SCHOOL OF
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The impact of M&A on shareholders' Value

Determinants of the acquirer value creation
Empirical evidence from the Swedish Market.

By

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Abstract

Title: The impact of M&A on shareholders' Value, Determinants of the acquirer value creation-Empirical evidence from the Swedish Market.

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Purpose: The purpose of this thesis is to investigate the impact of M&A announcement on the acquirer shareholders' value in the Swedish market. We further aim to find the determinants behind these changes in the acquirer stock prices.

Methodology: Quantitative approach using event study and cross-sectional regression analysis.

Theoretical perspectives: The theory of this study is based on previous research in the area of M&A"s and the related theories in the literature such as the Agency theory, The efficient market theory, Hubris theory, overpayment theory, information asymmetry theory, Cash flow theory, and tax theory.

Empirical foundation: The Cumulative average abnormal returns in the Swedish market (CAAR) during the period 2010-2020 are positive and driven by the target company management performance, the method of payment, the target company capital structure, the deal premium paid and the acquirer Cash flow.

Conclusions: M&A in the Swedish market between 2010-2020 has created Cumulative Average abnormal returns (CAARs) of approximately 9% to the acquirer firms. We have found that the target company management performance has a positive impact on CAARs, While Cash only payments have a negative effect. We have also found a negative relationship between the acquirer cash flows and CAARs. Additionally, we conducted that those target companies with a high leverage ratio have a negative impact on the acquirer firm CAARs. Finally, we have found a negative relationship between the deal premium paid and the acquirer CAARs.

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1. Introduction

1.1 Background

Merger and acquisitions (M&As) have been a consolidation strategy adopted by firms to accelerate growth, generate synergies, enhance operational performance, and boost access to financial markets. However, numerous practical and academic evidence indicates that the results of this strategy on increasing shareholders' value are uncertain. This thesis will critically assess the motivations and the impact of mergers and acquisitions on the shareholders' value and the determinants of this value.

For a wide range of reasons, firms are using mergers and acquisitions. The current competitive world in which firms face ever-changing technological developments, economic globalization, international competition, and the desire to leverage advantage. Evidently, mergers and acquisitions have become one of the key strategies at the company level in the new millennium (Hitt, Harrison, & Ireland, 2001).

The overriding objective of mergers and acquisitions is to increase shareholder value, achieve greater effectiveness, and enter new markets. Otherwise, researchers indicate is that many such incorporations struggle to generate productivity, gain synergistic benefits, or increase shareholder value. Generally, when the main driver behind M&As is obtaining market reaction returns, then the basis for these restructuring approaches are usually not sufficient to increase shareholder wealth.

It is proposed that M&As provide firms with rapid exposure to growth and markets, combined with a potential profit boost that makes mergers and acquisitions an enticing expansion route (Cartwright & Schoenberg, 2006). Probably a right path for corporations to follow when trying to expand, but why do so many experienced executives struggle with mergers and acquisitions being implemented? Many research studies performed over the decades indicate that the failure rate of mergers and acquisitions is at least 50 percent. In studies conducted in the last few years, up to 83 percent have failed to achieve the M&A objectives (Weber, Oberg, & Tarba, 2014).

Such numbers will likely give corporations reason to consider other strategic approaches for reaching synergies and profitability targets. Still, companies are increasingly opting for M&A's as their key growth strategy in today's market. For example, the sheer number of mergers and acquisitions and the amounts of money invested in them each year have broken the record (Weber, Oberg & Tarba, 2014).

Consequently, the issue of creating value through M&A deals is highly relevant – can the activity being observed be rationalized? Investors posed the above issue in the market and academia. Several studies explored M&A performance, and generally, the research findings are not encouraging to shareholders of the acquirer. Franks, Harris, and Mayer (1988) were unable to identify any substantial benefits for UK shareholders. Likewise, when analyzing Canadian bidding firms, Eckbo and Thorburn (2000) found no substantial abnormal returns. Mulherin and Boone (2000) found that M&A activity had slightly negative but insignificant returns. In the US, while reviewing US deals between 1980 – 1996, Walker (2000) reported an insignificant negative abnormal return. More recently, Campa and Hernando (2004) recorded null cumulative abnormal returns for European acquirers while Moeller and Schlingemann (2004) found slight negative returns for US bidding firms.

On the other hand, Bradley, Desai, and Kim (1988) documented evidence in the US market of a significantly positive, but low, abnormal return. Goergen and Renneboog (2004) reported evidence in Europe for bidders of a statically significant announcement effect of 0.7 percent. Despite some positive results, Alexandridis, Antypas, and Travlos (2017) state that one of the most common findings in the M&A literature is the tendency of M&A deals to destroy value for shareholders' acquirer, more often than they create. Contradicting the status quo, Alexandridis et al., (2017) show that the pattern was largely reversed after 2009. Acquisition results during 2010-2015 show signs of dramatic progress on a large variety of traditional acts calculated around the announcement of the deal. Public acquisitions produce substantial abnormal returns for acquiring shareholders over the most recent period, while stock-for-stock transactions are no longer subject to dramatically adverse market reactions.

1.2 Research question

The thesis aims to provide a systematic answer to the research question. Therefore, the question of research should be precise, observable, and relevant. The research question will, thus, be the center of our thesis, and will serve as a general guide to our work in data collection, the methodology chosen, and empirical analysis. Consequently, the research question of this thesis is formulated as the following:

What is the impact of M&As on the acquirer shareholders' value in Sweden? And what are the determinants of the acquirer value creation?

2. Literature review

The subject of mergers and acquisitions covers a vast and fascinating area of the theory of finance, with a significant and increasing amount of research. In this thesis, it has chosen to look primarily at the impact of short-term wealth on the announcement of an M&A transaction from a firm experience. Much academic literature that uses event studies to examine M&A's short-term wealth effects expands their work by researching possible value drivers. This extension is commonly done using a cross-sectional regression analysis.

2.1 Definitions of Mergers and Acquisitions

An Acquisition is defined as a transaction between two companies where the first company "The Acquirer" purchase more than 50% of the other company "The target firm" stocks which allow the Acquirer company to gain control and has the majority votes to make decisions about the target company (Clayman & Fridson, 2008; Troughton 2008, p.370). In general, Gaughan (2007, p.12) describes a merger as a combination of two companies in which only one company survive, where the acquiring company purchase the total assets and liabilities of the target company, a merger differs from a *consolidation,* whereby two or more companies join to form an entirely new company.

Mergers and acquisitions (M&As) are a familiar concept used to refer to company restructuring "consolidation." A merger is an integration of two companies to create a new entity, whereas an acquisition is a takeover by another entity business in which no new company is created. Any structure will cause two organizations to merge economically and financially. In some company reorganization, M&A operation can also be viewed as a kind of restructuring with the goal of providing growth and value. Consolidation of an industry or sector takes place when large-scale M&A operations consolidate the capital of several small businesses into a few larger ones (Bianconi & Tan, 2019).

Mergers and acquisitions can be categorized as horizontal, vertical, or conglomerate:
-A *horizontal* acquisition occurs when a company acquires its competitors or another company from the same industry, which may increase the acquirer company market power of and competitive advantage.
-A *vertical* acquisition is a transaction between tow companies that have a buyer-seller relationship.

-A *conglomerate* acquisition occurs when the companies do not have the same industry and not having a buyer-seller relationship (Gaughan, 2007, p.13).

2.2 Motives for Mergers and Acquisitions

2.2.1 Economic Growth

According to Gaughan (2007, p.117), one of the most fundamental reasons behind M&A is achieving economic growth. Companies have two alternatives to expand and achieve growth the first alternative is to grow through its organic growth which considered to be slow and hard to achieve; the second alternative is to perform mergers and acquisitions, which could give the company the opportunities to expand faster not only on its initial industry but also to the other industries.

2.2.2 Synergy Motive

Synergy is the additional value obtained from the unite of two companies; synergies are mainly referred to as the efficiency theory, which proposes two types of synergies: financial synergies and operating synergy.

Synergy may allow the combined firm to have a positive *net acquisition value* (NAV).
$NAV = [V_{AB} - (V_A + V_B)] - (P + E)$

where:
V_{AB} = the combined value of the two firms
V_B = the value of B
V_A = the value of A
P = premium paid for B
E = expenses of the acquisition process

The term $[V_{AB} - (V_A + V_B)]$ is the synergy effect, and it should be greater than expenses and the premium paid for the acquisition to have a positive *net acquisition value* (Gaughan, 2007, p.124).

2.2.2.1 Operating Synergy Motive

The integration between companies achieve cost efficiency and increase revenue due to the following factors:

1- Economies of scale: which allow the combined firm to decrease the cost of the produced unit, where the fixed cost spread out over the high level of output as a result of the increase in

size and market share especially if the two merged firms were in the same industry (the deal is horizontal) (Berger, Demsetz, and Strahan, 1999; Lewis and Webb, 2007).

2- The economies of scope where the combined company has the ability to utilize its resources to produce a broader range of products and services as the case of the consolidation between banks in the fifth wave of mergers giving the small banks a wider band of services that they could not afford its cost before.

3-Greater pricing power from the competitive advantage and the wider market share.

2.2.2.2 Financial Synergy Motive

The financial synergy between the integrated firms may lead to a lower cost of capital and lower default risk, where the combined firms will have less volatility in cash flows and wider debt capacity (Chatterjee, 1986). Consequently, combined companies can increase the benefits from tax shields, and the risk for bankruptcy will be less because of the reduction in insolvency.

2.3 Theoretical framework

2.3.1 The Agency theory

The agency theory proposes that managers intended to act in a way that increases their own wealth in line with the cash flow theory which assumes that managers are more likely to invest the free cash flows that should be divided to shareholders into M&A activities to expand their empire and power (Jensen, 1986). Also, managers' salaries, bonuses, promotions tend to increase in line with corporate size (Cheng, Wickramanayake, and Sagaram, 2007). As a result, the agency motive may decrease the acquirer shareholders' value and increase in the target company shareholders' value, and The acquirer firm grows more than its optimal size (Berkovitch and Narayanan, 1993).

2.3.2 Hubris Theory

Hubris theory indicates that overconfidence managers of the acquirer company can make mistakes and may overvalue the target company paying a higher premium (Roll, 1986). which maximizes the target company shareholders' value and create negative Cumulative abnormal returns for the acquirer company (Sudarsanam, Holl, and Salami, 1996).

From the previously mentioned motives, we can conduct that the behavioral hypothesis (the agency theory and the hubris theory) have explained the negative acquirer cumulative abnormal stock returns or the destroy in shareholders' value. In contrast, the efficient market hypothesis (the economic growth and synergy motives) has demonstrated the positive abnormal stock returns for the acquirer companies.

2.3.3 Information asymmetry & efficient market theory

Previous studies argued that there is a relationship between information asymmetry and abnormal returns of the bidder and the target firms. Hansen (1987) argued that the information asymmetry in the market before the deal. He stated that firms who have more understanding of their company resources and value could use this information to have an advantage over their competitors. Hence both sides of the transaction intended to reveal information about the deal method of payment and value which can provide a positive or negative signal to the investor in the market, these signals influence stock prices of the target and the acquirer firms (Hietala, Kaplan, and Robinson, 2000).

In line with the information asymmetry theory Fama (1970) has discussed the efficient market theory, which suggests that an efficient market fully reflects all the available information on the securities prices. He also introduced three categories for the market forms: the *weak* form where today prices only reflect the available historical information in the market, the *semi-strong* form where prices reflect only the publicly published information, and the *strong* form which reflect all the private and public information available in the market on the stock prices.

2.3.4 Diversification

Diversification is the attempt to grow outside the company industry category. This phenomenon has started during the third merger wave during the late 1960s; the reason behind *deconglomerization* is to achieve a leading position and the desire to enter new and more profitable industries. However, the literature suggests that the expansion outward by performing conglomerate acquisitions has caused a temporary increase in the acquirer stock price while only added little real value caused by the exchange process (Gaughan, 2007, p.136). Furthermore, economic theories come to the conclusion that only industries that are difficult to enter have above-average returns in the long run in addition to the fact that the increased number of competitors will decrease the returns threatening the successfulness of the expansion strategy (Gaughan, 2007, p.136).

2.4 Hypothesis development

2.4.1 Short term impact of M&A on shareholders' value

The impact of M&A on shareholders' value has been a subject for many previous studies. Since the middle of the 20th-century researchers implemented event study method to measure the effect of M&A announcement on the stock returns, where a company acquisition outcomes can be defined as the sum of incremental abnormal returns, which represent the difference between share prices around the announcement date, and the expected share price without acquisition transaction. The results of these studies were inconsistent; many studies have found positive cumulative abnormal returns (CAR), associated with the deal announcement for the acquirer firms. In contrast, others have found value destruction or zero returns. The results for some of these studies are presented in table 2.1.

Table 2.1 Previous studies acquirer CAR results summary

Author	Country	Study period	Sample	CAR
Martynova and Renneboog (2011)	Europe	1993-2001	2419	Positive
Doukas, Holmen and Travlos (2002)	Sweden	1980-1995	101	Positive
Jaffe et al. (2015)	USA	1981-2012	3406	Negative
Mulherin and Boone (2000)	USA	1990-1999	281	Negative
Choi and Russell (2004)	USA	1980-2002	171	Positive
Eckbo (1986)	USA	1964-1983	1930	Positive
Ben Amar and Andre (2006)	Canada	1998-2000	238	Positive
Raj and Forsyth (2003)	UK	1990-1998	199	Negative
Sudarsanam and Mahate(2003)	UK	1983-1985	519	Negative
Ekholm and Svensson (2009)	Sweden	1997-2009	118	Positive
Frederikslust *et al.* (2000)	Nederland	1954-1997	101	Positive
Hamza. T (2011)	France	1997-2005	58	Positive
DeLong (2001)	USA	1988-1995	280	Negative

From the previously mentioned table, we can conclude that despite the negative reported CAARs in the US market and UK market, other studies show positive CAARs in Canada and almost the EU countries. Sudarsanam and Mahate (2006) discussed that using a long event window could cause overlapping between events, and the use of the asset pricing model CAPM to estimate the abnormal returns have a negative impact on CAARs, which could be one potential explanation of the results differences between EU, Canada, and the USA. We formulate our first hypothesis:

Hypothesis 1: Cumulative abnormal returns for the acquirer firms in Sweden CAARs are Positive.

2.4.2 Determinants of M&A success: Method of payment

The deal method of payment has a direct effect on the acquirer stock price in the market. Therefore, there has been an extensive debate about which payment method has the best influence on the bidder's stock value. According to Myers and Majluf (1984), the method of payment can carry different signals to the market and managers prefer to pay in stocks if they believe that their company is overvalued, therefor the market reacts negatively to the deals with stock payments while the returns on cash-only deals are positive. Martynova and Renneboog (2009) analyzed 1361 European deals between 1993 and 2001 and conclude that deals with a large portion of stock payments, increase the investment risk and carry a negative impact on the bidder's stock value. Furthermore, Travlos (1987) finds that deals with cash only payments are correlated with higher CAARs of bidders, whereas Georgen and Renneboog (2004) have found that deals with only cash payment usually reflect a negative impact on the acquiring company stock. We formulate our second hypothesis:

Hypothesis 2: CAARs is positively correlated with Cash only payments and Negatively correlated with stock only payments.

2.4.3 Size

Loderer and Martin (1990) have found that large deal value has a negative impact on the acquirer because these deals almost have a high deal premium and high investment risk. Additionally, big deals can be explained in line with the agency and hubris theory, where managers prefer to invest the free cash flow in investments and acquisitions to expand their empire. In the other hand, Sudarsanam et al. (1996) stated that targets with smaller transaction value are more likely to be integrated with the acquirer, which reflect positive returns on the acquirer stock value.

According to Moeller, Schlingemann, and Stulz (2004), smaller acquirers can create more value than large acquirers since smaller companies perform small deals and acquire almost private targets. Rau, Raghavendra, and Vermaelen (1998) have found that acquiring targets with low market-to-book value ratio has a positive impact on the bidders' announcement returns and low-value acquirer have more positive returns than the high-value acquirer, in contrast with these results Lang, Stulz, and Walkling (1991) stated that firms with high M/B value had created more value in the short term.

Hypothesis 3: The Size of the Deal has a negative impact on CAARs. To test this hypothesis, we will use the relative deal size (Deal size/total Acquirer assets) as our indicator to avoid the influence of small deals on our results.

Hypothesis 4: Small acquirers can create more value than big firms. To test this hypothesis, we will use the normal logarithm of the acquirer market capitalization to book value ln(M/B) to create a more normally distributed variable.

2.4.4 Domestic vs. cross border

Domestic deals occur when the acquirer company acquires a company from the same country. At the same time, while cross border deals occur when the acquirer firm acquires a firm outside its main country borders. The implications of cross-border deals have been investigated in the literature from numerous studies, and the results were ambiguous.

Eckbo and Thorburn (2000) investigated many acquisitions from the U.S market where U.S companies acquire targets from Canada and found that domestic deals have more positive significant returns than cross border deals.

Aw and Chatterjee (2004) examined a sample from the UK market between the period 1991-1996 and found a negative abnormal return associated with cross border deals. Moreover, Mangold and Lippok (2008) have studied a sample from the EU during the period of 2000-2007; the study indicated that cross border deals had created positive returns to the acquirer firms.

Ekholm and Svensson (2009) investigated the Swedish market for the period 1997-2009, and the results were not statistically significant; however, they have found a positive correlation between cross-border deals and the acquirer abnormal returns.

Hypothesis 5: Cross border deals are positively correlated with CAARs, while domestic deals are negatively correlated.

2.4.5 Deal diversification

In our study, we will consider the deals with firms that have the same Standard Industrial Classification (SIC) codes to be focused, while all other firms that do not have the same SIC code to be diversified.

The previous studies have conducted Mixed results in this topic, Morck, Shleifer, and Vishny (1990) have found evidence for a negative market reaction to diversifying acquisitions, and the

acquirer company gains 4 percent more from horizontal deals. Akbulut and Matsusaka (2010) investigated a sample of 4,764 mergers in the period of (1950-2006) they have found that vertical and conglomerate acquisitions have a positive impact on shareholders' value. Still, these returns intend to decline after 1980. Furthermore, Flanagan (1996) conducted that focused deals have a higher positive return than diversifying deals.

Hypothesis 6: focused deals have a positive impact on CAARs.

2.4.6 Public vs. non-public target

It is rational in every research to study non-public or private target companies deals since it forms a big part of the total acquisition's transactions. Hence, we are going to include the private target deals in our research to have more realistic results and enhance our understanding of the market reaction to these kinds of deals.

Chang (1998) has investigated 536 deals from the US market between the period 1981 to 1992. 52 % were private deals and found that private deals paid with stocks have positive abnormal returns, while private deals paid with cash only have zero abnormal returns. He also found that the returns for public listed targets have a negative impact on the acquiring shareholders' value. Draper and Paudyal (2006) have discussed evidence from the British market during the period 1980, and 1990 and conduct that 88% of the deals in the UK were with private targets and the abnormal returns were positive due to the fact that private targets are more likely to accept a lower price than public firms.

Faccio, McConnell, and Stolin (2006) have studied the EU market using a sample of 4,429 acquisitions between 1996 to 2001 and observed that the acquirer with a private target has 1,86% higher abnormal returns than other acquirers with the case of listed companies.

These results are in line with Myers and Majluf (1984) explanations and the information asymmetry hypothesis, which discuss that the revealed information associated with private targets is less than the information associated with public targets which reflect higher positive returns in the case of private target companies. However, the disclosure obligation and the easy access to information about public companies could be a reason that public companies have less information asymmetry than private companies.

Hypothesis 7: CAARs are positively correlated with private targets and negatively with public listed targets.

2.4.7 Financial characteristics: Profitability

Profitability ratios can be used as performance indicators for both target and acquirer companies, Gorton et al. (2009) stated that targets with high profitability ratios could create good synergies with acquirers, and bad performance company can create value to the acquirer through the market since the price paid could be lower than the enterprise value. Furthermore, Rau and Vermaelen (1998) argue that more profitable targets have a negative effect on the acquirer returns after the acquisition, while targets with weak performance have a positive impact, a potential explanation could be that the profitable companies have less future growth opportunities than unprofitable companies. In our research, we are going to use the Return on Equity (ROE) as a profitability indicator since its commonly used in previous researches. However, since ROE is influenced by the number of shares outstanding, we will use Return on Assets (ROA) as a secondary explanatory variable beside ROE to provide more accurate results.

Hypothesis 8: Target firm's profit has a positive impact on the acquirer CAARs.

2.4.8 Company Capital Structure

According to *Uysal* (2010), Mangers take into consideration the target capital structure when they are planning for acquisition, and managers of overleveraged firms attempt to balance their capital structure by capturing the most value-enhancing deals. Additionally, Almazan et al. (2010) argued that companies that have lower debt ratios, and high cash balance are more likely to perform acquisitions. Moreover, McConnell and Servaes (1995) indicate that in the case of low growth opportunity firms, investors tend to appreciate the high leveraged structure, to overcome the agency theory and hubris theory implications, and prevent managers from overinvestment. While in the high growth opportunity, firms' investors surpass low leveraged structures. This implies that target firms with high debt ratios are positively correlated to the acquirer abnormal returns.

Hypothesis 9: Target firms with a high leverage ratio have a positive impact on CAARs.

2.4.9 Growth & Cashflows

Previous studies indicated that acquirer firms with high growth rates, acquire targets with higher rates of return on assets, and lower growth rates. While acquirer with low sales growth rates

intends to acquire firms with high sales growth (Song, 1983). Additionally, Arikan and Stulz (2016) stated that there is a positive relationship between a firm's growth opportunities and the acquirer abnormal returns.

Jensen (1986) proposed in his cashflow theory that firms with high cash holding, are more likely to perform acquisitions. They found that managers of firms with excess cash intend to perform more value-destroying diversifying deals, because of overconfidence and agency cost. Furthermore, Smith and Kim (1994) stated that there is a negative impact between acquirer cashflow and abnormal returns.

Hypothesis 10: Acquirer cashflow is negatively correlated with CAARs.

Hypothesis 11: Acquirer growth is positively correlated with CAARs.

2.4.10 Deal premium and overpayment hypothesis

Overpayment occurs when the acquirer company pays a premium that exceeds the value of the expected synergy. According to Sirower (1997), the expected gains obtained from acquiring another company are almost lower than the premium paid. Hence acquisition deals with high premiums, have a negative effect on the shareholder wealth and destroys value. Moreover, Black (1989) stated that misevaluation could be a result of a lack of complete information and over-optimistic managers, where the managers who run a successful business overestimate their ability to be successful in another one.

Hypothesis 12: Deal premium is negatively correlated with CAARs.

2.4.11 Deal financing source:

Martenova & Renneboog (2009) Stated that investors are able to distinguish between the information about the deal payment method, and the deal financing alternatives. They have also found a positive relationship between the deal debt financing and CAARs. Further, they discussed that deal debt financing sends a positive signal to the market, that the deal will be profitable, and not derived by management empire building or agency theory. Furthermore Lang et al. (1991) and Schlingemann (2004) have found a negative and significant relation between internally financed deals and bidder returns in cash-paid M&As.

Hypothesis 13: Deal internal financing is negatively correlated with CAARs.

3. Data and Methodology

3.1 Event Studies Framework

The event study approach has been vastly used to examines the effect of specific information or event on the share price. The main purpose of the event study in this thesis is to investigate whether the share was affected by information regarding the acquisition. Event studies have been analyzed since the beginning of the 20th century; for example, James Dolley, already in 1933, investigated what price effects a share split brings MacKinlay (1997).

In 1969 Fama, Fisher, Jensen, and Roll presented event studies as a methodology based on the hypothesis of the effective market. In practice, the methodology has been used to investigate two relevant causes: (1) test the null hypothesis that the market effectively incorporates information and (2) determine the impact of various events on the company share, under the estimation that firms have at least access to the public information. To apply the event study methodology, its fundamental to assume that the market is efficient, and has a semi-strong form to reflect all the information available on the stock prices McWilliams and Siegel (1997).

3.2 Parameter Estimation and Event Period

The first step in the event study is to define the Event date, in our study we will use

τ_0 = announcement date, as our event date to capture the effect of M&A announcement on the acquirer stock prices.

In the next step, we define our evet window $L2 = T2 - T1$, which represents the period of time that we are going to capture the market reaction to our event over it. Since there is no consensus in the literature about the ideal event window, previous studies have used different event windows. A small window of one day before the announcement day and one day after (1,+1) have been widely used. The first reason is to avoid any biasness or to overlap with other events; the second reason is to provide more accurate results (see Eckbö, 1986; Mulherin and Boone, 2000; Sudarsanam and Mahate, 2003). However, other studies suggested a longer event window, to account for the possibility that information leaks, and the possibility that event takes more than one day to reach its full effect on the firm value (see McWilliams and Siegel, 1997; Gupta and Misra, 2007). Hence in our study we will test for 3 event windows [-1,+1],[-3,+3],[-5,+5].

Next, we will define our estimation window $L1 = T1 - T0$. The main purpose of the estimation window is to define the period to calculate the regular stock returns before the event takes place.

Since the investigated event should not have an effect on the estimation period, the estimation period and the event period must not overlap (MacKinlay, 1997). Therefore, we have left one month between the two windows, to exclude market returns influenced by the event. Previous studies have used different estimation windows from 90 to 255 days prior to the event, Martynova and Renneboog (2011) have used 300 days before the event day, in our study we will use an upper bound of 250 days prior to the event day and a lower bound of 30 days before the event day; therefore our estimation window will be in total 210 days.

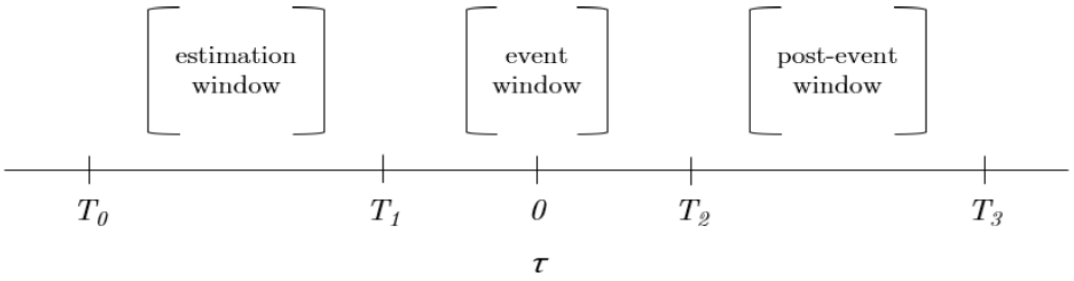


Figure 1: Event Study Timeline, Source MacKinlay (1997)

3.3 Estimating Abnormal Returns (AR)

The abnormal returns associated with M&A defined as the difference between the actual returns and the expected returns without the event, the abnormal returns are calculated as the following:

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \qquad (1)$$

where:

- $AR_{i,t}$ is the abnormal return for stock *i* at time *t*
- $R_{i,t}$ is the actual return for stock *i* at time *t*
- $E(R_{i,t})$ is the expected return for stock *i* at time *t*

The expected returns are estimated by using different estimation models. The choice of the estimation model is very important and could affect all the research results. Many other methods have been discussed in the literature to calculate the expected returns; the most common models are:

The market model used by MacKinlay (1997) is the most commonly used model in the empirical researches to estimate $E(R_{i,t})$ as represented in (2):

$$E(R_{i,t}) = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \qquad (2)$$

Where

- α_i is the intercept coefficient
- β_i is the market return coefficient
- $R_{m,t}$ is the market return for stock i
- $\varepsilon_{i,t}$ is the residual or the error term.

A simpler version of the market model is the Market Adjusted Model

$$\text{ARit} = R_{it} - R_{mt}. \qquad (3)$$

In the market adjusted model α_i and β_i and $\varepsilon_{i,t}$ are assumed to be 0, and the correlation is perfect, there the abnormal stock return is defined as the difference, between the actual stock returns at the event period and the market stock returns at the same period. However, Brown and Warner (1980) conclude that the market adjusted method and the market model are not presenting significantly different results.

The third estimation model is the Capital Asset Pricing Model (CAPM).

$$E(R_{i,t}) = R_{f,t} + \beta_i (R_{m,t} - R_{f,t}) + \varepsilon_{i,t} \qquad (4)$$

Where $R_{f,t}$ is the risk-free rate of interest, CAPM is an updated version of the Market model to account for the market risk, despite the fact that it was widely used in 1970th (MacKinlay, 1997) stated that CAPM adds unnecessary limitations on the market model. Moreover, Fama and French (1996) rejected the CAPM based on the evidence that size and book-to-market-equity (*B/M*) capture cross-sectional variation in average returns is missed by βs. To overcome the shortcoming in the CAPM model, Fama and French (1996) developed the capital asset pricing model. They included the size and book to market ratio in the old CAPM model, which gives the three-factor model more explanatory power than CAPM as the following:

$$r = \alpha_i + \beta_1 (R_{m,t} - R_{f,t}) + \beta_2 (SMB_t) + \beta_3 (HML_t) + \varepsilon_{i,t} \qquad (5)$$

Where:

- $r = R_{i,t} - R_{f,t}$ = Expected rate of return
- $R_{f,t}$ = Risk-free rate
- ß = Factor's coefficient (sensitivity)
- $(R_{m,t} - R_{f,t})$ = Market risk premium

- SMB (Small Minus Big) = Historic excess returns of small-cap companies over large-cap companies
- HML (High Minus Low***)*** = Historic excess returns of value stocks (high book-to-price ratio) overgrowth stocks (low book-to-price ratio)
- ε = the error term

To avoid any biases, and to capture all the potential abnormal returns. We will estimate our expected returns using both the *Market model* and *Fama and French three factors model*.

Now we can calculate AR for a specific stock on a specific day by applying (1). Since we investigate the impact of the event on more than one day, we can aggregate the results of ARs to obtain the average abnormal returns as the following:

$$\overline{AARt} = \frac{1}{\mathrm{N}}\sum_{i=1}^{N} \mathrm{AR}it \qquad (6)$$

where,
$\overline{AARt}$ = average abnormal return at t

To calculate the Cumulative Abnormal Returns (CAR) over the whole event window, we can aggregate the average abnormal returns as the following:

$$\overline{CAAR(t1,t2)} = \sum_{t=t1}^{t2} \overline{\mathrm{AAR}t} \qquad (7)$$

where,

$\overline{CAAR(t1,t2)}$ = cumulative average abnormal return over the period t1 to t2

The null hypothesis and the alternative hypothesis are formulated as the following:

H_0: CAARt = 0

H_1: CAARt ≠ 0

3.4 Testing the statistically significant of abnormal returns

Following MacKinlay (1997) framework, the significant of the cumulative abnormal returns can be manually tested, by using the variance to perform a t-test as the following:

$$var\left(\overline{CAAR(t1,t2)}\right) = \frac{1}{N^2}\sum_{i=1}^{N}\left(\mathrm{CAARi(t1,t2)} - \overline{\mathrm{CAAR(t1,t2)}}\right)^2 \qquad (8)$$

And the t-test formula is:

$$t = \frac{\overline{\text{CAAR}}(\text{t1,t2})}{\sqrt{var(\overline{CAAR}(t1,t2))}} \quad (9)$$

In order to facilitate the calculation and testing process of CAARs since we have huge data, we have used STATA statistical program to test our sample, and performed some checks manually, to ensure the consistency between the program results, and our manually calculated results.

3.5 Data Collection

In this paper, we aim to study all the announced and completed M&A deals in Sweden, within the period 2010/1/1 to 2020/1/1 for the listed Swedish companies. For this purpose, we have used the Zephyr Database by Bureau van Dijk and Nasdaq OMX as our source of data, using the following search criteria:

1. listed acquiror.

2. Deal Type: Merger, Acquisition.

3. Current deal status: Completed.

4. Time period: on and after 01/01/2010 and up to and including 01/01/2020 (completed-confirmed, announced).

5. All stock exchange: Nasdaq OMX - Stockholm (Acquiror).

6. Country (primary addresses): Sweden (SE) (Acquiror).

7- The acquirer control less than 50% of the target shares before the deal and more than 50% after the deal.

We have obtained 2143 M&A deals that meet the previously mentioned criteria. Further, we calculated the relative acquirer size for each deal (deal value/total assets), then we excluded all deals that have a relative size less than 10% to avid that our results largely influenced by those very small deals (Miles and Rosenfeld 1983; Healy, Palepu, and Ruback, 1992). Next, we excluded all deals with missing data that we could not obtain. Finally, our final sample was including 182 deals.

3.6 Data Description

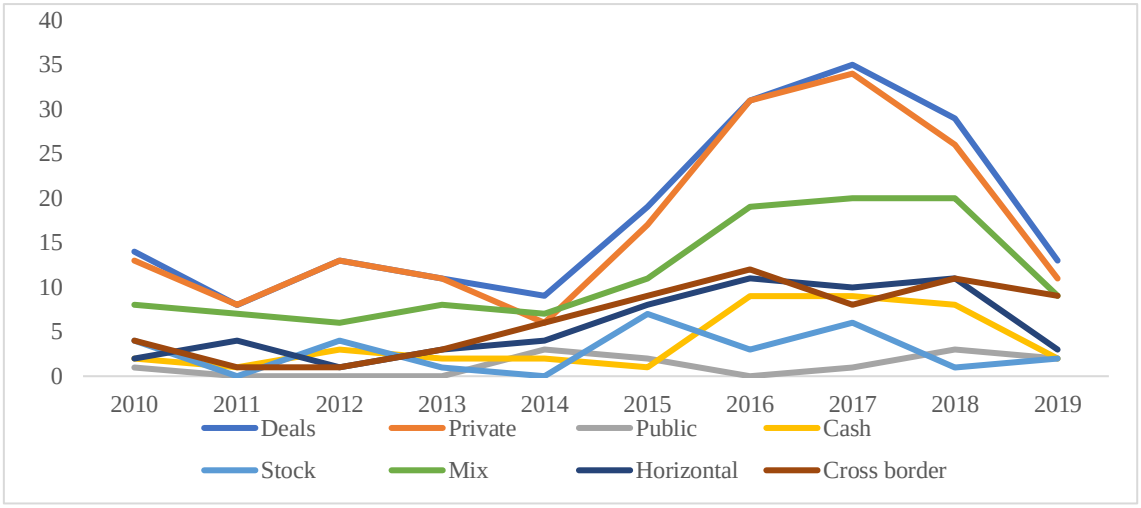
Table (2) represent a summary statistic and a distribution description for our sample, 182 deals between the period of 2010/1/1-20201/1. We can observe that 93% of the deals are for acquirers with private targets. In comparison, only 7% for firms acquiring public or listed targets, for the method of payment we find that 21% of the deals are paid with Cash only, and 15% are paid with Stock only, while other 63% are paid with cash and stock or debt (Mix). 31% of the deals

are focused, i.e., firms acquire their competitors, while 69% are vertical and conglomerate acquisitions. Finally, the Cross-border deals were consisting of 35% of the total deals. Figure 2 shows the deal numbers and the deal characters' development over the years. We can observe that M&A deal numbers peak in Sweden was in 2016-2017-2018, and the cross-border deals had increased from 7% of the total deals in 2011 to 69% in 2019. For sample summary statistics, *see appendix (2).*

Table (2) Sample distribution description

Year	Deals	Private	Public	Cash	Stock	Mix	Focused	Cross border
2010	14	13	1	2	4	8	2	4
2011	8	8	0	1	0	7	4	1
2012	13	13	0	3	4	6	1	1
2013	11	11	0	2	1	8	3	3
2014	9	6	3	2	0	7	4	6
2015	19	17	2	1	7	11	8	9
2016	31	31	0	9	3	19	11	12
2017	35	34	1	9	6	20	10	8
2018	29	26	3	8	1	20	11	11
2019	13	11	2	2	2	9	3	9
Total	182	166	12	39	28	115	57	64
percentage		93%	7%	21%	15%	63%	31%	35%

Figure 2: Sample Deals distribution



3.7 Hypothesis summary

In this study, we aim to investigate if there are any stock abnormal returns ARs associated with the deal announcement date in the Swedish market for the acquirer companies; further, we aim to investigate the determinants of these abnormal returns if they exist. In this section, we represent a summary of the hypothesis that will be tested in our study, depending on the previously mentioned hypothesis in section (2.4).

Hypothesis 1: Cumulative abnormal returns for the acquirer firms in Sweden CAARs are Positive.

Hypothesis 2: CAARs is positively correlated with Cash only payments and Negatively correlated with stock only payments.

Hypothesis 3: The Size of the Deal has a negative impact on CAARs. To test this hypothesis, we will use the relative deal size Deal size/total Acquirer assets as our indicator.

Hypothesis 4: Small acquirers can create more value than big firms. To test this hypothesis, we will use the normal logarithm of the acquirer market capitalization to book value ln(M/B).

Hypothesis 5: Cross border deals are positively correlated with CAARs, while domestic deals are negatively correlated.

Hypothesis 6: Focused deals have a positive impact on CAARs

Hypothesis 7: CAARs are positively correlated with private targets and negatively with public listed targets.

Hypothesis 8: Target firm's profit has a positive impact on the acquirer CAARs.

Hypothesis 9: Target firms with a high leverage ratio have a positive impact on CAARs.

Hypothesis 10: Acquirer cashflow is negatively correlated with CAARs.

Hypothesis 11: Acquirer growth is positively correlated with CAARs.

Hypothesis 12: Deal premium is negatively correlated with CAARs.

Hypothesis 13: Deal internal financing is negatively correlated with CAARs.

3.8 Explanatory Regression and Regression Model

To test the relationship between CAARs and the previously mentioned variables we will use the following Cross-sectional Model:

$CAR_i = \alpha + \beta 1 * TEBIT_i + \beta 5 * TSHF_i + \beta 10 * ASHF_i + \beta 12 * ACFPS_i + \beta 13 * Fucused_i + \beta 14 * DFCE_i + \beta 15 * Prvt_i + \beta 16 * Cash_i + \beta 17 * Stock_i + \beta 18 * Prem_i + \beta 19 * CBDi_i + \beta 20 * TROA_i + \beta 21 * AROA_i + \beta 22 * AAG_i + \beta 23 * Rlsize_i + \beta 24 * TLEV_i + \beta 25 * ALEV_i + \beta 26 * TROE_i + \beta 27 * AROE_i + \beta 28 * lnMBA_i + \varepsilon i.$ (10)

Where:

- CAR_i is the cumulative abnormal returns for Deal i
- $TEBIT_i$ is the target earnings before interest and tax (operational profit).
- $TSHF_i$ is the target shareholders fund.
- $ASHF_i$ is the acquirer shareholders fund.
- $ACFPS_i$ is the acquirer free cashflow per share (Net cashflows/outstanding shares)
- $Focused_i$ is a dummy variable equal to 1 if the acquirer and the target company have the same Standard Industry Code (SIC), and 0 otherwise.
- $DFCI_i$ is a dummy variable equal to 1 if the acquirer financed the deal through a capital increase, and 0 otherwise.
- $Prvt_i$ is a dummy variable equal to 1 if the target is a private company, and 0 if the target is a public or listed company.
- $Cash_i$ is a dummy variable equal to 1 if the deal payment method is only with cash, and 0 otherwise.
- $Stock_i$ is a dummy variable equal to 1 if the deal payment method is only Stock, and 0 otherwise.
- $Prem_i$ is the deal premium paid = Deal value- target market value.
- $CBDi_i$ is a dummy variable equal to 1 if the deal is cross border, and 0 if the deal is domestic.
- $TROA_i$ is the target return on assets =Net income/total assets.
- AAG_i is the acquirer Assets' growth.
- $Rlsize_i$ is the relative deal size= deal value/acquirer market value.
- $TLEV_i$ is the target leverage= total liabilities/shareholders fund.
- $ALEV_i$ is the acquirer leverage= total liabilities/shareholders fund.
- $TROE_i$ is the target return on equity= Net income/ Shareholders equity.
- $AROE_i$ is the acquirer return on equity = Net income/ Shareholders equity.

- LnMBA$_i$ is the normal logarithm of the Acquirer market to book value.
- ß = Factor's coefficient (sensitivity).
- ε_i is the residual (error) term.

Ordinary least squares (OLS) is a powerful analysis that will help us to analyze the relationship between our explanatory variables, and the independent variable (CAR). To apply this regression and ensure that our results are unbiased or to minimize the discrepancy between our estimated values and actual values. The following assumptions should be fulfilled, see (Hair, Anderson, Tatham, and Black, 1995). First, the expected value of the error term is zero,

$E\{\varepsilon_i\} = 0, i = 1, \ldots, N,$

Our model fulfills this condition since we included the constant α which will force the residual to be zero.

3.9 Multicollinearity Test

The second assumption is that our independent variable CAR is not correlated with the error term, and our explanatory variables are not correlated with each other. To test if our model fulfills this assumption, we will run a variance inflation factor test (VIF), which measure the sensitivity of an estimated regression coefficient to collinearity using the formula:

$$VIFi = \frac{1}{1 - Ri^2}$$

If VIF value is greater than 5, then there is multicollinearity (Ringle, Wende, and Becker, 2015). Table 3 represent VIF test results where 1/VIF is the Tolerance; if it is less than 0.2, then there is a problem with multicollinearity (Hair et al., 1995).

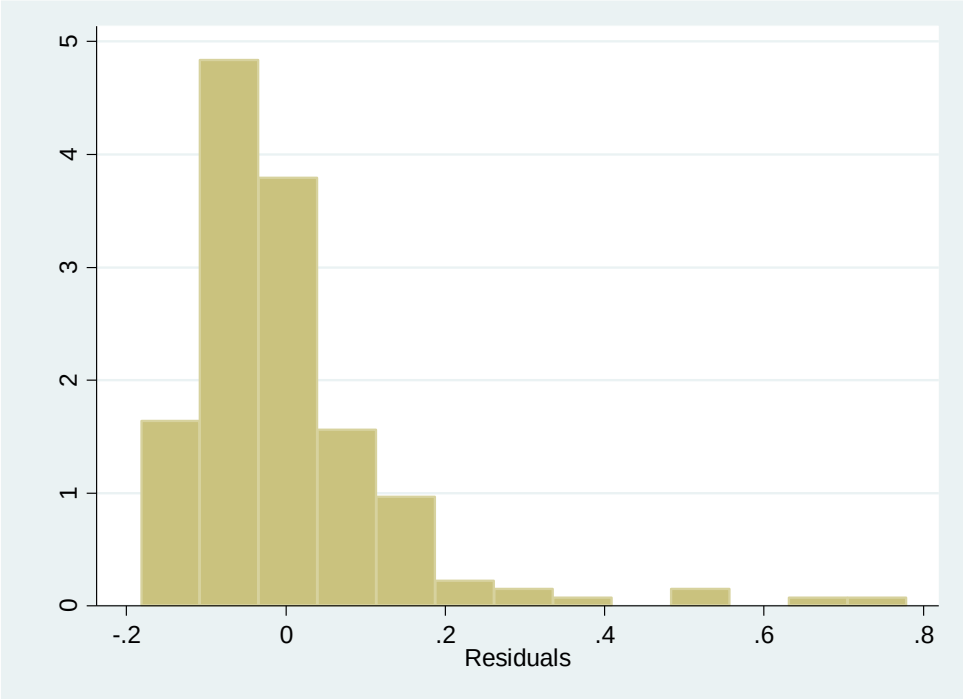
Table (3) VIF test results.

Variable	VIF	1/VIF	Variable	VIF	1/VIF
AROE	3.77	0.264931	TShF	1.48	0.674288
TLEV	2.70	0.370868	Prvt	1.48	0.676587
ACFPS	1.94	0.514285	prem	1.48	0.677934
AAG	1.88	0.532054	ALEV	1.41	0.711583
lnMBA	1.67	0.599857	Rlsize	1.29	0.772464
DFCI	1.65	0.605047	Cash	1.26	0.792521
TROA	1.65	0.606169	CBD	1.23	0.815876
ASHF	1.65	0.606992	TEBIT	1.20	0.830865
Stock	1.60	0.626717	Focused	1.16	0.859083
TROE	1.06	0.943468			

The results confirm that our regression model is free of multicollinearity. However, to test further and secure our results, we created a correlation matrix between all our explanatory variables using STATA program, and the results were consistent with our VIF test results. See *Appendix (3)* correlation matrix.

3.10 Normality

Normality assumption is fulfilled when the data are normally distributed around the mean (having a bell curve). Normality can be tested using the histogram of the residuals to see how the data is distributed or using skewness and kurtosis Test. From the graph (1), we can observe that our data is normally distributed. However, our sample size is also large enough (>40), so our sample tends to be normally distributed regardless of the data distribution shape (Field, 2009).



Graph 1 Residuals histogram

To test further, we used skewness and kurtosis normality test, where

H_0: The data are normally distributed

H_1: The data are not normally distributed.

Table (4) skewness and kurtosis Test results

Skewness/Kurtosis tests for Normality					
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
Residuals	182	0.0000	0.0000	.	0.0000

From table (4), we can observe that *P*-value is 0.0000, and the result is highly statistically significant at 0,05, which means that we cannot reject the null hypothesis, and our data are normally distributed. We can also observe that there is no skewness in our data (skewness=0,0000).

3.11 Homoscedasticity

Homoscedasticity assumption is rational to linear regression models; under this assumption, the variance of the error term should be constant and does not change for each observation. To test if our regression fulfills this assumption, we will use the White's test and the Breusch-Pagan test.

With the Breusch pagan test:

The null hypothesis Ho: Constant variance

The alternative hypothesis Ha: heteroskedasticity

Our results presented in table (5) are highly statistically significant, with a P-value under 0.05% in all the three tested events windows. Hence, we reject the null hypothesis that the variance is constant; this implies that our data have no heteroscedasticity. Using the White's test; the results were in the same line with Breusch pagan test where:

The null hypothesis Ho: homoskedasticity

against Ha: unrestricted heteroskedasticity

See appendix (4) for white's test results, we have found that P-value was 0,46, which mean that we fail to reject the null hypothesis, and our data is homoscedastic.

Table (5) Breusch pagan test results.

Variable	chi2	P-value
fitted values of CAR (-1,+1)	chi2(1) = 9.02	Prob > chi2 = 0.0027
fitted values of CAR (-3,+3)	chi2(1) = 12.35	Prob > chi2 = 0.0004
fitted values of CAR (-5,+5)	chi2(1) = 25.43	Prob > chi2 = 0.0000

4. Empirical Finding

4.1 Cumulative Abnormal Returns (CAR)

As mentioned, before we will test the impact of M&A on the acquirer stock prices on the announcement date, using both the Market model and CAPM three-factor model (Fama and French, 1996). We test our first hypothesis:

Hypothesis 1: Cumulative abnormal returns for the acquirer firms in Sweden CAARs is Positive.

Table (6) CAAR for the overall sample

	CAAR			P-Value		
Model	**CAAR[-1,1]**	**CAAR[-3,3]**	**CAAR[-5,5]**	**[-1,+1]**	**[-3,+3]**	**[-5,+5]**
Market Model	8.69%	9.20%	7.32%	(0.000)***	(0.000)***	(0.000)***
CAPM Three Factor	8.73%	9.15%	8.66%	(0.000)***	(0.000)***	(0.000)***

Estimated p-values given in parentheses. Statistical significance levels of 10%, 5%, and 1% are denoted with *, **, and ***, respectively.

Table (6) represent the cumulative average abnormal returns CAAR for an overall sample of 182 observation for both Market model and CAPM three-factor model; we can observe that CAAR [-3,+3] window have the highest abnormal returns in both models, which mean that information about the deals leaked before the announcement day and the market reacted to this information positively. We can also observe that there is no big difference between the market model and CAPM three-factor results. Both models show positive CAARs, and the results are highly statistically significant at 1%. Hence, we cannot reject the null hypothesis, and our result is in line with Goergen & Renneboog (2004), and Ekholm & Svensson (2009), which imply that CAARs associated with M&A is positive in the Swedish market, with almost 9% higher returns around the announcement date. Our results also show that the Swedish market is an efficient market and have at least a semi-strong form, because the market has reacted quickly to the leaked information about the deals and reflected this news on the stock prices. See appendix (5) and Appendix (6) for more details about the p-value and CAAR for every deal in the sample.

4.2 Determinants of Shareholders Value Results

In this section, we will test all the previously mentioned hypotheses in section (3.7) to determine which factors have an impact on the acquirer abnormal returns and measure the magnitude and the effect of these factors running our regression model (10).

Table (7) OLS regression results.

	The Market Model			**CAPM Three-Factor Model**		
	CAAR [-1.+1]	CAAR [-3.+3]	CAAR [-5.+5]	CAAR [-1.+1]	CAAR [-3.+3]	CAAR [-5.+5]
TEBIT	-0.000000144	-0.000000234	-0.000000367	-0.000000150	-0.000000236	-0.000000354
	(-0.26)	(-0.58)	(-1.05)	(-0.29)	(-0.62)	(-0.98)
TSHF	0.000000147***	0.000000194***	0.000000185***	0.000000146***	0.000000193***	0.000000181***
	(4.14)	(6.09)	(4.77)	(4.06)	(5.99)	(4.19)
ASHF	-1.15e-08	-1.57e-08	-2.04e-08	-1.05e-08	-1.42e-08	-1.88e-08
	(-1.06)	(-1.46)	(-1.84)	(-0.92)	(-1.22)	(-1.53)
ACFPS	-0.867*	-1.261**	-1.175**	-0.902*	-1.273**	-1.169**
	(-2.00)	(-3.15)	(-2.96)	(-2.07)	(-3.21)	(-2.94)
focused	-0.0302	-0.0387	-0.0318	-0.0314	-0.0395	-0.0341
	(-1.21)	(-1.33)	(-0.95)	(-1.27)	(-1.36)	(-1.02)
DFCI	-0.0160	-0.0296	-0.0424	-0.0187	-0.0296	-0.0405
	(-0.52)	(-0.89)	(-1.19)	(-0.60)	(-0.89)	(-1.12)
PRVT	-0.0112	0.0468	0.0827	-0.0134	0.0455	0.0813
	(-0.15)	(0.46)	(0.63)	(-0.18)	(0.45)	(0.61)
Cash	-0.0614*	-0.0700*	-0.0854*	-0.0618*	-0.0677*	-0.0842*
	(-2.23)	(-2.12)	(-2.37)	(-2.27)	(-2.06)	(-2.32)
Stock	-0.0590	-0.0706	-0.0730	-0.0605	-0.0782	-0.0831
	(-1.22)	(-1.26)	(-1.35)	(-1.25)	(-1.38)	(-1.51)
prem	-0.0000126*	-0.0000128*	-0.0000114	-0.0000127*	-0.0000126	-0.0000109
	(-2.51)	(-2.01)	(-1.58)	(-2.52)	(-1.94)	(-1.47)
CBD	-0.0146	-0.00971	-0.00725	-0.0150	-0.0112	-0.0110
	(-0.59)	(-0.34)	(-0.24)	(-0.60)	(-0.40)	(-0.37)
TROA	0.00524*	0.00657*	0.00643	0.00552*	0.00704**	0.00684*
	(2.18)	(2.32)	(1.79)	(2.33)	(2.62)	(1.99)
AAG	-0.00396	0.0378	0.0404	-0.00334	0.0334	0.0315
	(-0.08)	(0.62)	(0.68)	(-0.07)	(0.55)	(0.53)
Rlsize	-0.00170	-0.00195	-0.00220	-0.00184	-0.00197	-0.00236
	(-0.78)	(-0.77)	(-0.53)	(-0.76)	(-0.75)	(-0.57)
TLEV	-0.0442	-0.0636	-0.0903	-0.0453	-0.0661	-0.0905
	(-1.02)	(-1.48)	(-1.88)	(-1.03)	(-1.53)	(-1.85)
ALEV	-0.0612	-0.0515	-0.00633	-0.0641	-0.0583	-0.0120
	(-1.04)	(-0.76)	(-0.09)	(-1.09)	(-0.87)	(-0.17)
TROE	0.0000137	0.0000248*	0.0000320*	0.0000131	0.0000235*	0.0000306*
	(0.79)	(2.33)	(2.54)	(0.79)	(2.32)	(2.47)
AROE	-0.0163	-0.0164	-0.0392	-0.0151	-0.0156	-0.0378
	(-0.61)	(-0.51)	(-1.22)	(-0.56)	(-0.49)	(-1.16)
LnMBA	-0.00279	-0.00535	-0.00124	-0.00337	-0.00422	0.000820
	(-0.21)	(-0.33)	(-0.07)	(-0.25)	(-0.26)	(0.04)
constant	0.205*	0.172	0.144	0.211*	0.179	0.150
	(2.33)	(1.54)	(1.06)	(2.43)	(1.61)	(1.09)
N	182	182	182	182	182	182
R^2	0.110	0.144	0.159	0.112	0.146	0.157

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

Table (7) represent our OLS regression results for both the market model and the CAPM three-factor model (Fama and French). The sample includes a total of 182 M&A made by Swedish acquirers over the 2010–2020 period. This table presents the coefficients and *t* -statistics (in parentheses) for six OLS regressions based on the whole sample. Estimated *t* -statistics are based on robust standard errors. The dependent variable is the acquirer CAAR as measured over the three-event windows [−1, + 1], [−3, + 3], [−5, + 5]. All variables are defined before in section (3.8).

From table (7), we can observe that there is a strong positive relationship between the target shareholders fund (TSHF) and CAAR in all events windows with both models, and the result is highly statistically significant at less than 1% and t-value of almost 4,2. However, the effect of this variable on CAAR is very weak, and the coefficient equal to (0.000000147). There is a negative relationship between the acquirer Cash flows per share (ACFPS) and CAAR in all event windows with both models, the result is highly statistically significant at 5% and 1% level and the coefficient is almost 1,2, and t-value is around 3, which imply that the cumulative abnormal returns decrease 1,2% when the acquirer Cash flow per share increase by 1%. Further, we can observe that there is a negative relationship between Cash only payment method and CAAR in all event windows and both models and the result is highly statistically significant at 5% with t value around (-2,2), and coefficient -0,06, which mean that CAAR decrease with 6% when the deal payment method is Cash only in the Swedish market. Moreover, we can conclude that the deal premium (Prem) also has a negative relationship with CAAR at a 5% level of significant in [-1. +1] event window with a small coefficient of (-0.0000126). We can also observe that target return on assets (TROA), and target return on equity has a positive relationship with CAAR at 5% significant level and the cumulative abnormal returns increase 5 euro if the return on assets increases 1000 euro. Finally, we did not find any relationship between the other explanatory variables and our independent variable CAAR.

5. Analysis & Discussion

In this section, we are going to analyze our findings and compare the literature and previous studies results with our results.

Hypothesis 2: CAARs is positively correlated with Cash only payments and Negatively correlated with stock only payments:

In contrast with Martynova and Renneboog (2009) and Travlos (1987), we have found a negative relationship between Cash only payments and CAARs, our results are in line with Goergen, & Renneboog (2004) study for the European market. Our results also demonstrate a negative effect for stock only payments in line with Myers and Majluf (1984), who suggest that acquirer companies prefer stock payment when they believe that their stock is over or under valuated, which sends a negative signal to the market. Hence, we can conclude that a combined payment method of Cash stocks and loans are preferable in the Swedish market. Since 93% of the deals in Sweden are with private companies, there is a high degree of uncertainty about the target company value. The risk of overpayment could be high also due to the agency cost and information asymmetry; for these reasons, acquirer firms pay a good portion with stocks to share the risk with the target companies (Hansen, 1987).

Moreover, according to the tax hypothesis, cash-only payments are not preferable to the target companies due to the direct capital gain tax obligation since the target company should pay these taxes immediately with cash payment. In contrast, these payments could be postponed with stock payments and bonds until the shares are sold. Furthermore, the acquirer company could also obtain tax benefits by using loans, and the excess cash could be used to finance other investments that could give the acquirer company more growth opportunities.

Hypothesis 3: The size of the Deal has a negative impact on CAARs. To test this hypothesis, we will use the relative deal size Deal value/total Acquirer assets as our indicator:

To capture the effect of the deal size on the acquirer firm abnormal returns, and to avoid the possibility that our results being influenced by small deals impact. We have used the relative deal size (deal value/acquirer total assets). Similar to Loderer and Martin (1990) results. We have found that the size of the deal (transaction value) is negatively correlated with CAARs. The negative impact can be explained by the hubris theory and the high premium that is normally associated with big deals in addition to the fact that big companies face many difficulties to be integrated (Sudersanam et al., 1996).

Hypothesis 4: small acquirers Can create more value than big firms. To test this hypothesis, we will use the normal logarithm of the acquirer market capitalization to book value ln(M/B):

In line with Moeller et al. (2004) and Raghavendra & Vermaelen, (1998), we have found a negative correlation between the acquirer size and the deal announcement abnormal returns. The negative impact could be connected with the Hubris theory that overconfidence managers are more likely to pay high premiums and perform big deals to build their empire, which sends a negative signal to the market that the aim of the deal is not to grow or become more profitable. However, our results were not significant for the acquirer size, so we cannot confirm this result.

Hypothesis 5: Cross border deals are positively correlated with CAARs, while domestic deals are negatively correlated:

Our results show a negative correlation between Cross border deals and CAARs; a possible explanation is that cross border deals are less integrated than domestic deals due to the cultural differences between the acquirer and the target company. In Addition, Moeller and Schlingemann (2004) have found that acquirer with cross border deals has less operational performance and stock prices. Eckbo and Thorburn (2000), Aw and Chatterjee (2004), Ekholm, and Svensson (2009)) have found that cross border deals have a negative impact on CAARs. However, there is a contrary opinion that discusses a positive relationship between CAARs and cross border deals, as a result of entering a new geographical market and growth opportunities, Mangold and Lippok (2008). Since our variable has insignificant value, we cannot give a final opinion about this issue.

Hypothesis 6: Focused deals have a positive impact on CAARs:

In contrast with Martynova & Renneboog (2006) and Flanagan (1996). Our results show a negative impact of horizontal or Focused deals on CAARs in line with Morck, Shleifer, and Vishny (1990). According to the monopoly hypothesis, Trautwein (1990) managers are in favor of discovering new markets and expand their market power, which allows the acquiring firm to obtain a good competitive position and increase their opportunities to diversify the business activities and grow faster in a new market. However, the literature has a conflicting opinion about this issue; many other studies support focused deals pretending that diversification is driven by managers' whims and has a negative impact on shareholders' value. Unfortunately, we cannot conclude a conclusion because our result for this variable is not statistically significant.

Hypothesis 7: CAARs are positively correlated with private targets and negatively with public listed targets:

We have found a sign for a positive correlation between the private targets and abnormal returns in [-3. +3] and [-5. +5] event windows in line with Draper & Paudyal (2006) and Faccio et al. (2006). The result can be explained in the shadow of information asymmetry theory and overpayment theory, Myers and Majluf (1984) argue that the revealed information associated with private targets in the market is less than the information revealed with public targets, which reflect higher positive returns in the case of private target companies. Draper and Paudyal (2006) have also discussed that public companies have a higher premium than private companies, which means that listed target deals destroy more value than private target deals.

Hypothesis 8: Target firms profit has a positive impact on the acquirer CAARs:

To measure the profitability and efficiency of the deal participants, we have used return on assets (ROA) and earnings before interest and tax (EBIT) for the target company and returns on Equity (ROE) for the target and acquirer firm. The company earnings before interest and tax reflect the company's ability to generate profit from its business core operations; it allows the investors to assess the company's operational performance and compare companies in different countries regardless of the applied tax law. ROA and ROE are both reflect firms ability to invest and use the available resources in the most efficient way, the difference between the return on assets and return on equity is that ROA is an account for the company debt and equity. At the same time, ROE only measures how the company equity generates profit. Our results were not significant for the company earning before tax(EBIT), and the sign was negative which refer to a negative correlation between the target operational profit and the acquirer abnormal returns, this result is in line with Rau and Vermaelen (1998). Unfortunately, we cannot give a final judgment about the relationship between the participants' profit and CAARs. However, we have found strong evidence that the target ROA and ROE have a significant positive impact on the acquirer company's abnormal returns. In contrast, we did not find any relationship between the acquirer return on assets and CAARs. These results imply that the target firm management performance or ability to utilize the company assets have a strong effect on the acquirer abnormal returns in the Swedish market.

Hypothesis 9: Target firms with high leverage ratio have a positive impact on CAARs:

The leverage ratio (total liabilities/shareholders fund) is a financial measure that can be used to measure the company's ability to meet its obligations. Our results were not significant for both the target and the acquirer leverage ratios. The sign of these two variables was negative, against what we expected, Since the high leverage ratio is a sign that company uses too much debt to finance its operations, and the high leverage ratio constrains the company Cash flow, this should decrease the agency cost and the managers' overinvestment which should reflect a positive impact on CAARs. However, a possible explanation to this is that the Swedish investors are too conservative about the high risk associated with a high leverage ratio; this also explains the significant positive relationship we have found between the target shareholders fund and the acquirer abnormal returns.

Hypothesis 10: Acquirer cashflow is negatively correlated with CAARs:

In line with Smith and Kim (1994) results, our results show a negative and significant relationship between the acquirer company cashflows and CAARs; these results can be explained with (Jensen, 1986) Cash flows theory, who stated that managers of firms with excess cash intend to perform more value-destroying and diversifying deals, the reason behind this negative investments is the management overconfidence, where successful managers involved in value-destroying deals to build their empire, following their feeling that they can succeed in every investment they rule. Black (1989) also argued the management overconfidence and found a positive relationship between the managers' overconfidence and the deal overpayment.

Hypothesis 11: Acquirer growth is positively correlated with CAARs:

To measure the acquirer growth opportunities effect, we have used acquirer assets growth in the last two years before the announcement date as our indicator (AAG), our result was not statistically significant for this variable. However, we have found a positive sign that the acquirer growth is positively correlated with CAARs; this result is in line with Arikan and Stulz (2016) results.

Hypothesis 12: Deal premium is negatively correlated with CAARs:

Our results show a negative and significant relationship between the deal premium and CAARs. This result can be interpreted with the overpayment hypothesis Sirower (1997), who argued that the gains obtained from acquiring another company are almost less than the premium paid, which destroys the acquirer shareholders' value.

Hypothesis 13: Deal internal financing is negatively correlated with CAARs:

Many previous studies have studied the deal payment method, but only a few studies have investigated the deal financing alternatives before; therefore, we have decided to test the effect of the deal financing generated internally by increasing the company capital, using a dummy variable (DFCI). Lang et al. (1991) and Schlingemann (2004) have found a negative relationship between internally financed deals and bidder returns in cash-paid M&As. Our results were not significant for this variable but also showed a negative sign between the internally generated source of financing and CAARs. This sign beside the previously mentioned signs of growth and leverage rate and cash payment implies that the Swedish market investors are in favor of the business expand and high growth opportunities, using a balance of financing between internally and externally sources, which allow the company to benefit from the external financing tax shield and at the same time using the internal financing to hold the business risk at a minimum and acceptable level.

6. Conclusion

In this study we have aimed to study the impact of M&A announcement on the acquirer abnormal returns in the Swedish market in the period of 2010-2020, our results show approximately 9% high statistically significant positive CAARs in all the three tested event windows, [-1.+1],[-3.+3],[-5.+5]. Further, we investigated the determinants behind these abnormal returns. We found that 93% of the deals in Sweden are with private targets, This implies that a mixed method of payment is preferred in the Swedish market due to the high degree of uncertainty associated with this kind of deals and to be able to share the risk with the target companies. Moreover, in contrast with the previous studies we have found a significant negative relationship between Cash only method of payment and CAARs, our explanation is that Cash only payments are not preferable to the target companies due to the direct capital gain tax obligation since the target company should pay these taxes immediately with cash payment. The acquirer company could also obtain tax benefits by avoiding cash payments and use the excess cash to achieve more growth. Stock only payments are also not preferred due to the negative signal to the market that the acquirer stock is overvalued. We have also found a strong and significant positive relationship between the acquirer company return on assets and CAARs. This implies that the target firm management performance or

ability to utilize the company assets has a strong effect on the acquirer abnormal returns in the Swedish market. In line with the previous researches results and what was expected, we have found a negative and significant relationship between the acquirer cash flows and CAARs and a negative relationship between the deal premium paid and CAARs. Finally, we have found that target companies with low debt capital structure, have a positive effect on the acquirer CAARs. This gives a sign that the Swedish market is too conservative about the high risk associated with a high leverage ratio and appreciate higher growth and synergies opportunities. We did not find a significant relationship between the other factors and CAARs. However, we have tried to analyze the signal and interpret these conclusions depending on the literature and the previous results in the same research field.

6.1 Suggestions for future research.

For future research, we suggest investigating the technological factors impact and technological convergence between the acquirer and the target company since these factors have an essential rule in the deal's success and have not been widely investigated before. It is also interesting to know the effect of tax regulation differences between countries in cross border deals. It is also more interesting to study the relationship between the CEO characters and CAARs, and the risk associated with the deal with CAARs. Further investigation also is needed to measure the effect of M&A on the target firm in the Swedish market to have a more comprehensive image.

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8. Appendix

Appendix (1) Sample

Acquirer company	Target company	Date
BURE EQUITY AB	SKANDITEK INDUSTRIFÖRVALTNING AB	2010-01-14
PILUM AB	POLYPROJECT SWEDEN AB	2010-05-20
SCRIBONA AB	CATELLA AB	2010-05-26
INVESTMENT AB ORESUND	HQ FONDER SVERIGE AB	2010-06-08
HEXAGON AB	INTERGRAPH CORPORATION	2010-07-06
RATOS AB	STOFA A/S	2010-07-08
FINDADS AB	PRODUKTION 203 AB	2010-08-02
REDERI AB TRANSATLANTIC	TRANS VIKING ICEBREAKING & OFFSHORE	2010-08-13
ADDVISE LAB SOLUTIONS AB	KEBO INREDNINGAR SVERIGE AB	2010-09-15
SOFTRONIC AB	MODUL 1 DATA AB	2010-09-27
BE GROUP AB	LECOR STÅLTEKNIK AB	2010-10-08
PANDOX AB	NORGANI HOTELS AS	2010-10-21
FORESTLIGHT STUDIO AB	NOBLE ENTERTAINMENT AB	2010-12-03
DIGITAL VISION AB	IMAGE SYSTEMS AB	2010-12-30
REDERI AB TRANSATLANTIC	ÖSTERSTRÖMS INTERNATIONAL AB	2011-03-31
MEDIVIR AB	BIOPHAUSIA AB	2011-04-11
CDON GROUP AB	TRETTI AB	2011-04-28
FORESTLIGHT STUDIO AB	AB FIDO FILM STOCKHOLM	2011-05-26
SEAMLESS DISTRIBUTION AB	LETTEL SIA	2011-08-01
DIOS FASTIGHETER AB	NORRVIDDEN FASTIGHETER AB	2011-09-22
ARISE WINDPOWER AB	JÄDRAÅS VINDKRAFT AB	2011-10-06
WISE GROUP AB	RESURS BEMANNING CNC AB	2011-11-30
IMAGE SYSTEMS AB	REMACONTROL SWEDEN AB	2012-01-11
PREVAS AB	ZETIQ DEVELOPMENT AB	2012-04-04
FORMPIPE SOFTWARE AB	TRAEN HOLDING A/S	2012-05-07
ADDVISE LAB SOLUTIONS AB	IM MEDICO SVENSKA AB	2012-06-01
BILLERUD AB	KORSNAS AB	2012-06-20
PILUM AB	ENVIPOWER AB	2012-06-29
PREVAS AB	RHEMISPHERES AB	2012-08-31
DELTACO AB	ALCADON MRV AB	2012-09-12
AF AB	EPSILON HOLDING AB	2012-10-18
MORPHIC TECHNOLOGIES AB	BILDNINGSAGENTEN 6344 AB	2012-11-30
CLEAN TECH EAST HOLDING AB	CORTUS AB	2012-12-06
XANO INDUSTRI AB	ÅGES INDUSTRIER I UNNARYD AB	2012-12-13
ONIVA ONLINE GROUP	SERVAGE AB	2012-12-27
HAKON INVEST AB	ICA AB	2013-02-11
SAS AB	WIDERØES FLYVESELSKAP AS	2013-05-10
NGS GROUP AB	NURSE PARTNER SCANDINAVIA AB	2013-05-13
DORO AB	IVS INDUSTRIEVERTRETUNG SCHWEIGER	2013-05-14
NETJOBS GROUP AB	HOTELL & RESTAURANG BEMANNING AB	2013-05-27
VENUE RETAIL GROUP AB	DECO BAGS AB	2013-08-27
MULTIQ INTERNATIONAL AB	PUBLIQ SYSTEMS NORDIC AB	2013-08-30
SKF AB	KAYDON CORPORATION	2013-09-05
LAMMHULTS DESIGN	FORA FORM AS	2013-09-18

INTELLECTA AB	PROPEOPLE GROUP APS	2013-10-21
INTELLECTA AB	RIVER CRESCO AB	2013-12-11
SSAB AB	RAUTARUUKKI OYJ	2014-01-22
BETSSON AB	CLASS ONE HOLDING LTD	2014-02-07
ALFA LAVAL AB	FRANK MOHN AS	2014-04-07
AGES INDUSTRI AB	SOLNA PRESSGJUTERI AB	2014-04-10
CONSILIUM AB	JKK GROUP AS	2014-07-04
RECIPHARM AB	CORVETTE GROUP SPA	2014-08-19
HEADER COMPRESSION	STENDORREN FASTIGHETER AB	2014-09-22
RECIPHARM AB	LUSOMEDICAMENTA SOCIEDADE	2014-11-13
DORO AB	CARETECH AB	2014-12-16
PRECIO SYSTEMUTVECKLING AB	FISHBONE SYSTEMS AB	2015-02-12
UNLIMITED TRAVEL GROUP AB	SPECIALRESOR UNLIMITED AB	2015-03-06
MULTIQ INTERNATIONAL AB	MERMAID A/S	2015-05-12
REHACT AB	FASTATOR AB	2015-05-19
SWECO AB	GRONTMIJ NV	2015-06-01
MIDSONA AB	URTEKRAM INTERNATIONAL A/S	2015-06-04
PRIME LIVING AB	BERYLL INVEST AB	2015-06-12
FORESTLIGHT ENTERTAINMENT	WIFOG AB	2015-06-12
TARGETEVERYONE AB	VIANETT AS	2015-06-17
HANZA HOLDING AB	METALLISET OY	2015-07-01
ANOTO GROUP AB	XMS PENVISION AB	2015-07-23
ELTEL AB	ELTEL SONNICO AS	2015-08-10
GAMING CORPS AB	VISUALDREAMS AB	2015-09-14
RECIPHARM AB	NITIN LIFESCIENCES LTD	2015-10-20
CATENA AB	TRIBONA AB	2015-10-20
BYGGMAX GROUP AB	SKANSKA BYGGVAROR AB	2015-11-04
TRELLEBORG AB	CGS HOLDING AS	2015-11-09
BUFAB HOLDING AB	APEX STAINLESS HOLDINGS LTD	2015-11-26
WESC AB	SHIRT FACTORY AB, THE	2015-12-07
ENZYMATICA AB	ZYMETECH EHF.	2016-01-28
NGS GROUP AB	HUMAN CAPITAL GROUP HCG AB	2016-01-28
ADDVISE GROUP AB	LABRUM AB	2016-02-08
MQ HOLDING AB	JOY SHOP AB	2016-03-17
CASTELLUM AB	FASTIGHETSAKTIEBOLAGET NORRPORTEN	2016-04-13
RECIPHARM AB	KEMWELL BIOPHARMA PVT LTD	2016-04-18
NORTH CHEMICAL AB	LAHEGA KEMI AB	2016-04-18
HEDERA GROUP AB	PRIDOC BEMANNING AB	2016-04-19
ITAB SHOP CONCEPT AB	MB SHOP DESIGN AB	2016-05-02
SWEDOL AB	GROLLS AB	2016-05-06
HEDERA GROUP AB	SVENSK LAKARTJANST LIL AB	2016-05-11
PILUM AB	SAXLUND INTERNATIONAL	2016-05-31
INISSION AB	ONROX GROUP AB	2016-06-14
ELANDERS AB	LGI LOGISTICS GROUP	2016-06-17
ITAB SHOP CONCEPT AB	FORTEZZA SPA, LA	2016-07-08
SEAMLESS DISTRIBUTION AB	MEAWALLET AS	2016-07-13
ZETADISPLAY AB	PRONTOTV AS	2016-08-22
CLAVISTER HOLDING AB	PHENIXID AB	2016-08-26

ALLGON AB	WIRELESS SYSTEM INTEGRATION	2016-09-29
STARBREEZE AB	NOZON SPRL/BVBA	2016-10-25
ALIMAK GROUP AB	FACADE ACCESS INVESTMENT	2016-10-28
ALCADON GROUP AB	DATACONNECT NORDEN AB	2016-11-01
KARO PHARMA AB	BIOPHAUSIA AB	2016-11-01
VBG GROUP AB	MOBILE CLIMATE CONTROL	2016-11-11
XANO INDUSTRI AB	JORGENSEN ENGINEERING A/S	2016-11-14
INTRUM JUSTITIA AB	LINDORFF AS	2016-11-14
ALIMAK GROUP AB	AVANTI WIND SYSTEMS A/S	2016-12-05
LAMMHULTS DESIGN GROUP	MORGANA AB	2016-12-16
SVENSKA CELLULOSA AB	BSN MEDICAL LUXEMBOURG	2016-12-19
MSC GROUP AB	CAPO MARKNADSKOMMUNIKATION AB	2016-12-20
DISTIT AB	SEPTON ELECTRONIC AB	2016-12-20
TRANSTEMA GROUP AB	ENAFOKI AB	2017-01-02
DUROC AB	INTERNATIONAL FIBRES GROUP AB	2017-01-13
MSC GROUP AB	EMPIR SOLUTIONS AB	2017-01-24
EMPIRE AB	KAKEL MAX HOLDING AB	2017-01-25
ADDVISE GROUP AB	HETTICH LABINSTRUMENT AB	2017-01-31
CAPACENT HOLDING AB	CAPACENT EHF	2017-02-02
ALM EQUITY AB	SMAA AB	2017-02-08
NGS GROUP AB	SOCIONOMUTHYRNING I SVERIGE AB	2017-03-28
SIVERS IMA HOLDING AB	COMPOUND SEMICONDUCTOR	2017-04-12
TRANSTEMA GROUP AB	FIBERDATA AB	2017-04-18
TRANSTEMA GROUP AB	COPIAD TELECOM AB	2017-04-18
TAGMASTER AB	CA TRAFFIC LTD	2017-04-27
AGES INDUSTRI AB	HORLE AUTOMATIC GRUPPEN AB	2017-05-03
MIDSONA AB	BRINGWELL AB	2017-05-15
ATTENDO AB	MI-HOIVA OY	2017-05-31
ZETADISPLAY AB	SEASAM OY	2017-06-09
MAGNOLIA BOSTAD AB	SVENSKA VARDFASTIGHETER AB	2017-06-15
MSC GROUP AB	GENERIC SYSTEMS SWEDEN AB	2017-06-21
SDIPTECH AB	AVA MONITORING AB	2017-07-05
SECITS HOLDING AB	MKS SVERIGE AB	2017-07-05
KARO PHARMA AB	WEIFA ASA	2017-08-24
MYTASTE AB	KAMPANJJAKT I SVERIGE AB	2017-08-25
PRIME LIVING AB	GLYTTINGE 3:17 AB	2017-09-01
ACADEMEDIA AB	VINDORA AB	2017-09-12
SDIPTECH AB	TELLO SERVICE PARTNER AB	2017-10-31
MOMENT GROUP AB	BALLBREAKER KUNGSHOLMEN AB	2017-11-01
SDIPTECH AB	POLYPROJECT ENVIRONMENT AB	2017-11-01
ADDVISE GROUP AB	GERMA AB	2017-11-10
KAKEL MAX AB	JMW GROSSEN AB	2017-11-21
MAVSHACK AB	IP MOVERS AB	2017-11-28
STILLFRONT GROUP AB	ALTIGI GMBH	2017-12-06
NEXAM CHEMICAL HOLDING AB	PLASTICOLOR SWEDEN AB	2017-12-08
SDIPTECH AB	AVIOLINX COMMUNICATION	2017-12-13
XANO INDUSTRI AB	BLOWTECH GROUP AB	2017-12-18
AAC MICROTEC AB	CLYDE SPACE LTD	2017-12-21

TELE2 AB	COM HEM HOLDING AB	2018-01-10
UNLIMITED TRAVEL GROUP AB	PW CREATIVE MEETINGS AB	2018-01-12
HEDERA GROUP AB	MEDICAL BAEHRENDTZ & HAEGER AB	2018-02-16
CHRISTIAN BERNER TECH	ZANDER & INGESTROM AB	2018-02-16
LIV IHOP AB	TREA ASSISTANS STOCKHOLM AB	2018-04-17
IVISYS AB	ICS IMAGE CONTROL SYSTEMS AB	2018-04-22
JAYS GROUP AB	KRUSELL UNITED AB	2018-05-02
MIDSONA AB	DAVERT GMBH	2018-05-03
ALLGON AB	TELE-RADIO	2018-05-04
BERGS TIMBER AB	VIKA WOOD SIA	2018-05-15
SDIPTECH AB	KSS KLIMAT & STYRSYSTEM AB	2018-05-25
DORO AB	WEALDEN AND EASTBOURNE LIFELINE	2018-05-31
IMAGE SYSTEMS AB	LIMAB OY	2018-06-01
POOLIA AB	UNIFLEX AB	2018-06-04
MOMENT GROUP AB	CONCILIANCE AB	2018-06-19
COGNOSEC AB	ITWAY TURKYIE LTD	2018-06-20
TELIA COMPANY AB	GET AS	2018-07-17
INFREA AB	TALJE MARK AB	2018-10-23
NOTE AB	SPEEDBOARD ASSEMBLY SERVICES LTD	2018-11-01
INISSION AB	SIMPRO HOLDING AS	2018-11-01
AWARDIT AB	CROSSROADS LOYALTY SOLUTIONS AB	2018-11-06
BALCO GROUP AB	TBO-HAGLINDS AB	2018-11-15
PROJEKTENGAGEMANG	INTEGRA ENGINEERING AB	2018-11-27
BILLERUDKORSNAS AB	BERGVIK SKOG OST AB	2018-11-30
EMPIR GROUP AB	ANZENA CONSULTING AB	2018-12-06
AF POYRY AB	POYRY OYJ	2018-12-10
FAGERHULT AB	IGUZZINI ILLUMINAZIONE SPA	2018-12-21
ATVEXA AB	ULNA AS	2018-12-21
SERNEKE GROUP AB	KARLASTADEN HOLDING AB	2018-12-28
HANZA HOLDING AB	TOOLFAC OY	2019-01-31
ADDVISE GROUP AB	SONAR OY	2019-02-11
MEDICOVER AB	NEOMEDIC SA	2019-02-18
SDIPTECH AB	WATER TREATMENT PRODUCTS	2019-02-18
COMBIGENE AB	PANION ANIMAL HEALTH AB	2019-04-18
AQ GROUP AB	LTI HOLDING OY	2019-04-29
FM MATTSSON MORA	HOT BATH BV	2019-05-13
AMASTEN FASTIGHETS AB	URBANO AB	2019-05-23
KARO PHARMA AB	TRIMB HOLDING AB	2019-06-21
MIDSONA AB	ALIMENTATION SANTE SASU	2019-07-23
SDIPTECH AB	AUGER SITE INVESTIGATIONS LTD	2019-08-28
PROACT IT GROUP AB	PEOPLEWARE ICT SOLUTIONS BV	2019-10-14
KLARIA PHARMA HOLDING AB	KARESSA PHARMA HOLDING AB	2019-11-05

Appendix (2) Sample summary statistic

Variable	Obs	Mean	Std. Dev.	Min	Max
TEBIT	182	5639.516	30679.38	.0975148	395968.4
TSHF	182	50203.48	208302.9	1.6	2348394
ASHF	182	302559.5	1013995	161.8746	9953433
ACFPS	182	.0131963	.0330895	5.00e-06	.24805
Focused	182	.3131868	.4650691	0	1
DFCI	182	.4505495	.4989212	0	1
PRVT	182	.9340659	.2488514	0	1
Cash	182	.2142857	.4114578	0	1
Stock	182	.1538462	.3617965	0	1
prem	182	282.4346	1974.905	-296.876	23409.84
CBD	182	.3626374	.4820876	0	1
TROA	182	.4455623	5.587969	-2.134661	75.2534
AAG	182	.0801043	.3438864	-2.479663	.9135152
Rlsize	182	.8582254	3.490611	.098257	44.58754
TLEV	182	.518797	.5050109	-4.944444	.9998621
ALEV	182	.4267414	.2303707	.0014613	.9641073
TROE	182	31.04881	372.712	.0002345	5016.841
AROE	182	.279438	.8888406	.0006546	10.60544
LnMBA	182	-.3756127	.9679329	-3.909152	1.900999

Appendix (3) Correlation Matrix

	TEBIT	TShF	ASHF	ACFPS	Horizo~l	DFCI	Prvt
TEBIT	1.0000						
TShF	0.0371	1.0000					
ASHF	0.2627	0.4675	1.0000				
ACFPS	0.0974	0.0657	0.0532	1.0000			
Horizontal	0.1649	0.0017	0.1145	0.0438	1.0000		
DFCI	-0.0834	-0.0408	-0.0866	-0.1517	0.0790	1.0000	
Prvt	0.0273	-0.1591	-0.1771	0.0231	-0.2025	-0.1599	1.0000
Cash	0.1209	0.0964	-0.0241	0.0925	-0.0062	-0.3922	0.0308
Stock	-0.0386	-0.0809	-0.1037	-0.0052	0.0076	0.4403	-0.2549
prem	-0.0048	0.3352	0.3880	-0.0061	0.0625	0.0854	-0.4003

CBD	0.1708	-0.0059	0.2117	0.0488	0.0821	-0.1318	0.0162
TROA	0.1449	-0.0177	0.0001	0.5396	0.1109	0.0747	0.0318
AAG	-0.0213	-0.0195	-0.0302	0.1677	-0.0853	0.0460	-0.1166
Rlsize	-0.0268	-0.0275	-0.0392	-0.0381	-0.0747	0.1197	-0.0328
TLEV	0.0551	-0.1058	-0.0071	-0.0808	-0.0872	-0.0660	0.1037
ALEV	-0.0570	0.0328	-0.0031	-0.1947	-0.0672	-0.1914	0.0698
TROE	0.0231	-0.0201	0.0111	0.0350	-0.0426	0.0883	0.0210
AROE	-0.0336	-0.0510	-0.0637	0.0109	0.0960	0.1232	0.0426
lnMBA	-0.0855	0.1070	0.0489	-0.1885	0.1024	-0.0379	-0.0469

	Cash	Stock	prem	CBD	TROA	AAG	Rlsize
Cash	1.0000						
Stock	-0.2227	1.0000					
prem	-0.0380	-0.0537	1.0000				
CBD	0.0517	-0.1316	0.0363	1.0000			
TROA	-0.0318	0.1583	-0.0116	0.1055	1.0000		
AAG	-0.0251	-0.0368	0.0657	-0.0560	0.1094	1.0000	
Rlsize	-0.0664	0.0108	-0.0173	-0.0973	-0.0318	-0.0094	1.0000
TLEV	0.0022	-0.1661	-0.0453	0.0928	0.0357	0.3814	0.0129
ALEV	0.0823	-0.2441	-0.0029	-0.1434	-0.1345	-0.1039	0.0323
TROE	-0.0425	-0.0187	-0.0120	0.1050	0.0785	-0.0112	-0.0131
AROE	-0.0306	0.2113	-0.0338	-0.1096	0.0197	-0.6084	0.0384
lnMBA	-0.0698	0.0205	0.0341	0.1991	-0.0078	-0.0009	-0.4243

	TLEV	ALEV	TROE	AROE	lnMBA
TLEV	1.0000				
ALEV	-0.0054	1.0000			
TROE	0.0765	-0.0774	1.0000		
AROE	-0.7300	0.1698	-0.0021	1.0000	
lnMBA	-0.1362	-0.2038	0.0549	-0.0341	1.0000

Appendix (4) Heteroskedasticity tests:

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Ha: heteroskedasticity

Variables: fitted values of CAR (-1,+1)

chi2(1) = 9.02 Prob > chi2 = 0.0027

Variables: fitted values of CAR (-3,+3)

chi2(1) = 12.35 Prob > chi2 = 0.0004

Variables: fitted values of CAR (-5,+5)

chi2(1) = 25.43 Prob > chi2 = 0.0000

White's test for heteroskedasticity

Ho: homoskedasticity

against Ha: unrestricted heteroskedasticity

chi2(181) = 182.00 Prob > chi2 = 0.4651

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	182.00	181	0.4651
Skewness	9.09	19	0.9719
Kurtosis	1.39	1	0.2385
Total	192.48	201	0.6546

Appendix (5) Market model CAAR results

		Event window			P-VALUE		
Acquirer company	Date	CAAR(-1,1)	CAAR(-3,3)	CAAR(-5,5)	CAAR(-1,1)	CAAR(-3,3)	CAAR(-5,5)
BURE EQUITY AB	2010-01-14	-0,05024	-0,10013	-0,13509	0,17662	0,08208	0,06437
PILUM AB	2010-05-20	-0,08868	-0,12520	-0,11582	0,13144	0,17545	0,31797
SCRIBONA AB	2010-05-26	0,35706	0,30044	0,36476	0,00000	0,00000	0,00000
INVESTMENT AB ORESUND	2010-06-08	-0,13292	-0,16835	-0,14080	0,00000	0,00000	0,00212
HEXAGON AB	2010-07-06	0,09050	0,18290	0,18737	0,00190	0,00004	0,00084
RATOS AB	2010-07-08	0,00473	-0,00752	-0,03697	0,83155	0,82652	0,40035
FINDADS AB	2010-08-02	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
REDERI AB TRANSATLANTIC	2010-08-13	0,19128	0,19545	0,16218	0,00000	0,00058	0,02393
ADDVISE LAB SOLUTIONS AB	2010-09-15	0,10555	0,24724	0,28972	0,00430	0,00001	0,00006
SOFTRONIC AB	2010-09-27	0,00789	0,01336	0,04452	0,76874	0,74672	0,39438
BE GROUP AB	2010-10-08	-0,04244	-0,05639	-0,00908	0,16854	0,23516	0,87983
PANDOX AB	2010-10-21	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
FORESTLIGHT STUDIO AB	2010-12-03	0,14365	0,22495	0,27404	0,04510	0,04187	0,05119
DIGITAL VISION AB	2010-12-30	0,68495	0,67177	0,53774	0,00000	0,00001	0,00525
REDERI AB TRANSATLANTIC	2011-03-31	0,04926	-0,05999	-0,08166	0,16622	0,27553	0,23973
MEDIVIR AB	2011-04-11	-0,04151	-0,07570	-0,09230	0,09593	0,04837	0,05755
CDON GROUP AB	2011-04-28	-0,02492	-0,04060	0,01325	0,41433	0,38798	0,82376
FORESTLIGHT STUDIO AB	2011-05-26	0,10383	0,10894	0,09742	0,04211	0,16641	0,32731
SEAMLESS DISTRIBUTION AB	2011-08-01	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
DIOS FASTIGHETER AB	2011-09-22	0,07008	0,04648	0,04402	0,09956	0,47293	0,58622
ARISE WINDPOWER AB	2011-10-06	0,18321	0,30907	0,36736	0,00000	0,00000	0,00000
WISE GROUP AB	2011-11-30	0,02962	0,07392	0,09399	0,60492	0,39933	0,40187
IMAGE SYSTEMS AB	2012-01-11	0,02456	0,09370	0,12059	0,72049	0,37612	0,36745
PREVAS AB	2012-04-04	0,02980	0,02290	-0,01399	0,28913	0,59706	0,79666
FORMPIPE SOFTWARE AB	2012-05-07	0,06621	0,00021	-0,07188	0,01937	0,99611	0,19386
ADDVISE LAB SOLUTIONS AB	2012-06-01	0,13175	0,20200	0,17635	0,00001	0,00001	0,00165
BILLERUD AB	2012-06-20	0,16468	0,25674	0,30608	0,00000	0,00000	0,00000

PILUM AB	2012-06-29	0,18186	0,15707	0,02604	0,00057	0,04958	0,79730
PREVAS AB	2012-08-31	0,05089	0,09590	0,06138	0,23268	0,14410	0,45967
DELTACO AB	2012-09-12	-0,03500	-0,02991	0,07161	0,37306	0,62290	0,35176
AF AB	2012-10-18	0,05464	0,04670	-0,01761	0,02356	0,20938	0,70809
MORPHIC TECHNOLOGIES AB	2012-11-30	0,44708	0,55009	0,39460	0,00000	0,00001	0,01221
CLEAN TECH EAST HOLDING AB	2012-12-06	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
XANO INDUSTRI AB	2012-12-13	0,35993	0,38233	0,36593	0,00000	0,00000	0,00000
ONIVA ONLINE GROUP	2012-12-27	0,25355	0,50341	0,39783	0,00705	0,00052	0,03040
HAKON INVEST AB	2013-02-11	0,40953	0,47959	0,43051	0,00000	0,00000	0,00000
SAS AB	2013-05-10	-0,00718	-0,06005	-0,13376	0,91656	0,57054	0,31766
NGS GROUP AB	2013-05-13	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
DORO AB	2013-05-14	0,26569	0,25772	0,24023	0,00000	0,00000	0,00000
NETJOBS GROUP AB	2013-05-27	-0,06848	-0,00691	-0,08992	0,09473	0,91176	0,26073
VENUE RETAIL GROUP AB	2013-08-27	0,09227	0,10043	0,06856	0,00000	0,00112	0,07768
MULTIQ INTERNATIONAL AB	2013-08-30	-0,07895	-0,07150	-0,16246	0,27575	0,52269	0,25021
SKF AB	2013-09-05	0,00788	-0,01523	-0,04712	0,61182	0,52479	0,12071
LAMMHULTS DESIGN	2013-09-18	0,10684	0,20425	0,30082	0,00484	0,00047	0,00005
INTELLECTA AB	2013-10-21	0,02320	-0,07740	-0,16083	0,60863	0,26993	0,06905
INTELLECTA AB	2013-12-11	0,09910	0,05199	0,05299	0,00304	0,31708	0,41589
SSAB AB	2014-01-22	0,22590	0,20270	0,16828	0,00000	0,00000	0,00004
BETSSON AB	2014-02-07	0,15736	0,20362	0,21372	0,00000	0,00000	0,00000
ALFA LAVAL AB	2014-04-07	0,07197	0,07339	0,08314	0,00001	0,00356	0,00919
AGES INDUSTRI AB	2014-04-10	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
CONSILIUM AB	2014-07-04	0,00468	0,11478	0,18313	0,89786	0,04036	0,00972
RECIPHARM AB	2014-08-19	0,18290	0,21558	0,23133	0,00000	0,00000	0,00000
HEADER COMPRESSION	2014-09-22	0,37542	0,37259	0,43210	0,00000	0,00000	0,00003
RECIPHARM AB	2014-11-13	0,09931	0,11912	0,06623	0,00100	0,01031	0,25945
DORO AB	2014-12-16	0,11059	0,11844	0,14513	0,00596	0,05602	0,06413
PRECIO SYSTEMUTVECKLING AB	2015-02-12	0,05937	0,09288	0,09333	0,03574	0,03134	0,08666
UNLIMITED TRAVEL GROUP AB	2015-03-06	0,08022	0,11638	0,06033	0,08238	0,10220	0,50264
MULTIQ INTERNATIONAL AB	2015-05-12	-0,03298	-0,10718	-0,07769	0,49910	0,15366	0,41384
REHACT AB	2015-05-19	0,45644	0,51731	0,60904	0,00000	0,00074	0,00166
SWECO AB	2015-06-01	0,07550	0,13499	0,13024	0,00033	0,00003	0,00153
MIDSONA AB	2015-06-04	0,12556	0,12767	0,12882	0,00001	0,00387	0,02165
PRIME LIVING AB	2015-06-12	-0,01548	-0,06637	-0,10634	0,00000	0,00000	0,00000
FORESTLIGHT ENTERTAINMENT	2015-06-12	-0,23173	-0,50986	-0,82939	0,48326	0,31734	0,19547

TARGETEVERYONE AB	2015-06-17	0,74340	0,26876	0,21231	0,00000	0,00000	0,00000
HANZA HOLDING AB	2015-07-01	-0,08712	-0,05153	-0,16881	0,06729	0,47913	0,07121
ANOTO GROUP AB	2015-07-23	0,07411	0,02085	-0,03475	0,34709	0,86463	0,82333
ELTEL AB	2015-08-10	0,00790	0,02009	0,00146	0,76921	0,62881	0,97790
GAMING CORPS AB	2015-09-14	0,17981	0,19201	0,07573	0,00098	0,02212	0,47533
RECIPHARM AB	2015-10-20	0,09731	0,06521	0,09476	0,00190	0,17760	0,12270
CATENA AB	2015-10-20	0,00181	-0,00930	-0,03640	0,93788	0,79511	0,42318
BYGGMAX GROUP AB	2015-11-04	0,05882	0,05577	0,12175	0,06286	0,25201	0,04782
TRELLEBORG AB	2015-11-09	0,21828	0,23907	0,24800	0,00000	0,00000	0,00000
BUFAB HOLDING AB	2015-11-26	0,07928	0,17168	0,30177	0,00009	0,00000	0,00000
WESC AB	2015-12-07	-0,25759	-0,29626	-0,22167	0,00047	0,00952	0,12757
ENZYMATICA AB	2016-01-28	0,03158	0,10028	0,25082	0,67850	0,39255	0,09052
NGS GROUP AB	2016-01-28	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
ADDVISE GROUP AB	2016-02-08	0,05382	0,03028	0,11638	0,65425	0,86793	0,61167
MQ HOLDING AB	2016-03-17	-0,16658	-0,04960	-0,02897	0,00003	0,41999	0,71002
CASTELLUM AB	2016-04-13	-0,04078	-0,08183	-0,07439	0,01350	0,00126	0,02040
RECIPHARM AB	2016-04-18	0,00803	-0,03876	-0,03323	0,83041	0,50290	0,64907
NORTH CHEMICAL AB	2016-04-18	0,92341	1,04930	1,13994	0,00000	0,00000	0,00000
HEDERA GROUP AB	2016-04-19	0,16901	0,25449	0,19073	0,00008	0,00011	0,02137
ITAB SHOP CONCEPT AB	2016-05-02	0,00478	-0,03588	-0,13663	0,90684	0,57139	0,08777
SWEDOL AB	2016-05-06	0,25530	0,25937	0,23179	0,00000	0,00000	0,00000
HEDERA GROUP AB	2016-05-11	0,35244	0,45109	0,36640	0,00000	0,00000	0,00005
PILUM AB	2016-05-31	0,02742	0,04989	0,04591	0,79892	0,76342	0,82663
INISSION AB	2016-06-14	0,09869	0,13248	0,15414	0,09328	0,14423	0,18055
ELANDERS AB	2016-06-17	0,39026	0,39669	0,40749	0,00000	0,00000	0,00000
ITAB SHOP CONCEPT AB	2016-07-08	0,03287	-0,03979	-0,08213	0,39319	0,50525	0,27249
SEAMLESS DISTRIBUTION AB	2016-07-13	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
ZETADISPLAY AB	2016-08-22	0,00254	-0,00618	-0,01230	0,97889	0,96667	0,94759
CLAVISTER HOLDING AB	2016-08-26	-0,11403	-0,14882	-0,18264	0,00649	0,02111	0,02525
ALLGON AB	2016-09-29	0,12062	0,05578	0,05901	0,06341	0,57756	0,64139
STARBREEZE AB	2016-10-25	-0,02233	-0,06256	-0,09047	0,61932	0,36655	0,30168
ALIMAK GROUP AB	2016-10-28	0,20232	0,25180	0,18148	0,00000	0,00000	0,00387
ALCADON GROUP AB	2016-11-01	0,19679	0,16560	0,14660	0,00000	0,00000	0,00005
KARO PHARMA AB	2016-11-01	0,11675	-0,03178	-0,11836	0,01063	0,65261	0,18424
VBG GROUP AB	2016-11-11	0,18325	0,25717	0,11800	0,00000	0,00000	0,04304
XANO INDUSTRI AB	2016-11-14	0,20932	0,28240	0,31784	0,00000	0,00000	0,00000

INTRUM JUSTITIA AB	2016-11-14	0,17820	-0,06829	-0,07762	0,00000	0,05295	0,08191
ALIMAK GROUP AB	2016-12-05	0,03955	0,06656	0,08279	0,27813	0,23570	0,24366
LAMMHULTS DESIGN GROUP AB	2016-12-16	0,15565	0,14849	0,12737	0,00000	0,00006	0,00668
SVENSKA CELLULOSA AB	2016-12-19	0,04917	0,03873	0,02212	0,03029	0,26909	0,61739
MSC GROUP AB	2016-12-20	-0,04439	-0,13031	-0,08534	0,52416	0,22689	0,53110
DISTIT AB	2016-12-20	0,11681	0,06695	0,09002	0,05951	0,48520	0,45760
TRANSTEMA GROUP AB	2017-01-02	0,21495	0,24294	0,29625	0,00000	0,00000	0,00000
DUROC AB	2017-01-13	0,00275	-0,01991	-0,06401	0,94880	0,76194	0,44105
MSC GROUP AB	2017-01-24	-0,01664	-0,05087	-0,10120	0,79067	0,59335	0,40087
EMPIRE AB	2017-01-25	0,65505	0,58941	0,64108	0,00000	0,00002	0,00017
ADDVISE GROUP AB	2017-01-31	0,00628	0,00114	-0,05041	0,92729	0,99144	0,70627
CAPACENT HOLDING AB	2017-02-02	0,02066	0,04056	0,02450	0,59271	0,49602	0,74503
ALM EQUITY AB	2017-02-08	0,19478	0,25941	0,20320	0,00000	0,00000	0,00020
NGS GROUP AB	2017-03-28	0,02945	0,06508	0,04032	0,18721	0,05841	0,35376
SIVERS IMA HOLDING AB	2017-04-12	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
TRANSTEMA GROUP AB	2017-04-18	0,00609	-0,01521	-0,01324	0,93345	0,89197	0,92538
TRANSTEMA GROUP AB	2017-04-18	0,00609	-0,01521	-0,01324	0,93345	0,89197	0,92538
TAGMASTER AB	2017-04-27	0,21613	0,22327	0,14071	0,00003	0,00537	0,16586
AGES INDUSTRI AB	2017-05-03	0,15210	0,23633	0,15207	0,00000	0,00000	0,01657
MIDSONA AB	2017-05-15	0,12081	0,12702	0,11287	0,00001	0,00275	0,03701
ATTENDO AB	2017-05-31	0,07544	0,09953	0,08791	0,00015	0,00119	0,02356
ZETADISPLAY AB	2017-06-09	0,13959	0,13453	0,14268	0,01737	0,13685	0,21215
MAGNOLIA BOSTAD AB	2017-06-15	0,02650	0,15218	0,22887	0,30646	0,00013	0,00001
MSC GROUP AB	2017-06-21	0,04322	0,06821	0,03278	0,23103	0,22030	0,64083
SDIPTECH AB	2017-07-05	0,00190	0,00112	-0,02231	0,87932	0,95403	0,36179
SECITS HOLDING AB	2017-07-05	0,04281	0,07084	-0,05004	0,59548	0,56940	0,75046
KARO PHARMA AB	2017-08-24	-0,16404	-0,26826	-0,32614	0,00006	0,00002	0,00005
MYTASTE AB	2017-08-25	0,32998	0,42502	0,42457	0,00000	0,00000	0,00004
PRIME LIVING AB	2017-09-01	-0,04550	-0,08910	-0,13318	0,08647	0,02942	0,01022
ACADEMEDIA AB	2017-09-12	0,07029	0,08313	0,09429	0,00262	0,02221	0,03936
SDIPTECH AB	2017-10-31	0,00086	0,00207	0,01400	0,93422	0,89764	0,49180
MOMENT GROUP AB	2017-11-01	0,03824	0,01613	0,05272	0,18990	0,72021	0,35413
SDIPTECH AB	2017-11-01	0,00143	-0,00171	-0,00378	0,89169	0,91560	0,85311
ADDVISE GROUP AB	2017-11-10	0,00101	-0,03862	-0,01216	0,98677	0,68453	0,91946
KAKEL MAX AB	2017-11-21	0,19528	0,25053	0,40207	0,00005	0,00076	0,00002

MAVSHACK AB	2017-11-28	0,12457	-0,01959	-0,10308	0,56767	0,95341	0,80815
STILLFRONT GROUP AB	2017-12-06	0,17533	0,45290	0,44491	0,00012	0,00000	0,00000
NEXAM CHEMICAL HOLDING AB	2017-12-08	0,30933	0,30193	0,28756	0,00000	0,00007	0,00259
SDIPTECH AB	2017-12-13	-0,03965	-0,05768	-0,04314	0,00001	0,00003	0,01316
XANO INDUSTRI AB	2017-12-18	0,06963	0,03729	0,05956	0,05131	0,49365	0,38750
AAC MICROTEC AB	2017-12-21	0,27203	0,53548	0,41179	0,00042	0,00001	0,00616
TELE2 AB	2018-01-10	-0,12512	-0,14427	-0,15088	0,00000	0,00000	0,00004
UNLIMITED TRAVEL GROUP AB	2018-01-12	0,11656	0,07797	0,06456	0,00363	0,20684	0,40865
HEDERA GROUP AB	2018-02-16	0,11935	0,11975	0,09223	0,00228	0,04833	0,23774
CHRISTIAN BERNER TECH	2018-02-16	0,12521	0,20209	0,17724	0,00000	0,00000	0,00017
LIV IHOP AB	2018-04-17	0,00267	-0,08959	-0,07451	0,89884	0,00561	0,06974
IVISYS AB	2018-04-22	0,26279	0,22191	0,24249	0,00020	0,04111	0,07773
JAYS GROUP AB	2018-05-02	0,16807	0,17522	0,30410	0,03404	0,15104	0,04909
MIDSONA AB	2018-05-03	0,07290	0,07927	0,13693	0,00811	0,06151	0,01069
ALLGON AB	2018-05-04	0,06021	0,10158	0,10857	0,26407	0,21907	0,30226
BERGS TIMBER AB	2018-05-15	-0,01473	-0,03957	-0,01734	0,44385	0,18201	0,64357
SDIPTECH AB	2018-05-25	0,00070	-0,00303	-0,00663	0,94729	0,85269	0,74948
DORO AB	2018-05-31	-0,06305	-0,03103	-0,02610	0,08563	0,58305	0,71534
IMAGE SYSTEMS AB	2018-06-01	0,32985	0,32100	0,30610	0,00000	0,00007	0,00269
POOLIA AB	2018-06-04	0,13494	0,12159	0,11742	0,00134	0,06061	0,15170
MOMENT GROUP AB	2018-06-19	0,04409	0,01980	0,04480	0,21062	0,71515	0,51559
COGNOSEC AB	2018-06-20	-0,21205	-0,23849	-0,21594	0,00064	0,01272	0,07471
TELIA COMPANY AB	2018-07-17	-0,07758	-0,10957	-0,14931	0,00007	0,00029	0,00010
INFREA AB	2018-10-23	0,08549	0,15743	0,19522	0,00303	0,00039	0,00055
NOTE AB	2018-11-01	0,13371	0,14133	0,13829	0,00000	0,00039	0,00602
INISSION AB	2018-11-01	0,11803	0,12243	0,13944	0,00296	0,04722	0,07356
AWARDIT AB	2018-11-06	0,10656	0,11968	0,17133	0,02905	0,11217	0,07175
BALCO GROUP AB	2018-11-15	-0,02438	-0,10234	-0,10305	0,29016	0,00416	0,02292
PROJEKTENGAGEMANG	2018-11-27	0,17623	0,18239	0,30587	0,00000	0,00016	0,00000
BILLERUDKORSNAS AB	2018-11-30	-0,04297	-0,00895	-0,01482	0,36773	0,90328	0,87321
EMPIR GROUP AB	2018-12-06	-0,01155	-0,08581	-0,23553	0,77513	0,17198	0,00303
AF POYRY AB	2018-12-10	-0,13043	-0,16463	-0,16816	0,00000	0,00000	0,00000
FAGERHULT AB	2018-12-21	0,06433	0,11576	0,10104	0,03993	0,01796	0,09696
ATVEXA AB	2018-12-21	0,07613	0,07820	0,02359	0,00871	0,08456	0,67583
SERNEKE GROUP AB	2018-12-28	0,01010	0,13787	0,49399	0,75902	0,00600	0,00000
HANZA HOLDING AB	2019-01-31	0,04112	0,07847	0,17369	0,20210	0,11493	0,00601

ADDVISE GROUP AB	2019-02-11	-0,06442	0,00998	-0,04313	0,17543	0,89161	0,64019
MEDICOVER AB	2019-02-18	0,08304	0,11091	0,06950	0,00038	0,00218	0,12816
SDIPTECH AB	2019-02-18	0,00098	0,00097	-0,00259	0,94132	0,96275	0,92107
COMBIGENE AB	2019-04-18	0,00290	-0,02594	-0,00830	0,96538	0,80179	0,94939
AQ GROUP AB	2019-04-29	0,03205	0,03491	0,22916	0,16983	0,33277	0,00000
FM MATTSSON MORA	2019-05-13	0,11568	0,19620	0,30736	0,00003	0,00000	0,00000
AMASTEN FASTIGHETS AB	2019-05-23	0,06185	0,17142	0,22996	0,03529	0,00014	0,00005
KARO PHARMA AB	2019-06-21	0,02407	0,06388	0,07317	0,28028	0,06284	0,09210
MIDSONA AB	2019-07-23	0,12513	0,17826	0,11907	0,00007	0,00023	0,05206
SDIPTECH AB	2019-08-28	-0,00359	0,01725	0,02496	0,69736	0,23027	0,16841
PROACT IT GROUP AB	2019-10-14	0,00538	0,04218	0,05598	0,87957	0,44433	0,42283
KLARIA PHARMA HOLDING AB	2019-11-05	0,00656	-0,09949	-0,15364	0,93452	0,42001	0,32481

Appendix (6) CAPM Three Factor model CAAR results

		Event window			P-VALUE		
Acquirer company	Date	CAAR(-1,1)	CAAR(-3,3)	CAAR(-5,5)	CAAR(-1,1)	CAAR(-3,3)	CAAR(-5,5)
BURE EQUITY AB	2010-01-14	-0,05149	-0,10041	-0,13437	0,16003	0,07289	0,05555
PILUM AB	2010-05-20	-0,08418	-0,12120	-0,09380	0,14257	0,16693	0,39348
SCRIBONA AB	2010-05-26	0,34990	0,31077	0,37014	0,00000	0,00000	0,00000
INVESTMENT AB ORESUND	2010-06-08	-0,11903	-0,13424	-0,11364	0,00000	0,00002	0,00412
HEXAGON AB	2010-07-06	0,12636	0,20935	0,20351	0,00000	0,00000	0,00005
RATOS AB	2010-07-08	0,00568	0,00764	0,01060	0,78406	0,80931	0,78937
FINDADS AB	2010-08-02	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
REDERI AB TRANSATLANTIC	2010-08-13	0,20188	0,21851	0,18045	0,00000	0,00007	0,00905
ADDVISE LAB SOLUTIONS AB	2010-09-15	0,10815	0,24772	0,28943	0,00311	0,00001	0,00004
SOFTRONIC AB	2010-09-27	-0,00061	0,00460	0,03479	0,98118	0,90679	0,47959
BE GROUP AB	2010-10-08	-0,04298	-0,06076	-0,00905	0,14342	0,17571	0,87214
PANDOX AB	2010-10-21	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
FORESTLIGHT STUDIO	2010-12-03	0,14147	0,21877	0,25876	0,04612	0,04348	0,05677
DIGITAL VISION AB	2010-12-30	0,67385	0,64886	0,51907	0,00000	0,00002	0,00575
REDERI TRANSATLANTIC	2011-03-31	0,04685	-0,06357	-0,09025	0,17878	0,23231	0,17615
MEDIVIR AB	2011-04-11	-0,03670	-0,06992	-0,08609	0,12261	0,05417	0,05861
CDON GROUP AB	2011-04-28	-0,02533	-0,03880	0,02212	0,39646	0,39522	0,69903
FORESTLIGHT STUDIO	2011-05-26	0,10948	0,11432	0,11280	0,02901	0,13557	0,24006
SEAMLESS DISTRIBUTION	2011-08-01	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
DIOS FASTIGHETER	2011-09-22	0,05144	0,06334	0,15807	0,15231	0,24851	0,02160
ARISE WINDPOWER	2011-10-06	0,19010	0,31610	0,38003	0,00000	0,00000	0,00000
WISE GROUP AB	2011-11-30	0,03465	0,07301	0,09223	0,53171	0,38827	0,38464
IMAGE SYSTEMS AB	2012-01-11	-0,00580	0,05668	0,07016	0,93037	0,57645	0,58123
PREVAS AB	2012-04-04	0,02617	0,02203	-0,00726	0,33692	0,59660	0,88931
FORMPIPE SOFTWARE	2012-05-07	0,07794	0,02756	-0,04575	0,00511	0,51693	0,39076
ADDVISE LAB SOLUTIONS	2012-06-01	0,13734	0,20876	0,18473	0,00000	0,00000	0,00064
BILLERUD AB	2012-06-20	0,15549	0,25897	0,30213	0,00000	0,00000	0,00000
PILUM AB	2012-06-29	0,17941	0,15090	0,01627	0,00043	0,05264	0,86762
PREVAS AB	2012-08-31	0,05441	0,09245	0,04984	0,19537	0,14978	0,53565
DELTACO AB	2012-09-12	-0,03336	-0,01730	0,08837	0,38645	0,76872	0,23091
AF AB	2012-10-18	0,04504	0,02804	-0,03705	0,04579	0,41562	0,39088
MORPHIC TECHNOLOGIES	2012-11-30	0,44911	0,54673	0,38959	0,00000	0,00001	0,01098
CLEAN TECH EAST	2012-12-06	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
XANO INDUSTRI AB	2012-12-13	0,35780	0,37761	0,35970	0,00000	0,00000	0,00000

ONIVA ONLINE GROUP	2012-12-27	0,26527	0,53132	0,42708	0,00400	0,00016	0,01551
HAKON INVEST AB	2013-02-11	0,41056	0,48119	0,42321	0,00000	0,00000	0,00000
SAS AB	2013-05-10	-0,01008	-0,06142	-0,13132	0,88209	0,55392	0,31274
NGS GROUP AB	2013-05-13	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
DORO AB	2013-05-14	0,26532	0,25635	0,24003	0,00000	0,00000	0,00000
NETJOBS GROUP	2013-05-27	-0,06862	-0,00537	-0,06689	0,08169	0,92894	0,37552
VENUE RETAIL	2013-08-27	0,09287	0,10083	0,07041	0,00000	0,00080	0,06183
MULTIQ INTERNATIONAL	2013-08-30	-0,08791	-0,09182	-0,16928	0,21808	0,39971	0,21554
SKF AB	2013-09-05	0,01102	-0,01510	-0,05859	0,46435	0,51150	0,04214
LAMMHULTS DESIGN	2013-09-18	0,10530	0,19851	0,28692	0,00462	0,00047	0,00006
INTELLECTA AB	2013-10-21	0,01396	-0,07765	-0,15014	0,75196	0,24980	0,07590
INTELLECTA AB	2013-12-11	0,09997	0,04408	0,04375	0,00205	0,37352	0,48110
SSAB AB	2014-01-22	0,22453	0,21520	0,18851	0,00000	0,00000	0,00000
BETSSON AB	2014-02-07	0,15352	0,19846	0,21052	0,00000	0,00000	0,00000
ALFA LAVAL AB	2014-04-07	0,07247	0,07670	0,08884	0,00001	0,00177	0,00388
AGES INDUSTRI AB	2014-04-10	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
CONSILIUM AB	2014-07-04	-0,00649	0,08945	0,16500	0,85448	0,09773	0,01483
RECIPHARM AB	2014-08-19	0,18306	0,21617	0,23201	0,00000	0,00000	0,00000
HEADER COMPRESSION	2014-09-22	0,37801	0,37924	0,43737	0,00000	0,00000	0,00001
RECIPHARM AB	2014-11-13	0,10140	0,11126	0,06875	0,00052	0,01270	0,21930
DORO AB	2014-12-16	0,16670	0,14803	0,13865	0,00002	0,01205	0,06067
PRECIO SYSTEMUTVECKLING	2015-02-12	0,05398	0,08590	0,08454	0,05059	0,04167	0,10981
UNLIMITED TRAVEL	2015-03-06	0,08049	0,11589	0,06320	0,07858	0,09733	0,47079
MULTIQ INTERNATIONAL	2015-05-12	-0,02637	-0,10869	-0,10153	0,58184	0,13731	0,26819
REHACT AB	2015-05-19	0,43924	0,48938	0,59332	0,00001	0,00112	0,00162
SWECO AB	2015-06-01	0,07174	0,12059	0,11002	0,00030	0,00007	0,00380
MIDSONA AB	2015-06-04	0,12592	0,13185	0,13651	0,00001	0,00206	0,01092
PRIME LIVING	2015-06-12	-0,01548	-0,06637	-0,10634	0,00000	0,00000	0,00000
FORESTLIGHT ENTERTAINMENT	2015-06-12	-0,23689	-0,54238	-0,87925	0,46713	0,27574	0,15869
TARGETEVERYONE	2015-06-17	0,74340	0,26876	0,21231	0,00000	0,00000	0,00000
HANZA HOLDING	2015-07-01	-0,09215	-0,04849	-0,15111	0,04429	0,48842	0,08499
ANOTO GROUP	2015-07-23	0,06292	-0,01140	-0,06585	0,41062	0,92227	0,65292
ELTEL AB	2015-08-10	0,00914	0,01799	-0,00175	0,73159	0,65836	0,97271
GAMING CORPS	2015-09-14	0,19452	0,21874	0,10736	0,00028	0,00753	0,29542
RECIPHARM	2015-10-20	0,09698	0,04733	0,06524	0,00142	0,30799	0,26234
CATENA	2015-10-20	0,00095	0,00221	-0,01415	0,96629	0,94884	0,74320
BYGGMAX GROUP	2015-11-04	0,04198	0,03236	0,08420	0,15868	0,47686	0,13981
TRELLEBORG AB	2015-11-09	0,21598	0,23810	0,25981	0,00000	0,00000	0,00000
BUFAB HOLDING AB	2015-11-26	0,07837	0,16541	0,30017	0,00008	0,00000	0,00000

WESC AB	2015-12-07	-0,25433	-0,29936	-0,22089	0,00049	0,00724	0,11391
ENZYMATICA AB	2016-01-28	0,04631	0,08414	0,23989	0,53238	0,45768	0,09121
NGS GROUP AB	2016-01-28	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
ADDVISE GROUP AB	2016-02-08	0,11824	0,09421	0,18119	0,30582	0,59326	0,41250
MQ HOLDING AB	2016-03-17	-0,16931	-0,04988	-0,03090	0,00001	0,39261	0,67265
CASTELLUM AB	2016-04-13	-0,03084	-0,06903	-0,05880	0,05540	0,00500	0,05643
RECIPHARM AB	2016-04-18	0,01792	-0,02336	-0,00725	0,61717	0,66963	0,91583
NORTH CHEMICAL AB	2016-04-18	0,92646	1,06039	1,17537	0,00000	0,00000	0,00000
HEDERA GROUP AB	2016-04-19	0,17898	0,27294	0,21273	0,00001	0,00001	0,00644
ITAB SHOP CONCEPT	2016-05-02	0,01520	-0,04612	-0,15660	0,69859	0,44180	0,03720
SWEDOL AB	2016-05-06	0,25593	0,26016	0,23274	0,00000	0,00000	0,00000
HEDERA GROUP AB	2016-05-11	0,33647	0,45011	0,35958	0,00000	0,00000	0,00002
PILUM AB	2016-05-31	0,01872	0,04135	0,03205	0,86062	0,79958	0,87525
INISSION AB	2016-06-14	0,09897	0,13504	0,15523	0,09007	0,12999	0,16500
ELANDERS AB	2016-06-17	0,38741	0,40660	0,41609	0,00000	0,00000	0,00000
ITAB SHOP CONCEPT	2016-07-08	0,02026	-0,06814	-0,11241	0,58910	0,23443	0,11761
SEAMLESS DISTRIBUTION AB	2016-07-13	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
ZETADISPLAY AB	2016-08-22	0,01305	0,01352	0,00797	0,88933	0,92482	0,96461
CLAVISTER HOLDING	2016-08-26	-0,11419	-0,15078	-0,18101	0,00571	0,01688	0,02213
ALLGON AB	2016-09-29	0,12786	0,06306	0,06229	0,04714	0,52160	0,61355
STARBREEZE AB	2016-10-25	-0,02365	-0,06586	-0,09526	0,59332	0,33036	0,26140
ALIMAK GROUP AB	2016-10-28	0,19706	0,25281	0,17807	0,00000	0,00000	0,00250
ALCADON GROUP AB	2016-11-01	0,19787	0,16741	0,14601	0,00000	0,00000	0,00003
KARO PHARMA AB	2016-11-01	0,11064	-0,04319	-0,12119	0,01313	0,52620	0,15600
VBG GROUP AB	2016-11-11	0,17500	0,19166	0,06583	0,00000	0,00001	0,22240
XANO INDUSTRI AB	2016-11-14	0,21211	0,28190	0,32024	0,00000	0,00000	0,00000
INTRUM JUSTITIA AB	2016-11-14	0,17851	-0,06923	-0,08061	0,00000	0,04607	0,06388
ALIMAK GROUP AB	2016-12-05	0,03650	0,06647	0,04465	0,28827	0,20553	0,49753
LAMMHULTS DESIGN	2016-12-16	0,15991	0,16214	0,13811	0,00000	0,00001	0,00212
SVENSKA CELLULOSA	2016-12-19	0,04446	0,03477	0,01459	0,04469	0,30408	0,73083
MSC GROUP AB	2016-12-20	-0,02707	-0,12210	-0,08047	0,69245	0,24278	0,53912
DISTIT AB	2016-12-20	0,11748	0,07176	0,09743	0,05504	0,44302	0,40603
TRANSTEMA	2017-01-02	0,21606	0,24277	0,29588	0,00000	0,00000	0,00000
DUROC AB	2017-01-13	0,00424	-0,01754	-0,05894	0,92008	0,78571	0,46621
MSC GROUP AB	2017-01-24	-0,01599	-0,05867	-0,12440	0,79086	0,52405	0,28119
EMPIRE AB	2017-01-25	0,65782	0,58752	0,64654	0,00000	0,00001	0,00009
ADDVISE GROUP AB	2017-01-31	-0,02147	-0,05095	-0,09922	0,75037	0,62118	0,44268

CAPACENT HOLDING	2017-02-02	0,02351	0,02983	-0,00514	0,53441	0,60578	0,94343
ALM EQUITY AB	2017-02-08	0,19768	0,25306	0,19041	0,00000	0,00000	0,00029
NGS GROUP AB	2017-03-28	0,02936	0,07483	0,05070	0,17541	0,02377	0,22172
SIVERS IMA HOLDING	2017-04-12	0,00000	0,00000	0,00000	0,00000	0,00000	0,00000
TRANSTEMA	2017-04-18	-0,01108	-0,04397	-0,04829	0,87702	0,68765	0,72467
TRANSTEMA	2017-04-18	-0,01108	-0,04397	-0,04829	0,87702	0,68765	0,72467
TAGMASTER AB	2017-04-27	0,21939	0,23254	0,15148	0,00002	0,00315	0,12493
AGES INDUSTRI AB	2017-05-03	0,15790	0,24424	0,15715	0,00000	0,00000	0,01088
MIDSONA AB	2017-05-15	0,12525	0,14688	0,14356	0,00000	0,00033	0,00508
ATTENDO AB	2017-05-31	0,07205	0,09326	0,08145	0,00024	0,00188	0,03035
ZETADISPLAY AB	2017-06-09	0,13774	0,12444	0,12949	0,01792	0,16148	0,24514
MAGNOLIA BOSTAD	2017-06-15	0,03039	0,15482	0,22870	0,23481	0,00007	0,00000
MSC GROUP AB	2017-06-21	0,04158	0,07277	0,03018	0,24322	0,18120	0,65826
SDIPTECH AB	2017-07-05	0,00157	0,00449	-0,01356	0,89837	0,81144	0,56539
SECITS HOLDING AB	2017-07-05	0,05109	0,08952	-0,05258	0,52110	0,46171	0,73018
KARO PHARMA AB	2017-08-24	-0,16135	-0,27063	-0,32423	0,00007	0,00001	0,00003
MYTASTE AB	2017-08-25	0,33047	0,42698	0,42536	0,00000	0,00000	0,00002
PRIME LIVING AB	2017-09-01	-0,04711	-0,09315	-0,13882	0,07223	0,01996	0,00567
ACADEMEDIA AB	2017-09-12	0,07220	0,08467	0,09324	0,00161	0,01548	0,03345
SDIPTECH AB	2017-10-31	0,00046	0,00232	0,01376	0,96422	0,88285	0,48536
MOMENT GROUP AB	2017-11-01	0,03935	0,01795	0,05089	0,17339	0,68428	0,35789
SDIPTECH AB	2017-11-01	0,00332	0,00005	-0,00433	0,74856	0,99731	0,82697
ADDVISE GROUP AB	2017-11-10	-0,01590	-0,09999	-0,11438	0,79024	0,27340	0,31756
KAKEL MAX AB	2017-11-21	0,19684	0,25634	0,40603	0,00004	0,00045	0,00001
MAVSHACK AB	2017-11-28	0,12205	-0,02420	-0,11021	0,57212	0,94154	0,78994
STILLFRONT GROUP	2017-12-06	0,17591	0,45451	0,43807	0,00008	0,00000	0,00000
NEXAM CHEMICAL	2017-12-08	0,29812	0,28179	0,28620	0,00000	0,00013	0,00189
SDIPTECH AB	2017-12-13	-0,03938	-0,05795	-0,04267	0,00001	0,00002	0,01178
XANO INDUSTRI AB	2017-12-18	0,06434	0,03528	0,04772	0,06044	0,50035	0,46708
AAC MICROTEC AB	2017-12-21	0,27148	0,52770	0,39556	0,00033	0,00000	0,00630
TELE2 AB	2018-01-10	-0,12272	-0,13905	-0,13672	0,00000	0,00000	0,00011
UNLIMITED TRAVEL	2018-01-12	0,11904	0,08716	0,08303	0,00265	0,14964	0,27357
HEDERA GROUP AB	2018-02-16	0,11824	0,11602	0,09182	0,00214	0,04864	0,21324
CHRISTIAN BERNER	2018-02-16	0,12403	0,19698	0,17191	0,00000	0,00000	0,00011
LIV IHOP AB	2018-04-17	0,00676	-0,08329	-0,06090	0,74100	0,00765	0,11977
IVISYS AB	2018-04-22	0,27082	0,24568	0,26336	0,00009	0,01971	0,04615
JAYS GROUP AB	2018-05-02	0,17596	0,19123	0,31221	0,02358	0,10724	0,03592
MIDSONA AB	2018-05-03	0,07700	0,08011	0,14004	0,00404	0,05017	0,00631
ALLGON AB	2018-05-04	0,06825	0,11647	0,11435	0,19258	0,14545	0,25424
BERGS TIMBER AB	2018-05-15	-0,01189	-0,02741	-0,00595	0,52574	0,33852	0,86831
SDIPTECH AB	2018-05-25	0,00292	0,00083	-0,00232	0,77889	0,95822	0,90715

DORO AB	2018-05-31	-0,07974	-0,03990	-0,04174	0,02300	0,45644	0,53434
IMAGE SYSTEMS AB	2018-06-01	0,34978	0,29888	0,28070	0,00000	0,00012	0,00390
POOLIA AB	2018-06-04	0,13842	0,12205	0,10084	0,00067	0,04958	0,19560
MOMENT GROUP AB	2018-06-19	0,04703	0,01088	0,05066	0,16975	0,83534	0,43993
COGNOSEC AB	2018-06-20	-0,20573	-0,22446	-0,22244	0,00076	0,01618	0,05728
TELIA COMPANY AB	2018-07-17	-0,07795	-0,10787	-0,14804	0,00005	0,00026	0,00006
INFREA AB	2018-10-23	0,09305	0,16485	0,21228	0,00097	0,00013	0,00008
NOTE AB	2018-11-01	0,11646	0,11020	0,11054	0,00000	0,00392	0,02099
INISSION AB	2018-11-01	0,13705	0,15683	0,17016	0,00046	0,00870	0,02316
AWARDIT AB	2018-11-06	0,10658	0,11394	0,17161	0,02783	0,12367	0,06436
BALCO GROUP AB	2018-11-15	-0,01064	-0,08190	-0,06162	0,62896	0,01495	0,14408
PROJEKTENGAGEMANG	2018-11-27	0,16270	0,17163	0,28488	0,00000	0,00016	0,00000
BILLERUDKORSNAS	2018-11-30	-0,04189	-0,00337	-0,01185	0,37431	0,96268	0,89556
EMPIR GROUP AB	2018-12-06	-0,01320	-0,08790	-0,22947	0,73630	0,14207	0,00223
AF POYRY AB	2018-12-10	-0,11619	-0,14311	-0,15438	0,00000	0,00000	0,00000
FAGERHULT AB	2018-12-21	0,05647	0,10237	0,07620	0,05553	0,02307	0,17727
ATVEXA AB	2018-12-21	0,07652	0,07836	0,02196	0,00715	0,07134	0,68679
SERNEKE GROUP AB	2018-12-28	-0,00739	0,09447	0,44498	0,81339	0,04812	0,00000
HANZA HOLDING AB	2019-01-31	0,03765	0,08244	0,20336	0,20756	0,07080	0,00038
ADDVISE GROUP AB	2019-02-11	-0,06245	0,01319	-0,04874	0,18153	0,85342	0,58608
MEDICOVER AB	2019-02-18	0,07651	0,11412	0,06873	0,00077	0,00102	0,11446
SDIPTECH AB	2019-02-18	-0,00369	0,00377	-0,00367	0,77302	0,84717	0,88088
COMBIGENE AB	2019-04-18	0,00950	-0,01919	0,00787	0,88529	0,84877	0,95024
AQ GROUP AB	2019-04-29	0,03108	0,03488	0,21944	0,15709	0,29856	0,00000
FM MATTSSON MORA	2019-05-13	0,11566	0,19533	0,30572	0,00003	0,00000	0,00000
AMASTEN FASTIGHETS	2019-05-23	0,06314	0,17522	0,23222	0,02810	0,00007	0,00002
KARO PHARMA AB	2019-06-21	0,02462	0,06549	0,08578	0,25747	0,04858	0,03933
MIDSONA AB	2019-07-23	0,10668	0,16071	0,10830	0,00050	0,00060	0,06516
SDIPTECH AB	2019-08-28	-0,00403	0,01722	0,02516	0,65780	0,21545	0,14880
PROACT IT GROUP AB	2019-10-14	0,00599	0,06004	0,08623	0,86347	0,25937	0,19626
KLARIA PHARMA	2019-11-05	0,01117	-0,09197	-0,16934	0,88693	0,44324	0,26010