TARGET SHAREHOLDER RETURNS

DOMESTIC vs CROSS-BORDER TAKEOVERS

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Target Shareholder Returns – Domestic vs Cross-border takeovers

Abstract:

Major increase in the M&A activity on the corporate landscape has been identified in 2018 and Sweden experienced the second highest growth in inbound M&A activity in 2017. This thesis presents the target shareholder behavior from takeover announcements on NASDAQ Stockholm during the years 2000-2018. The study found significant evidence for takeover announcement influencing target shareholder return. Strong evidence was also found for bid premium and all-cash payments being drivers of target shareholder return. No significant differences were found in shareholder return between domestic and cross-border takeover announcements. This study finds some indications, but no significant evidence, for a difference in shareholder return between hostile and friendly takeovers as well as for financial and strategic takeovers. There is still a large need for future investigations within the scope of takeover announcement, in order for management teams to find answers in one of the most challenging debates in the corporate landscape.

Keywords: Mergers and Acquisitions, Domestic Takeovers, Cross-border takeovers, Shareholder Return, Event Study

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1. Introduction

In this chapter, the background to the thesis subject is presented. This is followed by a presentation of the purpose of the study, the delimitations made, the thesis disposition, and finally a summary of the findings.

1.1. Background

Growth in companies has for many decades been an extensively discussed subject as economic trends have fluctuated. In general, there are two ways for a company to achieve growth; internally and externally. Internally, a company can grow by conducting many different strategies. Developing new products, adopting new technologies and undertaking different marketing strategies are examples of internal growth strategies. Externally, a company can grow by mergers and acquisitions (M&A), which often is referred to as the fastest way to expand a business. (Shieldgeo, 2019)

A major increase in M&A activity was reported on the corporate landscape in 2018. Today we see large industrial companies, as well as smaller firms, involved in M&A deals, and adding the M&A approach to their growth strategy. (Financial Times, 2018) As more M&A deals are being carried out, a significant interest in the subject has established, leading to numerous publications on the subject. There are several reasons to why companies would choose to pursue a merger or an acquisition. Diversification and synergy advantages are two out of many examples (Andrade et al., 2001). The many potential objectives with an M&A deal will be further discussed in section 2.2.

As an increased level of globalization has been seen on the corporate landscape, the number of cross-border M&A deals is expected to follow the same trend. (Financier Worldwide, 2018) In 2017, Sweden held second position of all countries in the world in regards to the highest growth percentage of inbound M&A activity, an M&A activity that refers to the act of a foreign country merging with or acquiring a domestic company. (Globaldata, 2018)

The future in cross-border M&A activity on NASDAQ Stockholm is unclear. In spite of the fact that we see a world embracing digitalization and globalization, cross-border activity might decrease in Sweden due to an arising nationalism in the country. Historically, Swedish management teams have been very open to accepting bids coming from companies outside of the Swedish borders, as they have been flattered by offers coming, in many cases, from large well-known international firms. In recent times however, Swedish firms have grown to be less

impressed by international acquirers, and thereby less tempted to accept these offers. (Karlsson, 2019)

The future is most uncertain in regard to the cross-border M&A activity on the Swedish corporate landscape. This partly has to do with a growing resistance coming from Swedish firm's management teams. (Karlsson, 2019) This thesis aims at clarifying whether or not the Swedish management teams act correctly when they decline cross-border offers, as target shareholders might obtain substantial abnormal returns related to takeover bids coming from these acquirers.

1.2. Purpose

The primary purpose of this study is to examine the abnormal returns for target shareholders in domestic and cross-border M&A deals. The secondary purpose is to further investigate how the abnormal returns are influenced by three different independent variables – Hostile/Friendly, Cash/Other and Financial/Strategic. These will be described in detail in section 3.

The research field on M&A activity on larger markets is already fairly explored, but there appears to be a gap in research made on smaller markets, and takeover bids on NASDAQ Stockholm is one of them. Also, studies on abnormal returns for acquiring shareholders in M&A deals have extensively been made, while a gap can be identified in the research of abnormal returns for target shareholders.

1.3. Delimitation

A number of delimitations have been made for this thesis to provide as relevant and thorough results as possible. First of all, the sample of takeovers being investigated will only include takeover announcements on NASDAQ Stockholm. Other Swedish exchanges such as Nordic Growth Market and Alternativa Aktiemarknaden will not be examined. Second, a time interval between the years 2000 and 2018 has been set. The argument for this time interval is that the thesis aims to provide results that are as up to date as possible. Third, this research will only examine abnormal returns for target firms, and not focus on potential abnormal returns for acquiring firms. Lastly, this paper will disregard potential long-term effects of takeover bids and solemnly examine short-term effects of takeover announcements.

Methodology delimitations have also been made. When examining the effects of takeover announcements, shareholder wealth has been investigated by measuring cumulative abnormal returns (CAR), as it is the most commonly used method (Event Study Metrics, n.d.).

Furthermore, delimitations in event-windows for the bid announcements have been made and will be described in more detail in section 4.2.2.

1.4. Disposition

This thesis is divided into eight sections. Section 2 reviews the theories in use with the purpose of defining and explaining what mergers and acquisitions are, different motives for M&A deals and finally the concept of efficient markets. Section 3 presents the hypotheses made in the thesis with its complementary definitions. Section 4 explains the method and models used when conducting the study. Section 5 describes the data, the criticism of the collected data and present the development of some aspects of the data. Section 6 consists of results from the univariate- and multivariate analyses. Section 7 presents suggestions for future research and finally, section 8 concludes the thesis.

1.5. Summary of Findings

This thesis finds strong evidence for takeover announcements having an effect on the target shareholder return. Furthermore, evidence found in this thesis assures that the bid premium associated with the takeover announcement and takeovers financed by all-cash payments are drivers of target shareholder return. This can be concluded for the total dataset, as well as for the domestic and cross-border samples. The investigation of differences in target shareholder return for domestic and cross-border takeovers shows no significant evidence. The lack of significant evidence is most likely driven by the fact that bid premiums, which is the main driver of shareholder return, does not differ between the domestic and cross-border samples. In regard to hostile and friendly takeovers, this thesis finds no significant difference in shareholder return. Finally, indications were found of financial and strategic takeovers generating dissimilar shareholder returns, depending on if it was a domestic or a cross-border takeover, however, with no significant evidence.

2. Theory

In this chapter, the different key concepts and theories that are mentioned in the thesis are presented. The most frequently used concepts will be described in detail below.

In order to make reasonable interpretations of the different areas that are brought up in the thesis, some clarifications and explanations have to be made. Basic knowledge of what the term *mergers and acquisitions* (M&A) refer to, has to be obtained, as the terminology that follows in the thesis requires it. To understand why M&A deals occur with such frequency, one has to be aware of the potential *motives* for conducting an M&A deal. Finally, to understand the financial effects, in terms of abnormal returns that come with an M&A deal, the perception of *efficient markets* is of high importance.

2.1. Mergers and Acquisitions

An M&A deal consists of two parties, a buying firm and a selling firm. The buying firm is usually referred to as the acquirer, while the selling firm is referred to as the target. There are generally two mechanisms by which the control of a company can change; either a company acquires the target firm or the company merges with another firm. Both mechanisms are referred to as a takeover. The M&A activity on the financial market varies for different periods and strongly correlates with economic expansions and contractions. This volatility is referred to as merger waves. (Berk and Demarzo, 2017)

Berk and Demarzo (2017) further claim that there are, in broad terms, three different types of mergers – *horizontal mergers, vertical mergers* and *conglomerate mergers*. When a company acquires a firm that operates in the same industry as a competitor, it is referred to as a horizontal merger. If, on the other hand, the target company operates in a different stage of the value chain, it is referred to as a vertical merger. Finally, if the merging firms operate in unrelated industries it is referred to as a conglomerate merger.

An M&A deal can be divided into three categories: *merger or consolidation, acquisition of assets* and *acquisition of stocks*. A merger occurs when a company acquires another which, in this case, implies that the company acquires all the assets and liabilities from the target. (Berk and Demarzo, 2017) The acquiring firm offers a price that is often higher than the target's market value, which the target's owners either approve or reject. (Jensen and Ruback, 1983) A consolidation is similar to a merger, but the difference is that an entirely new entity is created and the target is liquidated. Acquisition of assets implies that an acquirer purchases a rather

large part of a firm's assets. An acquisition of stocks, on the other hand, implies that the acquiring firm buys voting stock from the target's shareholders. However, if all stocks are purchased, a merger has occurred. (Berk and Demarzo, 2017)

2.2. Motives for M&A

It has been established that the M&A activity in the Nordic region has increased drastically in recent years. (Factset, 2018) However, there are also reasons to discuss and analyze the motives for why an increasing number of firms consider this approach a natural way to achieve growth. Considering that the barriers and obstacles are many when pursuing an M&A deal, one can assume that the motives, in many cases, are substantial as they occur frequently. Many articles have been published on the different motives of mergers, however there is no definite framework for the motives. In this paper, the motives will be divided into operational motives and financial motives. There are countless of motives for pursuing an M&A, but the ones highlighted in this paper are the ones most extensively studied.

There are many operational motives for making an M&A deal. One substantial operational motive is the gain in efficiency that a merger can provide. Efficiency gains can be divided into two groups; technical efficiencies and synergies. Technical efficiencies are referred to as those that can be obtained by more effectively relocating joint production capabilities. However, technical efficiencies can also be obtained by strategic corporate decisions through alliances and organic growth. Synergies, on the other hand, are efficiency gains that only can occur when a merger takes place. (Farrell & Shapiro, 1990 & 2001)

Farrell and Shapiro (1990, 2001) argue that there are three basic technical efficiencies: *economies of scale, economies of scope* and *economies of vertical integration.* Economies of scale refer to savings made by producing high volumes of goods, unachievable for smaller businesses (Berk and Demarzo, 2017). It implies that when two companies who produce the same product are merging, they can increase the level of production output and spread the fixed costs among the units. In other words, the fixed cost per unit produced decreases. Berk and Demarzo (2017) further define economies of scope as the act of combining marketing and distribution of related products in order to generate savings. Motta (2014) verifies that economies of scope often result in a reduction of marginal cost for the companies due to efficiencies in the production of similar product parts. Motta (2014) further explains that economies of vertical integration refer to the act of combining two stages of production in the same industry. Distribution efficiency is an example of economies of vertical integration.

> Synergies involve either a process of learning, the close integration of specific hard-to-trade assets or know-how among the merging firms (Motis, 2007, p.10)

Synergies allow companies to achieve competitive advantage by combining unique capabilities. For instance, "technical progress" can be obtained in a merger by combining technology, talents and research and development capabilities. This progress can potentially lead to the development of new products or other innovations. (Roller et al. 2000)

The *financial motives* for an M&A deal are also significant. Some of the more researched motives are related to *taxes*, *interest rates*, *asset stripping* and *internal capital markets*. When companies merge, tax efficiencies are sometimes created. For instance, a profitable firm can experience tax efficiencies by making taxation cuts when purchasing a company with accumulated losses (Johnson et al., 2011). As for the interest rates, Motis (2007) imply that larger companies often have access to better interest rates from capital markets. Asset stripping refers to when a firm is being motivated to purchase another firm whose assets are undervalued. Once the firm is purchased, the acquirer can strip it down and sell it piece by piece and make a larger profit than if the entire company was sold (Johnson et al., 2011). Finally, internal capital markets is referred to as the process of a company funding business units with money generated by other business units. (Tirole, 1988)

2.3. Efficient Markets

The theory of competition and market efficiency is based on the idea that markets aggregate the information of many investors, and that this is reflected in the security prices. If investors would have information indicating that a stock purchase would have a positive Net Present Value (NPV), multiple investors would purchase it, and thus increase the stock price. In the same way, investors having information on that selling a stock would have a positive NPV, the investors would sell the stock and thus, drive down the stock price. This idea, that information to investors eventually eliminates all positive NPV opportunities, is referred to as the (EMH) Efficient Market Hypothesis. What EMH essentially states is that, in efficient markets, all security prices are directly reflected on available information for investors, and thus, it is impossible to make excess returns on the information provided. (Simões et al. 2012)

In a study made by Fama (1970), he states that there are three types of market efficiency: *weak form, semi-strong form* and *strong form.* The weak form occurs when only historical price information is available for investors, the semi-strong form occurs when recent and obvious

publicly available information is added, and finally, the strong form occurs when information held by private groups is also available. As an M&A deal often implies increases in market shares or efficiency gains, the information will have an effect on market prices, as investors will interpret it (Farrell & Shapiro, 1990 & 2001). Thus, market efficiency and competition serve a vital role when discussing abnormal returns in an M&A deal.

3. Hypotheses

In this chapter, the hypotheses will be presented and described in detail. First, a hypothesis related to the general effect of takeover announcements will be presented as Target Shareholder Return. Second, a hypothesis related to the controlling variable, Bid Premium, will be presented. Finally, the hypotheses to the four independent variables will be presented.

3.1. Target Shareholder Return

As a shareholder, there are two ways for you to gain a profit; through capital growth, which refers to the value increase between the time you buy and sell the stock, or by receiving dividends. If these two are combined, they are referred to as total shareholder return (Commonwealth Bank of Australia, 2016). This thesis aims to analyze target shareholder return in an M&A deal, referred to as the realized abnormal return in the target's company's share price after that a takeover bid has been made.

When a takeover announcement occurs, target shareholders can earn significant abnormal returns. Extensive research has been made in the field and the results vary depending on the time windows and other contributing factors. To exemplify, Georgen and Renneboog (2004) conclude that target shareholders earn a return of 9 percent at the announcement date. Dodd and Ruback (1977) further claim that target shareholders can earn significant abnormal returns in the month of a takeover announcement. A t-test will be conducted to assure that the target shareholder return that originates from a takeover announcement is statistically different from zero.

Hypothesis 1: *Takeover bids generate positive target shareholder returns.*

3.2. Bid Premium

In an M&A deal, the acquirer pays the target firm shareholders a price for their shares that is higher than the market price, which is referred to as a bid premium. This payment serves as a

compensation, in exchange for the target shareholders to give up their shares to the acquirer so that the deal runs smoothly. (Diaz et al. 2009) Bid premiums also motivate the target shareholder not to accept a takeover offer until they feel that the price is appropriately high. This often results in a number of offers from different companies, which drives up the price, and thus, the bid premium increases. To summarize, the larger the bid premium gets, the more smoothly the acquiring firm can expect the merger to be. As for the acquirer's perspective, the size of the bid premium is correlated to the potential gains of the merger, such as synergies. However, the size of the bid premium is also of great importance as it influences shareholder's reaction to the M&A announcement. (Greenfield, L., 1992)

In an efficient market setting, the bid premium associated with the takeover announcement should have an instantaneous effect on the target stock price and thereby be reflected in the abnormal returns for target shareholders. (Karlsson, 2019) Other effects also have an impact, such as insider trading making the price increase or decrease gradually rather than instantaneous. (Agrawal and Nasser, 2012) M&A deals consist to a large part of bid premiums. Many studies have been carried out on the subject and the importance of the bid premium can be derived from its strong correlation with cumulative abnormal returns for the target company shareholders after a takeover announcement. (Travlos, 1987)

Hypothesis 2: *Bid premiums are positively related to cumulative abnormal returns.*

3.3. Domestic vs Cross-border

As this thesis investigates M&A deals that have taken place on NASDAQ Stockholm during the set time frame, an important distinction has to be made. It refers to whether the parent company of the acquiring firm in the M&A deal is registered in Sweden or in a different country. If the acquiring firm is not registered in Sweden, the M&A deal is referred to as a cross-border deal. There are many reasons to why studying the outcome differences in domestic and cross-border M&A deals are relevant, making it the primary purpose of this thesis. The combination of the increasing cross-border M&A deals on NASDAQ and the lack of research on the subject, creates the cause for further investigation.

One major reason to why cross-border M&A deals have increased has to do to with the gain of intellectual capital (Gupta, 2001). Gupta (2001) states that resource exchange is the most vital synergy realization in a cross-border M&A. Marks, Mirvis and Brajkovich (2001) also argue that the largest reason for cross-border M&A deals taking place is the fact that the exchange of knowledge is larger in international deals. It is substantially harder to imitate knowledge from

a target corporation that operates in a different country, making the knowledge from the acquisition more valuable. They further highlight that by acquiring a company that operates in a foreign country, the acquiring firm's portfolio becomes more diversified; different types of technology and skills are obtained. The internationalization of the companies increases which has great advantages as well.

There are many similarities in domestic and cross-border M&A deals; an increasing level of internationalization on the financial market could be considered an explanation. (Shimizu et al., 2004) However, there are some factors that will be affected in a cross-border M&A deal, which potentially will have an effect on abnormal returns for the target shareholders. Sudarsanam (2003) argues that cross-border M&A deals are considerably more difficult to carry out due to the many differences between the countries of the acquiring firm and the target firm. Legal, cultural and accounting principles are some of many potential differences. The fact that a company would choose to carry out a cross-border acquisition despite the increased level of difficulty, can be interpreted as an indication that managers of the acquiring firm expect high levels of synergies, which potentially could lead to increased abnormal returns for the target.

Another aspect is the level of information asymmetry as the levels on average are greater in a cross-border M&A deal than a domestic one. Since managers of the acquiring firm have less information about the target, they are more likely to overbid, believing their valuation is correct. In turn, the high bid might lead to abnormal returns for the target shareholders. (Seth et al. 2000)

Hypothesis 3: *Cross-border takeovers bids will generate higher target shareholder returns than domestic takeovers.*

3.4. Hostile vs Friendly

The reaction from the target firm when being approached by an acquirer determines whether the takeover is friendly or hostile. If the target's management and board of directors are against the merger or the target's firm shareholders are directly approached by the acquirer, the takeover is considered hostile. If those events do not occur, the takeover is considered friendly. (Schnitzer, 1996)

Previous studies show that there are significant differences in abnormal returns for target shareholders depending on if a friendly or hostile takeover has taken place. In former studies, resistant offers have been strongly associated with abnormal returns, rather than unresistant

(Huang and Walkling, 1987). Further, Goergen and Renneboog (2004) argue that due to management opposition in hostile takeovers, the offer price will be higher and thus leading to greater abnormal returns. Finally, multiple similar studies on other markets have been made also resulting in higher abnormal returns in hostile takeovers, rather than friendly ones (Franks and Harris, 1989; Sudarsanam et al., 1996; Campa and Hernando, 2004).

Hypothesis 4: *Hostile takeover bids will generate higher target shareholder returns than friendly takeover bids.*

3.5. Payment Method

Several studies have been carried out investigating the financing decision of M&A deals, often driven by factors emerged from both the acquiring and the target company. Hence, the choice of payment method used in an M&A deal is a crucial aspect in order to complete a profitable deal. The decision on whether a company decides to use the cash payment method or the stock payment method has to be made by weighing the different implications that come with different methods. The cash payment method implies that the total deal value is discharged through a cash payment, while the stock payment method implies that the acquiring firm issue own equity share to the target company as purchase consideration. The hybrid method of payment is also under consideration, implying the acquirer uses cash and stock issues to purchase a target. (Sankar et al., 2018) In this thesis, the payment methods will be divided into two groups – Cash payments and other payments.

Davidsson & Cheng (1997) argue that cash offerings reduce the amount of asymmetric information compared to an equity stock exchange. They further highlight that the target shareholders will experience different tax effects from cash and stock bids. This finding is further strengthened by Travlos (1987), who argues that this tax difference results in cash bids generating a higher bid premium than what equity or hybrid methods do. The reason for the bid premium being higher is that a cash offering gives direct taxation effects while the tax effect from an equity swap is generated when a stock sale is made. Furthermore, Andrade, Mitchell and Stafford's (2001) show that target shareholders do better when they are financed without stock. They present data showing that a three-day average abnormal return for equity stock financing is 13 percent, while a non-equity stock financing is above 20 percent. Huang and Walking (1987) state that a higher cash-ratio in a takeover bid generates higher CAR for the target shareholders, which is also found by Draper and Paudyal (2006).

Hypothesis 5*:* *Takeover bids financed with the cash payment method will generate higher target shareholder returns than takeover bids financed with other methods.*

3.6. Financial vs Strategic acquirer

Mercer (1999) defines a "strategic" acquirer as an acquirer interested in how a company fits into its long-term business plan. A wide range of factors may be of interest for a strategic buyer; vertical and horizontal expansions are often mentioned. Vertical expansion implies that a firm moves closer to the end consumer, which for instance can be done by acquiring a supplier. If a company acquires a firm for the purpose of expanding its product line or settling on new geographic markets, it is referred to as a horizontal merger. Competitor eliminations and synergy effects are two other areas of interest for a strategic acquirer.

Mercer (1999) defines a financial buyer similar to an investor, interested in the actual return that can be obtained by purchasing a company. In most cases, financial acquirers are private equity firms. Financial buyers have other objectives when targeting new investment opportunities. Instead of looking at expansion possibilities and synergy effects, a financial acquirer often focuses on the cash flow that the target generates and future exit possibilities. The cash flow is relevant for the financial buyer in order to pay back the debt it has undertaken in conjunction with the purchase. Multiple exit possibilities are examined, to ensure the financial buyer a return from the investment. The exit opportunities imply selling the company to another financial acquirer or by taking the company public again, through an initial public offering. (Karlsson, 2019)

The shareholder effects for the firms acquiring public and private targets have been fairly tested in previous studies. (Capron & Shen, 2007, Draper and Paudyal, 2006) The issue of target shareholder return depending on the acquirer being a private or a public player has not been as extensively researched. When analyzing the 225 takeover bids from the year 2000 to 2018, an identification of a pattern was made, as the private acquirers are often financial acquirers. With this observation in mind, the question lies in whether the abnormal return is greater with a financial or strategic acquirer. Mercer (1999) further states the following:

> Strategic buyers are often willing and able to pay more for a company than financial buyers (..) strategic buyers may be able to realize synergistic benefits almost immediately due to economies of scale that may exist through the combined purchasing power of the new entity and elimination of duplicate functions. (Mercer, 1999)

Morkoetter and Wetzer (2016) also find that financial buyers pay 20 percent less on average than strategic buyers.

The argument can be made that a financial buyer has even better access to capital and connections with financial institutions, thus being able to outbid strategic bidders. Moreover, it is reasonable to believe that a financial buyer is mainly concerned with the return on equity for its investors, while a strategic buyer needs to consider a bids effect on multiple key ratios, indicating that the financial buyer would be able to offer a higher price. (Skarpa, 2015) However, previous literature and earlier stated advantages with M&A deals indicate that strategic acquirers are offering higher takeover bids.

Hypothesis 6: *Takeover bids from a strategic acquirer will generate higher abnormal returns than takeover bids from a financial acquirer.*

4. Methodology

In this chapter, the methodological will be described in detail. First, arguments for the choice of method will be presented. Secondly, the event study will be described in detail. Finally, the regression model will be presented.

4.1. Choice of Method

The choice of method is based on a thorough review of existing literature on the M&A subject. A quantitative empirical research has been carried out to examine the hypotheses, which could also be referred to as an event study (Bryman and Bell, 2003).

The study requires a large enough number of events in order to test for significance and to create an ability to confirm or reject the hypotheses, which is why the above-mentioned approach of the method will be used. An alternative would be to examine specific events in detail, but as one of the objectives of the study is to provide a general analysis of the subject, a large data set has been used.

4.2. Event Study

The purpose of an event study is to investigate one or a few specific events. For example, one event investigated in this thesis is the reaction of a takeover bid to abnormal behavior for a stock's return. Event studies have been used since the thirties to investigate M&A-events and have since then become the obvious method of choice when studying M&A transactions. The method in this event study will, like previous studies made within this area, be inspired by MacKinlay's framework from 1997.

4.2.1 Event Study Procedure

The procedure of the event study has changed back and forth through the decades. MacKinlay (1997) has set up an analysis framework within the area of finance. The event study procedure in this thesis will follow Mackinlay's logic and consists of the following stages:

- An identification of the event of interest for the research and an event-window for the period. Target share prices will be examined in relation to the event of interest, which in this case are the takeover announcements.
- A choice of sample. The takeover bids identified must satisfy certain predetermined criteria.
- An appraisal of the event study. In this section, the event's effect on the abnormal returns is tested.

4.2.2 Event of Interest and Event-window

According to MacKinlay (1977), the following factors must be defined when conducting an event study: the event of interest, the event-window for which the stocks' abnormal return will be researched and finally an estimation window for the normal expected return.

The event of interest is the takeover bid announcement from the acquirer, which will be analyzed by investigating the effect on the individual target's stock's abnormal return. In terms of the length for the event-window, it is reasonable to believe that a longer event-window would enable us to minimize the information loss which could affect the share price. A longer event-window increases the amount of information that is not analyzed, thus increasing the "noise" in the variables explaining the share price. In order to account for events, such as insider trading, we have chosen to implement the most widely used format of time-periods within event-windows, (-20, 1) and (-1, 1) (Andrade et al., 2001). In addition to these two event-windows, four additional event-windows will be analyzed to capture the target shareholder effect from multiple perspectives:

- Twenty days prior to the announcement and one day after the announcement
- Ten days prior to the announcement and ten days after the announcement
- Three days prior to the announcement and three days after the announcement
- One day prior to the announcement and one day after the announcement
- One day prior to the announcement and ten days after the announcement
- One day prior to the announcement and twenty days after the announcement

4.2.3 Collection of Data

Certain criteria were met to provide a reasonable demarcation. By creating criteria and characteristics of the data sample, one can avoid potential biases obtained from the sample selection and avoid unnecessary data loss. The dataset contains data that followed the following criteria:

- The takeover bid occurred sometime during the period of 1 January 2000 to 31 December 2018
- The takeover announcement was of majority character
- The takeover bid was not of a mandatory character
- The target firm was listed on the Stockholm Stock Exchange at the bid announcement
- The acquiring firm had intentions to pursue active ownership

A takeover announcement made of majority character implies that the firm conducting the takeover aims to acquire more than 50 percent of the target firms' shares. A mandatory bid however, occurs when the acquirer gets more than 30 percent of a public company's shares. Mandatory bids are not considered takeover announcements, but a legal obligation. (Mannheimer Swartling, 2017). Active ownership refers to the participation and engagement in the development of the company to which investments have been made. (Robeco, n.d.) To exemplify, in this thesis, holding companies are referred to as a passive owner.

The data was retrieved from Nasdaq OMX Nordic where information regarding both the bidding company and the target company, was provided. The information provided at Nasdaq includes the date and conditions of the offers. The development of the share price of the individual stocks affected by the takeover announcement as well as the OMXSPI index was retrieved from Thomson Reuters. More detailed information, such as deal structure, takeover type and the acquirer's characteristics were retrieved from MergerMarket. No distinction has been made regarding the industries where the companies were operating, as all companies which meet the above mentioned criteria were included.

All observations that met the predetermined criteria were characterized in line with our hypotheses of interest, and finally, a distinction was made in the dataset between the domestic and cross-border takeovers.

4.2.4 Market Adjusted Model

In order to calculate the cumulative abnormal return in relation to the takeover announcement, the expected normal return also needs to be calculated. This is most often done by economic or statistic calculations.

Within the economical category, the main methods used are the Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Model, a further developed version of CAPM. Both models have been criticized for being market sensitive, and therefore no economical calculations will be used to calculate the expected normal return. (Campbell and MacKinlay, 1996)

Within the statistical models, the most frequently used methods are the Market Adjusted Model and the Constant Mean Return Model. The latter generates somewhat similar results as the Market Adjusted Model, but it generates the average return of all stocks instead of the individual stock return. This study will use the statistical Market Adjusted Model as the statistical model is independent of economical methods and the Market Adjusted Model is an improvement of the Constant Mean Return Model. (Campbell and MacKinlay, 1996)

4.2.5 Cumulative Abnormal Returns (CAR)

In order to analyze the target shareholder effect from a takeover announcement, the Cumulative Abnormal Return will be analyzed for multiple event-windows. The abnormal return for each individual stock is calculated by using the following formula:

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

Since the Market Adjusted Model is used, the $R_{m,t}$ represents a market index and in this study, OMXSPI is used as a proxy for the Swedish market return. This index represents the return for all stocks listed on NASDAQ Stockholm, and thus serves our thesis since we only investigate takeover announcements on NASDAQ Stockholm. OMXSPI serves as a better index than for example the commonly used market index OMXS30, as OMXS30 only accounts for the 30 stocks with the highest turnover. $R_{i,t}$, is the return on of the particular company stock (*i*) at the day of interest (*t)*.

For analyzing the target shareholder effect, the cumulative abnormal return method is used, which is calculated with the following formula:

$$CAR_{-t,t} = \Sigma_{-t}^{t} AR_{i,t}$$

The CAR accumulates the daily return over a set event-window and thus represents the summarized return the target shareholders receive above the market return. Each event-window is presented as *(-t, t)*, where the day of the takeover announcement is $t = 0$, *-t* indicate days prior to the announcement and *t* is days post the announcement.

In order to display the target shareholder effect on different sub-samples, the Cumulative Average Abnormal Return will also be calculated, which is calculated with the following formula:

$$CAAR_{-t,t} = \overline{CAR}_{-t,t} = \Sigma_{-t}^{t} \widehat{CAR}_{i,t}$$

4.3. Regression Model

The regression model for ordinary least squares will use dummy variables for the different categories chosen to look further into, together with a controlling variable for bid premium. For example, hostile versus friendly takeover, where no. 1 will represent hostile and 0 will represent friendly takeover.

When analyzing the differences in target shareholder return on domestic and cross-border takeovers, multiple factors have to be taken into account. These are factors that generally have an impact on the value creation in M&A deals regardless of the national origin of the acquirer.

There are many factors to address, but in this study, the ones mentioned below will be in focus and a hypothesis will therefore be made for each one of them.

Hypotheses		**Variables**
H2	Bid premiums are positively related to cumulative abnormal returns	**Bid Premium**
H3	Cross-border takeover bids will generate higher target shareholder returns than domestic takeovers	**Domestic**
H4	Hostile takeovers bids will generate higher target shareholder returns than friendly takeover bids	**Hostile**
H5	Takeover bids financed with the cash payment method will generate higher target shareholder return than takeover bids financed with other methods	**Cash**
H6	Takeover bids from a strategic acquirer will generate higher abnormal returns than takeover bids from a financial buyer	**Financial**

Bid Premium - An independent variable, which corresponds to the percentage difference between the price set in the takeover announcement and the stock price one day prior to the takeover announcement

Domestic - A dummy variable identifying a domestic takeover with a 1 and 0 for a cross-border

Hostile - A dummy variable identifying the takeover as hostile with a 1 and as friendly with a 0

Financial - A dummy variable identifying a financial acquirer with a 1 and a strategic acquirer with a 0

Cash - A dummy variable identifying an all-cash payment with a 1 and all other payments with a 0

Regression model

$$CAR = \alpha + \beta_2 Bid\ Premium + \beta_3 Domestic + \beta_4 Hostile + \beta_5 Financial + \beta_6 Cash + \varepsilon_t$$

Correlation

To test for multicollinearity, a correlation matrix of the independent variables has been set up. As seen below in Table 1, no correlation exceeds +/-0.5 and thus the variables are assessed to not correlate significantly with each other. Only event-window (-1, 1) is displayed in the correlation matrix due to the correlation being very similar when conducting the correlation test with the other event-windows.

Table 1 – Correlation of independent variables CAR (-1,1)

The correlation between each independent variable and the CAR for event-window (-1, 1).

Variables	**Domestic**	**Hostile**	**Cash**	**Financial**	**CAR (-1,1)**
Domestic	1.0000				
Hostile	0.0777	1.000			
Cash	-0.1231	-0.0257	1.0000		
Financial	0.2689	0.0306	0.3268	1.0000	
CAR (-1,1)	0.0366	0.0169	0.1767	0.1294	1.0000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5. Data

In this chapter, an overview of the conducted dataset will be provided. First, a description of the dataset is provided. Then, the historical development of the market and takeover bids are presented. Finally, the effect of bid premiums in the different sub-factors are displayed.

5.1. Dataset

The collected dataset initially consisted of 261 takeover announcements on NASDAQ Stockholm. However, after the exclusion of all mandatory bids and also certain observations due to information shortage, the dataset was reduced to 225 observations. Mandatory bids are often characterized with discounts and serve as outliers to the rest of the dataset, which warrant an exclusion of them in the final dataset. Of the 225 takeover announcements made between 2000 and 2018; 125 of them were made by domestic acquirers, while 100 were made by international ones.

Table 2 – Sample overview

The overall sample construction of the independent variables.

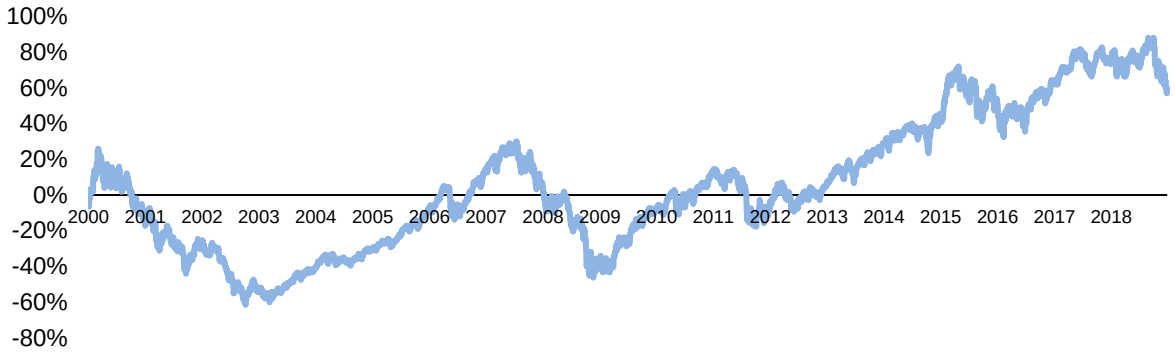
Independent variables	**Domestic**	**Cross-border**	**Hostile**	**Friendly**	**Cash**	**Other**	**Financial**	**Strategic**
Frequency	125	100	34	191	152	73	59	166
N	225		225		225		225	

5.2. Historical Market Development

The abnormal return and thus, also the CAR and CAAR, have been calculated by using the market adjusted model where the target shareholder return is subtracted with the OMXSPI, which is illustrated below in figure 1. Using the index allows us to come closer to the true effect of the takeover announcement of interest and diminish the “noise” made from other events taking place on the stock exchange.

Figure 1

OMXSPI development from 2000-2018



5.3. Historical Development of Takeover Bids

Examining long time frames allow for research in multiple sub-samples, particular when targeting domestic and cross-border takeover announcements. As displayed in figure 2, the takeover announcements are volatile and tend to increase strongly before a financial crisis takes place, see staple 2000 and 2006-2007. Also, the number of takeovers decrease strongly following the recession after the IT-bubble and the housing crisis in 2008. In line with this observation, the number of cross-border takeovers increases prior to financial recessions when the market peaks. The increase is reasonable since a boom in the market influenced companies to explore other opportunities, such as international opportunities, to gain returns. Since 2014, cross-border takeovers on average account for approximately 61 percent of the total takeovers. This is in line with a general internationalization of the global corporate landscape, especially in Sweden as Swedish companies are looking for growth opportunities outside the border.

Figure 2

Sample of public takeover bids between 2000-2018

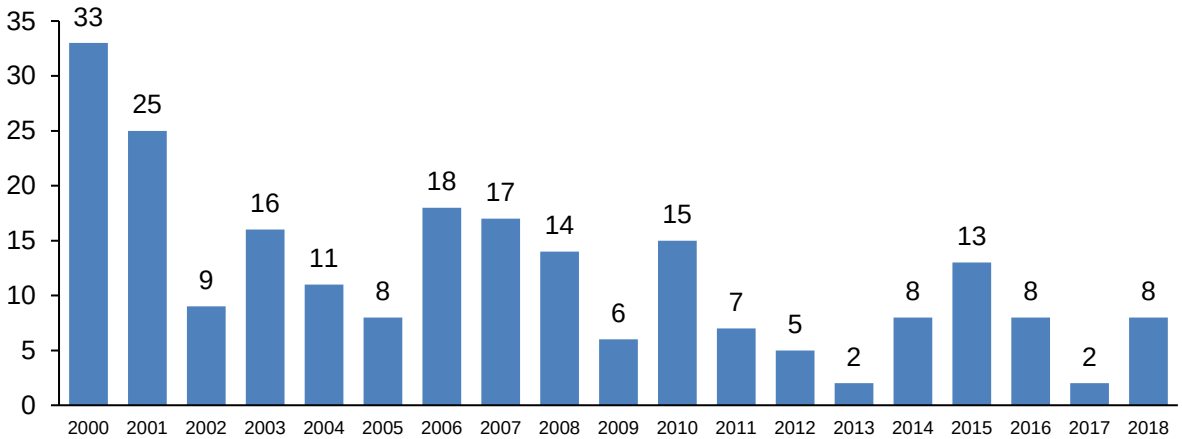
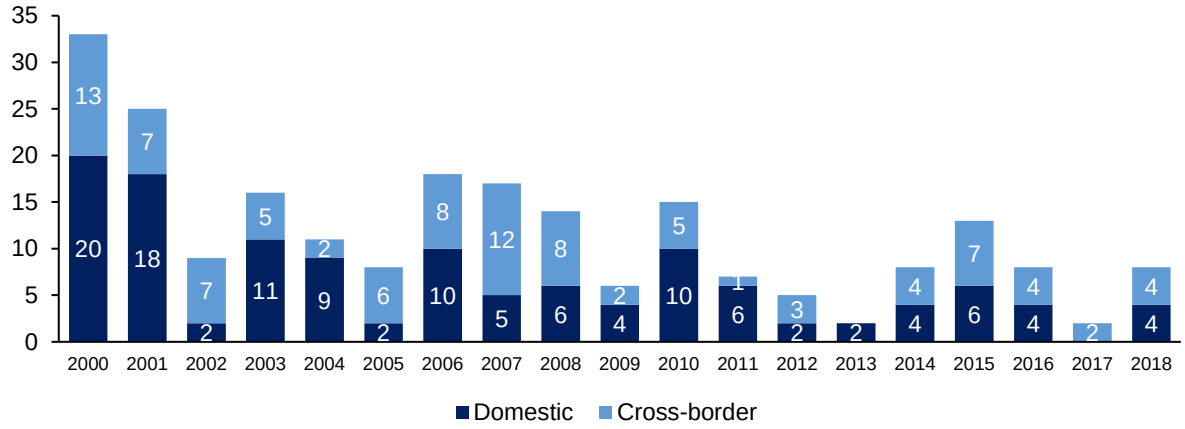


Figure 3

Sample of public takeover bids between 2000-2018 divided into domestic and cross-border takeovers



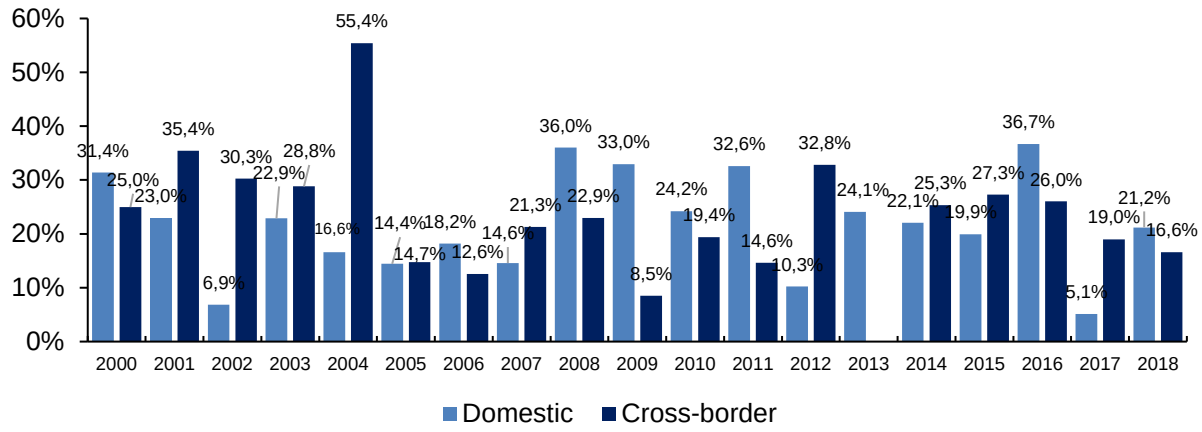
Over the last 18 years, domestic and cross-border takeover announcements have on average been quite similar in terms of frequency. Domestic takeovers account for 55.3 percent of the takeovers while the remaining 44.7 percent consists of cross-border takeover bids.

5.4. Difference in Bid Premium

One of the controlling variables analyzed in this thesis is the effect of the bid premium. Bid premium is defined as the percentage difference between the takeover announcements share price and the share price of the individual target one day prior to the takeover announcement. There is a visible difference in the results when comparing the bid premiums in the two groups during the selected time period. The cross-border bid premiums are on average higher than the domestic ones; they present an average bid premium of 24.2 percent, while the domestic ones present a bid premium on average of 21.7 percent. The difference between the two categories is evident, however, a conclusion cannot be drawn solely from these data, but the difference justifies the bid premium's importance for the research.

Figure 4

Bid premium development from a sample of public takeovers 2000-2018 divided into domestic and cross-border takeovers



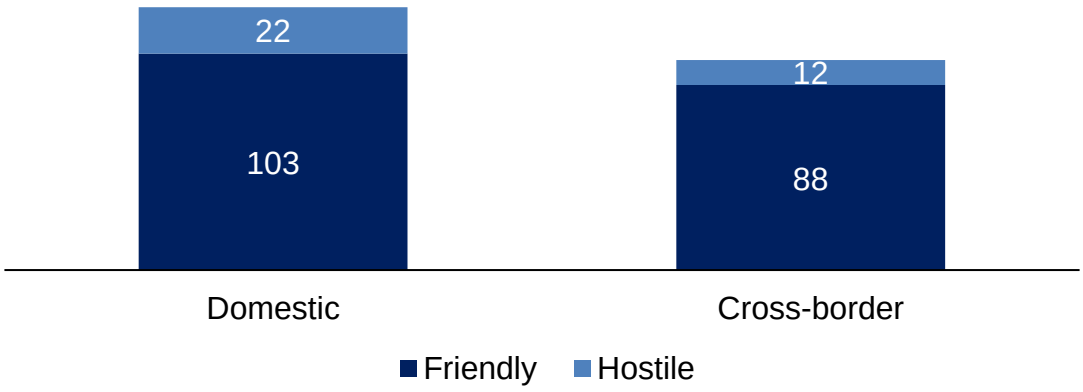
5.5. Sample Sectioning

Hostile vs Friendly

Friendly takeover announcements are far more common than hostile ones. 84.8 percent of the sample consists of friendly takeovers, while the remaining 15.2 percent consist of hostile ones. The distinction between hostile and friendly takeovers is fairly similar in the subsamples of domestic and cross-border takeovers. Domestic takeovers of friendly character represent 82.4 percent of the takeovers, whereas in the cross-border sample, 88.0 percent of the takeovers are friendly.

Figure 5

Sample split between friendly and hostile public takeovers divided into domestic and cross-border takeovers

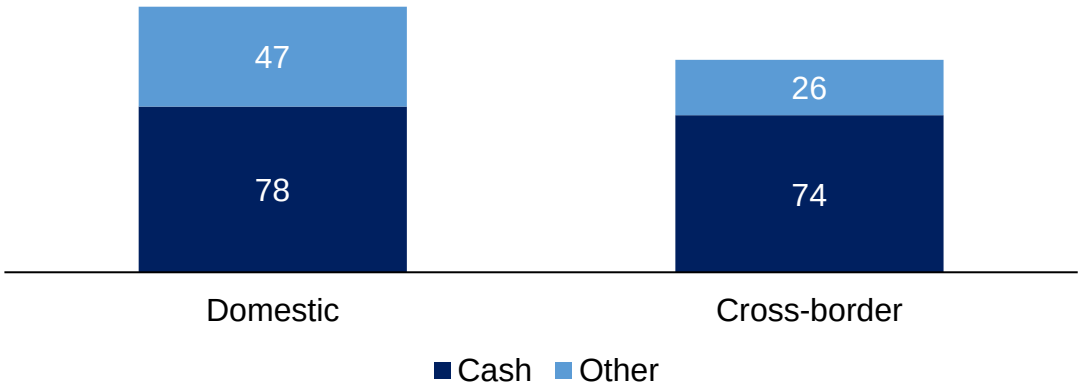


Cash Payment Method

Cash payment is the most common payment type and represents 67.5 percent of all payments over the time horizon. The cross-border takeovers have a higher percentage of all-cash payments of approximately 74.0 percent, while the domestic takeovers have a relatively lower portion of 62.7 percent. Since 2015 all takeovers have consisted of all cash-payments and previous research has shown that all-cash payments correspond to a higher bid premium, hence a higher CAR. Despite the fact that all takeovers during this period have been conducted by all-cash payments, the bid premium during the period has on average been 21.6 percent, which is lower than for the whole period, corresponding to 23.3 percent.

Figure 6

Sample split between cash payment method and other payment methods in relation to public takeovers divided into domestic and cross-border takeovers

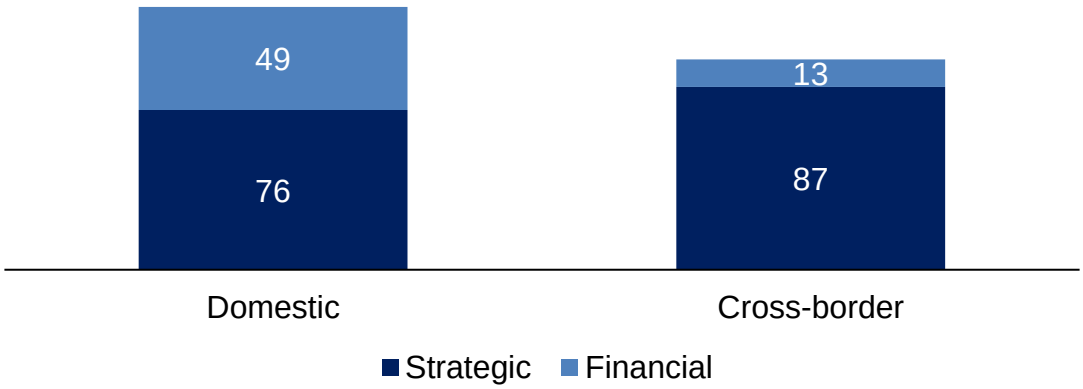


Strategic vs Financial

Takeover announcements made by strategic acquirers are far more common than announcements made by financial acquirers, especially for cross-border takeovers. Cross-border takeovers conducted by financial acquirers are rare and only account for 5.8 percent of total takeovers and 13.0 percent of the total cross-border takeovers. The difference between strategic and financial acquirers is less skewed in the domestic subsample, which has an approximate 60/40 percentage split.

Figure 7

Sample split between strategic and financial acquirers from public takeovers divided into domestic and cross-border takeovers



5.6. Criticism of Data

As several demarcations have been conducted in our study, some areas of critique in regard to the dataset arise. Due to information accessibility, this thesis only covers takeover announcements that have been made on NASDAQ Stockholm, which drastically reduces the size of the dataset. The total dataset of 225 observations could potentially be considered sufficient, however, some of the subsamples are minor. For instance, the sample of cross-border takeover announcements conducted by financial acquirers only consists of 13 observations. Further, the sample of cross-border takeovers with non-cash payments only consists of 26 observations. The results retrieved from our investigations of these two subsamples could therefore be criticized due to insufficient observations.

Another weakness is the identifications that have been done on the dataset. As there is no specific rule to determine whether or not a takeover announcement has been made from a strategic or financial buyer, these determinations have basically been made from argumentative reasoning. In most cases the identification was easily conducted, however some takeover announcements were harder to identify. To exemplify, if a company that had a financial owner conducted a takeover announcement but the purchase was of strategic purpose, the observation was identified as a takeover announcement coming from a financial buyer.

6. Results and Analysis

In this chapter, the univariate analysis and the multivariate analysis will be described in detail and presented.

6.1. Univariate Analysis

Hypothesis 1: *Takeover bids generate positive target shareholder returns.*

In line with Georgen & Renneboog (2004), this study presents strong evidence that takeover bids on NASDAQ Stockholm generate target shareholder returns different from zero in the total dataset, as well as in the domestic and cross-border samples (Table 3). Similar to the findings by Dodd and Ruback's (1977), target shareholders earn significant abnormal returns in the month of a takeover announcement. Thus, our findings accept the first hypothesis stating that takeover bids generate target shareholder returns differ from zero.

Table 3 – Domestic and Cross-border CAARs

The CAARs for each event-window is presented, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAAR is significantly different than zero.

	Domestic		**Cross-border**		**Total dataset**	
Event-window	*CAAR*	*t-test*	CAAR	*t-test*	*CAAR*	*t-test*
(-20, 1)	24.9%***	15.20	24.0%***	14.10	26.1%***	20.68
(-10, 10)	22.3%***	12.29	20.7%***	11.05	24.5%***	16.38
(-3, 3)	21.1%***	13.78	21.1%***	11.17	21.4%***	17.68
(-1, 1)	20.5%***	14.46	21.0%***	10.85	19.7%***	17.98
(-1, 10)	19.7%***	11.96	19.2%***	9.92	20.4%***	15.44
(-1, 20)	20.3%***	12.21	20.3%***	9.98	21.3%***	15.21
N	125		100		225	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Hypothesis 2: *Bid premiums are positively related to cumulative abnormal returns.*

The difference in bid premium between cross-border and domestic is 2.5 percentage units, however no significant difference between them can be concluded. In regard to the hypothesis, the univariate test in the correlation matrix indicates that there is a correlation between the bid premium and the CAR for each event-window. The bid premium's correlation with the CAR is higher, the more concentrated the event-window is around the day of the takeover announcement and the days post announcement. To conclude if the bid premium has a significant effect on CAR, a multivariate analysis will be conducted further down in the thesis.

Table 4 – Bid premium Domestic and Cross-border

The difference in bid premium; divided into the domestic, cross-border and total sample. The bid premium is calculated as the difference in percentage between the share price from the takeover announcement and the share price one day prior to the takeover announcement. A t-test is performed to test if the bid premium is significantly different than zero.

	Domestic		**Cross-border**		**Total dataset**	
	%	*t-test*	%	*t-test*	*%*	*t-test*
Bid Premium	21.7%***	15.06	24.2%***	11.10	24.1%***	18.44
N	125		100		225	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5 – Difference Bid premium Domestic and Cross-border

The difference in the bid premium between the domestic and cross-border sample. The bid premium is calculated as the difference in percentage between the share price from the takeover announcement and the share price one day prior to the takeover announcement. A t-test is performed to test if the bid premium is significantly different between the cross-border and the domestic sample.

	Cross-border – Domestic (%)	**t-test**
Bid Premium	2.5%	-0.06
N	225	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6 – Correlation Bid premium and CARs for each event-window

The correlation between bid premium and CAR for each event-window.

Event-window	**Bid Premium**
(-20, 1)	0.5547***
(-10, 10)	0.5754***
(-3, 3)	0.7701***
(-1, 1)	0.7916***
(-1, 10)	0.7052***
(-1,20)	0.6932***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Hypothesis 3: *Cross-border takeovers bids will generate higher target shareholder returns than domestic takeovers.*

In regard to the third hypothesis, cross-border takeovers deliver on average a 1.15 percent higher CAAR than domestic takeovers, and their CAAR is larger for five out of six event-windows. A higher CAAR for cross-border takeovers is in line with Karlsson's (2019) standpoint that cross-border takeovers should present a higher CAAR compared to domestic takeovers. The univariate test displayed in Table 4 provides initial evidence that there is no significant difference in the target shareholder returns depending on whether it is a domestic or cross-

border takeover. Thus, the third hypothesis is rejected when conducting a univariate test but will be further investigated in a multivariate test.

Table 7 – Difference Domestic and Cross-border CAARs

The CAARs for each event-window is presented, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAARs is significantly different between the cross-border and the domestic sample.

Event-window	**Cross-border – Domestic (%)**	**t-test**
(-20, 1)	2.1%	0.87
(-10, 10)	3.7%	1.35
(-3, 3)	0.2%	0.16
(-1, 1)	-1.3%	-0.58
(-1, 10)	1.2%	0.44
(-1, 20)	1.0%	0.64

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Hypothesis 4: *Hostile takeover bids will generate higher target shareholder returns than friendly takeover bids.*

Across the different samples, hostile takeovers presented on average a higher CAAR than friendly takeovers. Both the domestic and cross-border samples presented on average a higher CAAR for hostile takeovers compared to friendly takeovers, with 1.2 and 3.9 percent respectively. Finally, the total data set showed on average a 1.0 percent higher CAAR. This finding can be interpreted as an indication that hostile takeover bids are generating higher target shareholder returns than friendly ones do. However, none of the univariate tests show any significant results and indicate that the hypothesis will be rejected.

Table 8 – Hostile and Friendly CAARs

The CAARs for each event-window and takeover type: hostile and friendly takeovers, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAARs is significantly different than zero.

	Domestic		**Cross-border**		**Total dataset**	
Event- window	Hostile %	Friendly %	Hostile %	Friendly %	Hostile %	Friendly %
(-20, 1)	22.9%***	24.2%***	27.8%***	25.9%***	23.1%***	25.2%***
	(6.51)	(13.69)	(5.71)	(12.92)	(8.68)	(18.84)
(-10, 10)	22.1%***	20.4%***	24.8%***	24.4%***	22.8%***	22.3%***
	(5.55)	(10.93)	(6.77)	(9.82)	(8.03)	(14.57)
(-3, 3)	24.4%***	20.2%***	25.1%***	20.8%***	23.0%***	20.8%***
	(6.25)	(12.28)	(5.82)	(10.12)	(8.23)	(15.78)
(-1, 1)	21.8%***	20.9%***	25.7%***	18.9%***	21.2%***	20.4%***
	(5.87)	(13.16)	(5.71)	(9.84)	(7.92)	(16.20)
(-1, 10)	20.0%***	19.0%***	23.4%***	19.9%***	21.5%***	19.4%***
	(4.75)	(10.95)	(6.52)	(8.65)	(7.14)	(13.78)
(-1, 20)	20.1%***	19.4%***	26.9%***	20.5%***	22.6%***	19.9%***
	(4.43)	(11.47)	(6.18)	(8.26)	(6.78)	(13.65)
N	22	103	12	88	34	191

t statistics in parentheses ;* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9 – Difference Hostile and Friendly CAARs

The difference in CAAR and significance between CAAR from hostile and friendly takeovers, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAARs is significantly different between the hostile and the friendly takeovers.

	Domestic		**Cross-border**		**Total dataset**	
Event-window	Hostile – Friendly (%)	t-test	Hostile – Friendly (%)	t-test	Hostile – Friendly (%)	t-test
(-20, 1)	-1.3%	-0.46	1.9%	-0.63	-2.1%	-0.71
(-10, 10)	1.7%	0.37	0.3%	-0.22	0.5%	0.16
(-3, 3)	4.1%	0.52	4.3%	0.41	2.2%	0.71
(-1, 1)	0.9%	0.34	6.8%	-0.01	0.8%	0.27
(-1, 10)	1.0%	0.66	3.5%	0.23	2.1%	0.64
(-1, 20)	0.8%	0.73	6.4%	0.30	2.7%	0.75

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Hypothesis 5: *Takeover bids financed with the cash payment method will generate higher target shareholder returns than takeover bids financed with other methods.*

For the total dataset across each event-window, target shareholders gain on average a 9.5 percent higher CAAR when acquiring with all-cash payments compared to either a hybrid payment method or an equity-swap. Further, there are indications that cash payment is generating a

higher abnormal return than other payment methods for the domestic and total dataset (Table 11).

The univariate test indicates not more than a significant 3.9 percentage positive difference for the cash payment method in the (-10, 10) event-window and no significant impact for the other event-windows for the cross-border subsample.

Table 10 – Cash Payment Method and Other Payment Method

The table illustrates CAARs for each event-window for takeover type: cash payments and other payments, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAARs is significantly different than zero.

	Domestic		**Cross-border**		**Total dataset**	
Event-window	Cash %	Other %	Cash %	Other %	Cash %	Other %
(-20, 1)	26.3%***	20.1%***	25.9%***	26.6%***	27.3%***	19.8%***
	(14.84)	(6.86)	(13.15)	(5.71)	(19.68)	(8.91)
(-10, 10)	24.7%***	14.2%***	25.5%***	21.6%***	26.2%***	14.2%***
	(12.44)	(5.02)	(10.74)	(3.85)	(16.16)	(6.37)
(-3, 3)	23.8%***	16.2%***	21.3%***	21.6%***	23.8%***	15.6%***
	(12.29)	(6.99)	(10.45)	(4.59)	(16.04)	(8.39)
(-1, 1)	23.2%***	17.5%***	19.6%***	20.1%***	22.6%***	15.2%***
	(13.58)	(6.79)	(10.52)	(3.98)	(16.88)	(7.83)
(-1, 10)	22.7%***	13.3%***	21.4%***	17.5%***	23.3%***	12.1%***
	(12.15)	(4.86)	(10.30)	(2.66)	(15.76)	(5.50)
(-1, 20)	22.6%***	14.4%***	21.4%***	20.7%***	23.7%***	13.2%***
	(12.05)	(5.21)	(10.43)	(2.25)	(15.74)	(5.33)
N	78	47	78	26	152	73

t statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11 – Difference Cash Payment Method and Other Payment Methods CAARs

The difference in CAAR and its significance of the difference between cash payments and other payments, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAARs is significantly different between cash and other payments.

	Domestic		**Cross-border**		**Total dataset**	
Event-window	Cash – Other (%)	t-test	Cash – Other (%)	t-test	Cash – Other (%)	t-test
(-20, 1)	6.2%**	2.84	-0.7%	1.14	7.5%**	2.88
(-10, 10)	10.5%***	3.87	3.9%*	2.22	12.1%***	4.37
(-3, 3)	7.6%**	3.36	-0.3%	1.47	8.2%***	3.46
(-1, 1)	5.7%**	2.97	-0.5%	0.78	7.4%*	2.62
(-1, 10)	9.4%***	4.16	3.8%	1.81	11.2%***	4.24
(-1, 20)	8.2%***	3.52	0.7%	1.51	10.5%	3.63

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Hypothesis 6: *Takeover bids from a strategic acquirer will generate higher abnormal returns than takeover bids from a financial acquirer.*

The univariate test indicates a significant difference in target shareholder return when being acquired by a cross-border strategic acquirer, earning 5.3 and 4.6 percent more for event-windows (-3, 3) and (-1, 1) compared to financial acquirers. On the contrary, it is found that a financial takeover generates 0.5 percent more shareholder return in the cross-border sample in event-window (-1, 20), compared to a strategic takeover. This indicates an acceptance of the sixth hypothesis in the cross-border sample within the event-windows of (-3, 3), (-1, 1) while rejecting it in event-window (-1, 20). In regard to the total dataset, a 5.0 percent higher target shareholder return is identified for a financial takeover in the event-window (-1, 1), compared to a strategic one. However, to evaluate if the sixth hypothesis can be accepted, it will be further investigated in a multivariate analysis.

Table 12 – Financial and Strategic CAARs

CAARs for each event-window for takeover type: financial and strategic acquirer divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAARs is significantly different than zero.

	Domestic		**Cross-border**		**Total dataset**	
Event-window	Financial %	Strategic %	Financial %	Strategic %	Financial %	Strategic %
(-20, 1)	26.0%***	22.6%***	20.1%***½	27.0%***	26.5%***	24.3%***
	(11.77)	(10.63)	(6.04)	(12.70)	(13.34)	(16.52)
(-10, 10)	23.6%	18.9%***	18.8%***	25.3%***	23.7%***	21.6%***
	(9.14)	(8.67)	(6.38)	(9.64)	(11.02)	(12.91)
(-3, 3)	22.1%***	20.2%***	16.8%***	22.0%***	24.0%***	20.1%***
	(9.01)	(10.44)	(6.23)	(9.80)	(10.82)	(14.26)
(-1, 1)	22.4%***	20.2%***	15.7%***	20.3%***	24.2%***	19.2%***
	(10.27)	(10.49)	(5.41)	(9.74)	(11.53)	(14.30)
(-1, 10)	21.2%***	17.9%	18.1%***	20.7%***	22.8%***	18.6%***
	(8.65)	(8.58)	(5.35)	(8.63)	(10.14)	(12.17)
(-1, 20)	21.5%***	18.2%***	21.7%***	21.2%***	23.5%***	19.1%***
	(8.61)	(8.87)	(5.14)	(8.28)	(9.96)	(11.99)
N	46	79	13	87	59	166

t statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 13 – Difference Financial and Strategic CAARs

The difference in CAAR and its significance of the difference between financial and cross-border takeovers, divided into the domestic, cross-border and total sample. A t-test is performed to test if the CAAR is significantly different between the strategic and financial takeovers.

	Domestic		**Cross-border**		**Total dataset**	
Event-window	Strategic – Financial (%)	t-test	Strategic – Financial (%)	t-test	Strategic – Financial (%)	t-test
(-20, 1)	- 3.4%	-0.34	6.9%	1.75	- 2.2%	0.88
(-10, 10)	- 4.7%	-0.17	6.6%	1.78	- 2.2%	1.04
(-3, 3)	- 1.8%	0.13	5.3%*	2.09	- 3.8%	1.46
(-1, 1)	- 2.2%	0.67	4.6%*	2.27	- 5.0%*	2.62
(-1, 10)	- 3.3%	0.16	2.6%	2.18	- 4.2%	1.54
(-1, 20)	- 3.4%	0.11	- 0.5%*	2.27	- 4.4%	1.53

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6.2. Multivariate Analysis

The multivariate test does not find any evidence for acceptance of the third hypothesis: C*ross-border takeovers bids will generate higher target shareholder return than domestic takeovers*. It seems that there is no significant difference in bid premium between domestic and cross-border takeovers as significant evidence that bid premium is a driver of target shareholder return in relation to a takeover announcement for all event-windows and samples was found in the multivariate test.

Thus, the second hypothesis - *Bid premiums are positively related to cumulative abnormal returns*, can be *accepted* with 99.9 percent significance. This finding is in line with research made by Greenfield (1992) and Travlos (1987), as well as the analysis made by Karlsson (2019). Furthermore, the conclusion corresponds with the efficient market hypothesis in the sense that security prices, and therefore CAR, are affected by all available information. The univariate test for hostile takeovers indicated that they would generate a higher return than friendly ones, this however without any significance. The multivariate analysis found that domestic hostile takeovers generate a -4.7 percentage decrease of the CAAR in the event-window (-1, 1). The fact that hostile takeovers generate a negative target shareholder return is not in line with previous research made by Franks & Harris (1980), Sudarsanam et al. (1996) and Campa and Hernando (2004). This can be explained by the low sample size of cross-border hostile takeovers. There was no more significant evidence for a difference in target shareholder return between hostile and friendly takeovers found in the multivariate analysis.

The fourth hypothesis: *Hostile takeover bids will generate higher target shareholder returns than friendly takeover bids*, can *not be accepted*. The findings are, as mentioned above, not in

line with previous research which is probably also is due to the low sample size of hostile takeovers.

The multivariate analysis shows strong significant evidence for cash payments being a driver of higher abnormal returns. These findings are in line with previous research made by Huang and Walking (1987), Draper and Paudyal (2006) and Andrade et al. (2001). Thus, the fifth hypothesis: *Takeover bids financed with the cash payment method will generate higher target shareholder returns than takeover bids financed with other methods*, can be *accepted* with 99.9 percent confidence for each event-window except (-20, 1) for the domestic and cross-border sample (significant with 95 and 99 percent confidence respectively).

The univariate test for the difference in target shareholder return depending on the takeover being a financial or strategic one finds some evidence for both rejecting and accepting the sixth hypothesis in different event-windows and subsamples. However, no significant evidence can be found in the multivariate analysis in favor of accepting the sixth hypothesis and no significant difference between them can be found. The sixth hypothesis: *Takeover bids from a strategic acquirer will generate higher abnormal returns than takeover bids from a financial acquirer*, can *thus not be accepted* in either sample.

Ordinary Least Squares Regression

Tables 14, 15 and 16 present three ordinary least squares regressions (OLS) for CAR for each event-window for the total dataset, domestic and cross-border sample. All regressions and tables include dummy variables and one controlling variable. Cash is a dummy variable where 1 equals all-cash payment and 0 all other types of payments (equity-swap or hybrid). Hostile is a dummy variable where 1 equals a hostile takeover and 0, a friendly takeover. Financial is a dummy variable which equals 1 if the acquirer is an active financial owner and 0 the acquirer is characterized as a strategic acquirer. Bid Premium is a controlling variable representing the percentage bid premium of the takeover bid one day prior to the takeover announcement. Table 14 also includes a dummy variable named Domestic and is equal to 1 if the acquirer is Swedish and 0 if not Swedish.

Table 14 – Multivariate regression of total dataset

Event-window	(-20, 1)	(-10, 10)	(-3, 3)	(-1, 1)	(-1, 10)	(-1, 20)
Cash	0.0871***	0.136***	0.0982***	0.0760***	0.130***	0.119***
	(3.86)	(5.59)	(5.97)	(5.02)	(6.82)	(5.74)
Hostile	-0.0357	-0.00965	-0.000560	-0.0166	0.000616	0.00630
	(-1.31)	(-0.33)	(-0.03)	(-0.91)	(0.03)	(0.25)
Financial	-0.00564	-0.0131	0.00196	0.0185	-0.00553	0.00315
	(-0.23)	(-0.49)	(0.11)	(1.12)	(-0.26)	(0.14)
Domestic	-0.00761	-0.0177	0.00571	0.0168	0.00463	-0.00580
	(-0.36)	(-0.79)	(0.38)	(1.20)	(0.26)	(-0.30)
Bid Premium	0.526***	0.619***	0.717***	0.702***	0.705***	0.722***
	(10.57)	(11.57)	(19.79)	(21.01)	(16.74)	(15.74)
Constant	0.0743**	-0.00268	-0.0312	-0.0272	-0.0620**	-0.0502*
	(2.96)	(-0.10)	(-1.71)	(-1.61)	(-2.92)	(-2.17)
R^2	*0.3648*	*0.4291*	*0.6590*	*0.6812*	*0.5957*	*0.5611*
N	225	225	225	225	225	225

t statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 15 – Multivariate regression for domestic sample

Event-window	(-20,1)	(-10,10)	(-3,3)	(-1,1)	(-1,10)	(-1,20)
Cash	0.0626*	0.118***	0.0968***	0.0650**	0.113***	0.0942***
	(2.01)	(3.47)	(3.92)	(3.20)	(4.07)	(3.51)
Hostile	-0.0553	-0.0175	-0.00780	-0.0476*	-0.0362	-0.0432
	(-1.61)	(-0.47)	(-0.29)	(-2.13)	(-1.18)	(-1.46)
Financial	0.0233	0.000319	-0.00520	0.0175	-0.00593	0.00780
	(0.74)	(0.01)	(-0.21)	(0.86)	(-0.21)	(0.29)
Bid Premium	0.576***	0.543***	0.690***	0.748***	0.676***	0.709***
	(7.85)	(6.78)	(11.91)	(15.65)	(10.33)	(11.23)
Constant	0.0628*	0.00530	-0.0141	-0.00870	-0.0335	-0.0302
	(2.21)	(0.17)	(-0.63)	(-0.47)	(-1.32)	(-1.24)
R^2	0.3590	0.3325	0.5699	0.6810	0.5076	0.5374
N	125	125	125	125	125	125

t statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 16 – Multivariate regression for cross-border sample

Event-window	(-20,1)	(-10,10)	(-3,3)	(-1,1)	(-1,10)	(-1,20)
Cash	0.103**	0.149***	0.103***	0.0884***	0.147***	0.144***
	(3.01)	(4.13)	(4.58)	(3.79)	(5.60)	(4.36)
Hostile	-0.0143	0.0156	0.0156	0.0246	0.0647	0.0877
	(-0.31)	(0.32)	(0.52)	(0.78)	(1.82)	(1.97)
Financial	-0.0441	-0.0389	0.0170	0.0387	0.00784	0.0148
	(-0.98)	(-0.82)	(0.58)	(1.26)	(0.23)	(0.34)
Bid Premium	0.502***	0.696***	0.741***	0.672***	0.744***	0.754***
	(7.17)	(9.42)	(16.16)	(14.04)	(13.78)	(11.17)
Constant	0.0708*	-0.0307	-0.0440	-0.0367	-0.0936***	-0.0874**
	(2.07)	(-0.85)	(-1.96)	(-1.57)	(-3.54)	(-2.64)
R^2	0.3850	0.5221	0.7513	0.6983	0.7021	0.6083
N	100	100	100	100	100	100

t statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

7. Future Research Propositions

Some areas for future research have been identified during the process of this thesis. First and foremost, the primary focus in this thesis has been to examine the effect of takeover announcements coming from domestic or cross-border acquirers. However, it would be interesting to conduct similar research but with another primary focus in mind. Other primary focuses could include comparing hostile and friendly takeovers or different time periods such as economic booms or busts. To our knowledge, this type of research has been done when investigating acquiring shareholder returns, but not target shareholder returns to the same extent.

Another area of future research would be to draw comparisons with industry-specific indexes, instead of looking at market indexes. In this thesis, comparisons were drawn with a market index, OMXSPI. If instead, industry-related indexes were used, the returns calculated would be more specific to a larger extent, which would lead to more precise results. The primary focus of a research conducted with an industry-related index would instead be to investigate some specific industries.

In the interview conducted with Stefan Karlsson, Partner at MVI, the way management teams in different firms react to approaching international acquirers was discussed. As earlier mentioned, he stated that there has been an increased nationalization in Swedish firms which has made management teams hostile towards takeover bids coming from international companies. Stefan clearly expressed that this was his own interpretations of the current corporate landscape and that he had no empirical basis for his statements. Thus, an interesting area for

future research would be to further investigate if management teams in Swedish firms react differently to takeover bids coming from international acquirers and in if so, if there are any specific reasons for this. It would be interesting to conduct a qualitative research study and have members from management teams interviewed on the subject.

8. Conclusion

This study aims at investigating the behavior of target shareholder return on NASDAQ Stockholm in relation to takeover announcements, in particular, the difference between domestic and cross-border takeover announcements. The study was conducted as an event study, and measurements of target shareholder return have been carried out by investigating cumulative abnormal returns. In order to capture possible value drivers, 225 takeover announcements have been analyzed and characterized by the following characteristics: Domestic vs Cross-border, Hostile vs Friendly, Cash Payment Method vs Other Payment Method and Financial vs Strategic acquirers. The hypotheses have been tested for significant differences between the target's return depending on the takeover type by conducting univariate and multivariate analyses.

Strong evidence was found for that takeover announcements have an effect on target shareholder return. Evidence was also found for that bid premium, when associated with takeover announcements and all-cash payments, is a driver for target shareholder return. Differences in target shareholder return for domestic and cross-border takeovers could not be determined with significant evidence and no significant evidence was found in regards to the difference between shareholder return when comparing hostile and friendly takeovers. There were indications of that financial and strategic takeovers are generating dissimilar shareholder return, depending on whether it was a domestic or a cross-border made takeover, however, with no significant evidence.

This study has investigated different value drivers and new takeover types which are of interest for companies aiming at selling and with the ambition of gaining the highest possible shareholder return for its investors. As the corporate landscape is becoming increasingly globalized and digitalized, management teams of Swedish firms need to ask themselves whether or not they should turn to buyers outside of the Swedish borders. With the results brought forward in this thesis, the question stated above remains unanswered, which might be explained by the rather small sample size of this study. In regard to that, there is a need for future research in order to find the answer to one of the most challenging debates in the corporate landscape today.

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10. Appendix

Table 16 – Correlation of independent variables CAAR (-20, 1)

The table displays the correlation between each independent variable and the CAR for event-window (-20, 1)

Variables	**Domestic**	**Hostile**	**Cash**	**Financial**	**CAR (-20, 1)**
Domestic	1.0000				
Hostile	0.0777	1.000			
Cash	-0.1231	-0.0257	1.0000		
Financial	0.2689	0.0306	0.3268	1.0000	
CAR (-20, 1)	-0.0560	-0.0422	0.1963	0.0533	1.0000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 17 – Correlation of independent variables CAAR (-10, 10)

The table displays the correlation between each independent variable and the CAR for event-window (-10, 10)

Variables	**Domestic**	**Hostile**	**Cash**	**Financial**	**CAR (-10, 10)**
Domestic	1.0000				
Hostile	0.0777	1.000			
Cash	-0.1231	-0.0257	1.0000		
Financial	0.2689	0.0306	0.3268	1.0000	
CAR (-10, 10)	-0.0881	0.0091	0.2764	0.0624	1.0000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 18 – Correlation of independent variables CAAR (-3, 3)

The table displays the correlation between each independent variable and the CAR for event-window (-3, 3)

Variables	**Domestic**	**Hostile**	**Cash**	**Financial**	**CAR (-3, 3)**
Domestic	1.0000				
Hostile	0.0777	1.000			
Cash	-0.1231	-0.0257	1.0000		
Financial	0.2689	0.0306	0.3268	1.0000	
CAR (-3, 3)	-0.0116	0.0442	0.2151	0.0942	1.0000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 19 – Correlation of independent variables CAAR (-1, 10)

The table displays the correlation between each independent variable and the CAR for event-window (-1, 10)

Variables	**Domestic**	**Hostile**	**Cash**	**Financial**	**CAR (-1, 10)**
Domestic	1.0000				
Hostile	0.0777	1.000			
Cash	-0.1231	-0.0257	1.0000		
Financial	0.2689	0.0306	0.3268	1.0000	
CAR (-1, 10)	-0.0279	0.0400	0.2757	0.0961	1.0000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 20 – Correlation of independent variables CAAR (-1, 20)

The table displays the correlation between each independent variable and the CAR for event-window (-1, 20)

Variables	**Domestic**	**Hostile**	**Cash**	**Financial**	**CAR (-1, 20)**
Domestic	1.0000				
Hostile	0.0777	1.000			
Cash	-0.1231	-0.0257	1.0000		
Financial	0.2689	0.0306	0.3268	1.0000	
CAR (-1, 20)	-0.0435	0.0488	0.2464	0.0960	1.0000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$