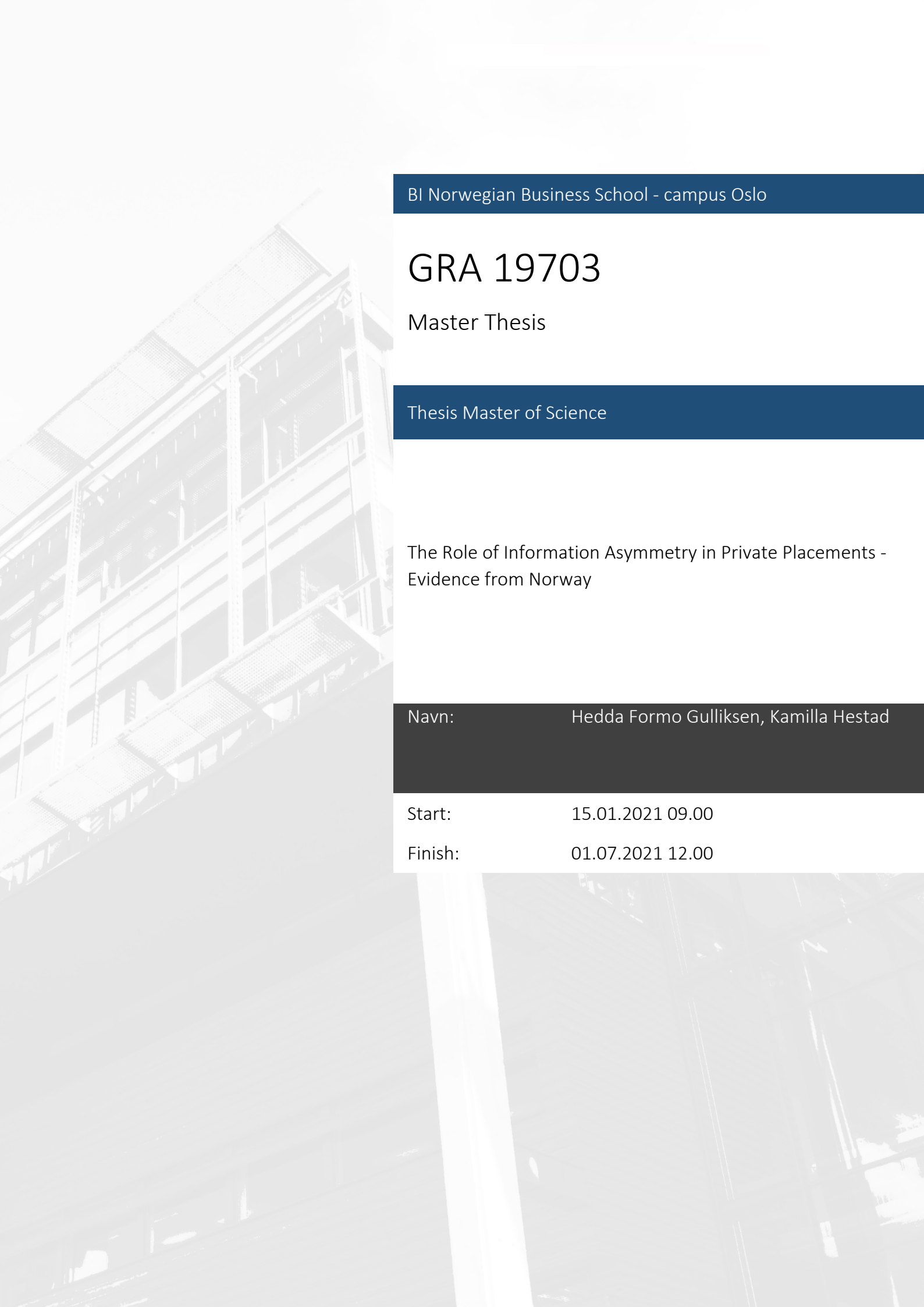

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Master Thesis

Thesis Master of Science

The Role of Information Asymmetry in Private Placements - Evidence from Norway

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The Role of Information Asymmetry in Private Placements - Evidence from Norway

Master Thesis

by
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MSc in Business with Major in Finance

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ABSTRACT

This thesis examines private placements on the Oslo Stock Exchange. We study the issuing firm's announcement statements, post-issue firm performance, and the market reaction to disclose the role of asymmetric information in private placements. We find that the market reacts more favorably to firms that reveal specific information about their intended use of proceeds. However, we do not find evidence indicating that specific firms are more likely to engage in value-maximizing projects than firms that are vague. Previous literature has explained an adverse market reaction to SEOs using the agency theory, market timing, and the pecking order theory. We do not find convincing support for either theory. Thus, our findings indicate a market inefficiency left unanswered for future research.

Acknowledgements

This master thesis is the result of both good partnership and friendship. The last six months have been challenging, exciting, and highly educational. We are both grateful to each other for the generosity and sense of humor that we have maintained throughout the process, especially when facing obstacles and long hours. We find the subject exciting and have therefore immersed ourselves in the work.

Our thesis also marks the end of our two-year master's program. We are thankful that we have, for the most part, been able to work from campus, surrounded by other engaged students and good friends. We would also like to express our gratitude towards friends and family for being highly supportive over the past two years. BI Norwegian Business School has prepared us for our future careers, and we are now ready for what is to come.

We also want to take this opportunity to thank our supervisor Siv Staubo properly. We highly appreciate the prompt responses, pleasant meetings, and valuable comments.

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1 Introduction and motivation

This thesis examines the importance of asymmetric information in private placements on the Oslo Stock Exchange. Following Walker and Yost (2008), we aim to answer three main questions: 1) How specific are firms when disclosing information about the intended use of proceeds? 2) How do firms allocate the raised capital? 3) Is the market reaction associated with the information disclosed about the intended use of proceeds and/or the actual use of funds?

Private placements are the most observed method of seasoned equity offerings on the Oslo Stock Exchange, arguably because it provides firms with a time and cost-efficient way to raise capital. We study 83 private placements issued by listed firms in 2008, 2010, 2012, 2014, 2016, and 2018. We use the information disclosed in the private placement announcement statement as a measure for whether the funds will be used in a value-maximizing manner and divide the sample of private placements into two subsamples: SPECIFIC and GENERAL. The SPECIFIC subsample consists of private placements issued by firms that provide detailed information about their intentions of the newly raised capital, commonly stating specific investments, acquisitions, or restructuring. The GENERAL subsample includes firms that disclose vague information about their intentions. In most cases, these firms state that the soon-to-be raised capital is intended for general corporate purposes.

We utilize event study methodology to study how the market reacts to the information disclosed about the intended use of proceeds and the actual use of funds. To examine how firms allocate the raised capital, we provide statistics on firm characteristics over three years surrounding the private placement. We rely on the three well-accredited theories commonly used to explain the market reaction to SEOs, the pecking order theory, the market timing model, and the agency theory. In prior literature, the market reaction to private placements has been linked to significant offer discounts and severe changes in ownership

structure. However, to limit the scope of our thesis, we do not cover these aspects.

We provide evidence that the market reacts negatively to the announcement of a private placement, indicating that investors view private placements as "bad news". This contrasts prior literature on private placements (e.g. (Wruck, 1989); (Eckbo and Norli, 2004)). Further, we find a significant difference between the announcement reaction to the two subsamples. The market reacts more favorably to private placements issued by SPECIFIC firms than by GENERAL firms. The significant difference between the market reaction to GENERAL and SPECIFIC firms indicates that information disclosed in the announcement statement of a private placement matters to investors. We find no significant change in operating performance, liquidity, or valuation for either subsample during the three years surrounding the private placement. Thus, our results indicate that the issuing firms are unable to create value from the newly raised capital.

A potential market inefficiency follows from our findings, as investors react more favorably to SPECIFIC firms, even though these firms do not seem to outperform GENERAL firms in terms of post-issue firm performance. Although the adverse market reaction is aligned with the agency theory, market timing theory, and pecking order theory, we cannot find sufficient evidence to conclude in favor of either of the three theories tested. However, we recognize that our sample size and proxy variables may not capture the true state of the world.

We find private placements especially interesting when studying the role of asymmetric information in SEOs. The reason being that limited prospectus requirements might enable firms to cover unfavorable information about their motives, and the speedy process enables firms to take advantage of times when overvalued in the market. Our thesis contributes to the limited research on

private placements in the Norwegian market. 2021 has so far been a record-breaking year, as new listings and already listed firms on OSE raised over 25 billion NOK during the first quarter (Nilsen, 2021). As private placements are the most common floatation method in the Norwegian capital markets, this thesis adds valuable insights for both the new and established investors in a time where the amounts of capital allocated to the Norwegian equity markets have never been higher.

2 Private Placements

This chapter provides a short introduction to Seasoned Equity Offerings (SEOs) and the three SEO methods most relevant to our study, namely private placements, repair offerings, and rights issues. We also provide a short introduction to the relevant rules and regulations regarding seasoned equity offerings and private placements on the Oslo Stock Exchange, the principle of equal treatment, prospectus requirements, and rules regarding board authorizations. To provide a solid understanding of the origin of these regulations, we discuss how equity issues of primary stock may lead to ownership dilution of existing shareholders.

2.1 Initial Public Offering and Seasoned Equity Offerings

An Initial public offering (IPO) is the process when a private firm goes public by listing equity on a public stock exchange for the first time. Listing a company provides the firm with easy access to funding, improved growth opportunities, increased liquidity and enables the initial investors to realize their gains (PwC, 2014). On the other hand, when an already listed firm issues equity, it is called a Seasoned Equity Offering (SEO). There are five main types

of SEOs, each with distinctive characteristics: public offerings, rights issues, private placements, employee offerings, and repair offerings.

SEOs either contain primary shares, secondary shares, or both. Primary shares are new shares issued by a firm that are perfect substitutes for existing shares, and the proceeds go to the issuing firm. Secondary shares are sold by an already existing shareholder, typically a block holder that holds a significant stake in the company. The proceeds from the issue of secondary shares go to the issuing shareholder.

2.2 The Oslo Stock Exchange

The Oslo Stock Exchange is the Norwegian market for trading public securities and consists of three markets: Oslo Børs, Euronext Expand, and Euronext Growth. Both Oslo Børs and Euronext Growth are EU regulated markets with strict listing requirements. Our sample consists of firms listed on the leading Norwegian marketplace, Oslo Børs, referred to as the Oslo Stock Exchange (OSE). OSE is authorized by the Norwegian Financial Supervisory Authority to monitor the regulated markets through the Securities Trading Act (STA) and OSE's rules and regulations (Euronext, n.d.).

2.2.1 Rules and Regulations regarding SEOs on Oslo Stock Exchange

Firms listed on Oslo Stock Exchange are regulated by the Norwegian Securities Trading Act (STA) and the Limited Liabilities Companies Act. The STA aims to facilitate a secure marketplace for efficient trading of financial instruments (Euronext, n.d.).

2.2.2 Dilution

A seasoned equity offering containing primary stock can dilute the existing shareholders' ownership stakes and control rights. If existing shareholders do not participate in the offering, the new issue leads to dilution of their ownership stake. Diluted shareholders will be left with fewer claims on the firm's future cash flow. In addition, the increase in outstanding shares will also reduce the non-participating shareholders' control of the firm. The size of the issue relative to the outstanding shares is therefore directly linked to the degree of dilution.

The offering price of shares in an SEO is often referred to as the subscription price. In most cases, the fixed subscription price is at a discount to the current market price of the underlying stock. The discount in private placements arguably reflects the compensation required by investors for them to be willing to supply sufficient capital and bear the increased illiquidity that comes with long term investments (Altinkilic and Hansen, 2003). If firms issue shares at a considerable discount, more shares must be issued to meet their need for capital, which may be disadvantageous to non-participating shareholders.

2.2.3 Principle of Equal Treatment

The Principle of Equal Treatment in the STA protects the rights of minority shareholders. This regulation is essential to address because, as previously discussed, new issues of primary stock can cause substantial disadvantages for existing non-participating shareholders. STA § 5-14 states that issuers of financial instruments admitted to trading on a Norwegian regulated market must treat the holders of their financial instruments on an equal basis. The Act further states that the issuer shall not conduct differential treatment of the holders of their financial instruments without factual justification (Verdipapirhandelloven (2007), §7 − 6)

As a main rule, the Act states that issuing firms shall not conduct differential treatment to their shareholders. However, the Act does enable firms to perform a differential treatment if they can justify it with a factual basis (Oslo Børs, n.d.).

2.2.4 Prospectus Requirements

According to the STA, firms trading on a Norwegian regulated market planning an SEO are obligated to prepare a prospectus in advance of the offering. OSE is responsible for the approval of the prospectus, which usually takes up to 10 working days.

New regulations regarding prospectus requirements were implemented in 2019. However, we solely provide regulations relevant to our sample. Firms listed on OSE can be exempted from the prospectus requirements if the share capital increase does not exceed 20% or if the shares issued equivalent to EUR 1 million or less (Verdipapirhandelloven (2007), § 7-6). The prospectus requirements can also be avoided if the issue is directed towards less than 150 non-professional investors or solely professional investors (Pareto Securities, n.d.).

2.2.5 Board Authorizations

The Limited Liabilities Companies Act § 10-4 states that existing shareholders have pre-emption rights to a share increase. The Act further states that any deviation from the shareholders' pre-emption rights can only be carried out with the consent of the existing shareholders in a general meeting (Allmennaksjeloven (1997), § 10-5). The law enables the board of directors of the issuing firm to be granted power of authority to issue shares directed at a group of investors by the general assembly without calling a general meeting for approval. This authority is referred to as a board authorization.

2.3 Rights offering

Firms issuing SEOs shall, according to the STA as a main rule, issue rights offerings. Rights offerings are the issuance of primary or secondary shares directed towards existing shareholders. Rights offerings share similar characteristics as an option, as the existing shareholders are offered a right (subscription warrant) but not an obligation to buy (underwrite) the issuer's stock at a fixed price (subscription price) within a given time period. The shareholders are offered subscription warrants proportionate to their current holdings and can thereby avoid dilution. The principle of equality is therefore considered attained in rights offerings.

Rights offerings are the most time-consuming flotation method. First, rights offerings are seldom exempted from the requirements of issuing a prospectus, which is often a several week-long processes. Then, all shareholders are usually given up to a month to subscribe and trade their rights in the market. Therefore, the proceeds from the placement are not available to the issuing firm until the subscription period is ended.

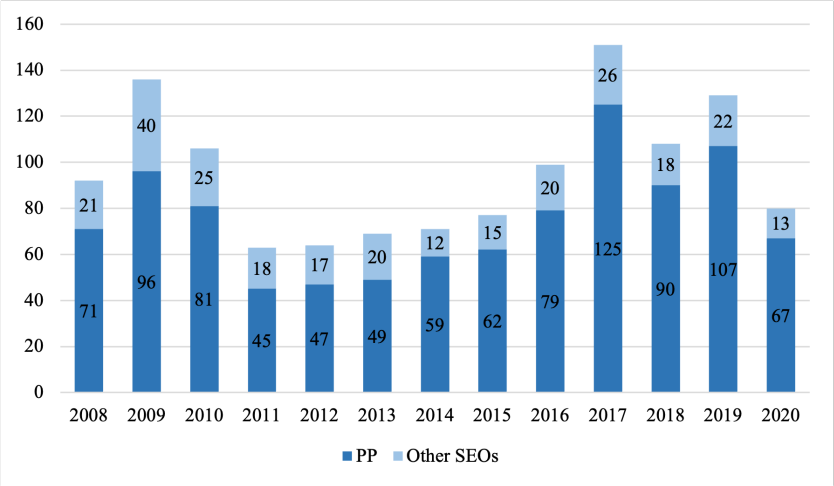
2.4 Private Placements

A private placement is an SEO where the issuing firm directs the shares towards a limited number of investors, either existing or outside investors.

Firms often turn to private placements as a measure to raise capital in a cost- and time-efficient way. Firms issuing private placements are more often than not exempted from the prospectus requirements either by issuing under 20% of outstanding share capital or by directing the issue towards less than 150 investors. Also, by securing a board authorization in advance, giving them the power of authority to issue new shares directed towards specific investors, most firms avoid the requirement of calling a general meeting to get approval for the private placement.

A firm that has secured a board authorization in advance is, therefore, able to announce the contemplated private placement after the market closes and, in most cases, announce a successfully completed private placement before the market opens the very next day. The figure 1 illustrates the frequent use of private placement on OSE.

Figure 1: Private placements on Oslo Stock Exchange from 2008 to 2018



Note - The graph presents the annual composition of flotation methods Oslo Stock Exchange from 2008 - 2018. All data is obtained from the Oslo Børs (2021) webpage. The Y-axis reports the number of SEOs. The X-axis denotes years. Other SEOs consist of repair offerings, public offerings, and rights offerings.

Most existing shareholders are not offered to subscribe to the new shares. Private placements composed of a primary component can therefore have a dilutive effect on existing shareholder's rights. The dilutive effect increases when the shares are sold at significant discounts or when the issue leads to substantial changes to the ownership structure. OSE is therefore putting special attention to these firms when considering if the firm is right to deviate from the equal treatment principle (Oslo Børs, n.d.).

2.5 Repair offerings

Private placements on the OSE are in some cases followed up with a repair offering, where the shareholders that were not offered to participate in the

private placement are given the right to buy shares at the same subscription price of the private placement. These repair offerings are most often issued following private placements priced at significant discounts or leading to severe ownership structure changes. A repair offering should, as a rule, be carried out as close to the private placement as possible and be of sufficient size to repair the dilutive effects of the private placement.

The intention to issue a repair offering will be significant when the requirement of factual justification is evaluated by the OSE and will therefore strengthen the firm's case (Oslo Børs, n.d.). Hence, contemplated repair offerings can be used as a measure for firms to get approval to deviate from the principle of equality and thus take advantage of the beneficial characteristics of private placements.

The shareholders' incentive to participate in the repair offering disappears if the share price falls below the subscription price at the time of the repair offering. Repair offerings are, in most cases, canceled as the price often falls below the subscription price. This flotation method is therefore often viewed solely as an exercise of duty.

3 Literature review

In this section, we will discuss existing literature on SEOs and private placements.

3.1 Growth opportunities and operating performance for SEO firms

The market reaction to SEOs has been subject to excessive research, and a negative abnormal announcement return of seasoned equity offerings has been well documented in prior literature (e.g., Masulis and Korwar (1986); Walker

and Yost (2008); Jiao and Chemmanur (2005)). Masulis and Korwar (1986) found that on the day of the equity issue announcement, the stock price average declined with 3% of their sample of 392 SEOs. Similarly, Heron and Lie (2004) found a three-day abnormal return of -2,50% in their study of equity issues. Walker and Yost (2008) also found an average two-day negative announcement reaction of -2,76 % in their study of 368 SEO firms.

The explanation of the negative market reaction has, however, been subject to considerable debate by academics. Research emphasizes the role of asymmetric information in equity offerings, generally presented through two broad categories: agency conflicts and negative information revealed about the true firm value.

The role of an issuing firm's investment opportunities has commonly been used in explaining the market reaction. The asymmetric information model of Ambarish et al. (1987) and the free cash flow theory presented by Jensen (1986) both predicted that firms' growth prospects were related to the stock price reaction to the announcement of equity issues of firms. Agency theory further states that managers might pursue their own interests and issue equity only to pursue value-destroying projects at the expense of existing shareholders. However, there is an empirical difficulty in finding good measures of a firm's growth opportunities, and whether the capital is utilized in a value-increasing manner.

Barclay and Litzenberger (1988) use Tobin's Q as a proxy for valuable investment opportunities but do not find any significant relationship between the intraday abnormal returns of their study and Tobin's Q. Similarly, Jung et al. (1996) examined firms' choice of financing and found evidence of a more negative market reaction to firms without valuable investment opportunities than for firms with valuable investment opportunities. The authors used a close proxy to Q, and found a positive relationship between Q and announce-

ment reactions and concluded that agency conflicts are of importance in equity issues (Jung et al., 1996). Kim and Purnanandam (2006) also found evidence consistent with the agency- and signaling theory in their study of investor reactions to SEOs.

Pilotte (1992) used a different approach to measure a firm's growth opportunities, as he divides his sample into two subsamples, mature and growth firms, and then used this insight to study the market reaction to security offerings. His evidence suggests that a firm's expected growth opportunities can explain some variation in stock price reactions to equity offerings (Pilotte, 1992). Thus the results in his study are aligned with the story of information asymmetry outlined by Myers and Majluf (1984).

Denis (1994) included multiple proxies for valuable growth opportunities in his study Investment opportunities and the market reaction to equity offerings. Under the assumption of rational expectation, he argued that the historical growth in net operating income, sales, total assets, and market value of equity was a good measure of future growth. In addition, he included changes in investments proxied by capital expenditure over total assets and Research and Development (R&D) over total assets, as well as Tobin's Q and price to earnings to measure a firm's growth opportunities. Contrary to Pilotte, Denis (1994) found a weak link between investment opportunities and stock price reactions and concluded that, at best, investment opportunities played a minor role in explaining the announcement reactions of equity offerings.

Walker and Yost (2008) provided another way to measure whether the capital is utilized in a value-maximizing manner. Their study of 438 US SEOs examined issuing firms' stated use of proceeds, actual use of proceeds, and the market reaction to the SEO announcement. The authors used ex-ante stated use of proceeds as an estimate to measure the quality of the firm's investment opportunities and divided the sample into three subsamples: debt reduction,

investment, and general corporate purposes.Walker and Yost (2008) found that regardless of the stated intended use of proceeds, the issuing firms substantially increase their investments in capital expenditures (CAPEX) and R&D. In addition, the authors found a positive relationship between the market reaction and the anticipated investments for firms that provide specific information about the intended use of proceeds and a negative relation for firms that provide vague information about their intentions. The authors argued that their findings support the view that the market anticipates general firms to invest in value-destroying projects, indicating that agency issues are important in SEOs.

In a similar manner to Walker and Yost (2008), Silva and Bilinski (2015) hypothesized that the intended use of proceeds can determine the quality of SEO firms. The authors studied the signaling role of the intended use of proceeds and underwriter quality on the long-run performance of 1546 UK SEOs. They found a five-day CAR of their recapitalization sample of -2,56%, 0,08% for the general sample, and 2,66% for the investment sample. Their findings support the view that the information conveyed by the intended use of proceeds matter in predicting the firm's post-issue performance. Autore et al. (2009) also utilized the intended use of proceeds from 880 SEOs to investigate the relationship between the motive of the equity issue and the long-run performance. They categorized the SEOs similarly to Walker and Yost (2008) and used both industry-adjusted and raw measures to examine the changes in operating performance. Their results suggest that firms that issue equity experience significant post issue declines in operating performance across all samples for the following years. These results are consistent with the findings of Loughran and Ritter (1997), who reported that firms issuing equity improves their operating performance prior to the equity issue but experience a deterioration in operating performance after the issue. In a study of motivations for and information content of different equity offerings, Heron and

Lie (2004) find supporting evidence that operating performance declines in the period following an equity issue. On the contrary, Walker and Yost (2008) find evidence that industry-adjusted operating performance remains constant or improves after the offer.

A significant amount of existing literature suggests that firms' motives for issuing SEOs can be explained by market timing (e.g. Autore et al. (2009) ; Clarke et al. (2004)). Greenwood (2005) found a significant negative relationship between the issuing firms' ratio of liquid securities to investments and the SEO firms' post-issue market performance. He argued that firms time equity issues when the market is overly optimistic about the firm's value and store the raised cash for times when profitable investment opportunities appear. A different view on market timing is that firms make financing decisions based on the present market conditions (Baker and Wurgler, 2002). Graham and Harvey (2001) also found convincing evidence consistent with market timing in their article, as two-thirds of CFOs in an anonymous survey admitted that whether their stock was over- or undervalued mattered in their decision to issue equity. Autore et al. (2009) provided evidence that the secondary components issued in SEOs were significantly larger for providing vague information about their intentions for the soon-to-be raised capital and argued that these firms were more likely to engage in market timing. Baker and Wurgler (2002) argued that market timing benefits ongoing shareholders at the expense of exiting and entering shareholders. They used market-to-book as a measure of valuation and found evidence that firms with excess debt capacity issued equity in periods of high market valuation, while highly leveraged firms issued equity in times of low valuation. Their evidence contrasts the pecking order theory by Myers and Majluf (1984), as they argued that a firm's capital structure is the aggregate result of market timing.

3.2 Private placements

In contrast to the well-documented adverse announcement reaction documented to equity issues as a whole, the literature on private placements generally reports positive announcement returns. In a study of market reactions to different flotation methods on the Oslo Stock Exchange, Eckbo and Norli (2004) found a statistically significant four-day average abnormal announcement return to private placements of 2,66%. Similarly, Wruck (1989) finds two-day announcement returns of 1,89% for their sample of 99 private placements. These announcement reactions are consistent with other studies of private placements documenting positive abnormal returns (e.g., Barclay et al. (2007); Hertzel and Smith (1993)).

Agency theory is also used in private placements to explain the announcement reactions. Wruck (1989) introduced the monitoring hypothesis, which suggests that the agency costs decrease following a private placement. She found evidence that changes in ownership concentration can, to some extent, explain the positive announcement reactions in the market. Thus, she argued that the investors participating in the private placement would align the interests between shareholders and managers, ensuring that the firm's resources are utilized in a value-maximizing manner. Consequently, investors interpret private placements as a positive signal of firm value. Wu (2004) and Barclay et al. (2007) find contradicting evidence. They find that institutional investors seem to trim their ownership stake following a private placement, thus indicating that the market reaction cannot be explained by the monitoring hypotheses.

Eckbo and Norli (2004) studied the market reaction to all flotation methods on Oslo Stock Exchange and found positive abnormal announcement returns for private placements. However, they could neither conclude in favor of the monitoring hypothesis and suggested that the market reaction might reflect investor bias. Hertzel et al. (2002) also investigate behavioral expla-

nations of investor reactions to private placements. They utilized operating income before depreciation standardized by assets to measure operating performance and found positive announcement reactions and deteriorating operating performance following the equity issue. Their evidence is consistent with the documented underperformance following SEOs. For instance, Loughran and Ritter (1997) suggest that investors are too optimistic regardless of the flotation method. Similarly, Eckbo and Norli (2004) found evidence that may suggest that behavioral biases exist in private placements and suggests that investors are overly optimistic of firms issuing equity. Hertzel et al. (2002) also provide evidence suggesting that investors are too optimistic about the future growth opportunities of the firms.

Another theory explaining the negative market reaction to private placements is the managerial entrenchment hypothesis. This theory suggests that management selects passive investors who will not engage in the firm's activity, leaving the management in control of the firm (Wruck, 1989). If this is the case, private placements should be associated with increased agency costs, as the management can pursue its own interests rather than act in shareholders' best interest. Wruck (1989) finds some supporting evidence of the entrancement hypothesis. However, she concludes in favor of the monitoring hypothesis. Hertzel and Smith (1993) introduced the certification hypothesis. According to the certification hypothesis, professionals purchasing large blocks of stock is viewed as a signal of firm quality and undervaluation, as these professionals are believed to have superior information. Thus, following this line of reasoning, private placements reveal positive information of firm value, contradicting the pecking order model suggested by Myers and Majluf (1984). Barclay et al. (2007) find evidence of firm value decline post-placement among the firms where participating investors do not engage in monitoring activity. Their findings are more aligned with the managerial entrenchment hypothesis

than the certification or monitoring hypothesis, providing evidence supporting the significance of agency issues in private placements.

4 Hypothesis

The most well-accredited theoretical models assume the information revealed to outsiders through the firm's finance choice is the only determinant of the market's reaction to equity issues. However, Jiao and Chemmanur (2005) argued that this view ignores the possibility that "soft" information, such as information revealed by the firm, might have some explanatory power to the announcement reaction. Walker and Yost (2008) provides a model that highlights the importance of "soft" information in SEOs. The model explains the signaling effect of a firm's decision to reveal specific or vague information about their intended use of proceeds. Our hypotheses are derived from the proof of Walker and Yost (2008) (full proof in appendix A).

Hypothesis: We expect the decision to reveal specific information on intended use of proceeds to credibly signal that the raised capital will be used in a value maximizing manner. Following we hypothesise:

1. *SPECIFIC firms* to outperform GENERAL-firms in terms of announcement returns.

2. *GENERAL firms* to experience negative announcement reactions to a private placement.

3. *GENERAL firms* to experience poor operating performance subsequent to the private placement.

5 Theory

Firms' choice of capital structure has been widely discussed in prior literature. Amongst the most accredited theories explaining the firm's capital structure is the irrelevance theorem by Modigliani and Miller (1958) and trade-off theory based on Modigliani and Miller (1963), Warner (1977), and Jensen and Meckling (1976). The capital structure irrelevance theorem states that, under certain assumptions, the optimal capital structure does not exist. Under this theory, the true value of a firm is unaffected by capital structure, as it is solely determined by the firm's real investment decisions and the cash flows of those investments. The trade-off theory has a contradicting view on capital structure decisions. According to trade-off theory, a firm can achieve the optimal capital structure by balancing the benefits and cost of debt.

Our thesis is examining the importance of asymmetric information in private placements, focusing on three highly recognized theories that provide different explanations to firm's capital structure decisions, namely the pecking order, the timing model, and the agency model. To create a solid understanding of the three main theories tested in this thesis, we start by introducing some highly recognized concepts and theories of corporate finance: the principal-agent theory, market efficiency, information asymmetry, and adverse selection.

5.1 The principal-agent Theory

Jensen and Meckling (1976) defined an agency relationship as "a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent" (Jensen and Meckling 1976, p. 308)

Agency issues arise in an agency-principal relationship when the interest of the two parties diverges, leading to a risk that the agent does not act in the shareholders' best interest.

Jensen and Meckling (1976) applied the principal-agent theory to the problem of separation between ownership and control, introduced by Alchian and Demsetz (1972). A manager-shareholder relationship is a perfect fit for the principal-agent theory as the manager (agent) is under a contract of the shareholder (principal). As a measure to prevent the manager from acting in his own interest, the shareholders can provide the manager with incentives, either through a punishment (i.e., monitoring) or a reward (i.e., bonus). The additional costs shareholders have to bear to align a diverging interest between shareholders and managers are called agency costs of managerial discretion (agency costs).

5.2 Market efficiency

The theory of efficient markets states that the stock prices correctly reflect all available information (Fama, 1970). Thus, given efficient markets, the theory suggests that it is impossible to outperform the overall market return. However, as information is costly, a paradox follows from the efficient market hypothesis; how can the markets be efficient if no one has incentives to collect information? The efficiency paradox indicates that all information cannot be reflected in the prices and that equilibrium of disequilibrium must exist for someone to have incentives to search for costly information (Grossman and Stiglitz, 1980). Three forms of market efficiency based on the nature of the information reflected in the market have been proposed. Weak form market efficiency implies that the market price of a security solely reflects the historical prices. A semi-strong form of market efficiency assumes that all prices fully reflect all publicly available information, implying that all new information to

the market immediately will be correctly reflected in the price. In comparison, a strong form of market efficiency implies that prices fully reflect all available information, both private and public.

5.3 Asymmetric information and adverse selection

Akerlof's (1970) Market of Lemons is one of the first papers discussing how asymmetric information contributes to the market mechanisms. Akerlof (1970) proved that in a market where investors are rational, and the seller has superior information to the buyer about the quality of a product, the buyer would set the price to break even in expectation. This leads some products to be overvalued and undervalued. Sellers with high-quality products will eventually be driven off the market, leading to a market collapse. Based on Akerlof's theory, Myers and Majluf (1984) provided the accredited insight of adverse selection. The adverse selection model states that asymmetric information leads some managers (managers that act in the interest of existing shareholders) to make suboptimal investment decisions by choosing not to invest in positive net present value (NPV) projects if it means they will have to raise undervalued equity to finance it.

5.4 Pecking Order

The theory of adverse selection provided the basis for Myers's modified pecking order model (1984). Traditional pecking order theory states that the optimal debt ratio does not exist and that a firm's capital structure is the cumulative result of a financial hierarchy driven by asymmetric information between managers and investors. The theory assumes that managers' primary objective is to maximize existing shareholder wealth and states that firms looking to raise funds for a project follow a strict financing hierarchy. The financing hierarchy

involves that managers prefer internal funding over debt and debt over equity (Myers, 1984).

Myers (1984) argue that in addition to the administrative and underwriting costs associated with external finance, information asymmetry between managers and shareholders also leads to adverse selection costs of external finance. Internal funds, for instance, retained earnings, are the cheapest form of funding as it is not exposed to these costs. Myers further argues that firms prefer to "issue safe securities over risky ones" (1984). Hence, managers prefer external debt over external equity.

A firm might be forced to raise external funding when its internal funds are insufficient to fund a target. These firms would, under this theory, never issue equity after an IPO unless they have exhausted their ability to raise low-risk debt. Firms under severe financial distress may resort to equity if the manager has less optimistic views on the firm's investment opportunities than the market (Myers, 1984). Rational investors will anticipate this financial hierarchy and therefore view equity issues as "bad news" about the firm's true value. Under this theory, one would expect the market to react more favorably to transparent firms where information asymmetry between managers and investors is limited.

5.5 The Agency model

The agency model adds a new dimension to the pecking order theory, namely, agency cost of managerial discretion. The theory argues that a manager may have incentives to diverge from the shareholders' best interest to obtain private benefits. Jensen (1986) argues that managers have an incentive to indulge in empire building. Hence, managers might pursue negative NPV growth projects to increase the assets under her control. He further argues that these managers will prefer external equity over debt when internal resources are limited. Hence,

the model states that managers might diverge from the financial hierarchy of pecking order when agency conflicts exist.

Jensen (1986) argues that a firm's free cash flow, being cash flow net of investments in positive NPV projects, should be returned to shareholders through dividends or stock repurchases. The reason being that internal funds boost managerial discretion. Excess cash under the control of the manager forces shareholders to provide sufficient incentives to align diverging interests, which leads to agency costs. Equity issues are expected to be positively related to agency costs as the proceeds increase the funds under managerial control (Jensen, 1986).

Jensen (1986) further argues that leverage has a limiting effect on managerial discretion because leverage comes with increased monitoring and fixed claims that work as a disciplinary tool on operating performance. A manager is not expected to finance a negative NPV project by issuing debt as the cash flow from a negative NPV project will not sufficiently cover the debt claims and thereby reduce the funds under managerial control (Jensen, 1986).

Under the agency theory, firms with valuable investment projects will follow the pecking order and only issue equity if they have exhausted their ability to issue debt. However, firms with no valuable investment opportunities might issue equity to pursue negative NPV projects if the manager has an incentive to do so. Therefore, assuming rational investors, the market is expected to react less favorably to equity issues by firms with poor growth prospects and excess debt capacity. These firms are also expected to experience post-issue underperformance.

5.6 The market timing model

The timing model was first introduced by Loughran and Ritter (1995) and Spiess and Affleck-Graves (1995). Market timing differs from the pecking order theory and the agency theory as it assumes inefficient markets.

The model states that firms time their equity issues and issue equity when they are overvalued in the market. This way, the firm can pile up cash for times when profitable investment opportunities appear. Due to inefficient markets, the theory argues that the market fails to discover the signal equity issues might send about overvaluation and are therefore slow to react. Such timing of equity issues maximizes existing shareholders' wealth at the expense of participating shareholders (Baker and Wurgler, 2002). Under this assumption, managers can take advantage of windows of opportunity to issue equity at a low cost.

6 Methodology

In the following chapter, we describe the flow, implications, and limitations of event study methodology.

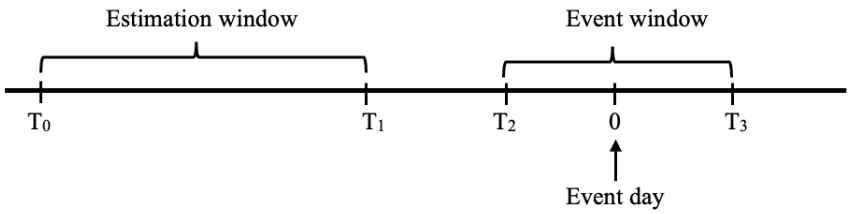
6.1 Event study

The event study methodology is commonly used to measure the impact and magnitude of a corporate event on the value of a firm. The method described in the seminal paper of Fama, Fisher, Jensen, and Roll (1969) is widely accepted as the standard approach.

We rely on a short-term event study to examine the market reaction to the private placement. Shorter event windows have statistically desirable properties because they are less likely to be contained by other corporate events (Oler et al., 2008). By assumption, short-term event studies imply a semi-strong form of market efficiency, indicating that the market reacts quickly,

completely, and unbiased to public information. There is no strict structure of an event study, although the flow is essentially similar in most studies which is illustrated in Figure 2.

Figure 2: Event study Timeline



Note - The figure illustrates the relevant notations and the timeline of event study methodology. The figure is solely for illustration purposes

6.1.1 Event window

The initial goal of an event study is to define the event of interest, the announcement day, and the relevant days surrounding the event day. There is no standard length of an event window. The majority of event studies limit the event window to be within five days, MacKinlay (1997) suggests (-1,+1). In our thesis we include multiple event window to ensure that we are able to the entire information effect: (-1,+1), (0,+1), (0,+3), (-3,+3) and (-3,+10).

6.2 Estimating normal returns

The measurement of normal return is a central part in any event study. The normal returns are supposed to replicate the hypothetical returns one would expect of the stock in the absence of the event. The appropriate way to estimate the normal returns has been subject to considerable debate in the literature, and multiple expected return models are suggested. In the following section, we define our estimation window as it is essential to estimate normal returns.

6.2.1 Estimation window

The period preceding the event is commonly used for estimating the normal returns and is referred to as the estimation window (MacKinlay, 1997). The event window is most commonly excluded from the estimation window to prevent the event from influencing the parameter estimates of the normal returns. MacKinlay (1997) suggests an estimation window of 120 days. In our study we utilize an estimation window from - 250 days to 50 days prior to the announcement.

6.2.2 Models for measuring normal return

The methods to calculate normal returns can broadly be divided into two categories, statistical and economic (MacKinlay, 1997). Models in the latter category depend on assumptions of investor behavior and are not based merely on statistical assumptions. Statistical models follow statistical assumptions concerning the behavior of asset returns. We will first describe two statistical models and then turn our attention to economic models.

6.2.2.1 Constant mean return model

The constant mean return model is the simplest model for estimating the normal returns. Nevertheless, Brown and Warner (1980) find evidence that this model often provides similar results to more sophisticated models. The constant mean return model may suffer from higher variance in abnormal returns than more sophisticated models due to a lack of sensitivity. The normal returns are calculated as the average return of security i' in the estimation window. For any security, the normal returns using the constant mean return model is:

$$E(R_{it}) \quad = \quad \overline{R_i} \tag{1}$$

6.2.2.2 The market model

The market model is a one-factor model and presents a potential enhancement to the constant mean return model, as the proportion of variance associated with the market return is minimized. The market model can be traced back to the seminal paper of Fama et al. (1969) and is widely accepted as the standard approach. The market model predicts that the market return is the only predictor of the return on a stock. The market model is:

$$E(R_{it}) = \alpha + \beta_i R_{mt} + \mathrm{e}_{it} \quad (2)$$

$$e_{it} \sim N(0, \sigma^2) \quad (3)$$

$E(R_{it})$ and R_{mt} expresses the expected return of stock i and the market return, respectively. β_i measures the stock's sensitivity to the market, systematic risk, and e_{it} denotes the error term. The parameters (α_i) and (β_i) is estimated by regressing the stock's return on the market's return. Market model abnormal returns depend on the R-squared of the market model regression, and a higher predictability of the dependent variable is associated with variance reduction of the abnormal returns. Even though it offers improvements over the simpler models, the estimation method has also been subject to criticism. The criticism is often related to the assumption that the market returns vary over time, but the risk-free interest rate is expected to be constant.

6.2.2.3 Capital Asset Pricing Model

The Capital Asset Pricing model (CAPM) developed by Sharpe (1964) and Lintner (1964) builds the foundation for asset pricing theory. CAPM aims to explain variations in expected risk premium to the level of systematic risk associated with the individual asset. CAPM may be considered as an improve-

ment of the market model as it introduces a floating risk-free rate. The normal returns under CAPM specifications is:

$$E(R_{it}) = r_f + \beta_i(E(R_{mt}) - R_f) \tag{4}$$

r_f denotes the risk free rate, β_i captures the stock's sensitivity to the market, the systematic risk, and $(E(R_{mt}) - R_f)$ denotes the market premium. CAPM also expose the event study to biases of the specific CAPM restrictions, and the validity of introducing this sensitivity over the use of the market model has been questioned by academics. As the sensitivity can easily be avoided by using the market model, the use of CAPM has decreased significantly over the last decades.

6.2.2.4 Multifactor model

Multifactor models can be more powerful than simpler models, as a greater portion of the variation in return may be explained by the additional risk factors to the CAPM model. Fama-French 3-factor model draws from the seminal paper of Fama and French (1993) on common risk factors in the returns on stocks and bonds. The Fama-French three-factor model can potentially lead to increased explanatory power, as it includes two additional risk factors. In addition to the market factor, they also include factors related to firm size and book-to-market ratio; Small-Minus-Big (SMB) and High-Minus-Low (HML), respectively.

$$E(R_{it}) = R_{it} + \alpha_i + \beta_1(R_{mt} - R_f) + \beta_2(SMB_t) + \beta_3(HML)_t + \mathrm{e}_{it} \tag{5}$$

$$e_{it} \sim N(0, \sigma^2) \tag{6}$$

The coefficients are estimated by regressing security i's return in excess of the risk-free rate on the market factor, the SMB factor, and the HML factor. Brown and Weinstein (1985) found that the potential gain from multifactor

models is small and assert that the increased explanatory power from introducing the three factors is limited. MacKinlay (1997) recognizes that multiple factor estimation can eliminate the biases introduced by CAPM. However, the author further argues that simpler statistical models also offer the benefit. Thus, the statistical models are often relied upon in event studies.

6.3 Estimating abnormal returns

The abnormal returns are measured over the event window by subtracting normal returns from the return of the stock. Abnormal returns reflect the impact of an event if specified appropriately.

Abnormal returns for stock i:

$$AR_{it} = R_{it} - E(R_{it}) \tag{7}$$

Average abnormal returns are calculated as:

$$AAR_t = \sum_{i=1}^{N} \frac{AR_{i,t}}{N} \tag{8}$$

N is the number of observations during the month s, and AR is is the abnormal returns for the stock i. Cumulative abnormal return utilizing the following equation:

$$CAR_{t_1,t_2} = \sum_{t=t_1}^{t_2} AR_{i,t} \tag{9}$$

6.4 Significance testing

It is vital to detect the presence of a non-zero abnormal return in event studies. As inferences are based on the statistical significance of the average announcement effect for a group of firms announcing the relevant event, selecting an appropriate methodology to test the significance is important. The potential violations of statistical assumptions have been the subject of much debate in

prior literature, and the discussion essentially boils down to the choice between parametric and nonparametric tests. MacKinlay (1997) suggests to use nonparametric tests to verify the conclusions based on the parametric tests.

6.4.1 Parametric tests

Parametric tests assume that the observations are normally distributed. Both sample size and variance have a great impact on the power of the test. MacKinlay (1997) points to outliers' importance in studies with small numbers of observations, as these can heavenly influence the cumulative average abnormal returns. Student t-test is typically used as the parametric test. Brown and Weinstein (1985) assert that statistical tests are preferred over nonparametric tests, even for daily return, although it is usually not normally distributed. Berry et al. (1990) find similar results.

6.4.2 Nonparametric tests

When the sample size is small or the data is not expected to be normally distributed, nonparametric tests that are not restricted by the normality assumption can be useful. In 1945 Frank Wilcoxon introduced two nonparametric procedures, which are now commonly known as the Wilcoxon sign test and Wilcoxon rank sum test (Wilcoxon, 1945). The latter is a two-sample test, also known as the Mann-Whitney U test, and is used to test the significance of the difference between two samples. Campbell and Wesley (1993) find that nonparametric tests yield more reliable inferences than parametric tests. Barber and Lyon (1996) find supporting evidence.

6.4.3 Cross-sectional analysis

Cross-sectional analysis might provide insights into the key drivers behind abnormal returns and may be particularly useful if multiple sources of abnormal

returns are suggested (MacKinlay, 1997). The standard approach is to regress the abnormal returns on the characteristics of interest (MacKinlay, 1997). The regression model can be expressed as:

$$CAR_i = \gamma_0 + \gamma_1 x_l i + .. + \gamma_M x_{Mi} + \mathrm{e}_{it} \tag{10}$$

$$E(e_{it}) = 0 \tag{11}$$

The cumulative abnormal return of the i^{th} observation is expressed through CAR_i, x_{li} is the firm characteristic l, and M denotes the regression coefficients. When residuals are expected to be uncorrelated and homoscedastic, OLS standard errors can be used. Otherwise, robust standard errors are advised (BLUE assumptions are described in appendix B). Even though this method can provide insight into the abnormal returns, concerns about the cross-sectional approach and its potential misspecification have been raised. Generally, selection bias and multicollinearity issues may arise if events are anticipated. This literature is broadly known as conditional event study, Eckbo et al. (1990) and Acharya (1988), are examples of such. Prabhala (1997) argues that despite potentially incorrect specifications, under weak conditions, OLS tests can be used for inference, and the t-statistic can be interpreted as lower bounds on the true significance level of the estimates. Karafiath (1994) also argues that when the sample size exceeds 50, the OLS approach provides as powerful estimates as the alternatives discussed in the literature.

6.5 Limitations of event studies

Academics have expressed various limitations and concerns in event studies. The concerns include the role of sampling interval, event date uncertainty, and nonsynchronous trading. This section will discuss some of the pitfalls we might

encounter in our study and discuss how we aim to address and minimize these potential issues.

Firstly, the concerns about the role of the sampling interval relate to the choice between monthly and daily data. Dyckman et al. (1984) argue that daily data exhibits cost disadvantages over monthly data; non-normality of returns, the effects of nonsynchronous trading on the estimation of abnormal returns and parameters, and lastly, biased estimation of the variance of average abnormal returns. However, their evidence suggests that when the null hypothesis is correctly specified, the non-normality of the individual securities does not cause the average abnormal return estimators to be non-normally distributed. MacKinlay (1997) also concludes that the increased power from using daily data outweighs the benefits of using monthly data.

Secondly, if the event day is not correctly identified or the event is anticipated in the market, the abnormal returns may not capture the full information effect of the event. This is commonly handled by expanding the event window to some days preceding the event day (MacKinlay, 1997). Ball and Torous (1988) conclude that the informal procedure of extending the event window offers benefits over more elaborate estimation to address the uncertainty surrounding the event day. To address this potential issue, we utilize several event windows and plot the cumulative average abnormal returns.

Finally, it is common to use the securities closing price when studying daily data. Because the liquidity varies across securities, the last trade may occur at different times. Nonsynchronous trading can lead to a potential bias. However, the bias is usually small and unimportant for actively traded securities (MacKinlay, 1997).

7 Data

In the following section, we will explain our data collection method and provide descriptive statistics of our sample. In addition, we will describe our procedure of dividing the sample into subsamples based on the intended use of proceeds.

7.1 Data sample

Our sample of private placements is retrieved from the Oslo Stock Exchange database of equity issues (Oslo Børs, 2021). To gather data on firm characteristics, we have used Bloomberg and supplemented it with data from the firm's annual report where the data is missing. We rely on the Compustat database for stock prices. All factors used to estimate the models in table 3 and 4 are obtained from Ødegaard (2021) webpage. We find data of net expected proceeds, issued shares, board authorizations, and intended use of proceeds of the private placements from the issuing firm's announcement statements on NewsWeb.

We focus our analysis on firms issuing equity through private placements between 2008 and 2018. The issuing prospects must be accessible to identify the use of the net proceeds; thus, we only include firms where the announcement statement of the private placement is available at Newsweb. We rely on NewsWeb as our source for the intended use of proceeds and the exact time of the announcement. We only include data from the Oslo stock exchange database that match with corresponding announcement statements on NewsWeb. We require the equity issue to contain a primary component, as we are studying the firm's actual use of funds. We examine firm behavior from the year preceding to the year following the private placement. To differentiate between cause and effect, we are dependent on our sample not to overlap. Our data sample consists of companies that issued equity in a private placement in 2008, 2010, 2012, 2014, 2016, and 2018. After excluding observations without

matching announcement statements and observations that do not contain a primary component, we are left with a sample of 136 private placements.

From this sample, we exclude observations (the number of which are reported in parenthesis) that are subject to the following criteria:

1. Private placements by firms that have issued multiple private placements in the same year (32)
2. Private placements by firms issuing that has issued an IPO in the year of the private placement or the year prior to the equity issue (9)
3. Private placements by firms being delisted or bankrupt in the year of or the year following the private placement (5)
4. Observations that do not have the required data for the estimation period (2)
5. No available information on Compustat (3)

After having excluded firms that do not satisfy our requirements, we end up with our final sample consisting of 83 private placements.

7.2 Sample characteristics

Table 1 reports the key statistics of our sample of private placement firms.

The deal value is the amount of proceeds raised in the private placement in million NOK. We observe that the capital raised by the GENERAL subsample are thereby substantially smaller than the proceeds raised by SPECIFIC firms. Runup % is the market model abnormal returns measured from 50 days before the announcement to two days prior. The entire sample experienced a median runup return of - 1.8% (-5.2%). This finding is consistent with Barclay et al. (2007), who also found a negative runup return. We find a median

Table 1: Sample characteristics

	ALL		GENERAL		SPECIFIC	
	Median	Mean	Median	Mean	Median	Mean
Deal Value	227.6	446.5	133.8	285.7	349,0	589,1
Runup (%)	-1.8	-5.2	-4.9	-8.5	1.0	-2.3
Offer Discount (%)	5.7	-5.9	8.3	13.8	-4.8	-29.7

Note - Deal value is culculated as subscription price times number of shares issued. Runup (%) is the abnormal runup return measured from 50 days to 2 days prior to the offering. The offer discount is calculated as

$$\text{Offer discount (\%)} = 1 - \frac{\text{(subscription price)}}{\text{(market price one day prior to the announcement)}} * 100 \quad (12)$$

(mean) runup return of -4.9% (-8.5%) and 1% (-2.3%) for the GENERAL and SPECIFIC subsample respectively.

We find that the median firm issued equity at a 5.7% discount to the market price one day before the announcement. Our finding contradicts Eckbo and Norli (2004) reported that the average firm in their sample issued equity at a premium. The GENERAL subsample subscription price was at an 8.3% discount to the current market price. In contrast, we find that the median SPECIFIC-firm issued equity at a 4.8% premium to the current market price. The difference between the two subsamples might indicate that the GENERAL subsample contains more firms under financial distress, leading these firms to be in a bad bargaining position. On the other hand, the private placement investors in the SPECIFIC subsample seem to be more confident about the firm's growth prospects as the median SPECIFIC firm issued equity at a 4.8% premium to the current market price.

7.2.1 Board Authorizations

We use the firm's announcement statements to collect data on whether the issuing firm's board has secured board authorizations in advance. As shown in Table 2, more than 60% of our sample has secured a board authorization in

advance of the issue, enabling them to take advantage of private placements' time- and cost-efficient characteristics.

Table 2: Board Authorizations

	ALL	GENERAL	SPECIFIC
Board Authorizations (%)	64.6	66.7	61.4

Note - The sample is of firms issuing equity in a private placement that meets the data requirement. The table show the percentage of private placements issued through board authorizations

7.3 The announcement

This section will describe our method for dividing our sample into two subsamples. We use the private placement announcements and assign the observations to either a SPECIFIC or GENERAL subsample, depending on information disclosed about the intended use of proceeds.

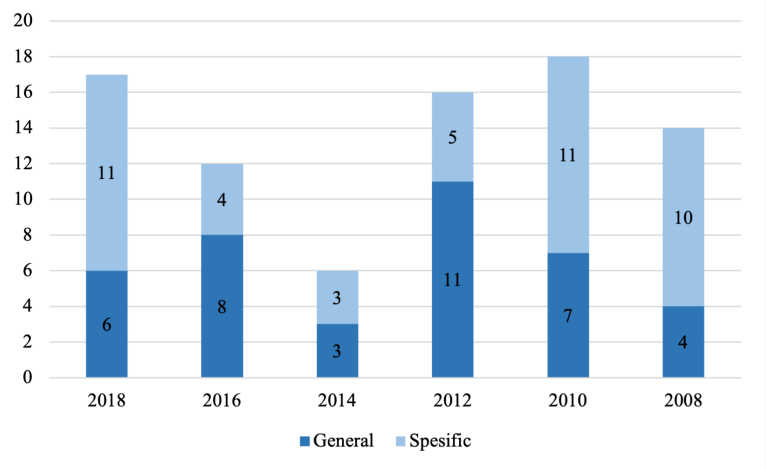
The SPECIFIC subsample includes private placements issued by firms that state a specific reason for their intended use of the soon-to-be raised capital. These firms typically provide more details and are more transparent about the intended use of proceeds. We identify three recurring motives in this subsample: specific investments, acquisitions, and refinancing purposes. Frontline is an example of a SPECIFIC firm providing the following use of funds in the announcement statement: "The net proceeds from the private placement will, if successful, be used to finance the acquisition of the 5 double hull Suezmax tankers which was announced this morning and in settlement of the delivery of shares in Overseas Shipholding Group Inc. currently controlled through forward contracts" (NewsWeb, 2008).

The GENERAL subsample includes firms that are vague about their intentions for the use of proceeds. Typically, these firms do not disclose any

details about the intended use and often state that the funds are intended for general corporate purposes. Panoro Energy is an example of a GENERAL firm which state the following for the anticipated use of funds: "The net proceeds from the Private Placement will be used for general corporate purposes, most importantly managing working capital fluctuations in the prevailing low oil price environment, and to position the Company for growth" (NewsWeb, 2016b). See appendix C for more examples.

Accordingly, the classification of the funds leaves us with 44 observations for the SPECIFIC subsample and 39 general observations for the GENERAL subsample. The distribution is illustrated in figure 3.

Figure 3: Private placements on Oslo Stock Exchange in the period 2008-2018



Note - The sample is of firms issuing equity in a private placement that meet the data requirement. The Y-axis denotes the number of private placements, and the X-axis denotes relevant years. The sample is divided into general or specific subsample based on the selection criteria described in section 7.3.

8 Empirical results

In the following section, we report our empirical results. First, we utilize a short-term event study to provide the market's announcement reaction to the private placements on OSE. We then provide statistics of post-issue firm characteristics to explain the issuing firm's actual use of proceeds. Next, we perform multivariate cross-sectional analyses aiming to provide further insight to the market reaction. We compare our results to previous literature as they are presented and finally provide a discussion that compares our results to our theories of interest; agency theory, pecking order, and market timing.

8.1 The market's announcement reactions to private placements

In the following section, we estimate the announcement reactions to private placements. We start by examining our full sample, before we divide it into subsamples, as described in section 7.3.

8.1.1 Abnormal announcement returns

We will rely on short-term event studies to analyze announcement reactions to private placements, utilizing the methodology described in section 6. As argued in section 6, we mainly rely on the market model to estimate normal returns. However, we also report results from the mean adjusted model, CAPM, and Fama-French three-factor model for complexity.

Table 3 reports the announcement returns related to the private placements on the OSE from 2008 to 2018. We utilize the formula of abnormal average returns (AAR) as described in equation 8 and cumulative abnormal returns (CARs) described in equation 9.

Table 3: Cumulative Average Abnormal Returns (%) for Private Placements on the Oslo Stock Exchange in 2008-2018

Estimation model	Event window				
	(-1,+1)	(0,+1)	(0,+3)	(-3,+3)	(-3,+10)
Mean adjusted					
All	-6.47	-7.50	-7.55	-6.83	-7.97
p(t)	0.054	0.017	0.008	0.036	0.014
p(z)	0.008	0.001	0.000	0.000	0.000
Market model					
All	-6.32	-7.44	-7.60	-6.87	-7.85
p(t)	0.054	0.016	0.008	0.035	0.017
p(z)	0.005	0.001	0.000	0.000	0.000
CAPM					
All	-6.91	-7.76	-7.89	-7.48	-9,45
p(t)	0.008	0.004	0.000	0.000	0.000
p(z)	0.000	0.000	0.000	0.000	0.000
Fama-French 3-factor					
All	-2.52	-3.66	-2.99	-2.07	-3.37
p(t)	0.486	0.238	0.344	0.595	0.393
p(z)	0.006	0.001	0.000	0.000	0.000

Note - The sample is of firms issuing equity in a private placement that meets the data requirement. N = 83. The table presents the cumulative average abnormal return (CAAR) across four estimation models and five event windows. The CAARs are estimated utilizing the following formula:

$$\text{CAAR} = \frac{1}{N}\sum_{i=1}^{N} CAR_i(t_1, t_2) \tag{13}$$

CAR represents cumulative abnormal returns computed as described in equation 9. The estimation period is from day -250 and ends 50 days prior to the announcement. P-values for the two-sided t- and Wilcoxon sign test are reported, indicated by p(t) and p(z), respectively.

As shown in table 3, we find a negative market reaction to the announcement of private placements. The market model two-day announcement reaction is -7,5% significant at a 5% significance level using the t-test and at a 1% significance level using the Wilcoxon sign test. Thus, our results contradict the findings of for instance Wruck (1989), Hertzel and Smith (1993), Hertzel et al. (2002), who documented positive abnormal announcement reactions in their studies of private placements. It is especially interesting that the evidence contradicts the positive and significant announcement reaction Eckbo and Norli (2004) found in their study of private placements on the OSE. They utilized a (-1,0) event window and found an announcement reaction of 1,39%

(Eckbo and Norli, 2004). However, the authors argued that their results may be driven by the offer premium of their sample, which contradicts the offer discount we find for our sample. In addition, it is important to empathize that the time period of our sample differ from that of Eckbo and Norli.

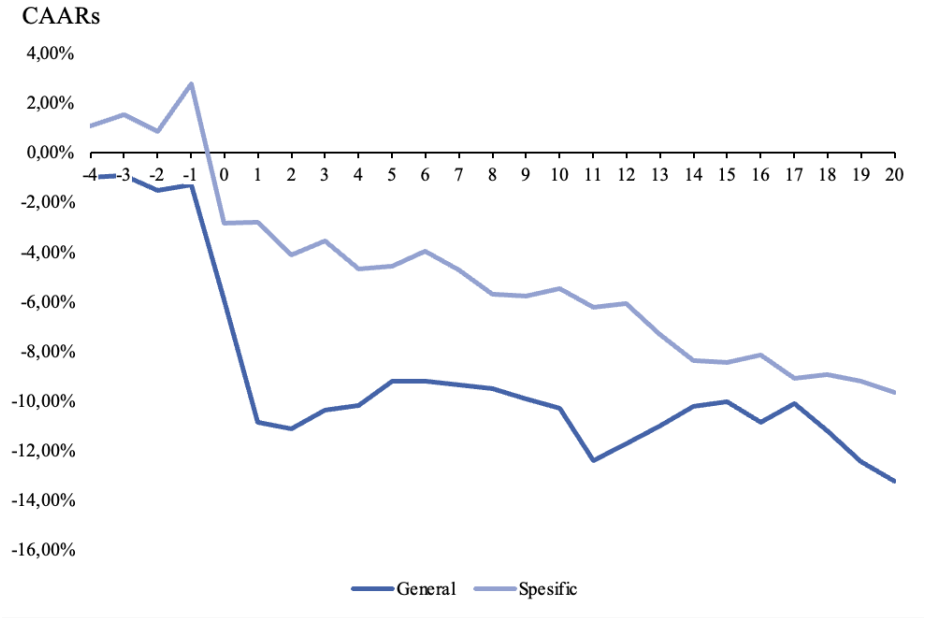
We include multiple event windows and estimation methods to ensure that we capture all potential information leaks and spillover effects. For the mean adjusted model, the market model, and CAPM, the results are generally consistent. However, the abnormal return of the Fama-French three factor model are substantially smaller compared to the other models. This difference may stem from the estimation method of returns, as we utilize log returns log returns in the first three models and percentage returns in the Fama-French three factor model. We do not observe big differences in the abnormal returns across different event windows, suggesting that the two-day announcement return captures most of the announcement reaction.

8.1.2 Intended use of proceeds and the announcement reaction

We now turn our attention to the information disclosed in the ex-ante stated use of funds to test our hypothesis that the information revealed by the firm's announcement statement is of importance in private placements. Thus, we test the first and second hypotheses presented in chapter 4.

Figure 4 depicts the behavior of the average cumulative abnormal returns (CAARs) from day -4 to day $+20$ for the GENERAL, and SPECIFIC subsample. The graph illustrates that the announcement of private placements has a significant impact on stock price reactions and indicates that we have successfully identified the correct announcement date. The abnormal return of the GENERAL subsample fluctuates following the announcement, however around the same level and without a trend. In addition, we observe a post-announcement drift for the SPECIFIC subsample.

Figure 4: CAARs in the period of the announcement of the private placement



Note - The sample is of firms issuing equity in a private placement that meets the data requirement. The Y-axis displays the CAARs and the X-axis displays the days surrounding the event day. Day 0 is the event day. The graph illustrates the average cumulative abnormal returns in the days preceding and following the private placement. The graph displays the market model abnormal returns, estimated utilizing the formula in equation 3 where the parameters are estimated over an estimation period that starts at day -250 days and ends 50 days before the announcement. Stock prices are adjusted for dividends, and stock splits.

Further, we estimate the SPECIFIC- and GENERAL subsample abnormal returns and report our results in table 4

Table 4: Cumulative average abnormal returns (%) for the GENERAL- and SPECIFIC subsample

Estimation model	Event window (-1,+1)	(0,+1)	(0,+3)	(-3,+10)
Mean adjusted				
General	-9.595	-9.649	-9.236	-9.722
Spesific	-3.698	-5.596	-6.056	-6.409
p(z)	0.006	0.000	0.023	0.120
Market model				
General	-9.324	-9.550	-9.049	-9.320
Spesific	-3.655	-5.560	-6.312	-6.554
p(z)	0.009	0.026	0.051	0.096
CAPM				
General	-10.300	-10.038	-10.004	-12.154
Spesific	-3.910	-5.745	-6.025	-7.054
p(z)	0.013	0.021	0.067	0.067
Fama-French 3-factor				
General	-3.770	-4.123	-3.201	-2.937
Spesific	-1.405	-3.254	-2.802	-3.756
p(z)	0.013	0.032	0.028	0.241

Note - The sample is of firms issuing equity in a private placement that meets the data requirement. $N_{SPECIFIC} = 44$ and $N_{GENERAL} = 39$. The table presents the cumulative average abnormal return (CAAR) associated with the announcement of a private placement divided into categories as described in section 7.3. The CAARs are estimated utilizing equation 13. The estimation period is from day -250 and ends 50 days prior to the announcement. Two-population Wilcoxon (Mann-Whitney) rank sum test is used to test the differences; p-values are reported in parenthesis.

We find two-day market model announcement returns of -9.6% and -5.6% for the GENERAL- and SPECIFIC subsample, respectively. These results are significantly different from each other at a 5% significance level. The announcement reaction of the GENERAL subsample remains at a stable level for all lengths of the event windows, whereas the SPECIFIC subsample experiences some post-announcement drift. The market model abnormal returns observed in the longest event window are significant at a 10% significance level. The results are substantially similar for the market model, mean adjusted model, and CAPM model. However, the Fama-French three factor does differ quite a bit. This difference is consistent with the results found in table 3, where the potential reasons are discussed. For all estimation models, we do, however, ob-

serve a significant difference between the subsamples. Thus, we conclude that the GENERAL subsample suffers from significantly higher negative abnormal returns than the SPECIFIC subsample. Our results differ from Walker and Yost (2008) who did not observe a statistical difference across their subsamples.

Aligned with our hypotheses, we find that the GENERAL subsample experiences negative abnormal announcement returns and that the SPECIFIC subsample does outperform the GENERAL subsample in terms of announcement returns. As we use the disclosed information in the announcement statement as a proxy for a firm's growth opportunities, our results suggests that the market believes that firms that disclose more rather than less information have better growth opportunities. Hence, it seems like the information revealed in a firm's announcement statement in private placements matters to investors. This is inline with the results of Autore et al. (2009) who concluded that the information about the intended use of proceeds does provide insights about future stock performance.

Our finding that SPECIFIC firms mainly consist of firms stating either investment or restructuring purposes leads us to another potential explanation. Aligned with Walker and Yost (2008) and Autore et al. (2009), it might be the case that investors care about firms' actual stated motives rather than the specificness and view firms that state investments and/or refinancing purposes as more likely to create value from the equity issue than firms that state general corporate purposes. Thus, to provide an even better understanding of our findings, we could have benefited from further dividing our sample into smaller subsections based on the firm's stated motives for the equity issue, i.e., investment, acquisitions, restructuring, capital expenditure, working capital, and general corporate purposes. Unfortunately, our sample size restricted us from doing so.

8.2 Firm characteristics

We include statistics on firm characteristics to provide insight on how private placement firms on OSE allocate the raised capital. We hypothesize that if agency firms or firms with timing motives dominate the GENERAL subsample, then the GENERAL subsample will experience poor long-run firm performance after the private placement.

Table 5: Use of funds prior to and following a private placement

	[Variable (yr. N) / TA (yr. -1)]			
	yr.-1	yr.0	yr.1	yr.1 Comparison
TA				
All	1.000	1.109***	1.166***	
General	1.000	1.164***	1.177***	
Specific	1.000	1.083*	1.137**	0.4967
INV				
All	0.066	0.077	0.062	
General	0.059	0.095	0.072	
Specific	0.069	0.069	0.061	0.2447
LTD				
All	0.272	0.284	0.256	
General	0.242	0.366*	0.261	
Specific	0.295	0.257	0.219	0.4455
WC				
All	0.109	0.111	0.090	
General	0.129	0.121	0.093	
Specific	0.104	0.063	0.024	0.8196

Note - The sample is of firms issuing equity in a private placement that meets the data requirement. All statistics are standardized by the total book value of assets in the year preceding the issue (yr. -1). TA is the total book value of assets. INV denotes investments in CAPEX and R&D. LTD is the book value of long-term debt. WC is working capital = current assets − current liabilities. Median values are reported. Two-population Wilcoxon (Mann-Whitney) rank sum test is used to test the differences across subsamples in year +1, p-values are reported in the final column.

Table 5 provides statistics on the issuing firms' assets, liabilities and investments standardized by the total assets in the year before the private placement (yr. -1). We report median statistics, as it provides a better measure of the central tendency in skewed data samples.

TA is the total book value of the issuing firms' assets, denominated in the asset base of the issuing firm in year -1. The median firm experienced a significant increase in total assets of 10% in the announcement year of the private placement (yr. 0). The median SPECIFIC and GENERAL firm experience a

significant increase in TA of 16.4% and 8.3% respectively in the announcement year (yr. 0). However, we cannot find a significant difference between the two subsamples. In the year following the private placement (yr. +1), the median firm experienced an increase in TA of 16.6% compared to the year before the private placement. SPECIFIC- and GENERAL-firms experienced an increase in TA of 17.7% and 13.7%, respectively. These results are not statistically different from each other.

The change in total assets is relatively small compared to Walker and Yost (2008), who found that the median SEO firm experienced an increase in TA of 78.8% and 100% in yr. 0 and yr. +1 respectively. The most obvious explanations for the different result is that 1) the majority of our sample of private placements are enabled through board authorizations which limit the amount firms can raise to a maximum of 20% of the firm's share capital, 2) Walker and Yost (2008) studies firms listed on US markets, which are likely to be substantially larger than the firms in our sample.

The SPECIFIC subsample experienced an increase in long-term debt of 51% from the year preceding the issue (yr. -1) to the year of the issue (yr. 0). This statistic is significant at a 10% confidence level. Therefore, our finding indicates that firms with specific plans for the raised proceeds do not choose between equity and debt but rather raise both to fund their plans. We find no significant changes in long-term debt for the GENERAL subsample in the year of the placement (yr. 0). This finding is consistent with the findings of Walker and Yost (2008).

We do not find any significant differences in these variables, indicating that firms do not increase their investments subsequent to a private placement. Loughran and Ritter (1997) and Hertzel et al. (2002) find contradicting evidence in their SEO and private placements studies. Both articles documented an increase in investments before and after the equity issue and argued that

their findings indicate that investors are over-optimistic about the prospects of the firm's investments and assets in place.

Table 6 provides statistics on the firm's assets, liabilities, and valuation as a percentage of total assets in the respective year. In contrast to table 5, table 6 shows the change in firm characteristics in the year of and the year following the private placement, relative to the year preceding the issue.

Table 6: Firm characteristics

	[Variable (yr. N) / TA (yr. -1)]			
	yr.-1	yr.0	yr.1	yr.1 Comparison
LTD/TA				
All	0.273	0.001	-0.032	
Specific	0.281	0.031	-0.024	
General	0.282	0.258	0.241	0.291
WC/TA				
All	0.101	-0.008	-0.033	
Specific	0.101	-0.008	-0.047	
General	0.109	0.101	0.102	0.572
OIBD/TA				
All	0.013	0.011	-0.002	
Specific	0.021	0.005	-0.017	
General	-0.015	-0.04	0.01	0.809
Sec.Adj. OIBD/ TA				
All	0.000	0.000	0.000	
Specific	0.000	0.000	0.000	
General	0.000	0.000	0.000	0.260
Q_{-1}				
All	1.270	0.109	-0.184	
Specific	1.180	0.118	-0.285	
General	1.088	1.267	1.217	0.409
Sec. Q_{-1}				
All	0.128	0.082	-0.136	
Specific	1.045	0.100	-0.154	
General	1.063	1.110	1.032	0.347
Sec. Adj. Q_{-1}				
All	0.128	0.102	-0.126	
Specific	0.018	0.077	-0.094	
General	0.025	0.128	0.016	0.600

Note - The sample is of firms issuing equity in a private placement that meets the data requirements. TA is the total book value of assets. LTD is long-term debt. INV is investments is CAPEX + R&D. WC is working capital = current assets + current liabilities. OIBD is operating income before depreciation. Sec. Adj. OIBD is the sector-adjusted OIBD. Q = (Market Cap + Total Liabilities + Preferred Equity + Minority Interest)/(Total book value of assets). Sec. Q is the Q for the median firm in the same sector. Sec. Adj. Q is the sector-adjusted Q. All sector-adjusted variables equal firm variable − median sector variable. We report median values.

From table 5, we found a significant increase in the total assets of the median firm. Table 6, however, shows no significant change in the relationship between OIBD and total assets. OIBD/TA is commonly used to measure operating performance as it arguably provides a good reflection of the firm's

profitability as it focuses on the firm's core business activities (e.g., Hertzel et al. (2002)).

The fact that the relationship between OIBD and TA remains constant from year 0 to year +1 suggests that the issuing firms are unable to improve their profitability through the equity raised in the private placement. Our finding that firms operating performance stays at a constant level after the equity issue contrast with the findings of Loughran and Ritter (1997), who found evidence that SEO firms experienced a peak in operating performance at the time of the issue.

We use the change in the working capital composition of TA as a proxy for firm liquidity. Our results indicate that the issuing firms neither increase their liquidity nor operating profitability post private placement. We can therefore not see that the firms have been able to create value from the equity issues.

Tobin's Q_{-1}, Sector Q_{-1}, and Sector Adjusted Q_{-1} are included as proxy variables for the market valuation of the issuing firms, the market valuation of the sector in which it operates, and the market valuation of the firm relative to its sector peers. These statistics are not significant, indicating no change in the market's beliefs about the firm's growth prospects associated with the private placement. Our findings indicate that the firm's decision to raise capital is unrelated to the market's beliefs about both the firm's growth- and relative growth prospects.

8.3 Cross-sectional regressions

We perform cross-sectional analyses using abnormal returns as the dependent variable to further investigate potential explanations for the announcement reaction. If the market anticipates that the issuing firm will use the capital in a value-increasing manner, we expect that larger anticipated investment programs will be associated with greater (or less negative) abnormal returns.

Following Walker and Yost (2008), we use two estimates for the anticipated use of the equity raised in the private placement. In the cross-sectional regressions, the two-day CAR is used as the dependent variable in each of the models, and two proxies for the anticipated size of the investment program are used as independent variables. Variables that control the firm's financial conditions, growth opportunities, and liquidity are included in all models. The results of the regressions are reported in table 7.

Table 7: Cross sectional regression analysis on abnormal announcement returns

	1	2	3	4
Constant	0.394	0.359	0.292	0.292
	(0.436)	(0.408)	(0.537)	(0.543)
Stated General /TA−1	-0.001	-0.058		
	(0.993)	(0.709)		
Stated Specific /TA−1	0.112	0.117		
	(0.091)*	(0.078)*		
Exp Invest*GENERAL			-0.007	-0.007
			(0.676)	(0.680)
Exp Invest*SPECIFIC			-0.149	-0.148
			(0.449)	(0.455)
GENERAL firm		0.069		0.001
		(0.335)		(0.991)
Runup	0.338	0.351	0.284	0.284
	(0.000)***	(0.000)***	(0.002)***	(0.002)***
Q−1	-0.009	-0.006	-0.004	-0.004
	(0.668)	(0.759)	(0.819)	(0.821)
OIBD−1 /TA−1	0.016	0.042	0088	0.088
	(0.928)	(0.814)	(0.609)	(0.617)
LTD−1/TA−1	-0.296	0.247	0.173	0.173
	(0.108)	(0.194)	(0.320)	(0.332)
WC−1 /TA−1	-0.010	-0.004	0.288	0.288
	(0.944)	(0.976)	(0.005)***	(0.005)***
INV−1 /TA−1	0.175	0.206	-0.167	-0.167
	(0.406)	(0.329)	(0.340)	(0.347)
PPE−1 /TA−1	-0.046	-0.026	0.172	0.172
	(0.710)	(0.833)	(0.129)	(0.141)
LN(TA−1)	-0.025	-0.024	-0.021	-0.021
	(0.295)	(0.301)	(0.349)	(0.353)
N	73	73	83	83
Adjusted R-square	0.1372	0.1364	0.1184	0.106

Note - The sample is of firms issuing equity in a private placement that meets the data requirement. The table presents results from the cross-sectional analysis on SEO announcement returns using OLS regression. The dependent variable is the two-day market model cumulative abnormal returns (CAR), from day 0 to day +1, where day 0 is the event day. The market model parameters are estimated over days −250 to −50. The Oslo Stock Exchange All Shares Index is used as a proxy for market return. Stated GENERAL and stated SPECIFIC is the NOK amounts raised for general and specific purposes respectively. TA is total assets. General firms is an indicator variable, equal to one if the firm is categorized as a general firm and zero otherwise. Runup is the market adjusted abnormal returns from day −50 to day −2. Q is (Market Cap + Total Liabilities + Preferred Equity + Minority Interest)/(Total book value of assets). OIBD is the operating income before depreciation. LTD is long-term debt. WC is working capital = current assets − current liabilities. INV denotes investments in capital expenditures + R&D. PPE is property, plant, and equipment. LN(TA−1) is the natural log of total assets. P-values are reported below in parenthesis, ***,**, and * denotes the significance at the 1%, 5%, and 10% levels, respectively.

The variables Stated Specific and Stated General, included in model 1 and 2, represent the stated amount of the proceeds budgeted for either specific or general purposes [1]. The coefficient Stated General is not statistically significant, however, Stated Specific is positive and significant at a 10% significance level. This indicates that the market believes that the capital raised for specific purposes will be used in a value-maximizing manner.

In models 3 and 4, we investigate whether our two subsamples' anticipated change in investments can explain some variation in abnormal return. In a similar manner to, for instance, Pilotte (1992) and Walker and Yost (2008), we assume rational expectations and use observed use of funds as a proxy for the market's expectations for the firm's actual use of funds. By including this proxy, we expect that the firm's actual use of funds represents how similar firms have used the capital raised in private placements in the past; thus, historical actions are good predictors of future actions. In addition, we attach an indicator variable to the anticipated investment program variable, as we are interested in finding answers to whether there is a different relationship between the two subsamples.

A change in investments for the GENERAL subsample is expected to be negatively related to abnormal returns if agency firms dominate the subsample. If the market expects the GENERAL subsample to be dominated by agency firms or firms with market timing motives, then an increase in anticipated investments should be viewed negatively. A change in investments for the SPECIFIC subsample is expected to be positively related to abnormal returns. The reason being that when firms state specific intentions for the proceeds, we expect the market will view the anticipated investment favorably as these

[1]Firms that declare specific or general use of proceeds for all raised capital the entire net expected amount is assigned to the relevant category. For the firms that declare exact NOK amounts, we assign the capital to the correct category. Finally, if the firm does not state the exact NOK amount and multiple purposes, we are unable to assign the correct capital raised for each category, these observations are excluded from the first and second model. We are unable to classify ten observations.

firms are believed to invest in a value-maximizing manner. However, we do not expect to find strong relationships as we observe small changes in investment programs for both samples. This coefficient is negative and insignificant for both the GENERAL- and SPECIFIC subsample.

The runup variable included in our model can be interpreted as a proxy for valuation and is positive and significant across all models. This result contrasts to Walker and Yost (2008), who found a negative relation between recent return and abnormal announcement return. The positive relation between the runup coefficient and the market reaction may indicate that both the firm's decision to raise capital and the market reaction are based on a recent change in both the market and the management's beliefs about the firm's growth prospects. An alternative explanation is that firms with timing motives dominate our sample and that the market is failing to incorporate this information.

We use working capital as our proxy for firm liquidity and find a positive and significant relationship between working capital and abnormal returns for models 3 and 4. This finding is surprising as it indicates that the market views equity issues by firms with excess liquidity as a positive signal. One explanation might be that the market is more optimistic about the growth opportunities of firms that are not under financial distress. This positive relation between pre-issue liquidity and abnormal returns contrasts with the agency theory and pecking order theory. It also contradicts the finding of Walker and Yost (2008), who did not find any significant relation between the market reaction and firm liquidity.

There is a positive but insignificant relationship between long-term debt and abnormal returns across all models. Thus the firm's debt levels in the year prior to the announcement do not seem to affect the market's reaction to the private placement. Tobin's Q, OIBD, PPE, investment, and LN size are

all small and insignificant across all models. Thus the economic significance of these is minimal. Investment has a positive coefficient but is insignificant.

We investigate several alternative specifications of the models in table 7 for robustness. Firstly, we perform diagnostic tests on the assumption of homoscedastic and uncorrelated error terms (See appendix B for BLUE assumptions). We find no evidence of autocorrelation or heteroscedasticity; thus, we utilize OLS standard errors. We also perform a diagnostic test on the Ordinary Least Square Assumption associated with the condition of multicollinearity (see appendix D for correlation matrix) [2] We observe that three variables are moderately correlated, and we re-estimate our model without the following three explanatory variables: Q, OIBD, and LN size. The results are similar to those reported, however the coefficient Stated Specific increases and becomes significant at 5% level. The other coefficients remain substantially similar to those reported. The results are reported in appendix F. In addition, we re-estimate the regression using the CAPM two day announcement returns (unreported), and find similar results to those reported.

8.4 Ex post firms characteristics

Our hypothesis implies that firms willing to reveal their plans for the use of funds are more likely to act in shareholders' best interest and maximize shareholder value. If this is the case, we would expect that GENERAL firms experience a change in operating performance below SPECIFIC firms. In the following equation we examine this relationship, we report the coefficients and p-values of a two sided t test below in parenthesis.

[2]Following Walker and Yost (2008), we initially wanted to test investors' expectations for long term debt and working capital in addition to investment expectations in model 3 and 4. However, long term debt and working capital variables were highly correlated, and exposed the regression to multicollinearity issues. Thus variables were excluded from the regression. As these variables are no longer included in our analysis, these results are not reported.

$$\Delta(OIBD/TA)_i = \alpha + \gamma_1 GENERAL_i + \gamma_2 (\tfrac{NETEXPECTED}{TA_1})_i + v_i$$

	0.211	−0.873	1.301
	(0.633)	(0.180)	(0.000)

$\Delta(OIBD/TA)_i$, is the industry adjusted change in operating cash flow denominated by assets from year -1 to 1. GENERAL firm equals one if the firm is categorized as a general firm and zero otherwise. $\frac{NETEXPECTED}{TA_1}_i$ is the expected proceeds from the private placements denominated by assets. N = 83.

The expected proceeds and operating income are positively related. This indicates that a larger amount of expected proceeds is associated with a bigger change in operating performance. The coefficient of the general sample is negative; however, it is not significant. This indicates that the change in industry-adjusted operating income is similar across our subsamples, and thus that the level of details in the ex-ante stated use of proceeds does not serve any explanatory power for change in operating performance. Thus, we find no difference between the quality of the projects for the firms in our sample. These results differ from those found by Walker and Yost (2008), as they do find a significantly negative relationship between their general sample and the change in operation performance. However, it is important to note that they use a different method for categorizing firms and find significant and big changes in operating performance.

For robustness, we perform diagnostic tests on the disturbance term and find no evidence of autocorrelation or heteroscedasticity. In addition, we estimate the industry adjusted change in operating cash flow from year -1 to 0 instead of to year $+1$ and find a coefficient of -0,239 for general (p-value of 0,705) and a coefficient of 1,302 for the net expected variable (p-value 0,000).

8.5 Discussion

In this section, we will discuss some of our main findings and connect our findings to the three theories: the agency theory, the pecking order theory, and market timing.

The agency theory predicts that the market believes that firms with poor growth prospects and a low degree of information asymmetry are more likely to issue equity to engage in agency spending. We use the information disclosed as a proxy for whether the funds will be utilized in a value maximizing manner. Our result that SPECIFIC firms outperform GENERAL firms in terms of announcement return may suggest that investors view SPECIFIC firms to be more likely to use the capital in a value-maximizing manner than GENERAL firms. This may indicate that agency issues are more likely to appear in the private placements issued by firms that state vague information about their intended use of proceeds.

Under the agency model we would expect a positive relation between Tobin's Q and the abnormal announcement return, as Q, under this theory, is interpreted as a measure of the firm's growth prospects. We find no significant relation between Q and abnormal market returns. Under the agency model, we would also expect a negative relation between anticipated investments and abnormal announcement returns. The reason being that under this model, the market is concerned that managerial discretion increases with the amount of free cash flow controlled by the manager. However, we do not find a significant relationship between abnormal returns and investments for either subsample.

We do not find any significant relation between abnormal return and anticipated liquidity. One interesting finding that stands in sharp contrast to the agency theory is that we find a positive relation between our measure of pre-issue liquidity and announcement returns. Thus, this finding suggests that investors are not concerned about managerial discretion for our sample

of private placements. Jung et al. (1996) argues that a negative stock price reaction to firms with poor growth prospects is not sufficient evidence to argue in favour of the agency model. The reason being that this can be successfully explained by Myers and Majluf (1984) asymmetric information models which assume no agency conflicts. Thus, to conclude in favour of agency theory, we would need more evidence pointing in this direction, for instance, post-issue firm underperformance. Other than the negative market reaction, we do not find any strong evidence supporting the agency theory.

The pecking order theory states that the market views equity issues as a negative signal about the firm's quality as they believe that firms will only issue equity if the firm is under financial distress and the manager is less optimistic than the market about the firm's true growth prospects. The theory predicts that the market reacts more negatively to issuing firms with greater information asymmetry. We include PPE/TA as a proxy for information asymmetry, as the balance sheet item property plant and equipment consists of tangible assets which are easier to value than intangible assets. As the variables are inversely related, we would under this theory expect a negative coefficient. We find no significant relation between PPE/TA and abnormal announcement returns. We use working capital as our proxy for firm liquidity. Under pecking order theory, we would expect a negative relationship between working capital and abnormal announcement returns, as investors recognize the financial hierarchy. However, in models 3 and 4, we find a positive and significant relationship between the variables, contradicting the predictions of pecking order theory. In the lack of sufficient evidence, we cannot conclude in favor of the pecking order theory.

The market timing hypothesis states that managers that act in the best interest of existing shareholders take advantage of market fluctuations and time equity issues when the firm is overvalued in the market to raise cheap funding

at the expense of entering end existing shareholders. Firms are able to take advantage of overvaluation if the market is slow to react to the information conveyed.

Runup return is included as a proxy for overvaluation. We do find evidence of a positive significant relation between runup return and abnormal announcement return. This result is surprising, however, as market timing assume inefficient markets, it might indicate that firms are timing their equity issues while investors systematically fail to incorporate this information. Another interpretation is that the positive relation indicate that both the firms and the market change their beliefs about the firm's growth prospects in advance of the private placement.

Tobin's Q can also be interpreted as a proxy for overvaluation. We do not find any significant relation between Q and abnormal announcement return. However, Q is arguably providing us with the least convincing evidence as market timing assumes markets are inefficient. Under this theory, we would expect the firms to experience an increase in working capital, as they pile up cash for future investment opportunities. Our evidence does not show a significant increase in working capital, and as runup returns have multiple interpretations, we are unable to provide sufficient evidence in favor of market timing. However, it is worth mentioning that the relevance of market timing in SEO's has previously been connected to high components of secondary shares and negative long run stock performance (Autore et al., 2009). To limit our area of focus, we do not cover these issues.

9 Conclusion

In this thesis, we study private placements issued by firms listed on Oslo Stock Exchange between 2008 and 2018. We perform an event study and provide statistics on firm characteristics of the issuing firms to answer three essential questions: 1) How specific are firms when disclosing information about the intended use of proceeds? 2) How do firms allocate the raised capital? 3) Is the market reaction associated with the information disclosed about the intended use of proceeds and/or the actual use of funds?

Almost half of our sample of private placements merely disclosed vague information about their intended use of proceeds. We provide evidence of a two-day announcement reaction of -7.5%. The adverse market reaction contradicts most prior literature on private placements. Further, we find a two-day announcement return of -9.6% and -5.6% for our GENERAL and SPECIFIC subsample, respectively. Our evidence suggests that the information disclosed in the private placement announcement statements does matter to investors.

We find that the issuing firms experience no significant change in our measures of operating performance, liquidity or valuation over the three years surrounding the issue. Our evidence suggests that neither GENERAL nor SPECIFIC firms create value from the equity issue. Our finding that the market interprets the announcement of a private placement as a negative signal about the future firm performance is consistent with our finding that firms are unable to create value from the equity issue. However, when examining the difference between the market reaction to our two subsamples, we find an interesting detachment between the market's reaction and the post-issue firm performance. The market favors SPECIFIC firms, even though these firms seem to have equally poor growth prospects as GENERAL firms. This market inefficiency might indicate that the GENERAL firms with intentions to engage

in agency spending or market timing may benefit from pooling with specific firms.

We find evidence that the market believes that vague announcement statements send ominous signals about the firm's future performance, even though we cannot find sufficient evidence that GENERAL firms are more likely to either be market timers or firms that plan on indulging in agency spending. However, we do acknowledge that our sample size and proxy variables might not capture the true state of the world. Why the market reacts more favorably to firms that provide specific information about their intended use of proceeds is left unanswered for future research.

APPENDIX

A APPENDIX: The SEO announcement

The following proof is the work of Walker and Yost (2008).

Walker and Yost (2008) starts their proof by assuming that firms issuing private placements either are firms with high quality projects, referred to as high-quality firms, or firms with bad quality projects, referred to as bad-quality firms. High quality firms are assigned a rate of return of R_H, and bad quality firms are assigned a rate of return 1-R_H=R_L. Walker and Yost (2008) further assume that:

$$R_H > 1 \quad and \quad R_H > R_L \tag{14}$$

At the time of the announcement of the SEO, firms can choose to be specific or vague about their intended use of proceeds. If revealing specifics about a project allows the market to value the project in an unbiased manner, then firms will have incentives to reveal specifics if the project is more valuable than the market's perception of the average project to the pooled firms. Firms might choose to be vague 1) If they are planning on utilizing the newly raised equity in a manner that does not maximize shareholders wealth, i.e agency spending or 2) They have a valuable project, but strategic reasons limit them from revealing their plans, i.e competition considerations. An important condition for the proof is that the market is able to properly value the project after its been revealed by the firm, which is also follows from Myers and Majluf (1984).

If no firm reveal specific information, and α is the market's anticipated probability that the firms is a high-quality firm, then the expected change in firm value from the equity issue is:

$$\Delta V_j = (\alpha R_H + (1-\alpha)R_L - 1)I_j \quad (15)$$

Where I_j denotes the capital a firm must raise to invest.

Further, Walker and Yost (2008) assumes that investors can correctly value the equity when they are provided with specific information about the project. In this case, if all firms provided specific information about their intentions, high-quality firms would be able to raise correctly valued equity as the market is fully informed that their project is good. Hence, the market would set $\alpha = 1$. The expected change in firm value from the equity issue for a high-quality firm will therefore be:

$$\Delta V_j = (R_H - 1)I_j \quad (16)$$

Given that equation 16 is greater than equation 15, it follows that high-quality firms, except those with strategic limitations, will choose to reveal their intentions as it enables the market to correctly value their project. Thus we expect that the subsample of firms unwilling to reveal will consist of either high-quality firms with strategic reasons not to reveal specific information or bad quality firms.

The markets assessed probability that the vague firms have high quality projects is δ, and the expected change in value is now:

$$\Delta V_j = (\delta R_H + (1-\delta)R_L - 1)I_j \quad (17)$$

The expected change in value from the announcement of an equity issue from a bad-quality firm, given that it reveals specifics will be:

$$\Delta V_j \quad = \quad (R_L - 1)I_j \tag{18}$$

Equation $17 >$ 18, if $\gamma > 0$, implying that the market believes at least some firms with high quality projects choose to be vague for strategic reasons a bad-quality firm will always benefit from not revealing. The reason being that it enables them to camouflage as a high quality firm.

Based on this proof, Walker and Yost (2008) defines his primary predictions for abnormal return. S_j is included for standardization and denotes the size of the firm.

$$AR_j = (R_H - 1)\frac{I_j}{S_j} \tag{19}$$

The predicted abnormal return for vague firms are:

$$AR_j = (\delta R_H + (1 - \delta)R_L - 1)\frac{I_j}{S_j} \tag{20}$$

B APPENDIX: BLUE assumptions

If assumption 1-4 holds the estimates determined by OLS are known as Best Linear Unbiased Estimators (BLUE). The BLUE assumptions derives from the classical linear regression model assumptions and ensure that the ordinary least square (OLS) estimates have desirable properties; consistent, efficient and unbiased Brooks (2014). The assumptions are defined as follows

1. **Zero mean**

   The first assumption is that the errors have zero mean (Brooks, 2014). If a intercept is included in the regression equitation, the assumption will never be violated (Brooks, 2019). This assumption can be written as:

$$E(u_t) = 0 \tag{21}$$

2. **Homoscedastic error** The second assumption required is that the variance of the error terms is constant and finite across all values of x_t. The assumption can be written:

$$Var(u_t) = \sigma^2 < \infty \tag{22}$$

   If this assumption is violated the error terms are said to be heteroscedastic. If the errors are heteroscedastic the OLS estimators will still be unbiased and consistent, but they will no longer have the minimum variance among the class of unbiased estimators (Brooks, 2014). Implying that the formula for coefficient standard errors does not hold.

3. **Uncorrelated error term** Thirdly, the errors are linearly independent of each other (Brooks, 2014).

$$Cov(u_i, u_j) = 0 \tag{23}$$

If the assumption is violated, the error terms are said to be autocorrelated. If autocorrelation is present and ignored the OLS estimators will be unbiased but inconsistent, thus the standard errors will be wrong even for large samples. Hence, there is a possibility of wrong inference of the estimators. As a result, the presence of autocorrelation increases the probability of type 1 error. In addition, the R-squared is likely to be inflated.

4. **The independent variables are non-stochastic**

   The fourth assumption, is that there exist no relationship between the error term and the explanatory variable.

$$Cov(u_i, x_t) = 0 \tag{24}$$

   If the assumption is violated, parameters will be both inconsistent and biased, thus wrong inference may be made.

5. **Normality** The disturbance term is normally distributed, that is:

$$u_t \sim N(0, \sigma^2) \tag{25}$$

   The final assumption is important to be able to make valid inference about the actual population parameters (Brooks, 2014).

C APPENDIX: Examples subsamples

Table 8: Examples of GENERAL and SPECIFIC firms

SPECIFIC	
Issuer *(Year)*	Description
Havila Shipping*(2012)*	"Net proceeds will be used to finance the equity portion which will be payable by the Company in the AHTS Transaction in which the Company intends to acquire the equity in the ship owning companies Havila Mars KS and Havila Mercury KS, each owning Havila Mars and Havila Mercury respectively. The two AHTS vessels are 18,400 BHP AHTS built in 2007.Net proceeds will also be used for general corporate purposes" NewsWeb (2012b).
Det norske oljeselskap ASA *(2012)*	"The net proceeds will be used for part funding of the Det norske's developments on the Ivar Aasen and Johan Sverdrup fields. The new equity is considered an important part of the Company's long-term financing strategy. The Company aims to at any time maintain a robust balance between its debt and equity resources and the inherent obligations of its strong asset portfolio" NewsWeb (2012a).
GENERAL	
Issuer *(Year)*	Description
Ocean Yield *(2016)*	"The Company intends to apply the net proceeds from the Private Placement to finance further growth, as well as for general corporate purposes" (NewsWeb, 2016a).
Q-Free *(2016)*	"The net proceeds from the Private Placement are intended to be used to strengthen the Company's balance sheet and liquidity position. This will also provide a good basis for further growth for the Company"(NewsWeb, 2016c).
Nio Security *(2010)*	"The proceeds will primarily be used as working capital in Nio's ongoing efforts to ramp up production and general corporate purposes" (NewsWeb, 2010).

Note - The table presents examples of typical wording about the intended use of proceeds in the announcement statements of private placements.

D APPENDIX: Correlation matrix model 1 and 2

Table 9: Correlation matrix for model 1 & 2

	S GENERAL	S SPECIFIC	Q_{-1}	$OIBD_{-1}$	LTD_{-1}	WC_{-1}	INV_{-1}	PPE_{-1}	$LN(TA_{-1})$	Runup	General
S GENERAL/TA_{-1}	1,0000										
S SPECIFIC/TA_{-1}	-0,1168	1,0000									
Q_{-1}	0,5699	0,2938	1,0000								
$OIBD_{-1}/TA_{-1}$	-0,5241	0,0375	-0,6962	1,0000							
LTD_{-1}/TA_{-1}	-0,3002	-0,2336	-0,4109	0,4440	1,0000						
WC_{-1}/TA_{-1}	0,4053	0,3260	0,5317	-0,4089	-0,3682	1,0000					
INV_{-1}/TA_{-1}	0,3437	-0,0026	0,3735	-0,3989	-0,1228	0,2844	1,0000				
PPE_{-1}/TA_{-1}	-0,2398	-0,1117	-0,3426	0,3333	0,5612	-0,4698	0,0214	1,0000			
$LN(TA_{-1})$	-0,4723	-0,3289	-0,6368	0,6469	0,5890	-0,4784	-0,3205	0,4592	1,0000		
RUNUP	0,0087	-0,0859	0,0581	-0,0937	-0,0487	0,0013	-0,0567	0,0451	0,0448	1,0000	
General firm	0,3813	-0,2662	0,0665	-0,1842	0,1047	0,0413	-0,0109	-0,1170	-0,0691	-0,1365	1,0000

Note - The sample is of firms issuing equity in a private placement that meet the data requirement. Correlation between the variables are reported. S GENERAL and S SPECIFIC denotes Stated General and Stated Specific. All variables except Q, ln size and runup are standardized by TA_{-1}. For detailed variable description see table 7.

E APPENDIX: Correlation matrix model 3 & 4

Table 10: Correlation matrix for model 3 & 4

	Exp INV*G	Exp INV*S	Q_{-1}	$OIBD_{-1}$	LTD_{-1}	WC_{-1}	INV_{-1}	PPE_{-1}	$LN(TA_{-1})$	Runup	GENERAL
Exp INV*G	1,0000										
Exp INV*S	-0,0128	1,0000									
Q_{-1}	0,2119	0,1045	1,0000								
$OIBD_{-1}$ /TA_{-1}	0,0973	0,0079	-0,6882	1,0000							
LTD_{-1} /TA_{-1}	-0,1255	-0,0587	-0,3775	0,3883	1,0000						
WC_{-1} /TA_{-1}	0,1871	0,1256	0,3885	-0,1790	-0,3679	1,0000					
INV_{-1} /TA_{-1}	-0,0764	-0,2155	0,3285	-0,4184	-0,0233	-0,0613	1,0000				
PPE_{-1} /TA_{-1}	-0,1109	-0,0186	-0,3387	0,3493	0,5749	-0,3354	0,0187	1,0000			
$LN(TA_{-1})$	-0,2323	-0,0546	-0,6110	0,6455	0,5738	-0,3105	-0,2894	0,4999	1,0000		
RUNUP	-0,0298	0,1682	0,1033	-0,1305	-0,0779	-0,0564	0,0341	-0,0165	-0,0150	1,0000	
General firm	0,1136	-0,1122	0,1537	-0,2395	-0,0426	0,0220	0,0050	-0,2556	-0,2101	-0,0912	1,0000

Note - The sample is of firms issuing equity in a private placement that meet the data requirement. Correlation between the variables are reported. Exp INV is the expected investment program for the use of funds, calculated as (INV_{+1} - INV_{-1})/TA_{-1}, G denotes that the firm is categorized as a GENERAL firm and S denotes that the firm is categorized as a SPECIFIC firm. For detailed variable description see table 7.

F APPENDIX: Regression without moderately correlated variables

Table 11: Cross sectional regression analysis on abnormal announcement returns

	Regressions on abnormal announcement return			
	1	2	3	4
Constant	-0.138	-0.168	-0.157	-0.156
	(0.025)	(0.014)	(0.007)	(0.021)
Stated General /TA_{-1}	0.015	-0.043		
	(0.904)	(0,748)		
Stated Specific /TA_{-1}	0.125	0.134		
	(0.022)**	(0.015)**		
Exp Invest*GENERAL			-0.002	-0.002
			(0.871)	(0.875)
Exp Invest*SPECIFIC			-0,136	-0,136
			(0.473)	(0.476)
GENERAL firm		0.073		-0.002
		(0.296)		(0.977)
Runup	0.327	0.342	0.270	0.270
	(0.000)***	(0.000)***	(0.002)***	(0.002)***
LTD_{-1} /TA_{-1}	0.236	0.192	0.133	0.134
	(0.161)	(0.266)	(0.398)	(0.403)
WC_{-1} /TA_{-1}	-0.017	-0.012	0.283	0.282
	(0.900)	(0.930)	(0.003)***	(0.004)***
INV_{-1} /TA_{-1}	0.199	0.227	-0.168	-0.168
	(0,309)	(0,251)	(0,260)	(0,264)
PPE_{-1} /TA_{-1}	-0.065	-0.045	0.159	0.158
	(0.583)	(0.711)	(0.138)	(0.159)
N	73	73	83	83
Adjusted R-square	0.16	0.161	0.142	0.13

Note - The sample is of firms issuing equity in a private placement that meets the data requirement. The table presents results from the cross-sectional analysis on SEO announcement returns using OLS regression. The dependent variable is the two-day market model cumulative abnormal returns (CAR), from day 0 to day +1, where day 0 is the event day. Market model CARs is the cumulative daily return net of a market model. The market model parameters are estimated over days −250 to −50. The Oslo Stock Exchange All Shares Index is used as a proxy for market return. Stated GENERAL and stated SPECIFIC is the NOK amounts raised for general and specific purposes respectively. TA is total assets. General firms is an indicator variable, equal to one if the firm is categorized as a general firm and zero otherwise. Runup is the market adjusted abnormal returns from day −50 to day −2. LTD is long-term debt. WC is working capital = current assets − current liabilities. INV denotes investments in capital expenditures + R&D. PPE is property, plant, and equipment. LN(TA−1) is the natural log of total assets. p-values are reported below in parenthesis, ***,**, and * denotes the significance at the 1%, 5%, and 10% levels, respectively.

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