Norwegian University
of Life Sciences

# Impact of Domestic M&A on Acquirer Shareholder`s Equity: Evidence from Oslo Stock Exchange

Abrar Akram Ghauri
Master of Science in Industrial Economics

# Summary

The clear majority of research studies that has been conducted in the field of mergers and acquisition (M&A) are performance studies of acquirer post-M&A. Researchers has tried to get an insight into whether an M&A deal has had a positive or a negative effect on the acquiring company. In addition, most of these studies have been conducted on the US and UK market and hence the author wish to contribute to the existing literature by performing a specific study on the Norwegian market.

In the following thesis, I examine the short-term/immediate impact of selected domestic mergers and acquisition (M&A) deals on acquirer`s shareholder`s equity in the Norwegian market and I also examine whether this impact is influenced by the method of payment.

The author follow in the footsteps of numerous empirical researchers in the field of M&A and use event-studies to evaluate the performance of Norwegian M&A deals. The analysis investigates the Cumulative Abnormal Return (CAR) that measures a stocks unexpected returns and thus can be understood as the stock`s market reaction to the M&A announcement.

The interpretation of CAR is that the stock price will on average react positively to M&A announcements when the Cumulative Average Abnormal Return (CAAR) and Average Abnormal Return (AAR) is greater than zero and statistically significant.

The analysis considers selected domestic M&A deals on the Norwegian market in the period of 1995-2015 which add up to 38 deals that fulfills specific criteria`s.

***HYPOTHESIS 1: Cumulative Average Abnormal Return (CAAR) is positive in the event-window***

The results for CAAR show conflicting results and only significant values for the event-window of [-10, 10] and [-1, 1]. Due to significant conflicting results, Hypothesis 1 cannot be supported and hence the author has not been able to conclude whether Norwegian domestic M&A deals has created value or not.

***HYPOTHESIS 2: Average Abnormal Return (AAR) is positive around the announcement date [0, 1]***

The results for AAR shows that we have high statistically significant positive AAR around the announcement date. This indicates that the market views the M&A activity positively and hence Hypothesis 2 is supported.

***HYPOTHESIS 3: Cash-only deals are positively related to CAAR***

***HYPOTHESIS 4: Mix-deal are positively related to CAAR***

The results are not in line with the theoretical discussion in this thesis and not what the author would have expected. The results show that cash-only deals underperform both stock-only and mix deals. Unfortunately, the results are not statistically significant and thus Hypothesis 3 and Hypothesis 4 are not supported.

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# 1. Introduction

Mergers and acquisitions (M&A) activity is an integral part of the modern economy and a common economic phenomenon. There are few decisions that carry as much risk to shareholders as a major acquisition and therefore the motivational factors and further research to answer the question of whether M&A creates value has stirred attention of both scholars and policy makers.

The theoretical discussions in this thesis shows that there are many value creating opportunities that an M&A deal can offer to the acquiring firm and its shareholders. The vast majority of performance studies has been conducted on the US and UK market and the literature consists of various methods to study the post-M&A performance of the acquiring firm such as, turnover and profit growth, stock prices and abnormal stock return (1).

The underlying assumption in these studies has been that the shareholder`s wealth creation is the main goal of the management and thus, the acquiring firm will only engage in M&A deals that will increase the economic value for the shareholder`s (2). However as two of the most cited motives for M&A is faster growth and synergies, which are difficult to achieve, an M&A deal will therefore not always guarantee shareholder`s wealth creation (3).

The method used in this study/thesis is to measure performance by evaluating the acquirer`s abnormal stock returns. Performance study assumes semi-strong market efficiency which means that the share price will react well-timed and unbiased when new information reaches the market (4). Therefore, any changes in the fundamental value of a company should immediately be reflected in the share price of the acquiring firm (4).

Given the fact that value creation from M&A deals can be measured as changes in a company`s stock price, a positive and statistically significant Cumulative Average Abnormal Return (CAAR) indicates that M&A deals are on average creating shareholder value. On the contrary, a negative CAAR indicates that M&A are on average destroying shareholder value (5).

Method of payment has also been investigated abundantly in previous literature as researchers has tried to find key success factor that do not depend on the specific characteristics of an M&A project (1). An acquiring firm has the alternative to choose between cash, debt or equity when making an offer. The method of payment is revealing as once the bid is presented to the seller, the public can consider the deal and accordingly react to the confidence of the acquiring firm on the M&A deal (6).

The understanding regarding the method of payment based on the theoretical discussions in this thesis are that a management that is confident on the M&A deal will want to pay for the target firm`s with cash as they believe that the stock will eventually be worth more after the deal (6). On the contrary, if the management is less confident regarding the deal, the acquiring firm will offer to pay with stock`s to share some of the risk with the target firm`s shareholder`s (6).

## 1.1 Problem discussion

> Has selected domestic mergers and acquisitions in the period of 1995-2015 created shareholder value for Norwegian acquiring companies?

The question of whether M&A creates or destroy value is a well debated question which researchers argue for and against within the field of corporate finance. Many studies have tried to address this question on the US and UK market but due to ambiguous results there is still a lack of consensus.

Further, to my knowledge, no studies has been published that explicitly considers this question with the research method outlined in this thesis on the Norwegian market. Thus, the author wish to have a humble try on answering this question on selected domestic Norwegian M&A`s and hope to support some of the existing literature in this field.

> Does the method of payment have any influence on the shareholder`s value creation by considering selected Norwegian domestic mergers and acquisitions in the period of 1995-2015?

Previous studies on other markets and the theoretical discussions in this thesis will show that the method of payment have an impact on the shareholder`s value creation. Therefore, the author find it compelling to study if the method of payment also will have an impact on selected domestic Norwegian M&A`s.

## 1.2 Purpose

The clear majority of research studies that has been conducted in the field of mergers and acquisition (M&A) are performance studies of acquirer post-M&A. Researchers has tried to get an insight into whether an M&A deal has had a positive or a negative effect on the acquiring company.

Most of the studies has been conducted on the US and UK market and have showed ambiguous results. The contribution the author wish to make with this study is to add the Norwegian market to the existing literature and to produce unambiguous empirical evidences that support the existing literature.

## 1.3 Thesis outline

The **theoretical background (chapter 2)** provides an understanding of the various strategic motives behind an M&A deal and the value creating opportunities that an M&A deal can offer to the acquiring firm. The **literature review (chapter 3)** is a review of previous studies that answer the questions raised in this thesis on other markets. This chapter will also provide the foundation of the initial hypothesis for this research study. The **hypothesis development (chapter 4)** outlines the hypothesis that need to be tested.

**Research data and method (chapter 5)** describes the method used and the methodological problems that should be considered in this study. **Results (chapter 6)** presents the results of the analysis and **discussion of results (chapter 7)** discuss the results and compare them to the initial hypothesis outlined in this thesis. **Conclusion (chapter 8)** presents the conclusion of this study.

# 2. Theoretical background

In this chapter I will try to explain the rationale behind mergers and acquisitions and how these deals can generate value.

Before that, as a way of introduction, it is essential to clarify and understand what type of transactions that can be involved in M&A operations.

## 2.1 Definition and classification

In a company sense one can define a merger or an acquisition as the combination of two companies into a new company or a corporation. The way in which the combination of these two companies is brought about is the main difference between defining it as a merger or an acquisition (3)

### 2.1.1 Mergers

**Merger** is when the boards of directors of two firms, the target firm and the acquiring firm, agrees to combine and seek stockholder approval for a combination. Typically, if 50% of the shareholders of the bidding and target firm have agreed to the merger, the target firm will cease to exist and become an integral part of the acquiring firm. In a merger, the acquiring company assumes the assets and liabilities of the target firm (3)

For example, assume that companies' A and B are existing financial institutions and consider that a potential merger can bring benefits to the combined company. Both companies can initiate merger negotiations and if successful the result can be a merger of two companies to form a larger company.

In a **consolidation,** a new firm will be created after the merger, and the stockholders of both the acquiring firm and target firm will receive stocks in the new firm (3).

A simpler way to explain the difference is that a merger can be explained as A + B = A, where company B is merged into company A. Whereas, a consolidation is explained as A + B = C, where C is an entirely new company.

Mergers can be categorized as follows (3):

**Horizontal merger** is often used for companies that merge across similar industries (products and services). Company A merge with competing company B to increase their combined market share (3)

**Vertical merger** is used for companies that merge along the value-chain, for example company A (manufacturer) merge with company B (supplier) to gain a competitive advantage within the marketplace (3)

**Conglomerate** is used when company A and B which are in two totally different industries merge together for diversification reasons thereby smoothing out fluctuations in earnings and provide a consistency in long-term growth (3)

## 2.1.2 Acquisitions

In an **acquisition** the negotiation process is not necessarily taken place. Typically company A acquires company B by buying its shares up to a point where it becomes the owner (3). There are many ways an acquisition can take place and they are classified as follows (3):

In a **tender offer** the acquiring firm bypasses the management and the board of directors of the target firm and offers to buy the outstanding stocks directly from the stockholders by mailings and advertisements. The target firm will however continue to exist if there are minority stockholders who refuses the tender offer (3)

**Purchase of assets** is when the acquiring firm purchase the assets of the target firm after an approval from the target firm shareholders (3)

**Management buyouts/leveraged buyouts** is when the firm is acquired by its own management or by a group of investors with a tender offer. The publicly traded firm will then cease to exist and become a private business (3)
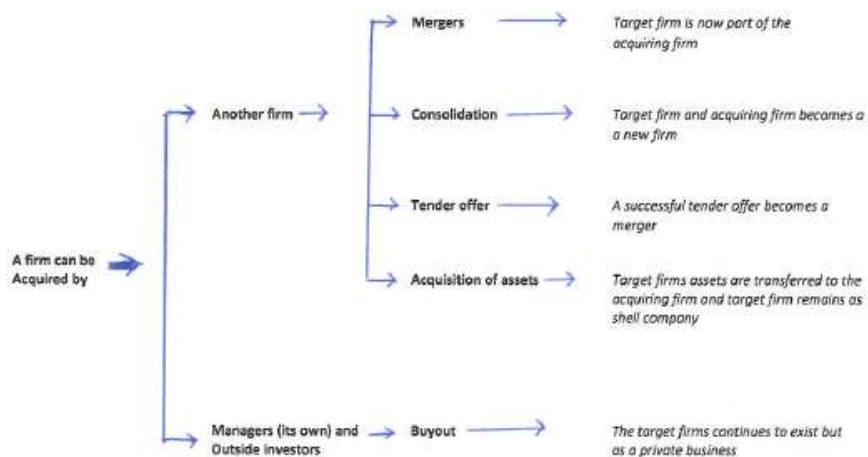


*Figure 1: M&A classifications and definitions (3)*

Throughout this thesis, the author will loosely refer to merger and acquisition (M&A) as a business transaction where one company acquires another company. The acquiring company will remain in business while the target company will be integrated into the acquiring company and thus cease to exist.

## 2.2 Motives

Maximization of shareholder`s wealth, that is to maximize the market value of the firm for its owners is the primary objective of financial management (2). This objective is satisfied from the acquirer's standpoint when the "added" value from the acquisition of the target company exceeds the cost of acquisition (transaction cost and the acquisition premium) (2).

Two of the most cited motives for M&A is – faster growth and synergy. The supporter of an M&A deal will often point to the company`s ability to grow faster and/or an potential synergy as the justification for the price of the deal. In addition, there are other motives such as improved

management and tax benefits and there are also less noble motives such as hubris, that is the pride of the management of the bidder (3).

In the following sub-chapters, these motives have been explained in detail.

### 2.2.1 Growth

The two main alternatives for companies that are seeking to expand are respectively internal/organic growth or growth through M&A. While internal growth is a much more slow and uncertain process, growth through M&A is a more rapid process but brings with it other types of uncertainties (3).

For a company that is seeking to expand within its own industry, growth through M&A leads to an advantage over the competitors. A slow internal expansion can lead to the competitors reacting to the same opportunities and thus take part in the market share. The solution for companies to take advantage of the opportunities that arises in the market can be to acquire another company that already has the resources needed (3).

Another reason for growth to be a popular motive for M&A is that managers often look to M&A as a shortcut to remedy for the constant pressure on the management team to demonstrate successful growth within the company. In addition to sales growth, the management team also hopes for improved profitability and higher returns to shareholder through synergistic gains. Therefore, whilst the M&A deal might be a solution it also requires a higher demand on the management team (3).

### 2.2.2 Synergy

Synergy in the context of M&A is the ability of a corporate combination of two firms to be more profitable than what they would have been if added individually. In terms of *net acquisition value* (NAV) the following relationship exists (3):

$$NAV = V_{AB} - [V_A + V_B] - P - E$$

Where;

$V_{AB}$      The combined value of the two firms
$V_A$      The value of firm A
$V_B$      The value of firm B
$P$      Premium paid for B
$E$      Expenses of the acquisition process

Rearranging the equation above gives us a better understanding (3):

$$NAV = [V_{AB} - (V_A + V_B)] - (P + E)$$

$[V_{AB} - (V_A + V_B)]$ is the synergic effect and has to be greater than the expense (E) and the premium (P) for the net acquisition value to be positive.

Researchers have categorized synergy into two main types, namely operating synergy and financial synergy (3).

### 2.2.2.1 Operating synergy

Operating synergy comes in the form of revenue enhancements and cost reductions and are derived in horizontal or vertical mergers (3). Even though there are many different potential sources for revenue enhancements they can be difficult to achieve and to quantify for valuation purposes.

On the other hand, cost reductions mainly from economies of scale are much easier to quantify and are therefore more highlighted in a potential M&A deal as the main source of operating synergies (3).

### 2.2.2.2 Financial synergy

The possibility of lowering the cost of capital by the M&A deal is referred to as financial synergy. The risk of bankruptcy of the combined firm is decreased by combining two firms that has un-correlated cash flow streams which reduces the volatility of cash flows (3). This will result in better access to financial markets and lower cost of raising new capital.

Other financial synergies than can be realized through M&A is increased debt capacity associated with excess cash and tax benefits (7). The source of value from excess cash is the ability to invest in high return projects that would otherwise be declined. Tax shields due to possible increased debt also creates value if it does not incur into financial distress situations (7).

Results of acquisition can also be lower flotation and transactions costs for the company which is referred to as financial economies of scale (3).

## 2.2.2 Diversification

Diversification can be achieved through conglomerization where companies expand by buying other companies instead of growing through internal expansion (3). However, diversification does not mean conglomerization and it is possible to diversify within the acquirer`s business.

Much often when the management is dissatisfied with the volatility in the level of earnings which makes is difficult to pay regular dividends and for long-term planning, the management look at the possibility of diversification outside of its own industry (3).

Another reason for diversification may be to enter new profitable industries. However, economic theory implies that the reason an industry has above-average returns is due to the difficulty of entering that industry (high-barrier industry) and therefore the diversification program might not be successful in the long-run (3).

### 2.2.3 Other economic motives

The two other economic motives for M&A`s in addition to diversification benefits are *horizontal integration* and *vertical integration* (3).

#### 2.2.3.1 Horizontal integration

Horizontal integration results from acquisition and merger of rivals and provides increase in market share which increases the company`s market power.

According to economic theory, the market structure is categorized into two extreme forms. At one side, there is pure competition where each seller is price taker and does not have any influence on the market price. On the other side, there is monopoly (market power) which is an industry with one seller who has the power to select the price that maximizes profits (3).

Horizontal integration provides a movement from the pure competition end of the spectrum to the monopoly end, in other words it provides an increase in market power.

#### 2.2.3.2 Vertical integration

Vertical integration refers to merger or acquisition between companies that have a buyer-seller relationship. There are various motives for vertical integration, however some of the main motives are assurance of dependable source of supply, quality maintenance and time delivery considerations (3).

### 2.2.4 Hubris hypothesis

An interesting hypothesis that has been researched a lot is the role of hubris, the pride of the managers in the acquiring firm to explain the motive behind an M&A deal. The hubris hypothesis suggests that the manager`s has their own personal motives as the primary motive when seeking to acquire other firms (3).

The hypothesis can also be used to explain the premium that managers pay for firms that has already been valued by the market. The pride of the management can result into believing that their own valuation is superior to the value set by the market.

The hubris hypothesis is not supposed to explain all takeovers; however, it is purely a proposition of an important human element that is involved in M&A deals since individuals are interacting and negotiating.  The role of hubris motive will however vary from one M&A deal to another (3).

## 2.3 Method of financing

In this thesis, the author has made a clear distinction between the method of financing, which is the way the acquiring company raises money and the method of payment which is the way the acquiring company purchases the target firm. The method of payment will be described in detail later.

Corporate finance literature has described three main sources of financing. The internal form of financing comes from accumulated retained earnings and are defined as cash and the external form of financing which is through debt or equity (stock) (8).

The distinction is made clear by the fact that deals that are listed as cash transactions might actually be relied upon debt financing for the acquiring firm, so the acquirer is in fact relying on debt to get the cash to pay the target shareholders (3).

According to the pecking order theory, companies will prefer investments through internal financing as they are subject to least information sensitivity. A company`s cash and other liquid assets typically have a much lower return compared to the company`s long-term assets and due to this reason corporations usually look to economize on their cash holdings. Therefore, corporations only keep low cash levels to be able to pay for short-term liabilities and buffer for any unforeseen events (3).

If the acquiring company does not have enough cash available and needs cash to finance an M&A deal then they often look to debt to be able to raise the cash needed. Another possibility is to use stock to be able to generate cash, however as debt requires lower flotation costs (3) and according to Modigliani and Miller theory, the tax savings from debt financing balances against the cost of financial distress (8), debt has an advantage.

Also, other theories that plays a role on the choice of method of financing is that cash is taxed immediately while stock is only taxed when sold (capital gains taxes) and the dilution of the acquirers' shareholder control due to offering of stock`s (corporate control) (8).

Final consideration for the choice of method of financing is how the financial market will react to the decision. This will be explained detailed in later chapter as it has actually a major impact on how the financial market reacts to the M&A deal as the decision provides an insight into how the management values their own shares, and also their ability to unlock value through an acquisition.

## 2.4 Method of payment

When the acquiring firm is making an offer, they must decide on the mix of cash, debt and equity that will be used to purchase the target firm. However, this is not a one-sided decision as the total compensation value and mix must also be accepted by the target shareholder`s (3)

The method of payment is revealing as once the bid is presented to the seller, the public can consider the deal and get an understanding of how the insiders of the acquiring firm value their own stock, the value of the target and their confidence in realizing value through the M&A deal (6).

A management that is confident on the M&A deal will want to pay for the target firm`s stock with cash as they believe that the stock will eventually be worth more after the deal. In this case, if the acquirer decides to pay with stock, the target shareholder`s will become partial owner`s and will also share the benefits of the deal (6).

On the other hand, if the management is less confident regarding the deal, the acquirer will wish to pay for the M&A in stock`s to share some of the risk with the seller (6).

Stock can also be considered as currency as there can be exchanges of stock-for-stock in the deal. For the case where the acquirer`s stocks are overvalued (priced higher than what they are worth) the acquirer can benefit by paying with stock. If the acquirer`s stocks are undervalued, they will rather want to pay for the M&A deal with cash (6).

The shareholder`s in the target firm has the choice between tax benefits of stock and the liquidity and risk minimizing benefits that cash provides. The target firm can defer the tax liabilities by accepting stock as payment, however due to the risk of becoming a minority shareholder in a firm that has a concentrated ownership might give preference to cash as payment (9).

# 3. Literature review

In the field of M&A, empirical researchers have commonly used two main studies for evaluating performance, namely accounting-studies and event-studies.

Accounting studies has been used to evaluate the long-term post-operating performance of M&A deals by comparing the performance with the benchmark of a group of non-acquired firms. This method has limitations with regards to measurement problems as companies can have different accounting rules, however this method provides a direct measure to the economic impact on the company (5).

Since the early 1970s event study has been widely applied by researchers to investigate the impact of M&A deals. However, financial research is inconsistent on the question of whether M&A increases acquiring company shareholder value (10). Some research studies show that M&A increases value while other studies indicates that M&A does not lead to subsequent performance gains and instead destroy value (10). In addition to empirical findings that are mixed, there are also various distinct hypotheses that try to explain the reason for the observed acquirer`s performance pattern.

Finance theory suggest that there are many value creating opportunities that an M&A deal can offer to the acquiring firm and its shareholders (10). The purpose of this chapter is to provide a literature investigation on some of the studies performed on M&A deals.

## 3.1 M&A performance study

Performance study of acquirer post-M&A represents the clear majority of research studies that has been conducted in the field of mergers and acquisitions. In other words, researcher have tried to get an insight into why certain M&A deals fail and others succeed and to investigate if there exist key success factors that do not depend on the specific characteristics of an M&A project (1).

The literature consists of various methods to study the post-M&A performance of the acquirer relative to its pre-M&A performance, such as (1):

- Turnover and profit growth
- Relative firm value
- Short- and long-term stock price (event study methodology)
- Abnormal stock return (difference between actual returns and the expected return)
- Present value of the post-M&A incremental cash flows

The underlying assumption of the performance study is that shareholder`s wealth creation is the goal of the management, and thus, the acquiring company will only engage in M&A deals that will increase the economic value for the shareholder`s. Given this, the value creation from M&A deals can be measured as changes in a company`s stock price and, thus, any M&A deal that provide negative or neutral returns is deemed as "illegitimate" deals (1).

The ideal way to investigate the impact of the M&A deal would be to compare the acquiring shareholder`s wealth after the deal with how much the wealth would have been if the deal had not happened. However, this is not possible and therefore event studies that analyses shareholder's abnormal returns, are good proxy for determining the value of the M&A deal (1).


## 3.2 The effective market hypothesis

The acquiring firm's performance has been measured by the method of event-studies in previous literatures (4). The measurement is based on an event-window that is pre-specified and both long- and short-run windows can be used (4).

The question that arises is when the value of an M&A transaction will be fully realized for the acquirer. In other words, when will the market capitalization reflect the full effect of a deal?

The efficient market hypothesis is a well debated theory that was developed by Professor Eugene Fama in 1970. The theory states that it is impossible for an investor to obtain abnormal returns because the stock price will always reflect all available information (4). The theory also states that there are three different levels of market efficiency; weak, semi-strong and strong.

In the weak form of market efficiency, the stock price today will reflect all information that is contained in historical prices (4).

The semi-strong form suggest that the stock price will immediately adjust to all publicly available information. Therefore, all available information will be reflected in the security price, for example an announcement of an acquisition (4).

In the strong form, the stock price will reflect all information that is available, both public and private. This means that not even insiders can be able to earn abnormal return, and that an acquisition announcement will not affect the stock price as the announcement is already expected and incorporated in the stock price (4).

Performance studies in previous literatures assumes semi-strong market efficiency and thus, the share price will react well-timed and unbiased when new information reaches the market (4). Therefore, any change in the fundamental value of a company should be immediately reflected in the share price.

## 3.3 Average stock price reaction

The study performed by Jansen and Stuart (11) found that the acquiring firm`s experienced an increase in their stock prices (abnormal returns) and that on average the market would react positively to an M&A announcement.

In the master thesis by Ekholm and Svensson (4) the authors have summarized previous research studies and presented them in a table. Even though the results and research methods vary considerably between the studies, this table can provide us with an idea on the market reaction post-M&A.

| YEAR | AUTHOR | PERIOD | MARKET | NO. OF DEALS | EVENT-WINDOW | | CAR |
|------|--------|--------|--------|--------------|--------------|---|-----|
| 1980 | Firth | 1969-1975 | UK | 642 | [-1, 1] | months | - |
| 1980 | Dodd | 1970-1977 | US | 151 | [-40, 40] | days | - |
| **1989** | **Franks and Harris** | **1955-1985** | **UK** | **1058** | **[-4, 1]** | **months** | **+** |
| **1990** | **Mitchell and Lehn** | **1980-1988** | **US** | **232** | **[-1, 1]** | **days** | **-** |
| 1991 | Franks, Harris and Titman | 1975-1984 | US | 399 | [-5, 5] | days | +/- |
| 1991 | Lang et al | 1968-1986 | US | 87 | [-5, 5] | days | +/- |
| **1994** | **Smith and Kim** | **1980-1986** | **US** | **177** | **[-1, 0]** | **days** | **-** |
| **1997** | **Holl and Kyriazis** | **1979-1989** | **UK** | **178** | **[0, 2]** | **months** | **-** |
| 1998 | Higson and Elliot | 1975-1990 | UK | 1660 | [0, 3] | months | + |
| **2000** | **Walker** | **1980-1996** | **US** | **556** | **[-2, 2]** | **days** | **-** |
| **2003** | **Sudarsanam and Mahate** | **1983-1985** | **UK** | **519** | **[-1, 1]** | **days** | **-** |
| **2004** | **Gupta and Misra** | **1980-1998** | **US** | **285** | **[-10, 10]** | **days** | **-** |
| **2004** | **Song and Walkling** | **1985-2001** | **US** | **5726** | **[-1, 0]** | **days** | **+** |
| **2004** | **Campa and Hernando** | **1998-2000** | **EU** | **262** | **[-30, 30]** | **days** | **-** |
| **2006** | **Ben-Amar and Andre** | **1998-2000** | **Canada** | **238** | **[-1, 1]** | **days** | **+** |
| **2014** | **Jansen and Stuart** (11) | **1980-2008** | **US** | **17000** | **[-1, 1]** | **days** | **+** |
| **2015** | **Paskelian and Bell** (10) | **2009-2012** | **US** | **158** | **[-2, 2]** | **days** | **-** |
| **2016** | **Adnan and Hossain** (5) | **2015** | **US** | **100** | **[-5, 5]** | **days** | **+** |

*Table 1: Literature review, average stock price reaction. The studies highlighted in bold shows statiscally significant results*

The studies highlighted in bold shows statistically significant results. The table shows that most of the research studies have covered the US or the UK market, and that the majority have found negative returns to acquirer`s shareholder wealth. However, both due to the significant and insignificant results and both negative and positive abnormal returns, the conclusion lacks consensus (4).

## 3.4 Method of payment

Empirical studies performed by researchers such as Asquith et al. (12) and Heron and Lie (13) found that the method of payment is important in determining the acquiring firm`s stock return. Jansen and Stuart (11) found that the market will view M&A deals that are paid with cash more positively compared to deals that are paid with a combination of cash and shares (equity).

The signaling hypothesis suggest that acquirer`s that issue equity in an M&A deal believes that they`re stocks are overvalued and is trying to take advantage. In other words, the market suggests that the equity being offered is more overvalued than the target assets that are being acquired.

Therefore, due to asymmetric information, an announcement on an M&A deal that uses stock as payment will convey valuable information to the market and therefore experience a lower CAR due to the market re-evaluating the acquiring firm (11).

On the contrary, the signaling hypothesis also suggest that M&A deals that are paid with cash shows financial strength and an ability to invest in positive net present value projects (11).

Another theory states that overvalued acquirer`s use stock as the method of payment as they are expecting a negative share price correction by the market. And by converting their overvalued equity into real assets they can potentially reduce this correction (8). Empirical studies has supported the view that mispricing in an important motive when acquirer`s choose equity as the method of payment, and this might be the reason why the market "punish" this specific transaction (8).

In the table below Ekholm and Svensson (4) summarized research studies on the effect of method of payment on the acquirer`s shareholder wealth.

| YEAR | AUTHOR | PERIOD | MARKET | NO. OF DEALS | EVENT-WINDOW | | CASH | EQUITY | MIX |
|---|---|---|---|---|---|---|---|---|---|
| 1987 | **Travlos** | **1973-1982** | **US** | **167** | **[-1, 0]** | **days** | **+*** | **-** | |
| 1990 | Eckebo et al. | 1964-1982 | Canada | 182 | [0, 1] | months | | | +* |
| 1996 | Sudarsanam et al. | 180-1990 | UK | 429 | [-20, 40] | days | +* | - | + |
| 1997 | Loughran and Vijh | 1970-1989 | US | 947 | [0, 5] | years | + | -* | - |
| 2000 | Walker | 1980-1996 | US | 556 | [-2, 2] | days | +* | - | -* |
| 2002 | Doukas et al. | 1980-1995 | SWE | 101 | [-5, 5] | days | +* | | |
| 2004 | Song and Walking | 1985-2001 | US | 5726 | [-1, 0] | days | + | - | |
| 2004 | Moeller et al. | 1980-2001 | US | 9712 | [-1, 1] | days | + | -* | +* |
| 2005 | Dong et al. | 1978-2000 | US | 3732 | [-1, 1] | days | +* | -* | |
| 2014 | Jansen and Stuart (11) | 1980-2008 | US | 17000 | [-1, 1] | days | + | - | + |
| 2015 | Paskelian and Bell (10) | 2009-2012 | US | 158 | [-2, 2] | days | + | - | - |

*Table 2: Literature review, method of payment. The studies highlighted in bold and with * indicates statistically significant results*

The studies highlighted in bold and with * indicates statistically significant results. The table shows that there is an empirical consensus that M&A deal with cash payment are more successful than deals than with equity. However, it should be noted that deals with mixed method of payment shows better results than pure cash or equity deals (4).

# 4. Hypothesis development

This chapter should be read in conjunction with chapter 3 as the hypothesis developed in this chapter are based on previous studies.

## 4.1 Average stock price reaction

It should now have been clarified from the theoretical discussion in this thesis that the main goal of the management team involved in M&A activity is to maximize the market value of the firm for its shareholders. This thesis has shown that there are many value creating opportunities that an M&A deal can offer to the acquiring firm. Examples of opportunities are growth through M&A which leads to an advantage over competitors, operating and financial synergies and increase in market share/power.

However, the literature review on this subject shows ambiguous results on whether the average M&A deal creates value or not. Table 1 shows that on average the majority of studies has found negative returns to acquirer`s shareholder wealth. Previous studies have tried to explain the negative returns and one of the most popular explanations are the hubris hypothesis that suggests that the management team has their own self-interest as the primary motive when acquiring other firms. It should also be noted that two of the most cited motives for M&A is faster growth and synergy, which are difficult to achieve and quantify and that can explain skepticism the market has regarding an M&A announcement.

The M&A opportunities that creates shareholder value are rare and difficult to find and even once they are found, they are even more difficult to create value from. But on the other side, if successful even a close match between two companies can generate enormous returns and this is the reason many companies seek to M&A. From more recent studies we can see that the researchers have seen significantly positive CAR and the author believes that the market should view any M&A activity as an activity that will increase the economic value for the shareholders and by assuming semi-strong market efficiency the change in the fundamental value of the company should immediately be reflected positively in the share price of the company at an announcement. Hypothesis 1 states that M&A activity on the Norwegian market has created value on average.

***HYPOTHESIS 1: Cumulative Average Abnormal Return (CAAR) is positive in the event-window***

The author also believes in the study performed by Jansen and Stuart (11) where the authors found that the acquiring firm would experience positive abnormal returns around the announcement date and that on average the market would react positively to the M&A announcement. Therefore, I state the following hypothesis:

***HYPOTHESIS 2: Average Abnormal Return (AAR) is positive around the announcement date [0,1]***

## 4.2 Method of payment

Previous literature shows some consensus regarding the impact of method of payment on an acquisition. Empirical studies have found that market views cash deals more positively compared to deals that have used stocks or a combination of cash and stocks as the method of payment.

Based on the theoretical discussion in this thesis we can believe that acquiring companies will only pay for M&A deals with stocks when they believe their stocks are overvalued which will result in the market re-evaluating the acquiring firm. Most studies show that stock-only deals will underperform cash-only deals significantly.

Another theory presented by Hansen (14) suggest that the acquiring firm will rather pay with stock when the target company know its value better than the acquiring firm. The reason for this is that the target company will only sell its assets when the value of the offer made is more than the value of the assets and therefore the acquiring firm will protect itself by offering stocks. The stock offer provides a contingent-pricing characteristic where the target company can share the benefits of the M&A deal through the target company`s increased share price (4).

Cash-only deals conveys a more confident view by the acquiring management team on the M&A deal and thus the market will react to these deals more positively. This understanding is supported by research studies that show statistically significant results that cash-only deals are more successful than stock-only deals. The results can be explained by the signaling hypothesis that suggest financial strength of the acquiring firm and the management teams ability to maximize shareholders value. Hypothesis 3 states that the market will view cash-only deals on the Norwegian market positive related to CAAR.

### *HYPOTHESIS 3: Cash-only deals are positively related to CAAR*

Empirical studies show that M&A deals with mixed method of payment shows better results than pure cash or equity deals. These results can be explained by Eckbo et.al (4) who further developed the theory by Hansen (14) by incorporating a two-sided information asymmetry between the acquiring and target company. The acquiring firm will not offer stocks if the target company underestimated the value of the offer and thus by offering an optimal mix of cash and stock as payment an equilibrium is reached. Hence, the author states the following hypothesis:

### *HYPOTHESIS 4: Mix-deals are positively related to CAAR*

# 5. Research data and method

This thesis has followed other studies on the subject and used Cumulative Abnormal Returns (CAR) that measures a stocks unexpected returns.

CAR is calculated by adding a firm`s stock return over an event window and adjusting for the firm`s expected return from the Capital Asset Pricing Model (CAPM), which incorporates the market`s overall return during that event window and the stock`s historic association with market returns (11). Therefore, the CAR can be understood as the stock`s market reaction to the M&A announcement.

## 5.1 Event-study methodology

Since 1970, event-study has been broadly applied by economists for researching the impact of an M&A deal (5) and to analyze whether the deal creates or destroy value. In this study, a merger or an acquisition announcement is considered as an event because this is when the acquirer`s share price will incorporate the announcement information (2).

The market will be sensitive to new information because of the assumption that the market is efficient, therefore the observation period cannot be too long as the results will not precisely reflect the market's reaction to the M&A deal (2).

For this study, the author has chosen three event window (observation period) to be able to test the immediate and short-term response of the market pre-acquisition and post-acquisition (2).

- 10 trading days before and after the acquisition announcement [-10, 10]
- 5 trading day before and after the announcement [-5, 5]
- 1 trading day before and after the announcement [-1, 1]

It should be noted that day 0 is defined as the announcement date.

Regarding the estimation period, the literature has suggested an estimation window of 240 trading days' pre-observation period to be able to test the acquisition effect on the acquirer`s shareholder return (2). Due to days having lack of stock returns data on some companies, I have chosen to use a longer estimation window and it will be approximately 340 trading days' pre-observation.
Thus, the observation period is defined as [-350, -11]

To be able to test the immediate and short-term response of the market pre-acquisition and post-acquisition,

The following three-step procedure is used in the traditional method of event-study (15):

1. First the Capital Asset Pricing Model (CAPM) is used to generate normal returns
2. Second, the abnormal returns are calculated by subtracting the normal returns from the realized returns
3. Finally, statistical significance of the null-hypothesis is used to judge the estimations

The following advantages of event-studies are recognized (5):

- The possibility to investigate the influence of outside factors by having a short-term event study
- Allow to study a large sample as data is publicly available
- The assessment is objective
- By calculating the abnormal returns, the data will not be subject to industry sensitivity.

## 5.2 Data

To examine the short-term performance of selected successful M&A transactions in Norway with definite agreement dates announced from January 1995 to January 2015 the following filter criteria is used (15):

- Transactions are listed as successfully completed mergers and/or acquisitions in the Thomson Reuters database.
- The acquiring firm is publicly-owned Norwegian firm.
- The acquiring firm must have share-price information available from Oslo stock exchange on Thomson Reuters database 1 year prior to and one year after the announcement date.
- The financial structure of the transaction must be available in the Thomson Reuters database.

Since I am investigating value creation for Norwegian firms, I require that the acquiring firm is based in Norway. The acquiring firm also need to be publicly listed on Oslo Stock Exchange to be able to evaluate the shareholder wealth. Note that the companies that has been delisted but that were listed during the event window will be included.

Further restrictions to the list are required and deals that do not have information regarding the financial structure of the transaction (cash-only, stock-only, mix) are removed. Following this, we also remove acquirers that do not have data available on Thomson Reuter's database, which was the case for roughly 15 deals.

Finally, the author has ended up with 38 deals.

As the study period is short, the problem of firms that have had multiple M&A transactions during the sample period will not be significant.

## 5.3 Mathematical method explained

Abnormal return is calculated as the difference between the actual return and the expected return (2):

$$A_{rj,t} = R_{j,t} - E(R_{j,t})$$

Where;

$A_{rj,t}$    The abnormal return for stock j on the day t

$R_{j,t}$     The actual return on security j on the day t

$$R_{j,t} = \frac{P_{j,t} - P_{j,t-1}}{P_{j,t-1}}$$

$E(R_{j,t})$ Is the expected return for the stock j on the day t

$$E(R_{j,t}) = \alpha_j + \beta_j R_{m,t} + \varepsilon_{j,t}$$

Where;

$\alpha_j$ , $\beta_j$ Coefficients estimated by an ordinary least square regression of securities (j) returns on the market return pre-observation periods

$R_{m,t}$ Market index return

$$R_{m,t} = \frac{M_{j,t} - M_{j,t-1}}{M_{j,t-1}}$$

Average Abnormal Return (AAR) across N firms for day t were calculated using

$$AAR_t = \frac{1}{N} \sum_{j=1}^{N} AR_{j,t}$$

The cumulative abnormal return (CAR) for N firms over the observation period from t1 to t2 is measured using the following

$$CAR_{t1\ t2} = \sum_{j=t1}^{t2} AR_t$$

Where
$\sum_{i=t1}^{t2} AR_t$ Is the summation of abnormal return for security j on the day t.
The cumulative average abnormal return (CAAR) is calculated using the following

$$CAAR_t = \frac{\sum_{j=1}^{N} CAR_{j,t}}{N}$$

The interpretation is that the stock price will on average react positively to M&A announcements when the Cumulative Average Abnormal Return (CAAR), is greater than zero and statistically significant. On the contrary, if the CAR is less than zero, it will indicate a negative significant reaction on the stock price after the M&A announcement (5).

### 5.3.1 Method of payment variables

I further investigate if the Cumulative Average Abnormal Returns (CAAR) for each deal is related to method of payment. To test this, I classify transactions after the method of payment that is; cash-only, stock-only and mix (of cash and stock). I will need two dummy variables as I will treat stock-only payment as a "base case".

$CASHDUM_i$     Assigned the value 1 if the method of payment is cash-only

$MIXDUM_i$     Assigned the value of 0 if the method of payment is mix

I test the mentioned variables against CAAR with the following multivariate regression model:

$$CAAR_i = \alpha + \beta_1 CASHDUM_i + \beta_2 MIXDUM_i$$

The parameters $\alpha$ and $\beta_i$ will be estimated using the ordinary least squares (OLS) method.

### 5.3.2 Statistical testing

Traditional event study is used to specify the performance of a stock price over a time period by analyzing the abnormal return with a sample of events that are significantly different from zero. The assessment is made by hypothesis testing that there are no abnormal returns for acquirer during the event window (2).

$H_0: CAAR_t = 0$

And

$H_0: AAR_t = 0$

The hypothesis for CAAR and AAR is tested with a t-test which is done by estimating the variance in the returns of our sample in the event-window.

The T-statistics for the Cumulative Average Abnormal Return (CAAR) for the security j on day t is calculated as below (2):

$$T_{j,t} = \frac{CAAR_{j,t}}{S(CAAR_j)}$$

Where

$$S(CAAR_j) = \sqrt{\frac{1}{(T_1 - T_0 + 1)} \sum_{t=T_0}^{t=T_1} (CAAR_t - \overline{CAAR})^2}$$

$(T_1 - T_0 + 1)$ Is the length of the estimation period.

The T-statistics for the Average Abnormal Return (AAR) for the security j on day t is calculated as below (2):

$$T_{j,t} = \frac{AAR_{j,t}}{S(AAR_j)}$$

Where

$$S(AAR_j) = \sqrt{\frac{1}{(T_1 - T_0 + 1)} \sum_{t=T_0}^{t=T_1} (AAR_t - \overline{AAR})^2}$$

$(T_1 - T_0 + 1)$ Is the length of the estimation period.

The t-test results for AAR and CAAR are compared with the critical values at different significance levels.

- If the T-statistics falls outside of [-1,64, 1,64] the hypothesis is rejected at a significance level of 10%
- If the T-statistics falls outside of [-1,96, 1,96] the hypothesis is rejected at a significance level of 5%
- If the T-statistics falls outside of [-2,58, 2,58] the hypothesis is rejected at a significance level of 1%, which implies that it is impossible for the value to take place under a null hypothesis.

# 6. Results

The author has followed the research method explained in chapter 5 and has found the following results.

## 6.1 Average stock price reaction

The results for Cumulative Average Abnormal Returns (CAAR) are the following:

| Days | CAAR [-10,10] | CAAR [-5,5] | CAAR [-1,1] |
|---|---|---|---|
| -10 | 0,08 % | | |
| -9 | 0,00 % | | |
| -8 | 0,51 % | | |
| -7 | -0,81 %** | | |
| -6 | -0,77 %** | | |
| -5 | -2,04 %*** | -1,27% | |
| -4 | -2,51 %*** | -1,74%** | |
| -3 | -3,43 %*** | -2,66%*** | |
| -2 | -3,88 %*** | -0,45% | |
| -1 | -4,76 %*** | -1,33% | -0,88% |
| 0 (Announcement) | -2,88 %*** | 0,55% | 1,00% |
| 1 | 1,44 %*** | 4,32%*** | 5,32%** |
| 2 | -0,75 %** | 2,13%*** | |
| 3 | -0,46 % | 2,41%*** | |
| 4 | -0,73 %** | -0,27% | |
| 5 | -0,32 % | 0,15% | |
| 6 | -0,88 %** | | |
| 7 | -1,65 %*** | | |
| 8 | -2,21 %*** | | |
| 9 | -2,33 %*** | | |
| 10 | -3,26 %*** | | |

*Table 3: Cumulative Average Abnormal Returns (CAAR). Indicates significance on the * 10%, ** 5% and *** 1% level*
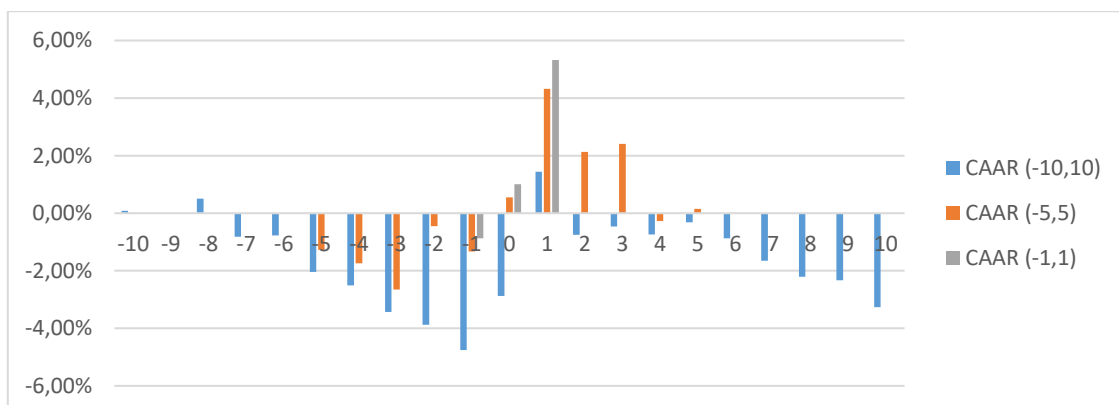


*Figure 2: Cumulative Average Abnormal Returns (CAAR)*

The results for Average Abnormal Return (AAR) are the following:

| Days | AAR [-10,10] | AAR [-5,5] | AAR [-1,1] |
|---|---|---|---|
| -10 | 0,08% | | |
| -9 | -0,08% | | |
| -8 | 0,52%* | | |
| -7 | -1,35%*** | | |
| -6 | 0,04% | | |
| -5 | -1,30%*** | -1,27% ** | |
| -4 | -0,49%* | -0,47% | |
| -3 | -0,94%*** | -0,92% | |
| -2 | -0,46% | -0,45% | |
| -1 | -0,90%*** | -0,88% | -0,90% |
| 0 (Announcement) | 1,93%*** | 1,88%*** | 1,93% |
| 1 | 4,43%*** | 4,32%*** | 4,43%*** |
| 2 | -2,25%*** | -2,19%*** | |
| 3 | 0,30% | 0,29% | |
| 4 | -0,28% | -0,27% | |
| 5 | 0,43% | 0,42% | |
| 6 | -0,58%* | | |
| 7 | -0,79%*** | | |
| 8 | -0,58%* | | |
| 9 | -0,12% | | |
| 10 | -0,96%*** | | |

*Table 4: Average Abnormal Returns (AAR). Indicates significance on the * 10%, ** 5% and *** 1% level*



*Figure 3: Average Abnormal Returns (AAR)*
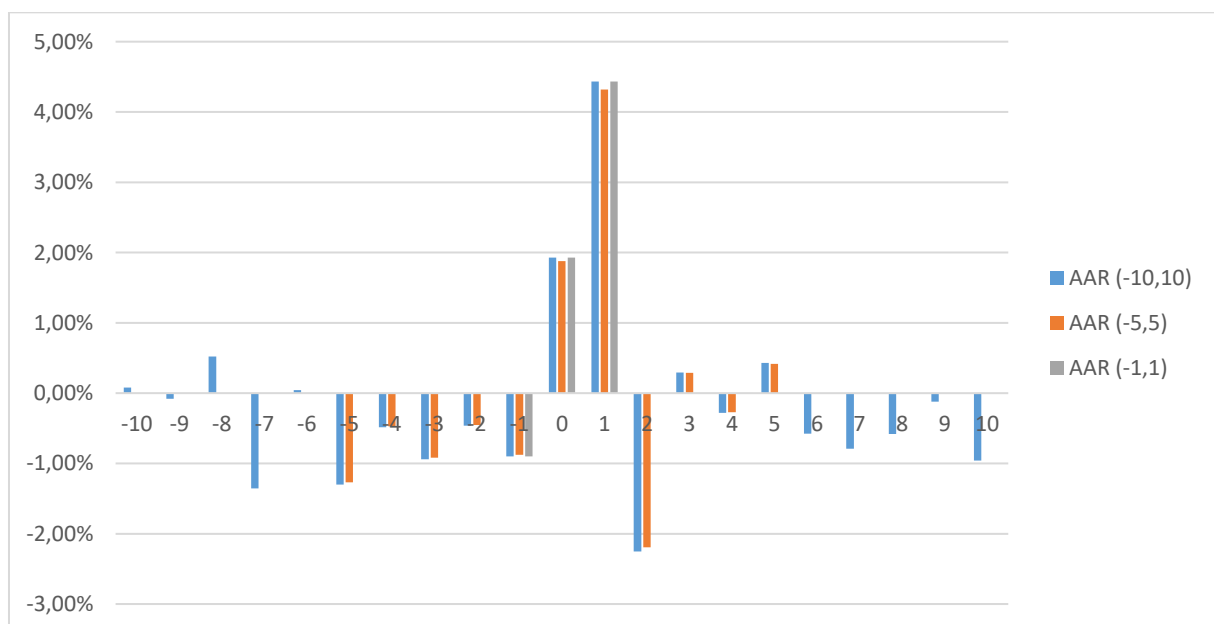
## 6.2 Method of payment

The multivariate regression model which accounts for the method of payment presents the following results for the event-windows of [-10, 10], [-5, 5] and [-1, 1], respectively.

| Event-window | Method of payment | CAAR |
|---|---|---|
| [-10,10] | Stock-only | 10,04% |
| | Cash-only | -11,73% |
| | Mix (stock and cash) | -5,83% |

*Table 5: Results of multivariate regression model on the method of payment, event window [-10,10]*

| Event-window | Method of payment | CAAR |
|---|---|---|
| [-5,5] | Stock-only | 4,14% |
| | Cash-only | -1,92% |
| | Mix (stock and cash) | -1,71% |

*Table 6: Results of multivariate regression model on the method of payment, event window [-5,5]*

| Event-window | Method of payment | CAAR |
|---|---|---|
| [-1,1] | Stock-only | 13,68% |
| | Cash-only | -0,68% |
| | Mix (stock and cash) | 5,24% |

*Table 7: Results of multivariate regression model on the method of payment, event window [-1,1]*

It should be noted that table 5, table 6 and table 7 shows no statistically significant results.

# 7. Discussion of results

In this chapter, I will discuss the results presented in chapter 6.

## 7.1 Average stock price reaction

We see from table 3 that the negative statistically significant CAAR values before the announcement implies that the market generally hold a negative attitude regarding the deal or that the companies in question are generally performing badly (5)

Table 3 also shows that at the announcement date (day 0) we see a statistically significant negative CAAR value of -2,88%, but this might be because the announcements could have been made after the day-closing of the stock exchange and thus the stocks are just following the "trend" of negative performance. This understanding is further strengthened by the fact that the CAAR is significantly positive (1, 44%, 4, 32% and 5, 32%) at day 1, which indicates that the M&A deals has created value during this period.

Another interesting observation is that while CAAR is "adjusted" back to a negative significant value at day 2 of -0, 75% for the event-window [-10, 10], the CAAR for the event-window of [-5, 5] shows positive significant CAAR values at day 2 and 3, which indicates that the M&A activity is creating value (5). The reasonable explanation for this is that the longer event-window includes more of the negative significant CAAR values and therefore lowers the positive market reaction.

***HYPOTHESIS 1: CAR is positive in the event-window***

| Event-window | CAAR |
|:---:|:---:|
| [-10,10] | -3,26%*** |
| [-5,5] | 0,15% |
| [-1,1] | 5,32%** |

*Table 8: Results for CAAR in the event-window*

Table 8 shows that the analysis conducted in this thesis only provides statistically significant CAAR values for the event-window of [-10, 10] and [-1, 1]. While the long event-window shows a negative CAAR value of -3,26% which is significant at 1% level, the short event-window shows a positive CAAR value of 5,32% which is significant at 5% level.

As previously mentioned in this thesis, a negative significant CAAR value in the event-window shows that there is a negative reaction on the stock price after the M&A announcement, and vice versa, a positive CAAR indicates that the market reaction has been positive and thus the deal has created shareholder value (5). Thus, the results are contradicting, as the long event-window show that the market reaction is negative whereas the short-event window show that the market reaction is positive.

A negative response to an M&A announcement is a sign of skepticism regarding the transaction creating value for the acquirers. In other words, the market doubt that all the potential synergies that have been implied in the cost will be accomplished and that the value of the combined business will increase or even be maintained after the merger. And vice versa, a positive market reaction indicates that the market is confident on the management team of the acquiring company.

Due to ambiguous results **Hypothesis 1** cannot be answered.

The literature review in this thesis shows that most of the performance evaluation studies has been conducted with the event-window of [-1, 1]. The theoretical arguments for having a long event-window in the study of M&A is because of some markets having weak stock exchange rules and thus giving rise to potential leakage that can be captured in a longer window (16) . As we will see from the discussion of Abnormal Average Returns (AAR), even the question of potential leakage of information cannot be confirmed and thus the author cannot reject nor defend the choice of including the statistically significant negative response from the event-window [-10, 10].

### HYPOTHESIS 2: AAR is positive around the announcement date [0,1]

| Event-window | Day | AAR |
|:---:|:---:|:---:|
| [-10,10] | 0 | 1,93%*** |
|  | 1 | 4,43%*** |
| [-5,5] | 0 | 1,88%*** |
|  | 1 | 4,32%*** |
| [-1,1] | 0 | 1,93% |
|  | 1 | 4,43%*** |

Table 9: Results for AAR for Hypothesis

As it is shown in table 4 the market does not show much interest pre-acquisition in the form of positive AAR inferred from the value from the event-window of [-10, 10]. However, as time is passed by, we see from the statistically significant AAR values for all event-windows that the market becomes optimistic regarding the impact of the acquisition which is testified by less negative AAR.

At the announcement day and at day 1 we see significant positive AAR values before the market again cools down which can be inferred from the negative AARs. This phenomenon has been proposed previously by Uddin and Boateng (17) who states that positive returns for acquirers are reached quite near the announcement day and that the market will re-adjust some days after the acquisition.

We can also see from table 4 that at day -1, there are no statistically significant positive abnormal returns, which indicates that usually no information leaks to the market before the announcement. However, in addition to less negative AARs being a result of potential leakage, the higher significant values after the announcement (day 1) might be of interest as the author believes that most of the announcements can have been made after the closing of the Oslo Stock Exchange, thus challenging the statement of no leakage of information pre-announcement.

Table 9 show that we have mostly highly statistically significant positive abnormal returns around the announcement date. This indicates that the market views the M&A activity positively and hence our **Hypothesis 2** is not rejected. Further look at the table also shows that all the event-windows have captured the value creation, but the shortest event-window [-1,1] does not have a significant abnormal return at day 0.

## 7.1 Method of payment

Table 5, 6 and 7 shows that cash-only deals underperform both stock-only and mix deals, which is not fully in line with what I expected and against the theoretical discussions in this thesis. The results also show that stock-only deals create value while cash-only deals destroy value for the shareholder`s in all the event-windows. The author believed based on previous studies and the theoretical discussions that the cash-only and mix deals would be more positively related to CAAR in comparison to the stock-only deals.

Unfortunately, the results are not statistically significant and thus should not be paid much attention. One reasonable explanation for the lack of significance and that the results are against the expectations can be because of the low number of M&A deals that has been investigated (38 deals in total). The low number is a result of the criteria`s set by the analysis and thus changing the criteria`s to account for a higher number of deals would not have been possible.

The explanations for the results in table 5, 6 and 7 contradicting previous studies and the theory in this thesis can also be many, but as the results lacks significance, the explanations will only be speculation.

The author also wished to analyze the target companies, however as most of these companies (25 out of 38) were private companies the author could not attain the data required to perform the analysis. The 38 deals and the associated companies in this study can be found in Appendix A.

Due to lack of statistically significant results the author cannot support **Hypothesis 3** and **Hypothesis 4**.

# 8. Conclusion

The author can unfortunately not make any conclusions on the main objective of this thesis; which was to assess the short-term/immediate impact of selected domestic mergers and acquisitions (M&A) deals on acquirer`s shareholder`s equity on the Norwegian market.

*The analysis that was performed in this thesis showed two statistically significant conflicting results and thus left* **Hypothesis 1** *unanswered (see table 8).*

Due to these results this thesis has therefore not been able to answer the question of whether domestic Norwegian M&A deals from 1995-2015 has created or destroyed shareholder value in the pre-specified event-windows.

The author concludes that the length of the event-window will have a significant impact on the performance evaluation of domestic M&A deals on the Norwegian market.

*If the author had chosen the event-window of 21 days, this study would have concluded that the immediate reaction of the market is negative on average. On the other hand, a short event-window of 3 days would have showed that the immediate reaction on average is positive (see table 8)*

Due to these results, the author suggest that further study should be made on finding the ideal length of the event-window that precisely reflect the market`s reaction to the M&A deal.

The author concludes that the Oslo Stock Exchange view domestic M&A activity on the Norwegian market positively which is inferred from not rejecting **Hypothesis 2**.

*Table 9 shows statistically positive abnormal return during the announcement date which indicates that the market is positive to the announcement.*

The author can unfortunately not make any conclusion on whether the method of payment have any influence on the short-term/immediate impact of selected domestic mergers and acquisitions (M&A) deals on acquirer`s shareholder`s equity on the Norwegian market.

*Table 5, 6 and 7 shows that this study have not produced any statistically significant results and therefore the author has not been able to answer* **Hypothesis 3** *and* **Hypothesis 4.**

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# APPENDIX A

Detailed overview of the 38 M&A deals covered in this study.

| No. | Acquiror Name | Target Name |
|---|---|---|
| 1 | North Energy ASA | Explora Petroleum AS |
| 2 | NextGenTel Holding ASA | Kvantel AS |
| 3 | Atea ASA | Datatech AS |
| 4 | DiaGenic ASA | Nel Hydrogen AS |
| 5 | Hafslund ASA | Fortum Distribution AS |
| 6 | PSI Group ASA | Vensafe AS |
| 7 | Statoil ASA | Dong Generation Norge AS |
| 8 | Namsos Trafikkselskap ASA | Folla Sjotransport AS |
| 9 | Atea ASA | Mobility Invest AS |
| 10 | Transit Invest ASA | Reach Subsea AS |
| 11 | Atea ASA | Total Storage Solutions Norge AS |
| 12 | Orkla ASA | Jordan Personal & Home Care AS ,Jordan House Care AS |
| 13 | AF Gruppen ASA | Strom Gundersen Holding AS |
| 14 | Atea ASA | Umoe IKT AS |
| 15 | EDB Business Partner ASA | ErgoGroup AS |
| 16 | Sparebank 1 SR-Bank ASA | Kvinnherad Sparebank |
| 17 | Atea ASA | Uni Networks Ltd |
| 18 | SalMar ASA | Volstad Seafood AS |
| 19 | Aker Exploration ASA | Det norske oljeselskap ASA |
| 20 | Codfarmers ASA | NAP Marine AS |
| 21 | Vmetro ASA | 3d-Radar AS |
| 22 | Goodtech ASA | Elmatikk Engineering AS |
| 23 | Leroy Seafood Group ASA | Veststar AS |
| 24 | Statoil ASA | Norsk Hydro ASA |
| 25 | Subsea 7 Inc | Rovde Shipping AS |
| 26 | ABG Sundal Collier Norge ASA | Acta Real Estate |
| 27 | Den Norske Bank Holding ASA | Gjensidige NOR ASA |
| 28 | Hafslund ASA | Vattenfall Norge AS(Vattenfall AB) |
| 29 | FrontLine Ltd | Mosvold Shipping A/S |
| 30 | Kongsberg Gruppen ASA | Navia ASA |
| 31 | Itera ASA | Xit Group AS |
| 32 | Moelven Industrier ASA | Forestia AS-Timber Activities (Norske Skogindustrier AS) |
| 33 | Alphatron Industrier ASA | Kitron ASA |
| 34 | Storebrand ASA | Oslo Reinsurance Co ASA |
| 35 | Avenir ASA | Bergen IT Senter AS{BITS} |
| 36 | Prosafe ASA | Discoverer ASA |
| 37 | DSND | Seateam Technology ASA |
| 38 | Aker RGI Holding ASA | Aker A/S |

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