text{Challenged deal (0,1)} + \beta_{17} * \text{Defensive tactic (0,1)} + \beta_{18} \\
 &* \text{Same industry (0,1)} + \beta_{19} * \text{Merger of equals (0,1)} + \beta_{20} \\
 &* \text{Target in highly liquid industry (0,1)} + \beta_{21} * \text{Acquiror board size} + \beta_{22} \\
 &* \text{Acquiror independent board (0,1)} + \beta_{23} * \text{Acquiror busy board (0,1)} + \varepsilon_i
 \end{aligned}$$

Buy-and-hold abnormal returns

The CAR measure only considers abnormal stock returns in the three days surrounding the deal, which means it only captures the immediate impact of the deal on the company's stock price. This approach may not reflect the long-term effects of the deal on the firm's performance. To address this limitation, the BHAR method will be utilized. The BHAR differs from the CAR in two ways. Firstly, BHARs use a geometric aggregation method over the event period to

calculate abnormal returns, in contrast to the arithmetic aggregation used by CARs. Secondly, BHARs factor in compounding effects, while CARs do not (Renneboog and Vansteenkiste, 2019).

The BHAR model compares the buy-and-hold returns of event firms with the returns of other portfolios. Unlike for the CAR, this long-term event study is not calculated by estimating the non-event returns of the company, but by comparing the generated returns with matched portfolios. The reason for this is that in long-term event studies the historical estimates are not as reliable as in short-term event studies. Therefore, it is important to define a benchmark based on post-events. Portfolios are matched based on their characteristics. This type of matching has extensively been analyzed by Barber and Lyon (1997) and Kothari and Warner (2007) and their approach has been widely used in financial research. The matching process goes as follows:

1. In every year, starting from July and ending in June the following year, all common stocks of CRSP are divided into decile portfolios based on their market capitalization. The stocks included in this process are those listed in the NYSE of the previous June.
2. Within each decile portfolio firms are further divided into quintiles based on their book-to-market ratio. The ratios used are observed prior to or in December of the year before. This lag treatment ensures accuracy of the sorting as it allows for delays in the reporting of the financial statements.
3. The portfolios used as benchmark in the analysis exclude the event firms (the acquiring parties) and include all securities that can be categorized in the characteristic-based matched portfolio.

To analyze the effect of institutional monitoring on long-term acquisition returns an OLS model is used with the acquiror's BHAR as dependent variable. In the BHAR model the same four proxies for institutional motoring will be used. The abnormal returns are calculated over a time window of 3 years (36 months). The BHAR is calculated by using the value-weighted benchmark portfolio returns with annual rebalancing. The BHAR model will use the same monitoring proxies and control variables as the CAR model.

Acquiror three year BHAR

$$\begin{aligned} &= \alpha + \beta_1 * \text{Monitoring institution proxy} + \beta_2 * \text{Target Q} + \beta_3 \\ &* \text{Target leverage} + \beta_4 * \text{Target net operating cash flow} + \beta_5 * \text{Acquiror size} \\ &+ \beta_6 * \text{Acquiror Q} + \beta_7 * \text{Acquiror leverage} + \beta_8 \\ &* \text{Acquiror net operating cash flow} + \beta_9 \\ &* \text{Acquiror prior year market adjusted return} \\ &+ \beta_{10} * \text{Relative size} + \beta_{11} * \text{Cash only (0,1)} + \beta_{12} * \text{Stock only (0,1)} + \beta_{13} \\ &* \text{Tender offer (0,1)} + \beta_{14} * \text{Friendly deal (0,1)} + \beta_{15} * \text{Hostile deal (0,1)} \\ &+ \beta_{16} * \text{Challenged deal (0,1)} + \beta_{17} * \text{Defensive tactic (0,1)} + \beta_{18} \\ &* \text{Same industry (0,1)} + \beta_{19} * \text{Merger of equals (0,1)} + \beta_{20} \\ &* \text{Target in highly liquid industry (0,1)} + \beta_{21} * \text{Acquiror board size} + \beta_{22} \\ &* \text{Acquiror independent board (0,1)} + \beta_{23} * \text{Acquiror busy board (0,1)} + \varepsilon_i \end{aligned}$$

3.3. INDEPENDENT VARIABLES

Institutional monitoring

Our main independent variable of interest is institutional monitoring. Institutional monitoring is the involvement of institutional shareholders in a company's corporate governance. This involvement can include voting, information acquisition, and active intervention (Stapledon, 1997). Prior literature uses blockholder ownership as proxy for institutional monitoring (Andriosopoulos, and Yang, 2015; Brooks, Chen and Zeng, 2018). A blockholder is a shareholder holding a minimum of 5% of the company's shares. Distinctive to existing literature this thesis measures institutional monitoring using three additional proxies, as introduced by Fich, et al. (2015). Firstly, the number of monitoring institutions owning the acquiror's stock will be determined. A monitoring institution is defined as a blockholder whose holding value in the acquiror falls within the top 10% of its investment portfolio. The second measure of institutional monitoring is the percentage of equity ownership held by all monitoring institutions. This is calculated as the sum of shares of all monitoring institutions in the acquiror divided by the total shares outstanding. The third proxy is the proportion of monitoring shareholders relative to all shareholders of the acquiring company. For this proxy the number of monitoring shareholders is divided by the total number of shareholders in the acquiring company. These new proxies for monitoring ownership differ from the variable of blockholder ownership in their categorization of institutional investors as monitoring shareholders. Instead of considering the size of the investment relative to the firm value, these proxies categorize institutional investors based on their own portfolio characteristics. To examine the effectiveness

of these new proxies in capturing monitoring ownership, blockholder ownership will also be included as a proxy in our analysis. The three models that utilize the new proxies for monitoring ownership will still account for blockholder ownership.

Control variables

M&A performance is influenced by a multitude of additional factors. The completion likelihood of a deal and the potential returns of an acquisition depend on external factors such as deal and market characteristics, as well as acquiror and target characteristics. To isolate the effect of these factors from the correlation between the dependent variable and the key independent variable of interest, multiple control variables are included in the regression models.

To control for deal and market characteristics, similar control variables as used in prior research are included (Chen, et al., 2007; Goranova, et al., 2010; Fich, et al., 2015). These control variables include various dummy variables for deal characteristics. These dummy variables indicate whether a deal has been used as a defensive tactic, whether it has faced competing deals in the deal process, whether it was funded entirely with cash or stock, whether it was a tender offer, or a deal characterized by a friendly attitude. Additionally, the dummy variables also capture information regarding whether the target and acquiror operate in the same industry, whether they are categorized as equals and if the target is operating in a highly liquid industry. Furthermore, the relative size of the target company to the acquiror is included, which is measured by dividing the target's market value one year prior to the announcement by the acquiror's market value one year prior to deal announcement (Fich, et al., 2015).

The acquisition premium and abnormal returns of an acquisition are also influenced by characteristics of the acquiror and target of the deal. Therefore, control variables for acquiror and target characteristics are included in the regressions for the acquisition premium, the CAR and the BHAR. Firstly, the models control for the size of the acquiror. The size is measured by taking the natural logarithm of the market value of the acquiror's assets four weeks prior to the deal announcement. Additionally, the acquiror's and target's Tobin's Q values are included. The Tobin's Q is calculated by dividing the market value of the company's assets by the book value of its assets. The Tobin's Q ratio is a measure of over or undervaluation of the company. Servaes (1991) provides evidence that takeover returns are higher for deals in which acquirors have relatively high Tobin's Q ratios and targets have relatively high Tobin's Q ratios. To indicate whether a firm is able to take on extra debt the leverage levels of both target and acquiror are included in the model. Following Fich, et al. (2015), the leverage level is equal to

the ratio of debt to the company's book value of equity. Additionally, there will be controlled for the net operating cash flow of both target and acquiror. The operating cash flow is scaled by the book value of assets. Lastly, the models control for the prior year returns of the acquiror. The prior year returns are measured as the CAR over a time window of one year ending four weeks (20 business days) before the announcement of the deal.

As the results of Giannetti and Simonov (2006) suggest, institutional investors take a company's corporate governance structure into consideration before investing in the company. Institutions are more likely to invest in companies with strong corporate governance. This indicates that the corporate governance structure of the acquiring company may influence the probability of deal completion, the acquisition premium, and the returns generated by a deal. To control for this factor, three variables on governance structure of the acquiring company are included in the regressions. These control variables are the board size of the acquiring company, measured in number of board members at the time of the deal announcement, and two dummy variables regarding board independence and busyness of the board. The board independence dummy is set to one if more than half of the board members is seen as an independent director. The dummy variable for busy board is set to one if more than half of the board members is operating in three or more boards at the time of the deal announcement.

Investor independence

To further understand the institutional monitoring role of shareholders, the shareholders will be categorized based on their own business lines. Several studies (Brickley, Lease and Smith, 1988; Almazan, Hartzell and Starks, 2005; Chen, et al., 2007) have shown that not all investors have the same incentives when investing in a firm. Some investors have existing or potential business relations with the firms they invest in and are therefore less willing to challenge managers in their decisions. Banks for example are predicted to be effective monitors as they frequently are in contact with their clients, which allows them to stay informed about the company's performance. However, there might occur a problem of entrenchment in a situation where the bank becomes too closely aligned with the company's management and may support existing managers even if they are not optimizing the firm's performance (Andreani and Neuberger, 2006). Following these studies, the shareholders in our sample will be separated into independent and dependent institutions. In line with Brickley et al. (1988) insurance companies, banks, and non-bank trust are categorized as dependent institutional investors, as these institutions have a higher probability of becoming subject to the influence of the portfolio

investment's management. Other institutional investors are classified as independent. A dummy variable for independent institutions is set to one if at least one of the institutional monitoring shareholders of the acquiror is classified as independent and set to zero otherwise. With this dummy variable an interaction term is generated. The interaction term captures the effect of a monitoring institution that is independent of the acquiring company.

3.4. DESCRIPTIVE STATISTICS

[Table 3](#) reports an overview of the deal characteristics as well as acquiror and target characteristics of the full sample. The summary statistics correspond with samples of other financial M&A literature. Out of the 12,661 deals analyzed in this research, 90% is completed. Over 55% of the deals are paid fully in cash and 6% of the transactions are completed with a stock only payment. The cash proportions are higher than observed in previous literature. The sample of Officer (2003) exists for 35% of cash only payments and Fich et al. (2015) work with a sample of 33% cash only deals. Furthermore, the vast majority (98% of the sample) are of friendly attitude. These high proportions of friendly offers are also observed in other M&A literature. In the sample Officer (2003) 83% of all deals are of friendly attitude and the sample of Fich et al. (2015) consists of 91% friendly offers. In 48% of the transactions, the acquiror and the target operate in the same industry.

When comparing the size of the acquiring companies and the targets, it is noticeable that acquirors are on average significantly larger than the target companies, which is expected in an M&A deal as companies tend to buy smaller firms. Furthermore, the target companies have on average a higher Tobin's Q. A Tobin's Q higher than 1 indicates that the company is overvalued, whereas companies that are undervalued in the market have a Tobin's Q value below 1. In the sample, target companies are on average more overvalued than the acquirors. Lastly, acquirors and targets have a mean leverage of around 22% of their total assets value. This is in line with the leverage proportion found in the sample of Cai and Sevillir (2012), which has a value slightly above 20%.

Table 3

This table presents the average values of the descriptive statistics of the full data sample. The full data sample consists of 12,661 deals performed by 7,787 acquiring companies and 425 different institutional monitoring investors. The second column defines the average proportion of the dummy variables that are equal to 1 relative to the dummy variables equal to 0, as well as the number of deals for which the dummy variable is equal to 1 in parentheses. For the other variables the mean and median values are presented.

	Proportion of sample (number)	Mean	Median
Deal characteristics			
Completed	0.9035 (11,440)		
Tender offer	0.0264 (334)		
Stock only	0.0599 (758)		
Cash only	0.5664 (7,171)		
Friendly attitude	0.9780 (12,383)		
Same industry	0.4755 (6,020)		
Deal value (USD million)		596.90	54.00
Relative size (Target/Acquiror)		1.1225	0.1060
Acquiror characteristics			
Market Value (USD million)		214,440	1,094
Tobin's Q		1.8996	1.1830
Leverage		0.2136	0.1580
Target characteristics			
Market Value (USD million)		1,931	289
Tobin's Q		2.2932	1.2807
Leverage		0.2813	0.2052
Governance characteristics (acquiror)			
Board size		8.5208	8
Independent board	0.3971 (5,028)		
Busy board	0.2147 (2,718)		

[Table 4](#) reports summary statistics for the three new proxies of monitoring ownership used in this research. The statistics are reported for the full sample and for the monitored sample. The

full sample (Panel A) includes all 12,661 deals. The monitored sample (Panel B) consists of 2,614 deals in which the acquiror has at minimum one monitoring institution as a shareholder. Out of the full sample, acquiring companies have on average 0.4 monitoring shareholders, holding on average 3% of the acquiring company's shares. These values are lower than the observed values of the Fich, et al. (2015) full data sample as they observe on average 4.1 monitoring shareholders per company holding on average 6% of the shares. The proportion of institutional monitoring shareholders to all shareholders in the acquiring company is on average 0.2%. When looking at the monitored sample, these firms have on average 1.8 monitoring institutions as a shareholder, which is also lower than the average of 9 monitoring institutions per company of the monitored sample of Fich, et al. (2015). In our sample these monitoring institutions together own on average 14.7% of the acquiring company, which is in line with the 15% observed by Fich, et al. (2015). The proportion of institutional monitoring shareholders to all shareholders in the acquiring company is in our case 0.9%.

It must be noted that the paper of Fich et al. (2015) looks at the number of monitoring institutions in target companies, whereas we research the influence of monitoring shareholders in acquiring. Therefore, our observed values may differ from the values measured in the Fich, et al. (2015) data sample.

Table 4

This table reports the summary statistics of the three monitoring proxies introduced by Fich, et al (2015). The mean and median values are calculated, as well as the 1st quartile, 3rd quartile, and standard deviation. Panel A presents the statistics calculated over the full data sample. Panel B presents the average values calculated over the monitored sample which consists of all deals in which the acquiring party has at least one institutional monitoring shareholder.

	Mean	Median	Q ₁	Q ₃	Std. Dev.
Panel A: Full sample					
Number of Monitors	0.364	0.000	0.000	0.000	0.850
% Owned By Monitors	0.030	0.000	0.000	0.000	0.075
Proportion of Monitors	0.002	0.000	0.000	0.000	0.011
Panel B: Monitored sample					
Number of Monitors	1.764	1.000	1.000	2.000	1.012
% Owned By Monitors	0.147	0.123	0.073	0.189	0.101
Proportion of Monitors	0.009	0.005	0.003	0.009	0.024

[Table 5](#) presents an overview of the average values of deal characteristics, and acquiror and target characteristics. In this table the sample is split into two panels: non-monitored deals (Panel A) and monitored deals (Panel B). The mean values of the characteristics are calculated and compared using a t-test to see if there is a significant difference between the two samples. The table shows that the proportion of deals completed of Panel A and Panel B are in line with each other, but the average proportion of deals completed in Panel A is significantly higher than the proportion of completed deals in Panel B. When looking at the acquisition premium, we observe a significantly higher average acquisition premium for deals in Panel B, indicating a positive correlation between institutional monitoring and the acquisition premium. The average value of the acquiror's CAR is significantly higher in Panel A, indicating a negative correlation between institutional monitoring and the short-term abnormal returns of the acquiror. In contrast, the average BHAR are significantly higher in Panel B, indicating a positive correlation between institutional monitoring and the acquiror's long-term abnormal returns. These correlations will be tested in [Part 4](#) of this thesis. Furthermore, it is observed that the average deal value of acquirors with monitoring shareholders is significantly higher compared to the average deal value of the non-monitored sample. There is no significant difference found between the average relative sizes of Panel A and Panel B. This indicates that non-monitored and monitored acquirors choose on average targets of the same relative size. However, when comparing the market value of the acquirors we observe that the acquirors in the monitored sample have a significantly higher average value. This also holds for the average market value of the target companies.

The significant results suggests that the difference measured is most likely not due to chance or sampling errors. These differences therefore reflect the characteristics of the samples.

Table 5

This table reports the deal characteristics of the sample. The sample is split into deals without monitored acquiror (Panel A) and deals with a monitored acquiror (Panel B). A monitored acquiror is an acquiror with at least one institutional monitoring shareholder. Panel A consists of 10,047 deals, and Panel B consists of 2,614 deals. The mean values of the variables are calculated and compared between the two panels using a t-test to see if there is a significant difference. The difference is calculated by subtracting the mean of Panel B from the mean of Panel A.

	<i>Panel A</i>	<i>Panel B</i>	
	Mean	Mean	Δ
Deal characteristics			
Completed	0.9128	0.9012	0.0116*
Acquisition premium	0.0285	0.7251	-0.6966***
CAR	0.0221	0.0107	0.0114**
BHAR	-0.0655	0.0468	-0.1123***
Deal value	381.62	1,424.32	-1,042***
Relative size	0.8017	1.1100	-0.3083
Acquiror/Target characteristics			
Acquiror MV	6,261	544,724	-538,426**
Target MV	1,015.09	2,368.96	-1,353***

3.5. POTENTIAL DATA ISSUES

A shortcoming of the dataset is that the variables used in the regressions are not available for all deals observed. Only the observations with complete records are included in the regressions. Therefore, the missing data may lead to biased results and loss of power of the estimated effects. This is the case when the missing variables are not at random but are missing for reasons related to observable or unobservable values. To test whether the missing values in the dataset are at random a probit model is regressed. In this model a dummy variable is created and set to 1 if one of the variables needed for the regression is missing. If this is the case, this observation will not be included in the regression models. In case all information of the observation is available, the observation is included in the regression model and the dummy variable is equal to 0. This dummy variable is the dependent variable in the probit model. Independent variables are deal characteristics as well as acquiror and target characteristics. The untabulated results show that the size of the acquiror as well as the size of the target company are negative and statistically significant at 1% level. This indicates that deals with larger acquirors and targets have a lower

probability of being dropped out of the regressions. This effect should be considered when interpreting the results, as the missing data reduces the representativeness of the sample and may cause bias in the estimation of the parameters.

Furthermore, for this thesis it is hard to find a causal relation between institutional monitoring and the acquisition returns. One reason for this is the potential omitted variable bias. In the analysis it is unknown whether the presence of institutional monitoring shareholders affects deal performance, or if institutional monitoring shareholders invest in companies with better deal performance. As most theory suggest, institutional investors are expected to have knowledge about monitoring companies and influencing management. With these skills they can increase acquisition returns. However, institutional investors are also expected to excel in investing in well performing companies that can complete value enhancing acquisitions. In that case institutional monitoring is correlated to higher abnormal returns because of the ability of the institutions in investing in strong companies rather than monitoring these companies and influencing management. To control for this effect three governance characteristics are included in the regressions: the board size, a dummy variable for independent boards, and a dummy variable for busy boards. The reason for this is that it is expected that companies with strong governance create on average more abnormal returns with their acquisitions. However, even with these characteristics considered, it is hard to determine whether there is a causal relation between institutional monitoring and acquisition returns. Therefore, this thesis will focus on analyzing a correlation between the two instead of a causality.

Lastly, it must be noted that the OLS regression has seven assumptions that must be satisfied in the analysis. One of these assumptions is homoskedasticity, which is satisfied in case the errors of the regression have a constant variance across all levels of the independent variables. When the error terms of the model differ as the values of the independent variables change, the model is subject to heteroskedasticity. This may have implications on the reliability of the model as it may lead to biased coefficient estimates (Verbeek, 2008). To address heteroskedasticity the White's test is conducted. The test found evidence indicating heteroskedasticity in the models. Therefore, heteroskedasticity should be considered when interpreting the regression results.

4. Results

In this section, the main findings of the statistical analyses are presented. To test whether institutional monitors affect M&A returns for acquiring companies it is tested if their presence influences deal completion and the size of the acquisition price. Furthermore, the effect of institutional monitoring on the acquiror's CAR and BHAR is analyzed. Next, the marginal effect of independent monitoring institutions on the acquisition premium and acquiror abnormal returns is analyzed. The definitions of all variables used in the regressions are described in [Table B.1](#) of Appendix B. Following these results, their implications are discussed, and it is reviewed how these findings relate to results of prior M&A research.

4.1. INSTITUTIONAL MONITORING AND DEAL COMPLETION

First, the relationship between shareholder monitoring and deal completion is examined. [Table 6](#) provides the estimation of four different logit models. In these models the dependent variable is deal completion, which is set to one when a deal is completed and zero otherwise. The main variable of interest differs per model. Model 1 regresses the effect of blockholder ownership in the acquiring firm on deal completion as this is a proxy often used to control for monitoring ownership. Blockholder ownership is defined as the percentage of shares in the acquiring company held by all the blockholders. A blockholder is a shareholder holding a minimum of 5% of the acquiring company's shares. Models 2, 3 and 4 also control for blockholder ownership, but their main variables of interest are respectively the number of institutional monitoring investors in the acquiring firm, the percentage of ownership these monitoring investors hold in the acquiring firm and the proportion of institutional monitors among all shareholders in the acquiring firm. Furthermore, all models use the same control variables as the deal completion model of Fich, et al. (2015) as they estimated a similar regression. Additionally, we have included three control variables for governance characteristics of the acquiror since it is expected that institutional investors take these characteristics into account when investing in a company.

As shown in Model 1 of [Table 6](#), the blockholder ownership variable is negatively and statistically significant correlated to the probability of completing a deal. However, after including the new proxies for institutional monitoring (see Models 2, 3 and 4) the correlation with blockholder ownership does not show any statistically significant relationship. Conversely, the new proxies for institutional monitoring in Models 2 and 3 attain negative and statistically significant coefficients at the 5% level. This suggests that the presence of

institutional investors with monitoring incentives does impact the likelihood of completing a deal whereas the ownership of other blockholders does not. Therefore, it is relevant to distinguish between monitoring and non-monitoring blockholders. An acquiring firm with institutional monitoring investors is less likely to successfully complete an acquisition, suggesting that institutional monitoring shareholders hinder the completion of some deals. For example, when looking at Model 2 of [Table 6](#), it is shown that an increase of one monitoring institution as shareholder in the acquiring firm decreases the odds of completing a deal by approximately 1.6%.

A possible explanation for the significant effect of institutional monitoring and insignificant effect of blockholder ownership is the fact that not all blockholders actively monitor their investments. In case an investment does not represent a significant part of the investor's portfolio, monitoring that investment is not profitable for the investor. However, in case the investment is in the top 10% biggest investments of the institution, the investor is incentivized to monitor the company. Therefore, blockholder ownership is significant in Model 1, but after controlling for institutional monitoring the effect becomes insignificant. Furthermore, the negative correlation suggests that institutional investors prevent managers from making some acquisitions. This can be explained by the fact that managers can make decisions based on personal benefits, as explained by Hietala, et al. (2003) and Malmendier and Tate (2008). Taking these personal benefits into account some of the acquisitions can be value creating for the managers but are harmful for the acquiring shareholders. Institutional shareholders that monitor the acquisitions announced prevent management from making value-destroying acquisitions. As value-destroying deals will not be completed the probability of deal completion decreases. This view is in line with the findings of Chen, et al. (2007) who provide findings supporting the idea that monitoring institutions increase the withdrawal of bad deals.

The estimated coefficients of the other independent variables align with the findings from existing research on M&A. Previous studies by Moschieri and Campa (2014) and Fich, et al. (2015) provide evidence that when a deal receives competing offers during the acquisition process, it is less likely for the acquiror to complete the deal compared to deals in which the acquiror is the only bidder. Likewise, our analyses show a negative and statistically significant coefficient for "challenged deals". Moreover, our research reveals that tender offers and deals approached with a friendly attitude have a higher likelihood of completion compared to deals categorized as non-tender or unfriendly. These findings are in line with the results reported by Fich et al. (2015) and Offenbergh and Pirinsky (2015), who also observe a greater likelihood of deal completion for tender offers compared to other types of bids. The findings regarding

friendly deals are supported by the research of Muehlfeld, et al. (2007), which indicates that these deals are more likely to be successfully completed. Additionally, Huang and Walkling (1987) find a positive correlation between the acquiror's abnormal returns from mergers and the probability of completing the deal. In our analysis, we also find a positive and significant coefficient for the acquiror's CAR, which further supports the notion that deals with higher abnormal returns for the acquiror are more likely to be completed.

Table 6

This table reports the estimation of the logit regression on deal completion probability. The dependent variable is equal to one if the offered bid is completed as defined by Refinitiv Eikon. The key independent variable of interest is blockholder ownership in Model 1, the number of institutional monitoring shareholders in Model 2, the percentage of total ownership of all institutional monitoring shareholders in Model 3, and the proportion of institutional monitoring shareholders among all shareholders in the acquiring company in Model 4. The data sample consists of 2,218 deals announced in the period of June 2009 – December 2019. *Standard errors* are reported in parentheses and clustered at acquiror industry. * denotes statistical significance at the 10%, ** at 5% level, and *** at 1% level.

Deal completed (0,1)	Model 1	Model 2	Model 3	Model 4
Blockholder ownership	-0.0785** (0.0355)	-0.0250 (0.0392)	0.0117 (0.0429)	-0.0701 (0.0605)
Acquiror institutional monitoring proxies				
Number of Monitors		-0.0164*** (0.00486)		
Percent of Monitoring Ownership			-0.234*** (0.0811)	
Proportion of Monitors				-0.613 (0.480)
Deal / Market characteristics				
Defensive Tactics (0,1)	-0.206*** (0.0566)	-0.207*** (0.0566)	-0.198*** (0.0548)	-0.228** (0.0896)
Challenged Deal (0,1)	-0.286*** (0.0556)	-0.287*** (0.0556)	-0.286*** (0.0561)	-0.284*** (0.0782)
Cash only (0,1)	0.0179 (0.0149)	0.0182 (0.0148)	0.0183 (0.0150)	0.0229 (0.0163)
Stock only (0,1)	-0.0259 (0.0228)	-0.0295 (0.0226)	-0.0279 (0.0226)	-0.0358 (0.0459)
Tender Offer (0,1)	0.0887*** (0.0132)	0.0866*** (0.0127)	0.0898*** (0.0130)	0.0876*** (0.0182)
Friendly (0,1)	0.551*** (0.0643)	0.552*** (0.0640)	0.549*** (0.0636)	0.517*** (0.0868)
Same Industry (0,1)	-0.0163 (0.0106)	-0.0173* (0.0103)	-0.0181* (0.0106)	-0.0196 (0.0129)
Relative Size (Target/Acquiror)	-0.00338 (0.00247)	-0.00208 (0.00260)	-0.00218 (0.00267)	-0.00253 (0.00393)
Annual Change in GDP	0.0460 (0.173)	0.0423 (0.174)	0.0603 (0.175)	0.122 (0.206)

Table 6 (continued)

Acquiror / Target characteristics				
Acquiror CAR [-1; +1]	0.0543** (0.0265)	0.0578** (0.0266)	0.0596** (0.0271)	0.0972 (0.0643)
Acquiror Size	-0.0101* (0.00513)	-0.00519 (0.00525)	-0.00576 (0.00510)	-0.0147** (0.00606)
Target in Liquid Industry (0,1)	0.00317 (0.0124)	0.00510 (0.0122)	0.00423 (0.0122)	0.0142 (0.0108)
Governance characteristics acquiror				
Board size	0.000516 (0.00244)	0.000735 (0.00244)	0.000554 (0.00241)	0.00117 (0.00286)
Independent board (0,1)	0.0982 (0.142)	0.0986 (0.142)	0.103 (0.142)	0.159 (0.197)
Busy board (0,1)	0.0110 (0.00795)	0.0106 (0.00791)	0.0110 (0.00786)	0.0102 (0.0100)
Constant	0.372** (0.156)	0.344** (0.155)	0.344** (0.155)	0.374 (0.234)
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	2,218	2,218	2,218	1,798
R-squared	0.195	0.198	0.200	0.158

To test whether monitoring institutions decrease the number of value-destroying deals being completed, the number of “bad” deals completed are compared between acquirors with and without institutional monitoring shareholders. The results of the test are presented in [Table 7](#). The categorization of “bad” deals is based on the acquiror's CAR. According to Paul (2006) bids with large negative stock reactions have a high probability of being a value-destroying and thus are a bad deal. In the analysis bad deals are the deals with acquiror CAR in the bottom 20%. The deals are split into two sub-samples by the monitoring dummy, indicating if the acquiror has one or more institutional monitoring shareholders. It is counted how many of the bad deals have institutional monitoring shareholders and how many deals have not. The proportion is calculated by dividing the number of bad deals with/without monitoring institutions by the total number of deals completed by acquirors in the same subsample. Thereafter, it is tested whether these proportions significantly differ between the two sub-samples.

The results of [Table 7](#) indicate that the presence of institutional monitoring shareholders is correlated with statistically significant fewer bad deals in comparison with deals completed by acquirors without institutional monitors. This result, combined with the statistically significant negative effect of institutional monitoring on deal completion, indicates that the presence of institutional monitors reduces the number of bad acquisitions.

Table 7

This table reports the number of deals with acquiror CAR in the bottom quintile. The deals are split into two sub-samples: (1) deals completed by acquirors without institutional monitoring shareholders, and (2) deals completed by acquirors with at minimum one institutional monitoring shareholder. The proportion of bad deals is calculated by dividing the number of bad deals by the total number of deals completed in the sub-sample. Using a proportion test, it is analyzed whether these proportions statistically differ from each other.

	Number of observations	Proportion of bad deals
(1) Institutional monitoring (0,1) = 0	678	0.214
(2) Institutional monitoring (0,1) = 1	444	0.182
<i>p-value: Dif. in proportion (1) – (2) > 0</i>		0.002

4.2. INSTITUTIONAL MONITORING AND ACQUISITION PREMIUM

If institutional shareholders are incentivized to monitor the acquiring companies that represent a great part of their total investments, it is expected that their presence influences the bid price offered by the acquiring company. Therefore, we analyze the effect of monitoring ownership on the acquisition premium. To do so, four different OLS models are regressed. Monitoring ownership will be measured using the traditional proxy of blockholder ownership as well as the new proxies introduced by Fich, et al. (2015). In Model 1 of [Table 8](#) monitoring ownership is measured using the traditional proxy, namely blockholder ownership. In models 2, 3 and 4, the main independent variables of interest are the number of institutional monitoring shareholders, the share of the acquiring company held by these institutional shareholders and the proportion of institutional monitoring shareholders to all shareholders of the acquiring firm, respectively. The dependent variable in all four models is the four-week acquisition premium as reported by SDC, which has a minimum value of zero. All models include industry and year fixed effects. The industry fixed effects are based on the industry in which the acquiring company operates.

According to the findings presented in [Table 8](#), the coefficient for blockholder ownership is positively correlated to the acquisition premium proposed by the acquiring company at significance level of 1% in Models 1 – 3. Furthermore, two newly introduced proxies for institutional monitoring ownership demonstrate a statistically significant relation with the acquisition premium. Specifically, both the count of institutional monitoring shareholders and the proportion of the acquiring company's shares held by these institutional shareholders exhibit a significant positive correlation with the acquisition premium. The Model

2 estimation reveals that an increase of one monitoring institution as shareholder results in an acquisition premium increase of 4.5 percentage points. This might seem like a small increase but given that the average market value of the targets in our data sample is 1.9 million USD, this increase represents an additional 85.5 thousand USD that acquiring companies will bid on a target.

To better understand the implications of these findings, it is essential to discuss possible explanations. The results suggest that blockholders, including monitoring shareholders, encourage management to bid a higher price on the target company. As shown in [Table 6](#), the presence of monitoring shareholders decreases the probability of deal completion. It is expected that institutional shareholders exert influence on management to prevent them from pursuing value-destroying acquisitions. The deals that are completed are expected to be value creating, which can be an explanation for higher acquisition prices. This view is in line with the findings of Alexandridis, et al. (2013) who observe a positive correlation between the number of outside investors and the acquisition premium, especially for larger deals.

The estimates of the other independent variables are consistent with prior M&A literature on the acquisition premium. Madura, et al. (2012) observe that companies with higher Tobin's Q ratios exhibit higher merger premiums as these firms are better managed. Likewise, in all our models we find a positive and statistically significant correlation between the target's Tobin's Q ratio and the acquisition premium. When looking at the acquiror's Tobin's Q we also observe a statistically significant positive relation with the acquisition premium. This indicates that acquirors who are overvalued on the market are willing to offer a higher takeover premium for target companies. This observation is in line with the results of Cuypers, et al. (2017) who state that the value of an acquisition retrieved by the target is positively influenced by the Tobin's Q of the acquiring party. Furthermore, as in Massa and Xu (2013) our results suggest that acquirors are willing to pay a higher price for companies with higher operating cash flows. The acquisition premium is negatively related to the acquiring company's size (Bargeron, et al., 2008) as well as to the relative size of the target to the acquiring company (Cai and Sevilir, 2012). The acquisition premium declines when the parties operate in the same industry (Li and Halebian, 2022) or when the transaction is solely financed with stock, whereas cash offers report higher acquisition premia (Ayers, et al., 2003).

In [Part 2.4](#) of this thesis, it was hypothesized that institutional monitoring is negatively correlated with the acquisition premium of a M&A deal. Following the results of the takeover premium regression this hypothesis can be rejected.

Table 8

This table reports the estimation of the OLS regression on the acquisition premium. The dependent variable is equal to the price offered by the acquirer company that exceeds the market value of the target divided by the target market value 4 weeks prior to deal announcement. The key independent variable of interest is blockholder ownership in Model 1, the number of institutional monitoring shareholders in Model 2, the percentage of total ownership of all institutional monitoring shareholders in Model 3, and the proportion of institutional monitoring shareholders among all shareholders in the acquiring company in Model 4. The data sample consists of 1,816 deals announced in the period of June 2009 – December 2019. *Standard errors* are reported in parentheses and clustered at year and acquirer industry. * denotes statistical significance at the 10%, ** at 5% level, and *** at 1% level.

Acquisition premium	Model 1	Model 2	Model 3	Model 4
Blockholder ownership	0.752*** (0.0505)	0.581*** (0.0601)	0.661*** (0.0656)	-0.000394 (0.0627)
Acquirer institutional monitoring proxies				
Number of Monitors		0.0455*** (0.00885)		
Percent of Monitoring Ownership			0.219** (0.101)	
Proportion of Monitors				-0.556 (0.691)
Acquirer / Target characteristics				
Target Q	0.000656*** (0.000115)	0.000657*** (0.000115)	0.000658*** (0.000115)	0.000670*** (0.000103)
Target operating cash flow	0.133*** (0.00578)	0.132*** (0.00574)	0.133*** (0.00578)	0.135*** (0.00602)
Acquirer size	-0.106*** (0.00962)	-0.120*** (0.00997)	-0.109*** (0.00977)	-0.160*** (0.00996)
Acquirer Q	0.00633* (0.00339)	0.00715** (0.00337)	0.00660* (0.00339)	0.0145*** (0.00384)
Acquirer leverage	-0.197*** (0.0567)	-0.209*** (0.0563)	-0.200*** (0.0566)	-0.196*** (0.0583)
Acquirer operating cash flow	-0.00609 (0.00609)	-0.00537 (0.00605)	-0.00642 (0.00609)	-0.00486 (0.00602)
Acquirer Prior Year CAR	0.0511** (0.0253)	0.0416* (0.0252)	0.0466* (0.0253)	0.0273 (0.0256)
Deal / Market characteristics				
Relative size (Target / Acquirer)	-0.137*** (0.00762)	-0.140*** (0.00759)	-0.138*** (0.00763)	-0.184*** (0.00806)
Cash only (0,1)	0.0670*** (0.0160)	0.0666*** (0.0159)	0.0667*** (0.0160)	0.0556*** (0.0152)
Stock only (0,1)	-0.223*** (0.0444)	-0.208*** (0.0442)	-0.219*** (0.0444)	-0.237*** (0.0510)
Tender offer (0,1)	-0.343*** (0.0374)	-0.332*** (0.0372)	-0.343*** (0.0373)	-0.481*** (0.0403)
Friendly (0,1)	0.132** (0.0530)	0.130** (0.0526)	0.136** (0.0530)	0.136** (0.0538)
Challenged deal (0,1)	-0.259*** (0.0529)	-0.259*** (0.0525)	-0.262*** (0.0529)	-0.259*** (0.0552)
Defensive tactics (0,1)	-0.219***	-0.210***	-0.225***	-0.116

Table 8 (continued)

Same industry (0,1)	-0.0359** (0.0168)	-0.0322* (0.0167)	-0.0339** (0.0168)	-0.0272* (0.0163)
Merger of equals (0,1)	-0.0660 (0.120)	-0.0610 (0.119)	-0.0617 (0.120)	-0.0430 (0.135)
Target in liquid industry (0,1)	0.0288 (0.0199)	0.0237 (0.0197)	0.0282 (0.0198)	0.0305 (0.0192)
Governance characteristics				
Board size	0.00141 (0.00420)	0.000422 (0.00418)	0.00118 (0.00420)	0.00313 (0.00402)
Independent board (0,1)	-0.158 (0.183)	-0.145 (0.182)	-0.156 (0.183)	-0.119 (0.197)
Busy board (0,1)	0.0137 (0.0163)	0.0158 (0.0161)	0.0140 (0.0162)	0.0124 (0.0157)
Constant	0.407** (0.197)	0.492** (0.196)	0.431** (0.197)	0.928*** (0.215)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,812	1,812	1,812	1,536
R-squared	0.528	0.535	0.529	0.536

4.3. INSTITUTIONAL MONITORING AND SHORT-TERM RETURNS

To examine the influence of shareholder monitoring on the M&A performance of acquiring companies, the relation between institutional monitoring and acquiring firm stock price change is analyzed. To assess this impact, an OLS regression analysis is employed, with the acquiror's three-day CAR surrounding the deal announcement serving as the dependent variable. The main independent variable of interest is institutional monitoring, while control variables are included to account for acquiror and target characteristics, deal and market characteristics, as well as acquiring firm governance characteristics. A comprehensive description of all variables can be found in [Table B.1](#) of Appendix B.

To conduct the analysis, four different OLS models are regressed. While the dependent variable and control variables remain consistent across all models, the key independent variable of interest differs. Model 1 employs the traditional proxy for shareholder monitoring, namely blockholder ownership. In Models 2, 3, and 4, alternative proxies for institutional monitoring are utilized, being the number of institutional monitoring investors within the acquiring company, the collective ownership percentage held by these monitoring institutions, and the

proportion of monitoring institutions relative to all shareholders of the acquiring company, respectively.

The results of the regressions are shown in [Table 9](#). The estimated coefficients for blockholder ownership are negative and statistically significant in all four models. This indicates that the presence of blockholders decreases the short-term acquisition returns for the acquiring company. Controversy, the proxies for institutional monitoring in Models 2 – 4 are positive and statistically significant, indicating that monitoring institutions positively affect the acquiror's short-term acquisition returns. The estimated coefficient for the monitoring proxy of Model 2 indicates that an increase of one institutional monitoring shareholder in the acquiring company increases the firm's CAR on average with approximately 7.1 thousand USD. These findings are in line with the results of Cornett, et al. (2007) who concluded that having institutional shareholders on board increases the acquiror's operating performance. Because of the contradicting results of the effect of blockholder ownership and institutional monitoring, it is important to distinguish between blockholders and institutional investors with monitoring incentives when analyzing the effect of institutional monitoring on acquisition returns.

The positive and statistically significant effect of institutional monitoring on short-term acquiror returns can be explained by the fact that institutional investors are able to objectively assess whether an acquisition is value enhancing for the company. They use their power to prevent value-destroying acquisitions or to accept attractive acquisition opportunities. Because of these actions, the completed acquisitions have a higher probability to increase firm value and generate higher returns. This is translated in higher CAR for the acquiring company. However, it is also predicted in Models 2 – 4 that other blockholders negatively impact the abnormal returns. This can be explained by the fact an increase in blockholder ownership decreases the ownership of management. Management may therefore be less incentivized to make decisions in favor of firm value and instead prioritize personal benefits (Jensen and Meckling, 1976).

Together with the findings in the acquisition premium regression reported in [Table 8](#), the results of the acquiror short-term returns indicate that institutional monitoring investors incentivize management to pay a higher premium and in return complete acquisitions that generate positive returns for the acquiror.

The estimates for the control variables of the CAR regression agree with M&A literature on acquiror CAR. Moeller, et al. (2005) provide evidence that the size of the acquiring party is negatively correlated with the CAR of the acquiror. They even state that on average larger acquirors make M&As that generate value destroying synergies. Additionally, the short-term acquisition returns are positively correlated with the level of leverage of the acquiror. The

findings of Harrison, et al. (2014) indicate that the market observes a positive relation between the level of acquiror's use of leverage and the returns of an acquisition, resulting in a positive correlation between acquiror leverage and the abnormal returns, as we observe in our findings.

Table 9

This table reports the estimation of the OLS regression on the acquiror's cumulative abnormal return over the three-day period surrounding the announcement date. The dependent variable is equal to the market value of the acquiring company that exceeds the estimated market value cumulated over a period of three days surrounding the deal announcement. The key independent variable of interest is blockholder ownership in Model 1, the number of institutional monitoring shareholders in Model 2, the percentage of total ownership of all institutional monitoring shareholders in Model 3, and the proportion of institutional monitoring shareholders among all shareholders in the acquiring company in Model 4. The data sample consists of 1,816 deals announced in the period of June 2009 – December 2019. *Standard errors* are reported in parentheses and clustered at year and acquiror industry. * denotes statistical significance at the 10%, ** at 5% level, and *** at 1% level.

Acquiror CAR (-1;1)	Model 1	Model 2	Model 3	Model 4
Blockholder ownership	-0.0572** (0.0237)	-0.0839*** (0.0284)	-0.103*** (0.0307)	-0.0461* (0.0247)
Acquiror institutional monitoring proxies				
Number of Monitors		0.00711* (0.00417)		
Percent of Monitoring Ownership			0.110** (0.0471)	
Proportion of Monitors				0.942*** (0.272)
Target characteristics				
Target Q	2.8 ² e-05 (5.4 ¹ e-05)	2.8 ³ e-05 (5.4 ⁰ e-05)	2.9 ⁶ e-05 (5.4 ⁰ e-05)	2.9 ³ e-06 (4.0 ⁶ e-05)
Target operating cash flow	0.00697** (0.00271)	0.00679** (0.00271)	0.00681** (0.00271)	0.00232 (0.00237)
Acquiror characteristics				
Acquiror size	-0.0157*** (0.00451)	-0.0180*** (0.00470)	-0.0176*** (0.00458)	-0.00613 (0.00392)
Acquiror Q	0.00180 (0.00159)	0.00192 (0.00159)	0.00193 (0.00159)	0.000784 (0.00151)
Acquiror leverage	0.0800*** (0.0265)	0.0781*** (0.0266)	0.0787*** (0.0265)	-0.00496 (0.0230)
Acquiror operating cash flow	-0.00372 (0.00285)	-0.00361 (0.00285)	-0.00389 (0.00285)	-0.00579** (0.00237)
Acquiror Prior Year CAR	0.00768 (0.0118)	0.00619 (0.0119)	0.00541 (0.0119)	-0.00498 (0.0101)
Deal / Market characteristics				
Relative size (Target / Acquiror)	-0.00403 (0.00357)	-0.00446 (0.00358)	-0.00448 (0.00357)	0.000796 (0.00318)
Cash only (0,1)	-0.00851 (0.00748)	-0.00857 (0.00748)	-0.00865 (0.00747)	-0.00230 (0.00601)
Stock only (0,1)	-0.0279 (0.0208)	-0.0256 (0.0208)	-0.0263 (0.0208)	-0.0290 (0.0201)

Table 9 (continued)

Tender offer (0,1)	-0.00497 (0.0175)	-0.00325 (0.0175)	-0.00512 (0.0175)	-0.00411 (0.0159)
Friendly (0,1)	-0.000879 (0.0248)	-0.00121 (0.0248)	0.000912 (0.0248)	-0.0164 (0.0212)
Challenged deal (0,1)	0.0126 (0.0248)	0.0126 (0.0248)	0.0115 (0.0247)	0.00875 (0.0217)
Defensive tactics (0,1)	0.0179 (0.0339)	0.0194 (0.0339)	0.0150 (0.0339)	0.0220 (0.0311)
Same industry (0,1)	-0.00247 (0.00786)	-0.00189 (0.00786)	-0.00144 (0.00786)	-0.000187 (0.00642)
Merger of equals (0,1)	0.0273 (0.0561)	0.0281 (0.0561)	0.0294 (0.0560)	0.0450 (0.0532)
Target in liquid industry (0,1)	-0.00511 (0.00930)	-0.00591 (0.00930)	-0.00538 (0.00929)	-0.00895 (0.00756)
Governance characteristics				
Board size	0.00178 (0.00197)	0.00163 (0.00197)	0.00167 (0.00197)	0.00283* (0.00159)
Independent board (0,1)	0.00682 (0.0858)	0.00887 (0.0857)	0.00768 (0.0857)	0.00155 (0.0778)
Busy board (0,1)	-0.00884 (0.00761)	-0.00851 (0.00761)	-0.00869 (0.00761)	-0.00908 (0.00619)
Constant	0.111 (0.0921)	0.125 (0.0923)	0.123 (0.0921)	0.0943 (0.0847)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,812	1,812	1,812	1,536
R-squared	0.108	0.110	0.111	0.115

4.4. INSTITUTIONAL MONITORING AND LONG-TERM RETURNS

Following the examination of the impact of institutional monitoring on the acquiring firm's CAR, the analysis extends to investigate whether institutional monitoring influences the acquiring company's long-term abnormal returns. To assess this impact, a regression analysis is conducted, with the acquiror's three-year BHAR serving as the dependent variable. BHAR quantifies the abnormal returns accumulated by the acquiring company over a three-year holding period following the announcement of the merger or acquisition.

The regression analysis employs the same four models as the CAR regression, ensuring consistency in the analysis framework. As reported in [Table 10](#) Model 1, blockholder ownership has no significant effect on the BHAR of the acquiring company. However, the estimated coefficients for the three new proxies of institutional monitoring demonstrate a positive correlation with the acquiror's BHAR. These effects are statistically significant at 1% level in Model 3 and 4, and statistically significant at 10% level in Model 2. These findings indicate

that institutional investors with monitoring incentives positively affect the long-term abnormal returns of an acquisition generated by the acquiring party. For example, the coefficient of the institutional monitoring proxy in Model 3 predicts that an increase of monitoring ownership of 1% in the acquiring company increases the firm's three-year BHAR on average with approximately 0.7 million USD.

The positive correlation between institutional monitoring ownership and the acquiror's long-term abnormal returns can be explained by the fact that most institutional investors are long-term oriented. They are motivated to prevent value-destroying acquisitions, as this would lead to a decrease in the returns of their investment. Likewise, they are incentivized to promote value creating deals, as the positive returns of these acquisitions increase the value of their investment (Schnatterly et al., 2008). Their presence therefore influences management to not complete value destroying deals but to acquire target companies that will generate positive long-term returns. Other blockholders on the other hand are not incentivized to monitor the company. Therefore, they might not deem an investment as value-destroying, and even if they do, it is not profitable for them to act on it.

The estimates for the control variables of the BHAR regression agree with M&A literature on acquiror long-term abnormal returns. We observe that the BHAR of the acquiror is higher for fully-cash transactions. This is in line with the findings of Heron and Lie (2002) who reported higher announcement and post-acquisition returns for cash acquisitions compared to stock deals. Additionally, the Tobin's Q of the acquiror is positively related to the long-term abnormal returns, indicating that an overvalued acquiror generates on average higher abnormal returns, which is in line with the findings of Faccio, et al. (2006). They state that companies with higher Q ratios perform on average better and complete acquisition with higher returns. Abnormal returns are on average also higher for mergers of equals as found by Wulf (2004). She observes that bidder returns are higher in transactions where acquiror and target are categorized as equal. In contrast, we observe that the acquiror's three-year BHAR are negatively influenced by the size of the acquiror. This issue has been analyzed by MMS (2004) who report significantly lower abnormal returns for larger acquirors regardless of the type of target.

In [Part 2.4](#) of this thesis, it was hypothesized that institutional monitoring is positively correlated with the acquiror's abnormal returns surrounding the announcement of a M&A deal. Following the results of the CAR regression and BHAR regression this hypothesis cannot be rejected.

Table 10

This table reports the estimation of the OLS regression on the acquiror's three-year buy-and-hold abnormal returns. The dependent variable is equal to the difference between the acquiring company's buy-and-hold returns and the returns of other portfolios matched based on their characteristics. The abnormal returns are cumulated over a time window of 3 years. The key independent variable of interest is blockholder ownership in Model 1, the number of institutional monitoring shareholders in Model 2, the percentage of total ownership of all institutional monitoring shareholders in Model 3, and the proportion of institutional monitoring shareholders among all shareholders in the acquiring company in Model 4. The data sample consists of 1,744 deals announced in the period of June 2009 – December 2019. *Standard errors* are reported in parentheses and clustered at year and acquiror industry. * denotes statistical significance at the 10%, ** at 5% level, and *** at 1% level.

Acquiror 3-year BHAR	Model 1	Model 2	Model 3	Model 4
Blockholder ownership	-0.0330 (0.112)	-0.157 (0.133)	-0.307** (0.145)	0.0376 (0.147)
Acquiror institutional monitoring proxies				
Number of Monitors		0.0330* (0.0194)		
Percent of Monitoring Ownership			0.652*** (0.219)	
Proportion of Monitors				4.954*** (1.589)
Target characteristics				
Target Q	-9.14e-05 (0.000250)	-8.83e-05 (0.000250)	-7.81e-05 (0.000249)	-4.99e-05 (0.000237)
Target operating cash flow	0.0123	0.0115	0.0114	0.0116
Acquiror characteristics				
Acquiror size	-0.0355* (0.0211)	-0.0463** (0.0221)	-0.0474** (0.0215)	-0.00892 (0.0231)
Acquiror Q	0.0134* (0.00731)	0.0139* (0.00731)	0.0141* (0.00730)	0.00488 (0.00881)
Acquiror leverage	0.219* (0.126)	0.210* (0.127)	0.209* (0.126)	0.303** (0.138)
Acquiror operating cash flow	0.0132 (0.0135)	0.0138 (0.0135)	0.0124 (0.0134)	0.0133 (0.0140)
Acquiror Prior Year CAR	0.0549 (0.0556)	0.0483 (0.0557)	0.0420 (0.0556)	0.0503 (0.0602)
Deal / Market characteristics				
Relative size (Target / Acquiror)	-0.0196 (0.0167)	-0.0217 (0.0167)	-0.0224 (0.0167)	0.00496 (0.0187)
Cash only (0,1)	0.0870** (0.0350)	0.0865** (0.0350)	0.0857** (0.0349)	0.0808** (0.0354)
Stock only (0,1)	-0.00468 (0.0986)	0.00492 (0.0987)	0.00322 (0.0984)	-0.0897 (0.120)
Tender offer (0,1)	0.0782 (0.0812)	0.0862 (0.0813)	0.0773 (0.0810)	0.0698 (0.0928)
Friendly (0,1)	-0.107 (0.119)	-0.107 (0.119)	-0.0940 (0.119)	-0.0371 (0.127)
Challenged deal (0,1)	0.0975 (0.116)	0.0992 (0.116)	0.0920 (0.116)	0.123 (0.130)
Defensive tactics (0,1)	0.181 (0.162)	0.188 (0.162)	0.164 (0.162)	0.161 (0.181)

Table 10 (continued)

Same industry (0,1)	0.0138 (0.0367)	0.0166 (0.0367)	0.0199 (0.0367)	0.00497 (0.0377)
Merger of equals (0,1)	0.490* (0.258)	0.494* (0.258)	0.503* (0.258)	0.567* (0.310)
Target in liquid industry (0,1)	0.00683 (0.0434)	0.00302 (0.0434)	0.00517 (0.0433)	0.00770 (0.0445)
Governance characteristics				
Board size	0.00421 (0.00928)	0.00356 (0.00928)	0.00372 (0.00926)	0.00501 (0.00944)
Independent board (0,1)	0.0404 (0.393)	0.0488 (0.393)	0.0433 (0.392)	0.334 (0.450)
Busy board (0,1)	-0.0461 (0.0356)	-0.0450 (0.0356)	-0.0455 (0.0355)	-0.0650* (0.0366)
Constant	0.113 (0.424)	0.175 (0.425)	0.186 (0.424)	-0.458 (0.492)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,740	1,740	1,740	1,481
R-squared	0.124	0.125	0.128	0.158

4.5. ADDITIONAL ANALYSIS: INSTITUTIONAL INDEPENDENCY

As pointed out by Brickley, Lease and Smith (1988), not all institutional investors actively act on influencing management of their portfolio companies. They emphasized that certain institutions may choose not to interfere with management due to their involvement in other business relationships with the portfolio company, beyond their role as institutional shareholder. An example of such a situation is an insurance company that acts as institutional investor of one of its client firms. The insurance company would want the company to make as high returns as possible. However, at the same time the insurance company wants to remain a good relationship with the firm as it is one of its clients. It may therefore choose not to interfere with management (Andreani and Neuberger, 2006). Brickley et al. (1988) categorize insurance companies, banks, and non-bank trust as dependent institutional investors, as these institutions have a higher probability of becoming subject to the influence of the portfolio investments management. Other institutional investors are classified as independent. Based on this theory, the acquisition premium regression of [Part 4.2](#) will be expanded using a specification for independent institutional monitoring shareholders.

To assess the potential effect of the dependency of institutional investors on the management of their portfolio firms, the following regression will be estimated:

Acquisition premium

$$\begin{aligned} &= \alpha + \beta_1 * \text{Institutional monitoring proxy} + \beta_2 \\ &* \text{Independent institution (0,1)} + \beta_3 * \text{Institutional monitoring proxy} \\ &* \text{Independent institution (0,1)} + \beta_n * \text{Other control variables}_n + \varepsilon_i \end{aligned}$$

In this regression the dummy variable for independent institution is equal to 1 if at least one of the institutional monitoring shareholders is an independent institution. In case the acquiror has no independent institutional monitoring shareholders the dummy variable is set to 0. For the independency categorization the definition of Brickley et al. (1988) is used.

[Table 11](#) reports the results of acquisition premium regression after including the institution independency variable. As in [Table 8](#), institutional monitoring is positively correlated to the takeover premium in Models 1 – 3. However, the estimated coefficient of the interaction term is negative and statistically significant. The combined effect of these variables suggests that the presence of institutional monitors indeed increases the acquisition premium, but when the institution is categorized as independent the growth of the premium decelerates. This indicates that the effect of monitoring shareholders on the acquisition premium declines when at least one of the institutional shareholders is independent.

The negative correlation between the interaction term and the acquisition premium can be explained by the fact that independent institutions are more likely to put pressure on management. They can push management to negotiate on the acquisition terms with the target company. Like other monitoring investors these independent institutions want the company to complete value-creating acquisitions. The premium increases the probability of deal completion but decreases the acquisition returns. Therefore, shareholders want to lower the acquisition premium as much as possible while still completing the deal. Dependent institutions might not want to push management as much while independent institutions are willing to influence management as much to make sure the value-creating deal gets completed and still offer the lowest possible acquisition premium. This view is in line with the findings of Fich, et al (2015) who find the opposite effect for independent institutions of target companies. In their report the presence of monitoring institutions in the target company increases the acquisition premium. After controlling for independent institutions, they observe that the effect of monitoring institutions becomes stronger in case one of the investors is independent. For acquiring shareholders, the opposite effect is expected as these shareholders want to decrease the acquisition premium.

Table 11

This table reports the estimation of the OLS regression on the acquisition premium. The dependent variable is equal to the price offered by the acquirer company that exceeds the market value of the target divided by the target market value 4 weeks prior to deal announcement. The key independent variable of interest is blockholder ownership in Model 1, the number of institutional monitoring shareholders in Model 2, the percentage of total ownership of all institutional monitoring shareholders in Model 3, and the proportion of institutional monitoring shareholders among all shareholders in the acquiring company in Model 4. Furthermore, an interaction term between the dummy variable for independent institution and the key independent variable of interest is added to each model. The dummy variable for independent institution is equal to one if at least one of the institutional monitoring shareholders is categorized as independent following the definition of Chen, et al. (2007). The data sample consists of 1,816 deals announced in the period of June 2009 – December 2019. *Standard errors* are reported in parentheses and clustered at year and acquirer industry. * denotes statistical significance at the 10%, ** at 5% level, and *** at 1% level.

Acquisition premium	Model 1	Model 2	Model 3	Model 4
Institutional blockholder ownership	1.201*** (0.129)	0.0981 (0.0655)	0.0851 (0.0724)	0.000656 (0.0629)
Interaction term	-1.163*** (0.144)			
Institutional monitoring proxies				
Number of Monitors		0.267*** (0.0374)		
Interaction term		-0.259*** (0.0372)		
Percent of Monitoring Ownership			2.460*** (0.366)	
Interaction term			-2.441*** (0.358)	
Proportion of Monitors				-1.827 (14.33)
Interaction term				1.172 (14.29)
Independent institution (0,1)	0.464*** (0.0284)	0.430*** (0.0288)	0.432*** (0.0278)	0.0653 (0.0772)
Acquirer / Target characteristics				
Target Q	0.000574*** (0.000108)	0.000581*** (0.000108)	0.000578*** (0.000108)	0.000669*** (0.000103)
Target operating cash flow	0.115*** (0.00550)	0.116*** (0.00551)	0.116*** (0.00553)	0.135*** (0.00602)
Acquirer size	-0.125*** (0.00904)	-0.129*** (0.00941)	-0.125*** (0.00921)	-0.161*** (0.00996)
Acquirer Q	0.00748** (0.00316)	0.00792** (0.00317)	0.00744** (0.00318)	0.0144*** (0.00384)
Acquirer leverage	-0.183*** (0.0528)	-0.179*** (0.0531)	-0.197*** (0.0531)	-0.195*** (0.0583)
Acquirer operating cash flow	-0.00520 (0.00568)	-0.00476 (0.00570)	-0.00578 (0.00571)	-0.00458 (0.00602)
Acquirer Prior Year CAR	0.0268 (0.0236)	0.0266 (0.0237)	0.0274 (0.0238)	0.0280 (0.0257)

Table 11 (continued)

Deal / Market characteristics				
Relative size (Target / Acquiror)	-0.139*** (0.00710)	-0.141*** (0.00715)	-0.138*** (0.00715)	-0.184*** (0.00807)
Cash only (0,1)	0.0611*** (0.0149)	0.0577*** (0.0149)	0.0599*** (0.0150)	0.0551*** (0.0152)
Stock only (0,1)	-0.172*** (0.0415)	-0.169*** (0.0417)	-0.179*** (0.0417)	-0.239*** (0.0510)
Tender offer (0,1)	-0.321*** (0.0348)	-0.317*** (0.0350)	-0.322*** (0.0350)	-0.483*** (0.0403)
Friendly (0,1)	0.121** (0.0494)	0.123** (0.0496)	0.125** (0.0497)	0.139*** (0.0538)
Challenged deal (0,1)	-0.256*** (0.0492)	-0.254*** (0.0495)	-0.259*** (0.0495)	-0.260*** (0.0552)
Defensive tactics (0,1)	-0.114* (0.0678)	-0.126* (0.0680)	-0.120* (0.0682)	-0.116 (0.0788)
Same industry (0,1)	-0.0324** (0.0156)	-0.0331** (0.0157)	-0.0352** (0.0157)	-0.0280* (0.0163)
Merger of equals (0,1)	-0.0684 (0.112)	-0.0797 (0.112)	-0.0655 (0.112)	-0.0474 (0.135)
Target in liquid industry (0,1)	0.0409** (0.0185)	0.0356* (0.0186)	0.0379** (0.0186)	0.0301 (0.0192)
Governance characteristics				
Board size	0.00113 (0.00392)	0.000392 (0.00393)	0.00122 (0.00394)	0.00299 (0.00403)
Independent board (0,1)	-0.0940 (0.171)	-0.0966 (0.171)	-0.0994 (0.171)	-0.119 (0.197)
Busy board (0,1)	0.0186 (0.0151)	0.0173 (0.0152)	0.0210 (0.0152)	0.0128 (0.0157)
Constant	0.397** (0.181)	0.421** (0.182)	0.418** (0.182)	0.907*** (0.226)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,816	1,816	1,816	1,540
R-squared	0.588	0.585	0.584	0.529

Chen, et al. (2007) hypothesize that independent institutions monitor their investments to a stronger extent compared to institutions that have an additional involvement in other business relations with the portfolio company. This monitoring effect goes beyond the influence of the takeover premium. Chen, et al. (2007) state that independent institutions increase the monitoring effect on the acquisition returns. However, in their analysis they focus on the monitoring effect of target companies.

To test if this marginal effect also holds for the independent institutional shareholders of the acquiring companies the acquiror CAR regression of [Part 4.3](#) is expanded using the same

specification for independent institutional monitoring shareholders as in the additional analysis of the acquisition premium. The following regression will be estimated:

$$\begin{aligned} \text{Acquiror CAR } (-1; +1) & \\ &= \alpha + \beta_1 * \text{Institutional monitoring proxy} + \beta_2 \\ &* \text{Independent institution } (0,1) + \beta_3 * \text{Institutional monitoring proxy} \\ &* \text{Independent institution } (0,1) + \beta_n * \text{Other control variables}_n + \varepsilon_i \end{aligned}$$

[Table 12](#) reports the results of the performed OLS regression. The dependent variable in all four models is the acquiror's three-day CAR surrounding the deal announcement date. The regression is similar to the analysis on acquiror CAR reported in [Table 9](#), except this regression includes the dummy variable for independent institution as well as the interaction term of the dummy variable with the proxy for institutional monitoring.

When comparing the results of the two regressions it is notable that the estimated coefficients of the institutional monitoring proxies become insignificant. Furthermore, in none of the models the interaction term shows any statistically significant relation to the acquiror's CAR. Therefore, it cannot be concluded that independent institutions have a marginal effect on the acquiror's short-term abnormal returns. This finding is in line with the findings of Chen, et al (2007) as they find no additional monitoring effect of independent institutions on the target's CAR.

Table 12

This table reports the estimation of the OLS regression on the acquiror's cumulative abnormal return over the three-day period surrounding the announcement date. The dependent variable is equal to the market value of the acquiring company that exceeds the estimated market value cumulated over a period of three days surrounding the deal announcement. The key independent variable of interest is blockholder ownership in Model 1, the number of institutional monitoring shareholders in Model 2, the percentage of total ownership of all institutional monitoring shareholders in Model 3, and the proportion of institutional monitoring shareholders among all shareholders in the acquiring company in Model 4. Furthermore, an interaction term between the dummy variable for independent institution and the key independent variable of interest is added to each model. The dummy variable for independent institution is equal to one if at least one of the institutional monitoring shareholders is categorized as independent following the definition of Chen, et al. (2007). The data sample consists of 1,816 deals announced in the period of June 2009 – December 2019. *Standard errors* are reported in parentheses and clustered at year and acquiror industry. * denotes statistical significance at the 10%, ** at 5% level, and *** at 1% level.

Acquiror CAR	Model 1	Model 2	Model 3	Model 4
Institutional blockholder ownership	-0.0815 (0.0647)	-0.0789** (0.0328)	-0.0935*** (0.0362)	-0.0467* (0.0248)
Interaction term	0.0246 (0.0726)			
Institutional monitoring proxies				
Number of Monitors		0.00322 (0.0187)		
Interaction term		0.00423 (0.0186)		
Percent of Monitoring Ownership			-0.0196 (0.183)	
Interaction term			0.131 (0.179)	
Proportion of Monitors				2.600 (5.654)
Interaction term				-1.654 (5.639)
Independent institution (0,1)	0.000666 (0.0143)	-0.00423 (0.0144)	-0.00530 (0.0139)	0.00747 (0.0305)
Acquiror / Target characteristics				
Target Q	2.80 ^{e-05} (5.41 ^{e-05})	2.91 ^{e-05} (5.41 ^{e-05})	3.06 ^{e-05} (5.41 ^{e-05})	3.04 ^{e-06} (4.06 ^{e-05})
Target operating cash flow	0.00694** (0.00277)	0.00695** (0.00276)	0.00703** (0.00276)	0.00234 (0.00238)
Acquiror size	-0.0158*** (0.00455)	-0.0179*** (0.00471)	-0.0175*** (0.00461)	-0.00609 (0.00393)
Acquiror Q	0.00180 (0.00159)	0.00191 (0.00159)	0.00193 (0.00159)	0.000771 (0.00151)
Acquiror leverage	0.0803*** (0.0266)	0.0779*** (0.0266)	0.0797*** (0.0266)	-0.00480 (0.0230)
Acquiror operating cash flow	-0.00368 (0.00286)	-0.00361 (0.00286)	-0.00381 (0.00286)	-0.00580** (0.00238)
Acquiror Prior Year CAR	0.00765 (0.0119)	0.00634 (0.0119)	0.00569 (0.0119)	-0.00519 (0.0101)

Table 12 (continued)

Deal / Market characteristics				
Relative size (Target / Acquiror)	-0.00405 (0.00357)	-0.00444 (0.00358)	-0.00454 (0.00357)	0.000748 (0.00318)
Cash only (0,1)	-0.00860 (0.00749)	-0.00847 (0.00749)	-0.00863 (0.00748)	-0.00227 (0.00601)
Stock only (0,1)	-0.0280 (0.0209)	-0.0261 (0.0209)	-0.0270 (0.0208)	-0.0289 (0.0201)
Tender offer (0,1)	-0.00503 (0.0175)	-0.00345 (0.0175)	-0.00557 (0.0175)	-0.00413 (0.0159)
Friendly (0,1)	-0.000596 (0.0249)	-0.00107 (0.0248)	0.00145 (0.0248)	-0.0164 (0.0212)
Challenged deal (0,1)	0.0125 (0.0248)	0.0125 (0.0248)	0.0114 (0.0248)	0.00875 (0.0218)
Defensive tactics (0,1)	0.0179 (0.0341)	0.0185 (0.0341)	0.0132 (0.0341)	0.0222 (0.0311)
Same industry (0,1)	-0.00253 (0.00787)	-0.00190 (0.00787)	-0.00143 (0.00786)	-0.000135 (0.00643)
Merger of equals (0,1)	0.0270 (0.0561)	0.0283 (0.0561)	0.0289 (0.0561)	0.0453 (0.0533)
Target in liquid industry (0,1)	-0.00521 (0.00931)	-0.00603 (0.00932)	-0.00561 (0.00930)	-0.00891 (0.00757)
Governance characteristics				
Board size	0.00175 (0.00197)	0.00162 (0.00197)	0.00162 (0.00197)	0.00285* (0.00159)
Independent board (0,1)	0.00685 (0.0859)	0.00837 (0.0858)	0.00691 (0.0857)	0.00170 (0.0778)
Busy board (0,1)	-0.00884 (0.00762)	-0.00852 (0.00762)	-0.00890 (0.00761)	-0.00910 (0.00620)
Constant	0.112 (0.0921)	0.126 (0.0924)	0.124 (0.0921)	0.0862 (0.0905)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,812	1,812	1,812	1,536
R-squared	0.108	0.110	0.111	0.115

Additionally, it is tested if independent institutions have a marginal effect on the acquiror's long-term abnormal returns. In line with the additional analysis on acquiror CAR, the marginal effect is tested by including the dummy variable of independent institution in the BHAR model. The untabulated results demonstrate a similar effect as the effect on the acquiror's CAR. The effect of the interaction term is insignificant in all models as is the coefficient of the key independent variable. It can therefore not be concluded that independent institutional shareholders have a marginal effect on the long-term abnormal returns of an acquiror.

5. Summary and conclusion

The aim of this master thesis is to answer the question how institutional investors affect firm performance of acquiring companies when monitoring their portfolio companies. Firm performance is measured as abnormal stock returns on acquisition announcements in both short-term and long-term. The M&A performance of acquiring companies is analyzed because prior research has shown that strategic expansion via acquisitions is on average not value creating for the acquiring party (Cybo-Ottone and Murgia, 2000; Houston and Ryngaert, 2001; Beitel, Schiereck and Wahrenburg, 2004). This can be explained by the agency conflict; misalignment between management and shareholders (Jensen and Meckling, 1976). According to Shleifer and Vishny (1986), the presence of large institutional shareholders can solve the misalignment issue if the shareholders hold a significant stake in the company. These institutional shareholders can monitor management, to ensure management is acting in best interest of the firm and its shareholders. However, results of this model are contradictory (Demsetz and Villalonga, 2001; Appel, et al., 2016; Schmidt and Fahlenbrach, 2017).

Fich, et al. (2015) came up with a theory stating that prior literature uses incorrect proxies to measure monitoring incentives of institutional shareholders, which can be an explanation for the contradictory results. Unlike previous papers, which use the portion of the firm's total shares owned by the institutions as a proxy, they measure monitoring incentives by taking the size of the investment relative to the institution's total portfolio size. An institution is defined as monitoring investor if the investment is in the top 10% biggest investments of the institution's portfolio. Their explanation for this is that institutions are more likely to monitor investments that represent a greater part of their portfolio. They created three new proxies for institutional monitoring: the number of institutional monitors, the percentage shares owned by these institutions and the proportion of monitoring institutions relative to all shareholders of the acquiring company. Using these new proxies, they find significant results demonstrating that institutional monitoring positively influences M&A returns for target companies. However, these proxies have not yet been tested on the returns of acquiring parties. This thesis does exactly that.

We hypothesize that the presence of institutional investors with monitoring incentives improve the acquiror's M&A performance by decreasing the acquisition premium and increasing the abnormal returns generated by the acquiring party. These hypotheses are tested by statistical analyses, which are repeated four times. For each analysis, the first model uses the traditional proxy for institutional monitoring: blockholder ownership. The other three models use the three new proxies for institutional monitoring as proposed by Fich, et al. (2015).

The results show a statistically significant negative correlation between the new proxies for institutional monitoring and the probability of deal completion, indicating that acquiring companies with institutional shareholders that are incentivized to monitor the acquiror are less likely to complete a deal. Furthermore, we observe a statistically significantly positive correlation between institutional monitoring and the acquisition premium. Therefore, the hypothesis stating that monitoring by institutional investors is negatively correlated to the acquisition premium offered by acquirors can be rejected. The results provide evidence that the acquisition premium paid by an acquiror is on average higher if the acquiror has institutional monitoring shareholders. The joint effect of deal completion and acquisition premium can be explained by the fact that institutional shareholders use their monitoring power to accept value creating acquisitions but withhold management from making value destroying M&A deals. To make sure the acquiring company completes the value enhancing deals, the company is willing to pay a higher premium for the acquisitions that get accepted. Therefore, the probability of deal completion is lower and the acquisition premium is higher in the presence of institutional monitoring shareholders.

Thereafter, it is tested if the acquisitions made generate higher abnormal returns in comparison with deals completed by acquirors without institutional monitoring shareholders. The value created is measured in acquiror CAR over a time window of three days surrounding the deal announcement, as well as acquiror three-year BHAR. The CAR analysis shows that the presence of blockholders decreases the short-term acquisition returns for acquiring companies. However, the new proxies for institutional monitoring, as proposed by Fich, et al. (2015) report a statistically significant and positive coefficient, indicating that monitoring institutions positively affect the acquiror's short-term acquisition returns. Following the principles of shareholder monitoring as discussed by Brickely, et al. (1988) and Shleifer and Vishny (1986), the influence exerted by monitoring institutions incentivizes managers to pursue only the most value-creating deals. Consequently, the presence of monitoring institutions results in higher abnormal returns for the acquiring party. The findings are also in line with the results of Fich, et al. (2015) who report that monitoring of the target company increases the target's abnormal returns.

When analyzing the effect of monitoring on the acquiror's long-term abnormal returns we also observe a statistically significant positive effect of monitoring ownership on the acquiror's three-year BHAR. This effect suggests that monitoring by institutional investors increases the long-term abnormal returns of the acquiror. The effect of blockholder ownership on the other hand is insignificant indicating that other blockholder do not affect the acquiror's

long-term abnormal returns. The hypothesis stating that monitoring by institutional investors is positively correlated to the abnormal returns of an acquisition cannot be rejected.

Brickley, et al. (1988) point out that not all institutional investors actively monitor their portfolio companies. They emphasize that insurance companies, banks and non-bank trusts are dependent institutional investors and may choose not to interfere with management. Therefore, their monitoring incentives are lower than the incentives of independent institutions. Following the independency categorization of Brickley, et al. (1988), we split institutional investors into dependent or independent institutions to test if the monitoring effect of independent institutions is stronger in comparison with that of dependent institutions. After including an interaction term of institution independency and institutional monitoring proxy in our acquisition premium analysis we observe a statistically significant positive effect of institutional monitoring on the acquisition premium, and a statistically significant negative effect for the interaction term. This combined effect indicates that institutional monitoring investors increase the acquisition premium, but in case one of the institutional monitoring investors is an independent institution, the growth of the premium decelerates. Therefore, the marginal effect of monitoring institutions on the acquisition premium decreases when at least one of the institutions is independent.

Following these results, the CAR regression and BHAR regression are expanded with the independent institution information to analyze whether independent institutions have a marginal effect on the acquisition returns of the acquirer. To test this the dummy variable for independent institution as well as its interaction term with the institutional monitoring proxy are included in the acquirer CAR and BHAR analyses. The results show no significant effects of institutional monitoring on the acquirer's abnormal stock returns nor does the interaction term in any of the models. Therefore, it cannot be concluded that independent institutions have a marginal effect on the acquirer's short-term or long-term abnormal returns.

To conclude, the results of the analyses suggest that monitoring institutions decrease the probability of deal completion, increase the acquisition premium, and are positively correlated to both short-term and long-term abnormal returns of the acquiring party. These findings support the view that monitoring by institutional investors positively affects the value creation of a M&A deal when the acquiring firm is part of the top 10% largest investments of the institution's portfolio.

By using the proxies of Fich, et al. (2015) for institutional monitoring and by analyzing the effect of such monitoring on deal performance, this thesis provides new evidence on the impact of institutional monitoring on firm performance. We show that blockholders do not positively affect M&A returns of the acquiring party as these investors may not be incentivized

to monitor the company and their ownership decreases management's ownership. However, in case the investment is one of the institution's top 10% biggest investments, the institution is incentivized to monitor the company, leading to better acquisition performance.

5.1. FURTHER RESEARCH

The presence of institutional investors with monitoring incentives positively affects acquisition returns of the acquiring party. However, monitoring is costly as institutional investors must spend time and resources on analyzing the company. An interesting topic for further research is the effect of monitoring on institutional investor returns, using the proxies for institutional monitoring proposed by Fich, et al. (2015). Additionally, further research is necessary to analyze whether the monitoring incentives of institutions with different holding periods vary. Due to data limitations, this thesis was unable to research such matter. However, the efficiency abatement hypothesis suggests that institutional investors with a short-term vision do not actively monitor their investments. By dividing institutional investors based on their average holding period, the effect of long-term and short-term investors can be isolated. Furthermore, as pointed out by Nguyen and Shiu (2022) there are many ways in which institutional investors can influence management. It would be interesting to see which method is used most often and which one is most beneficial for either the company or the monitoring institution. Lastly, this thesis solely focuses on the monitoring effect of institutional investors. However, companies also have other types of large shareholders like families and other firms. Goergen, et al. (2008) find evidence supporting the idea that these types of shareholders are more likely to engage in monitoring activities compared to institutional shareholders. Further research could study the effect of monitoring of these shareholders on a company's acquisition returns.

5.2. LIMITATIONS

M&A performance is influenced by a multitude of additional factors. To isolate the effect of these factors from the correlation between the dependent variable and the key independent variable of interest, various control variables are included in the regression models. However, it is difficult to design a model including all necessary control variables, while minimizing the impact on the degrees of freedom of the model. An important variable that was not included in this thesis is for example the monitoring ownership of target companies. Fich, et al. (2015) provide evidence that institutional investors of the target company with monitoring incentives positively affect the probability of deal completion as well as the acquisition premium. As

monitoring of both target and acquiring company affect deal performance, it is important to include the monitoring proxies for both parties to isolate the potential inverse effect.

Even though not all necessary control variables may be included in the model, there are multiple variables included to control for correlation with the dependent variable. However, not all deals in the data sample have complete records of all the variables in the model. Since only the observations with complete records will be included in the regressions, various observations got dropped out of the regression model. The dropped observations are correlated to the acquiror and target size. Therefore, the regressions included a greater proportion of deals with larger acquiror and target companies than the full data sample. The results of the regressions may therefore not be representative for the entire market.

Furthermore, in the analysis on deal completion the dummy variable of completed deal is set to one if a deal is labeled as completed in the Refinitiv Eikon database. It must be noted that the data sample ends in January 2020. Some deals in the data sample may therefore still be in process and could get completed in the near future. However, in our analysis this deal is categorized as non-completed as if it will not get completed anymore.

6. Appendix

APPENDIX A. LITERATURE TABLE

Table A.1 – Results on effect of institutional shareholders on firm performance

Paper	Findings	Effect
André, P., & Ben-Amar, W. (2008). Family Ownership, Agency Problems, Corporate Governance and Acquiring Firm Shareholder Wealth: Evidence from Acquisitions of New Economy Firms. Available at SSRN 1176644.	Institutional ownership is positively correlated with firm performance of the acquiring company in an M&A deal.	Positive effect
Appel, I. R., Gormley, T. A., & Keim, D. B. (2016). Passive investors, not passive owners. <i>Journal of Financial Economics</i> , 121(1), 111-141.	Passive investors influence corporate governance decisions through voting blocks, resulting in an increase of firm value and a company's long-term performance.	Positive effect
Wright, P., M. Kroll., A. Lado., & B. Van Ness. (2002). The Structure of Ownership and Corporate Acquisition Strategies. <i>Strategic Management Journal</i> , January, 41-53.	Evidence is found that institutional ownership is positively correlated with firm risk taking as well as the profitability of acquisitions.	Positive effect
Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. <i>Journal of corporate finance</i> , 7(3), 209-233.	No evidence is found supporting the idea that a company's ownership structure affects the performance of the firm. The presence of institutional shareholders does not increase nor decrease firm performance.	No effect
Duggal, R., & Millar, J. A. (1999). Institutional ownership and firm performance: The case of bidder returns. <i>Journal of Corporate Finance</i> , 5, 103-117.	After controlling for firm size, insider ownership and presence on the S&P 500 index, no evidence is found that institutional ownership is positively correlated with corporate performance.	No effect
Kohers, N., & Kohers. T. (2000). The Value Creation Potential of High-Tech Mergers. <i>Financial Analysts Journal</i> , May/June, 40-50.	Institutional ownership is positively correlated with the acquisition premium paid in high-tech industries and is negatively correlated with bidder returns.	Negative effect
Schmidt, C., & Fahlenbrach, R. (2017). Do exogenous changes in passive institutional ownership affect corporate governance and firm value? <i>Journal of financial economics</i> , 124(2), 285-306.	Evidence is found that M&A performance worsens after exogenous increase in a company's passively managed institutional ownership.	Negative effect

APPENDIX B. VARIABLE DEFINITIONS

Table B.1 – Variables used in the analyses

Variable	Description
<i>1. Traditional monitoring proxy</i>	
Blockholder ownership	Percentage of shares of acquiring company all held by all blockholders.
<i>2. Institutional monitoring proxies</i>	
Institution	Company or organization that invests money on behalf of other people. Examples are mutual funds, pension funds and insurance companies.
Monitoring	The systematic evaluation of and involvement in a company's activities to ensure effective operation.
Number of monitoring institutions	Number of institutions holding at minimum 5% of share value of the acquiring company and for who the investment in the acquiring company is in the top 10% of their investment portfolio.
Percentage of monitoring ownership	Percentage of shares of acquiring company all held by all monitoring institutions.
Proportion of monitoring institutions	Number of monitoring institutions relative to the total number of shareholders in the acquiring company.
<i>3. Deal characteristics</i>	
Deal completion (0,1)	Set to 1 when the announced deal is completed.
Acquisition premium	Difference between the acquisition price paid and market value of the target company 4 weeks before the deal announcement divided by target's market value 4 weeks prior to announcement.
Acquiror CAR	Cumulative abnormal return of the acquiror over a three-day window surrounding deal announcement. Calculated using the market model with a one-year estimation window. Estimation window ends four weeks before deal announcement.
Acquiror BHAR	Acquiror's abnormal buy-and-hold returns over 3 years compared to matched benchmark portfolios.
Defensive tactics (0,1)	Set to 1 when target used any defensive tactic in the transaction. Only used in hostile deals.
Challenged deal (0,1)	Set to 1 when a challenging offer has been done by another acquiring company during the deal process.
Cash only payment (0,1)	Set to 1 when the deal has been fully financed with cash.
Stock only payment (0,1)	Set to 1 when the deal has been fully financed with stock.
Tender offer (0,1)	Set to 1 when a tender offer is launched for the target. A tender offer is a formal offer of determined duration to acquire a public company's shares made to equity holders.
Friendly (0,1)	Set to 1 when the target board recommends the offer.
Same industry (0,1)	Set to 1 when the acquiring and target company operate in the same industry group as classified by Fama and French (1997).
Merger of equals (0,1)	Set to 1 when SDC has classified the deal as a merger of equals.
Relative size	Target's size relative to acquiror's size with size measured in market value 4 weeks prior to deal announcement.

Table B.1 (continued)

<i>4. Market characteristics</i>	
Annual change in GDP	Yearly change in US gross domestic product as reported by World Bank Data.
Target in a liquid industry (0,1)	Target operates in a highly liquid industry as classified by Amit, et al. (1989).

<i>5. Target/ Acquiror characteristics</i>	
Size	Natural logarithm of the market value 4 weeks prior deal announcement.
Tobin's Q	Market value of assets divided by the book value of assets.
Leverage	Book value of debt divided by the sum of market value of equity and book value of debt.
Net cash from operating activities	Net cash from operating activities.
Prior year CAR	Acquiror's cumulative abnormal return over a time window of one year ending four weeks (20 business days) before the announcement of the deal.

<i>6. Governance measures</i>	
Board size	Natural logarithm of the number of board members.
Independent board (0,1)	Set to 1 when at least 50% of the board members is classified as independent reported by BoardEx.
Busy board (0,1)	Set to 1 when at least 50% of the board members holds a seat at three or more boards.

7. References

- Afza, T., & Nazir, M. S. (2012). Role of corporate governance in operating performance enhancement of mergers and acquisitions in Pakistan. *Elixir Finance*, 42(1), 6447-6456.
- Aghion, Philippe, John Van Reenen, & Luigi Zingales (2013). Innovation and Institutional Ownership. *American Economic Review* 103, 277–304.
- Ahn, S., Jiraporn, P., & Kim, Y. S. (2010). Multiple directorships and acquirer returns. *Journal of Banking & Finance*, 34(9), 2011-2026.
- Alexandridis, G., Fuller, K. P., Terhaar, L., & Travlos, N. G. (2013). Deal size, acquisition premia and shareholder gains. *Journal of Corporate Finance*, 20, 1-13.
- Alexandridis, G., Petmezas, D., & Travlos, N. G. (2010). Gains from mergers and acquisitions around the world: New evidence. *Financial Management*, 39(4), 1671-1695.
- Almazan, A., Hartzell, J. C., & Starks, L. T. (2005). Active institutional shareholders and costs of monitoring: Evidence from executive compensation. *Financial management*, 34(4), 5-34.
- Almazán, A., Hartzell, J. C., & Starks, L. T. (2005). Active institutional shareholders and costs of monitoring: Evidence from executive compensation. *Financial Management*, 34(4), 5–34.
- André, P., & Ben-Amar, W. (2008). Family Ownership, Agency Problems, Corporate Governance and Acquiring Firm Shareholder Wealth: Evidence from Acquisitions of New Economy Firms. Available at SSRN 1176644.
- Andreani, E., & Neuberger, D. (2006). Corporate Control and Relationship Finance by Banks or by Non-Bank Institutional Investors? A Review Within the Theory of the Firm. *Corporate Ownership & Control*, 3(3), 9-39.
- Andriosopoulos, D., & Yang, S. (2015). The impact of institutional investors on mergers and acquisitions in the United Kingdom. *Journal of Banking & Finance*, 50, 547-561.
- Appel, I. R., Gormley, T. A., & Keim, D. B. (2016). Passive investors, not passive owners. *Journal of Financial Economics*, 121(1), 111-141.
- Asquith, P. (1983). Merger Bids, Uncertainty, and Stockholder Returns. *Journal of Financial Economics* 11, 51-83.
- Ayers, B. C., Lefanowicz, C. E., & Robinson, J. R. (2003). Shareholder taxes in acquisition premiums: The effect of capital gains taxation. *The Journal of Finance*, 58(6), 2783-2801.

- 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.
- Bargeron, L., Schlingemann, F., Stulz, R., & Zutter, C. (2008). Why do private acquirers pay so little compared to public acquirers? *Journal of Financial Economics* 89, 375–390.
- Beitel, P., Schiereck, D., & Wahrenburg, M. (2004). Explaining M&A success in European banks. *European Financial Management*, 10(1), 109-139.
- Brickley, J. A., Lease, R. C., & Smith Jr, C. W. (1988). Ownership structure and voting on antitakeover amendments. *Journal of financial economics*, 20, 267-291.
- Brooks, C., Chen, Z., & Zeng, Y. (2018). Institutional cross-ownership and corporate strategy: The case of mergers and acquisitions. *Journal of Corporate Finance*, 48, 187-216.
- Bruner, R. (2004). Where M&A pays and where it strays: A survey of the research. *Journal of Applied Corporate Finance*, 16(4), 63-76.
- Bushee, B. (1998). The influence of institutional investors on myopic R&D investment behavior. *Accounting Review* 73, 305–333.
- Cai, Y., & Sevilir, M. (2012). Board connections and M&A transactions. *Journal of Financial Economics* 103, 327–349.
- Capen, E. C., Clapp, R. V., & Campbell, W. M. (1971). Competitive bidding in high-risk situations. *Journal of petroleum technology*, 23(06), 641-653.
- Chen, T., Dong, H., & Lin, C. (2020). Institutional shareholders and corporate social responsibility. *Journal of Financial Economics*, 135(2), 483-504.
- Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics*, 86(2), 279-305.
- Cornett, M. M., Marcus, A. J., Saunders, A., & Tehranian, H. (2007). The impact of institutional ownership on corporate operating performance. *Journal of banking & finance*, 31(6), 1771-1794.
- Cremers, Martijn K. J., & Vinay B. Nair (2005). Governance mechanisms and equity prices. *Journal of Finance* 60, 2859–2894.
- Cronqvist, H., & Fahlenbrach, R. (2009). Large shareholders and corporate policies. *Review of Financial Studies* 22, 3941–3976.

- Cuypers, I. R., Cuypers, Y., & Martin, X. (2017). When the target may know better: Effects of experience and information asymmetries on value from mergers and acquisitions. *Strategic Management Journal*, 38(3), 609-625.
- Cybo-Ottone, A., & Murgia, M. (2000). Mergers and shareholder wealth in European banking. *Journal of Banking & Finance*, 24(6), 831-859.
- Datta DK, Pinches GE, & Narayanan VK. (1992). Factors influencing wealth creation from mergers and acquisitions: a meta-analysis. *Strategic Management Journal* 13(1): 67 – 84.
- Daume, P., Lundberg, T., Montag, A., Rudnicki, J. (2022, March 25). The flip side of large M&A deals. *McKinsey & Company*. <https://www.mckinsey.com/capabilities/m-and-a/our-insights/the-flip-side-of-large-m-and-a-deals#/>
- Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of corporate finance*, 7(3), 209-233.
- Diaz, K. B. D., Azofra, S. S., & Gutierrez, C. L. (2009). Are M&A premiums too high? Analysis of a quadratic relationship between premiums and returns. *Quarterly Journal of Finance and Accounting*, 5-21.
- Duggal, R., & Millar, J. A. (1999). Institutional ownership and firm performance: The case of bidder returns. *Journal of Corporate Finance*, 5, 103-117.
- Elder, B. (2021, March 21). Investors' doubts rise over LSE takeover of Refinitiv. *The Financial Times*. <https://www.ft.com/content/57b1b431-f897-47f8-a4c8-f4efdebefcfe>
- Eun, C. S., Kolodny, R., & Scheraga, C. (1996). Cross-border acquisitions and shareholder wealth: Tests of the synergy and internalization hypotheses. *Journal of Banking & Finance*, 209, 1559-1582.
- Faccio, M., McConnell, J. J., & Stolin, D. (2006). Returns to acquirers of listed and unlisted targets. *Journal of Financial and Quantitative Analysis*, 41(1), 197-220.
- Ferreira, M. A., & Matos, P. (2008). The colors of investors' money: The role of institutional investors around the world. *Journal of Financial Economics*, 88(3), 499–533.
- Ferreira, M. A., Massa, M., & Matos, P. (2010). Shareholders at the gate? Institutional investors and cross-border mergers and acquisitions. *The Review of Financial Studies*, 23(2), 601-644.
- Fich, E. M., Nguyen, T., & Officer, M. (2018). Large wealth creation in mergers and acquisitions. *Financial Management*, 47(4), 953-991.

- Fich, E.M., Harford, J., & Tran, A.L. (2015). Motivated monitors: the importance of institutional investors' Portfolio weights. *Journal of Financial Economics, Forthcoming*. 1-62.
- Fuller, K., Netter, J., & Stegemoller, M. (2002). What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *The journal of finance, 57*(4), 1763-1793.
- Gillan, Stuart L., & Laura T.S. (2000). Corporate governance proposals and shareholder activism: The role of institutional investors, *Journal of Financial Economics 57*, 275–305.
- Goergen, M., Renneboog, L., & Zhang, C. (2008). Do UK institutional shareholders monitor their investee firms?. *Journal of Corporate Law Studies, 8*(1), 39-56.
- Goranova, M., Dharwadkar, R., & Brandes, P. (2010). Owners on both sides of the deal: Mergers and acquisitions and overlapping institutional ownership. *Strategic Management Journal, 31*(10), 1114-1135.
- Grossman, S. J., & Hart, O. D. (1980). Takeover bids, the free-rider problem, and the theory of the corporation. *The Bell Journal of Economics, 42*-64.
- Hamdani, A., & Yafeh, Y. (2013). Institutional investors as minority shareholders. *Review of Finance, 17*(2), 691.
- Harford, J., Humphery-Jenner, M., & Powell, R. (2012). The sources of value destruction in acquisitions by entrenched managers. *Journal of financial economics, 106*(2), 247-261.
- Hartzell, J. C., Ofek, E., & Yermack, D. (2004). What's in it for me? CEOs whose firms are acquired. *The Review of Financial Studies, 17*(1), 37-61.
- Hayward, M. L., & Hambrick, D. C. (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative science quarterly, 103*-127.
- Healy, P. M., Palepu, K. G., & Ruback, R. S. (1997). Which takeovers are profitable? Strategic or financial. *MIT Sloan Management Review, 38*(4), 45.
- Heaton, J.B (2002), "Managerial Optimism and Corporate Finance," *Financial Management 31*, 33-45
- Heron, R., & Lie, E. (2002). Operating performance and the method of payment in takeovers. *Journal of Financial and quantitative analysis, 37*(1), 137-155.

- Hietala, P., Kaplan S. N., & Robinson, D. T. (2003). What is the price of hubris? Using takeover battles to infer overpayments and synergies. *Financial Management* 32(3) 5–31.
- Hitt, M., Harrison, J., Ireland, R. D., & Best, A. (1998). Attributes of successful and unsuccessful acquisitions of US firms. *British Journal of Management*, 9(2), 91-114.
- Hoskisson, R. E., Hitt, M. A., Johnson, R. A., & Grossman, W. (2002). Conflicting voices: The effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *Academy of Management journal*, 45(4), 697-716.
- Houston, J. F., James, C. M., & Ryngaert, M. D. (2001). Where do merger gains come from? Bank mergers from the perspective of insiders and outsiders. *Journal of financial economics*, 60(2-3), 285-331.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), 323-329.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 34, 305-360.
- Judge, W. Q., Gaur, A., & Muller-Kahle, M. I. (2010). Antecedents of shareholder activism in target firms: evidence from a multi-country study. *Corporate Governance: An International Review*, 18(4), 258-273.
- Kim, J. Y., Halebian, J., & Finkelstein, S. (2011). When firms are desperate to grow via acquisition: The effect of growth patterns and acquisition experience on acquisition premiums. *Administrative science quarterly*, 56(1), 26-60.
- Kiymaz, H., and Mukherjee, T. K. (2000). The Impact of Country Diversification on Wealth Effects in Cross-Border Mergers. *Financial Review*, 352, 37-58.
- Kohers, N., & Kohers. T. (2000). The Value Creation Potential of High-Tech Mergers. *Financial Analysts Journal*, May/June, 40-50.
- Kothari, S. P., & Warner, J. B. (2007). Econometrics of event studies. In *Handbook of empirical corporate finance* (pp. 3-36). Elsevier.
- Li, C., & Halebian, J. (2022). The influence of nation-level institutions on acquisition premiums: a cross-country comparative study. *Journal of Management*, 48(4), 878-904.
- Madura, J., Ngo, T., & Viale, A. M. (2012). Why do merger premiums vary across industries and over time?. *The Quarterly Review of Economics and Finance*, 52(1), 49-62.

- Mallin, C. (2007). *Corporate Governance*, 2nd edn. Birmingham: Oxford University Press.
- Mallin, C. (2016). *Corporate governance*. Oxford University Press.
- Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1), 20-43.
- Mandelker, G. (1974) "Risk and Return: The Case of Merging Firms," *Journal of Financial Economics* 1, 303-335.
- Massa, M., & Xu, M. (2013). The value of (stock) liquidity in the M&A market. *Journal of Financial and Quantitative Analysis* 48, 1463–1497.
- Mehran, H. (1992). Executive incentive plans, corporate control, and capital structure. *Journal of Financial and Quantitative analysis*, 27(4), 539-560.
- Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2005). Wealth destruction on a massive scale? A study of acquiring firm returns in the recent merger wave. *The Journal of Finance*, 60(2), 757-782.
- Moschieri, C., & Campa, J. M. (2014). New trends in mergers and acquisitions: Idiosyncrasies of the European market. *Journal of Business Research*, 67(7), 1478-1485.
- Muehlfeld, K., Sahib, P. R., & Van Witteloostuijn, A. (2007). Completion or abandonment of mergers and acquisitions: Evidence from the newspaper industry, 1981–2000. *Journal of Media Economics*, 20(2), 107-137.
- Mueller, D. C., & Sirower, M. L. (2003). The causes of mergers: tests based on the gains to acquiring firms' shareholders and the size of premia. *Managerial and Decision Economics*, 24(5), 373-391.
- Nguyen, N. H., & Shiu, C. Y. (2022). Stewardship, institutional investors monitoring, and firm value: Evidence from the United Kingdom. *Journal of Multinational Financial Management*, 64, 100732.
- Offenberg, D., & Pirinsky, C. (2015). How do acquirers choose between mergers and tender offers?. *Journal of Financial Economics*, 116(2), 331-348.
- Officer, M. (2003). Termination fees in mergers and acquisitions. *Journal of Financial Economics* 69, 431–467.
- Paul D. L. (2006). Board composition and corrective action: Evidence from corporate responses to bad acquisition bids, *Journal of Financial and Quantitative Analysis* forthcoming.

- Renneboog, L., & Vansteenkiste, C. (2019). Failure and success in mergers and acquisitions. *Journal of Corporate Finance*, 58, 650-699.
- Rock, E. B. (1990). The logic and (uncertain) significance of institutional shareholder activism. *Geo. LJ*, 79, 445.
- Ruiz Mallorquí, M. V., & Santana Martín, D. J. (2009). Ultimate institutional owner and takeover defenses in the controlling versus minority shareholders context. *Corporate Governance: An International Review*, 17(2), 238–254.
- Ruiz Mallorquí, M. V., & Santana Martín, D. J. (2011). Dominant institutional owners and firm value. *Journal of Banking and Finance*, 35, 118–129.
- Schmidt, C., & Fahlenbrach, R. (2017). Do exogenous changes in passive institutional ownership affect corporate governance and firm value?. *Journal of financial economics*, 124(2), 285-306.
- Schnatterly, K., Shaw, K. W., & Jennings, W. W. (2008). Information advantages of large institutional owners. *Strategic Management Journal*, 29(2), 219–227.
- Servaes, H. (1991). Tobin's Q and the Gains from Takeovers. *The journal of finance*, 46(1), 409-419.
- Shefrin, H.M. (2001). Behavioral Corporate Finance. *Journal of Applied Corporate Finance*, 143.
- Shleifer, A. & Vishny, R. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94, 461-488.
- Short, H., & Keasey, K. (2005). Institutional shareholders and corporate governance in the UK. *Corporate governance: accountability, enterprise and international comparisons*, Chichester: John Wiley and Sons, 61-96.
- Shu, T. (2013). Institutional investor participation and stock market anomalies. *Journal of Business Finance and Accounting*, 40(5 & 6), 695–718.
- Sirower, M., Weirens, J. (2022). Done deals: How companies can make M&A a winning growth strategy. *Deloitte CFO Insights*.
<https://www2.deloitte.com/us/en/pages/finance/articles/how-companies-can-make-ma-a-winning-growth-strategy.html>
- Smith, M. P. (1996). Shareholder activism by institutional investors: Evidence from CalPERS. *The journal of finance*, 51(1), 227-252.
- Stapledon, G. P., & Stapledon, G. P. (1997). *Institutional shareholders and corporate governance*. Oxford: Oxford University Press.

- Stulz, R., Walkling, R. & Song, M. (1990). The distribution of target ownership and division of gains in successful takeovers. *The Journal of Finance*. 453, 817-833
- Wright, P., M. Kroll., A. Lado., & B. Van Ness. (2002). The Structure of Ownership and Corporate Acquisition Strategies. *Strategic Management Journal*, January, 41-53.
- Wulf, J., 2004. Do CEOs of target trade power for premium? Evidence from ‘mergers of equals’. *Journal of Law, Economics, and Organization* 20, 60–101.