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- Subsequent Repair Offerings on  
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“This thesis is a part of the MSc programme at BI Norwegian Business School. The school takes no responsibility for the methods used, results found and conclusions drawn.”

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## **Abstract**

This master thesis aims to investigate why subsequent repair issues are performed. Using data from the Oslo Stock Exchange from 1997 to 2009, we will take a look at whether the following factors are possible explanations for choosing this type of floatation method: 1) The announcement effect 2) The discount of the private placement and 3) The size of the private placement as a percentage of the company's market value. Through an event study we found the announcement effect of both the pure private placements, 0.70%, and the private placements with subsequent repair issues, 2.96%. By including the subsequent repair issues we find a larger effect, indicating a possible financial reason for adding a repair offering. However, only the announcement effect of the pure private placement was found to be significant. Secondly, we find considerable differences between the average discount of a pure private placement, 5.81%, and a private placement with a repair issue, 17.92%. This suggests that subsequent repair offerings are chosen when discounts are high, putting weight on equal treatment of the excluded shareholders. Additionally, we established that the average size of a pure private placement, 19.16 %, is substantially lower than that of a private placement with a repair issue, 61.36 %. This also supports equal treatment of the shareholders, seeing as larger private placements result in larger dilution of the shares.

## **Acknowledgement**

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## 1 Introduction

The purpose of this thesis is to explore why it has become relatively more common for companies in the Norwegian stock market to perform a “reparasjonsemissjon” at the same time or shortly after a completed private placement. Although there is no formal English translation of the word “reparasjonsemissjon,” we will use the terms “subsequent repair offering” and “repair issue” throughout this thesis. Our aim is to determine whether the following factors are possible explanations for choosing this type of floatation method: 1) The announcement effect 2) The discount of the private placement and 3) The size of the private placement as a percentage of the company’s market value. As far as we know, there exists no previous research on subsequent repair offerings, which makes this topic especially interesting.

Subsequent repair offerings have become a rather common phenomenon in Norway over the last years. A subsequent repair offering is a particular method of issuing equity and can be defined as a planned seasoned equity offering following a private placement. To fully understand the definition we need to take a look at what a private placement and a seasoned equity offering is. Basically it is two different ways of issuing equity. When we have an equity issuance, we have a sale of new stock or equity by a firm to investors. In a private placement we have a direct transaction between the firm and one or a small group of investors. However, in a seasoned equity offering the equity is issued publicly and takes place in an organized market where any registered investor can invest.

Over the last decades there has been produced a considerable amount of research papers presenting possible explanations of the choice of different flotation methods. The differing market reactions of announcing either a private placement or a rights issue is especially well documented and has received a great deal of attention. On the announcement of stock offerings, there is a statistically significant fall in the value of common stock (Masulis and Korwar 1986). A private placement on the other hand tends to give a positive announcement effect. While Wruck (1989) gives the resulting change in ownership concentration as an explanation, Hertz and Smith (1993) provide an information-signaling

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explanation. In our thesis however, we aim to determine the announcement effect of a private placement *with* a subsequent repair offering and compare it to the announcement effect of a private placement *without* a subsequent repair offering (pure private placement). Our findings show a greater abnormal return at the announcement of private placements with subsequent offerings than for the pure private placements. The abnormal return of the private placements with the subsequent repair issues is however found to be insignificant, which may indicate that the announcement effect is not an explanation for choosing this flotation method. It is worth mentioning though that this lack of significance may be due to the fact that our first sample only includes 45 private placements with repair offerings.

Interviews with five Norwegian investment bankers have provided us with important background information for our thesis. According to our sources, conducting a private placement actually deviates from the Public Companies Act (“Allmennaksjeloven”) and the Securities Trading Act (“Verdipapirhandelloven”). The main laws here are “equal treatment of all shareholders” and that existing shareholders shall have preference when issuing new shares. In cases where companies listed on Oslo Stock Exchange have a defined capital need and a pressing time limit, it is not possible in practice to perform an offering that includes all shareholders. Therefore companies usually carry out a private placement, specifically approved at a shareholders meeting, inviting only the largest shareholders and/or new professional institutional investors. Even though the stock exchange in several ways requires a subsequent repair offering there are several examples of issues where this has not been done. A company would have to consider the costs and benefits of performing a repair offering against the principle of treating all shareholders equally. The downside of performing a repair offering is that it is time-consuming and costly for the company. Additionally, the capital need is already mostly covered with the preceding private placement.

The majority of the investment bankers we interviewed agree that the main reason as to why companies perform subsequent repair offerings is to make sure that all the shareholders are treated as equal as possible. The shareholders that hold a relatively small fraction of the company’s shares usually do not get the opportunity to participate in private placements. Thus, in order to ensure “fair”

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treatment, the board of directors can chose to perform a subsequent repair issue. This entails giving the shareholders who did not participate in the private placement an opportunity to subscribe for shares at the same price. In other words, a subsequent offering enables companies to repair the smaller shareholder's fraction in the company and prevent dilution.

Based on this equality issue, we believe that both the size of the discount and the size of the private placements have something to do with whether or not a company performs a subsequent repair issue. The larger the share discount, the more "unfair" it is for the shareholders not included in the private placement and the larger the private placement, the larger the dilution of the existing shareholder's shares. We find support for this in our results. When the price discount given in the completed private placement is above 10% and up to 20% it seems more likely that a company performs a repair offering subsequent the private placement. Additionally, as the size of the contemplated private placement increases so does the likelihood that a company chooses to perform a subsequent repair issue.

The paper proceeds with the following sections. Section 2 presents previous research theories we find relevant for our thesis. In section 3 we present our hypotheses. Furthermore, section 4 explains the methodology we will use to answer our hypotheses. Section 5 contains a brief explanation of the dataset we are working with, while section 6 presents our findings and analysis. Finally, section 7 summarizes our findings.



## 2 Literature review and previous studies

Because a subsequent repair issue is such a new phenomenon, we have not been able to uncover any literature on the topic. Instead, seeing as the repair issue is a combination of a private placement and a seasoned equity offering, we have looked at the existing literature on these two topics. After presenting previous literature on both seasoned equity offerings and private placements, we will shortly summarize what we find most relevant for our thesis.

### *2.1 Seasoned Equity Offerings*

As previously mentioned, a seasoned equity offering is when an already publicly-traded company issues new equity. Below we review important research in this field emphasizing how information asymmetry might have an impact on the choice of flotation method and, hence, the announcement effect. We will start by exploring an underinvestment problem, which is a basis for much of the later research.

*Mayers and Majluf (1984)* show that when we have information asymmetry, better informed managers issue common stock only when they believe their stock is overvalued. Thus the market reacts negatively to a stock issue announcement. To avoid a wealth transfer from old to new stockholders, they show that the managers of undervalued firms with little financial slack will choose to forgo a profitable investment opportunity in order to avoid issuing common stock. Due to this managers actually underinvest. We call this the underinvestment problem.

*Masulis and Korwar (1986)* are one of the first to document a statistically significant fall in the value of common stock on the announcement of stock offerings. Furthermore, they prove that larger pre-announcement stock price run-ups are associated with larger stock price drops on the offering announcement.

The research of *Eckbo and Masulis (1995)* is supportive of Masulis and Korwar's findings. They find that the market reaction to equity issues is the most negative for firm commitment offers and that standby right issues result in a significantly

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negative two-day announcement effect. Rights issues on the other hand have only an insignificant announcement effect.

Flotation method choices of seasoned equity stock differ substantially across countries. While 99% of all issues by U.S. companies in 1980 chose the firm commitment method (*Eckbo and Masulis 1995*), equity issuers in smaller capital markets continue to use rights offers (*Bøhren, Eckbo, and Michalsen 1997*).

According to *Bøhren, Eckbo, and Michalsen (1997)*, rights with standby underwriting (standby offers) have become the dominant flotation method on the Oslo Stock Exchange (OSE). The firm commitment method, on the other hand, is not observed for public offerings on the OSE. They provide evidence on expected shareholder subscription as a determinant of the flotation method, a central variable in the asymmetric information framework of *Eckbo and Masulis (1992)*. They find that the probability that the issuer selects to underwrite a rights offer increases significantly as expected shareholder take-up decreases. Moreover, they find little evidence of managerial reluctance to issue rights with a deep discount, and do not detect any significant evidence that a deep discount signals negative information about equity value, as opposed to *Heinkel and Schwartz (1986)*.

Furthermore, *Bøhren, Eckbo, and Michalsen (1997)* find, contrary to the U.S. evidence, that the two-day announcement effect of rights offers is significantly positive and greater for uninsured rights than for standbys. The effect is more negative the greater the issue size. They also find the effect more negative the greater the pre-announcement run-up in the issuers' stock price, and more positive the greater the proportion of the voting stock held by board members and the CEO prior to the issue. These results are consistent with other research in smaller capital markets and support the hypothesis that issue markets reflect information asymmetries, which again possibly influence the choice of flotation method.

## ***2.2 Private Placements***

We will now take a look at the most important findings from some of the research done on private placements. The two first articles we will go through both show positive announcement effects when a private placement is announced, but they

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provide different explanations as to what gives this positive effect; ownership concentration and information-signaling.

*Wruck (1989)* found that the positive announcement effect of a private placement is highly correlated with the resulting change in *ownership concentration*. Assuming no other changes in share ownership, a private sale puts a block in place and dilutes the voting power of existing blocks. On the other hand, a public sale simply dilutes the voting power of existing shareholder blocks.

Over half of the private placement purchasers are not previously affiliated with the firm they purchase shares in, meaning they have not been managers or previous shareholders in the firm. Thus, when a well-informed non-management investor buys a security block this is expected to give the market a positive signal, whereas a public offering is expected to give a negative signal.

Increased ownership concentration increases firm value if it helps align the incentives of the owners and the shareholders. Although, it can also decrease firm value if the private sale allows entrenchment. *Wruck's* results show that for low levels (0% to 5%) and high levels ( $\geq 25\%$ ) of ownership concentration, after the sale, the changes in firm value at announcement are positively associated with the change in ownership concentration. However, in the middle range (5% to 25%) this relationship is negative.

*Hertzel and Smith (1993)* on the other hand provide an *information-signaling* explanation of the value gains associated with private placement announcements. Their model extends the model of Myers and Majluf (1984) and allows for the possibility that, at some cost, private placement investors can correctly estimate the firm's true value through their negotiations with the management. Thus the investor's willingness to commit funds to the firm, in addition to the management's decision to forgo a public issue, will convey a signal to the market that the firm in fact is undervalued.

Having looked at both the previous research on SEOs and Private Placements and seeing their traditionally opposite announcement effects, we will now take a look at an article which looks at characteristics of the issuing firms.

*Lee and Kocher (2001)* compare the firm characteristics of firms issuing common stock through private placements and those using public offering methods. Their results show that the private placements are smaller in size, have more growth opportunities and thus have a greater degree information asymmetry than public offering firms. Additionally, private placement firms have less financial slack than public offering firms, giving them a greater need for external capital. Due to all this, the firms issuing stocks through private placement are more likely to be driven by their needs for external capital, rather than being motivated by an overvaluation in their stocks. These findings are consistent with the information hypothesis.

A final article which is important to highlight is an article by *Cronqvist and Nilsson* from 2003. They have done research on what determines the choice between a rights offering and a private placement. They conclude that when all else is equal, a family controlled firm is up to two times more likely to avoid an SEO method that lowers the value of the family's control benefits, such as a private placement to a new investor. Control considerations have an even larger effect when the family's control margin is small and the wedge between votes and capital is large. Secondly, in new product relationships firms use equity ownership through a private placement to align interests between business partners, and to reduce contracting and ex post holdup problems. Finally, firms choose uninsured rights offerings at low levels of asymmetric information about the company's values, but tend to involve underwriter certification at intermediate levels. At high to extreme levels firms choose private placements, in particular to current investors who are more likely to be informed about the true firm value.

### **2.3 Summary**

From this previous research we conclude that it is most common for rights issues to give a negative announcement effect while private placements have a positive announcement effect. There is also found several possible explanations as to why this occurs. This leads us to question what the announcement effect will be for a private placement with a subsequent repair issue, seeing as it is a combination of the two flotation methods with opposite announcement effects. Since the aim of

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our thesis is to find out why companies perform subsequent repair issues, this announcement effect may provide us with a financial reason for this choice.

### 3 Hypothesis

In addition to the existing literature presented in the previous section, the interviews with the five investment bankers have provided us with important knowledge. This has greatly contributed to shape our thesis. They pointed out that a main reason for performing a repair issue subsequent the private placement is treating all shareholders as equal as possible. We learned that in this context there are two main factors that are of importance; the price discount of the private placement, and the size of the private placement relative to the company's total market value. These factors might affect whether a company chooses to carry out a subsequent repair offering. This information has highly influenced our hypotheses.

Our main research question is: "Why do companies chose to undertake a subsequent repair issue"? To try and find out the reasons behind this, we have several hypotheses we would like to test.

#### *3.1 Announcement effect*

The first hypothesis we would like to test is whether the abnormal returns of both the pure private placements and the private placements with subsequent repair issues are significantly different from zero.

$$H_0: AR = 0$$

$$H_1: AR \neq 0$$

Based on previous research, we expect the pure private placements to have a positive announcement effect. As the announcement effect of private placements with subsequent repair issues has not previously been looked at it is a little more difficult to know what to expect here. However, as it consists of a private placement which most likely gives a positive announcement effect and a seasoned

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equity offering which most likely gives a negative effect, maybe the two effects will cancel each other out? On the other hand, a repair issue lets the shareholders take part in something they otherwise would not be able to and at the same price as the private placement investors. Thus, we believe that the effect might still be positive and maybe even more positive than that of the pure private placement. If the announcement effect of the repair issue in fact is greater, this may provide us with a possible financial reason for choosing to execute a repair issue after a private placement.

### ***3.2 Significantly different announcement effects?***

The second hypothesis we will be testing is whether the two outcomes/means from our first hypothesis are significantly different from each other. Is the announcement effect of a pure private placement significantly different from that of a private placement with a subsequent repair issue?

$$H_0: AR_{\text{pure pp}} = AR_{\text{pp with repair issue}}$$

$$H_1: AR_{\text{pure pp}} \neq AR_{\text{pp with repair issue}}$$

If the announcement effect of the private placement with the subsequent repair issue is significantly larger than the pure private placement's effect, then this may indicate a reason for choosing to perform a repair issue.

### ***3.3 Discount***

Thirdly, our aim is to explore the connection between the price discount given to the participants in the private placement and whether a company performs a subsequent repair offering or not. To do this we will be looking at the discount of a pure private placement compared to the discount of a private placement with a subsequent repair offering. According to the companies and the investment bankers we have talked to, the fairness in offering the same subscription price to all the company's shareholders seems to be a main reason for choosing a repair issue after a private placement. Thus, the larger the discount, the more unfair it will be for shareholders unable to participate in the private placement. Based on this background information we expect the discount of private placements with

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subsequent repair issues to be larger than the discounts of pure private placements. If this is true, then we might be able to confirm that the size of the private placement discount is a factor which affects the decision of including a subsequent repair issue.

### ***3.4 Size***

#### *3.4.1 Size of subsequent repair issue relative to private placement*

Another feature we would like to look in to is the actual size of the subsequent repair issue compared to its corresponding private placement. We intend to determine the size of the repair issue relative to the private placement and examine whether there is a general tendency of determining the size of repair offerings. Is there a common market practice of setting the size of the repair issue relative to the private placement? Based on our background information from the investment bankers, it is most common for the repair issue to be smaller than the private placement.

#### *3.4.2 Issue size relative to market capital*

In addition we will try to measure the size of the pure private placements and the private placements with subsequent repair offerings as a percentage of the company's total market value. The reason for doing this is that we believe that the size of the initial private placement may be a factor affecting whether or not the companies conduct a repair issue. The larger the private placement is, the more diluted the shares of the excluded shareholders will be. Thus to be fair towards the shareholders, we believe that the repair issues are conducted when the private placements are large.

## **4 Methodology**

### ***4.1 Announcement effect***

To examine the market reactions of announcing private placements, both with and without subsequent repair offerings, we will perform an event study. An event study is a statistical method which measures the impact of a certain event on stock

prices, in our case the event is a private placement both with and without a subsequent offering. The reason we choose to compare the effects of the two different private placements instead of the repair issues versus the rights issues, is that the private placements have more similar characteristics. The size of a repair issue is usually much smaller than that of a regular rights issue, due to the fact that in a repair issue capital is already collected in a previous private placement.

We estimate the abnormal stock returns by using  $\delta$  as the conditional parameter in the following model, as done by Eckbo and Norli in 2004:

$$r_{it} = \alpha_i + \beta_i r_{mt} + \sum_{j=1}^2 \delta_{ij} d_{jt} + \varepsilon_{it}$$

where:

$r_{it}$  = continuously compounded daily equity return for firm  $i$  over period  $t$

$\alpha_i$  = a constant

$\beta_i$  = systematic risk to firm  $i$

$r_{mt}$  = daily return on a value weighted market portfolio of OSE-listed stocks

$\delta_{ij}$  = the daily abnormal return to firm  $i$  averaged over the event window

$d_{jt}$  = the dummy variable

$\varepsilon_{it}$  = the error term for firm  $i$  over period  $t$

In the event study we have constructed two different dummy variables, representing separate event windows. Dummy 1 is the “announcement dummy” from day -2 to 1, where day zero represents the announcement day of the private placement/subsequent repair issue. Theoretically, the entire market reaction to an announcement should register exactly on the announcement date. However, there are several reasons for choosing a four-day-window as we have done instead of choosing only one. One reason for including a couple days before the announcement date is because leakage can occur. Another reason is that the market probably knows about the company’s need for capital well in advance of the announcement day and may therefore be able to expect an offering or a private placement. By including a day after the announcement date we account for the possibility of an announcement after stock close on day 0. If this is the case, then the full effect of the announcement will not be captured until the following day.



Our second dummy, dummy 2, is the “run-up dummy”, which is from day -10 to -2. Each of our two dummies takes on the value of 1 inside the event window and zero otherwise.

Our estimation period starts at trading day -251 relative to the announcement date and ends at trading day +20, a total of 272 trading days. To ensure high precision in our estimates and as little noise as possible, we have decided to exclude all issues with less than 126 trading days (6 months) of data prior to the announcement.

The average abnormal return (AR) is calculated by the following formula:

$$AR = \frac{1}{n} \sum_{i=1}^n \delta_i$$

To find the average abnormal return over the two different event windows, we have to multiply it by the number of days in the event window. This gives the 4-day abnormal return for dummy 1 and the 9-day abnormal return for dummy 2.

To decide whether or not we can reject the nil hypothesis that abnormal returns are non-existing, we must perform a test to see whether the abnormal returns we find are significant or not. For this we will use a z-test. Under the nil hypothesis of zero abnormal returns, the following test statistic converges in distribution to the standard normal (Eckbo and Norli 2004):

$$z_j = \frac{1}{\sqrt{N}} \sum_{i=1}^N \frac{\hat{\delta}_{ij}}{\hat{\sigma}_{ij}}$$

where:

$\hat{\delta}_{ij}$  = the OLS estimate of  $\delta_{ij}$

$\hat{\sigma}_{ij}$  = the standard error of  $\hat{\delta}_{ij}$

N = sample size

According to the rule of thumb, statistical significance is inferred when the z-statistic is located around and above 2. In addition, we will find the corresponding two-tailed p-values, using a table of the standard normal cumulative distribution

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function,  $\Phi(z)$ . If the p-value is smaller than the chosen significance level, the result we have found is significant and we will reject the nil hypothesis.

#### ***4.2 Significantly different announcement effects?***

Seeing as the announcement date of the private placement and the repair offering is congruent, we will contemplate the event study above for both the pure private placements and the private placements followed by a repair offering. In addition we will test to find out whether the two results we find are significantly different from one another.

To test this, we apply a linear cross-sectional model:

$$AR = \chi_i \Phi + \varepsilon_i \quad i = 1, \dots, N$$

Here, AR is the 4-day abnormal announcement return and  $\chi_i$  represents a set of explanatory variables. A regression analysis measures the observations at the same point in time or over the same time period, however they differ along other dimensions. We will include the following explanatory variables:

$$\chi_i \Phi = \phi_o + \phi_1 \text{discount} + \phi_2 \text{size} + \phi_3 \text{dummy}$$

where:

discount = the price discounts of the private placements

size = the size of each private placement as a % of total market capital

dummy = 1 when we have a private placement with a repair issue and

0 when we have a pure private placement

The effect we are looking for, to decide whether there is a significant difference between the average abnormal return of the pure private placements and the private placements with repair issues, lies in the dummy.  $\phi_o$  gives us the average abnormal return, when checked for the effect of the three explanatory variables.  $\phi_3$  on the other hand tells us the additional effect on the abnormal returns when

including a subsequent repair issue. Thus, if we find that  $\phi_3$  is significant we can confirm that there is in fact a difference between the announcement effect of a pure private placement and the announcement effect of a private placement with a subsequent repair issue.

### 4.3 Power

In order to make sure that our results are not unduly affected by outliers in our samples, we will do some robustness testing. This would especially be of importance due to the size of our sample containing the private placements with subsequent repair offerings. Trimmed and winsorized means are robust estimators of the population mean that are relatively insensitive to the outlying values in the data set. These will be the estimators we intend to use in this matter.

When trimming data, you actually remove the most extreme data in both ends of the distribution by eliminating the  $k$  highest and the  $k$  lowest observations in the dataset. This method gives a new trimmed mean  $\bar{y}_{tk}$  :

$$\bar{y}_{tk} = \frac{1}{n-2k} \sum_{i=k+1}^{n-k} y_{(i)}$$

Winsorizing is a slightly different method, which involves replacing a certain percentage of the sample at the high and low end of the distribution with the most extreme remaining values. Meaning that the  $k$  smallest observations are replaced by the  $(k+1)$  smallest observation and the  $k$  largest are replaced by the  $(k+1)$  largest. Also here we get a new winsorized mean  $\bar{y}_{wk}$  :

$$\bar{y}_{wk} = \frac{1}{n} \left\{ (k+1)y_{(k+1)} + \sum_{i=k+2}^{n-k-1} y_{(i)} + (k+1)y_{(n-k)} \right\}$$

For a symmetric distribution a symmetrically trimmed or winsorized mean is an unbiased estimate of the population mean. However, the trimmed or winsorized means are not normal distributed, thus we need the winsorized sum of squared deviations.

This is defined as:

$$s_{wk}^2 = (k+1)(y_{(k+1)} - \bar{y}_{wk})^2 + \sum_{i=k+2}^{n-k-1} (y_{(i)} - \bar{y}_{wk})^2 + (k+1)(y_{(n-k)} - \bar{y}_{wk})^2$$

By utilizing the winsorized sum of squares we can now perform a trimmed t-test:

$$t_{ik} = \frac{\bar{y}_{ik}}{STDDERR(\bar{y}_{ik})} \quad \text{where:} \quad STDDERR(\bar{y}_{ik}) = \frac{s_{wk}}{\sqrt{(n-2k)(n-2k-1)}}$$

The winsorized t-test is pretty similar:

$$t_{wk} = \frac{\bar{y}_{wk}}{STDDERR(\bar{y}_{wk})} \quad \text{where:} \quad STDDERR(\bar{y}_{wk}) = \frac{n-1}{n-2k-1} \frac{s_{wk}}{\sqrt{n(n-1)}}$$

These t-values are then to be compared to their critical values to see whether the results are significant or not.

#### **4.4 Discount**

To calculate the discounts of the pure private placements and the private placements with subsequent repair issues, we have extracted both sample's subscription prices and each stock's market prices at date 0 (the announcement date). By comparing the subscription price of the private placement to the price that is offered in the market (Oslo Stock Exchange) at the announcement date, we are able to determine the price discount.

#### **4.5 Size**

##### *4.5.1 Size of subsequent repair issue relative to private placement*

To answer our hypothesis regarding the size of the repair issue, we have calculated the size of the repair issue as a percentage of its corresponding private placement.

#### *4.5.2 Issue size relative to market capital*

Finally, we need to find the percentage size of the pure private placements and the private placements with subsequent repair offerings, compared to the company's total market value. This was found by using the market value of the company 5 trading days (one week) before the announcement date and comparing this to the value of the private placement. The value of the private placement was calculated by multiplying the number of shares issued with the issue price in the private placement.

## **5 Data**

### ***5.1 Specification***

The dataset in this thesis was mainly provided by our supervisor Øyvind Norli. It contains private placements and rights issues performed by companies listed on Oslo Stock Exchange (OSE) over the time period from February 1997 to December 2009. In this dataset we have considered the fact that if only long-term survivors were included, our samples could be affected by survivorship bias. Thus, in order to handle this potential bias and to get the most realistic picture of the companies' performance, companies that are no longer traded at OSE are included in the sample as well.

To supplement the data we received we have manually collected; announcement dates, the number of shares issued in both the private placements and the rights offerings, and the subscription prices. This data has been collected through OSE's database, [www.NewsWeb.no](http://www.NewsWeb.no), and the digital archive of articles, Atekst. During this process we classified the private placements according to whether or not they were connected to a subsequent repair offering. A private placement was connected to a subsequent repair offering when the subscription price and the announcement date were equal. We removed the rights offerings which were not subsequent repair offerings from the dataset, as well as the subsequent repair offerings where we could not identify the congruent private placement. The reason these private placements were not contained in our dataset could be that

they did not satisfy the demands of a certain size and were therefore excluded. After sorting out the irrelevant data from our dataset we sorted the remaining data into two different samples; *sample 1* containing the pure private placements and *sample 2* including the private placements with subsequent repair offerings.

## 5.2 Sample characteristics

The two samples consist of 471 pure private placements (*sample 1*) and 47 private placements with subsequent repair offerings (*sample 2*). Total number of observations are 124 149 and 12 590 respectively. There has been an increase in both *sample 1* and *sample 2* over the last half of the sample period. However, there was a drop of the number of pure private placements in 2008 and 2009, whereas there are more private placements with subsequent repair offerings in 2009 than any other year. *Figure 5.2.1* below illustrates the private placements both with and without subsequent repair issues, as a percentage of the total number of private placements yearly from 1997-2009.

*Figure 5.2.1 Sample characteristics*

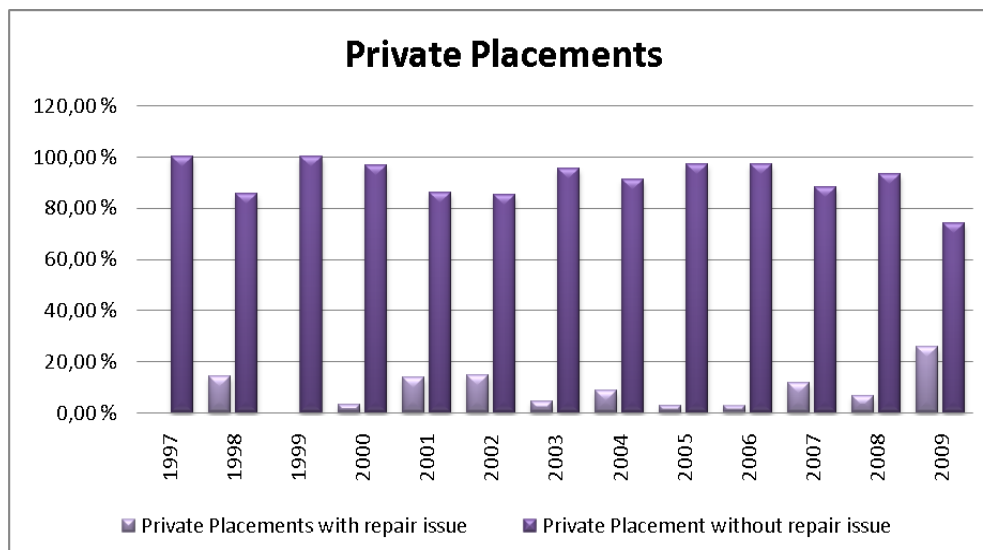


Figure 5.2.1 shows that private placements with subsequent repair offerings amount to less than 20% of the total number of private placements, except in 2009. However, seeing as there are very few cases of firms performing subsequent repair offerings before 1997, we thus find that this flotation method still has become relatively common over the sample period.

### 5.3 Interviews

In addition to the quantitative data, we wanted a more qualitative perspective including a thorough insight into why a relatively large number of Norwegian companies undertake subsequent repair offerings. Thus, we have as mentioned interviewed several of the Norwegian investment bankers that organize these types of offerings, as well as some of the companies that recently have performed a private placement with a subsequent repair offering. The outcome was very useful information about how subsequent repair offerings work in practice in the Norwegian stock market. The information we obtained has been used as background information throughout our thesis.

## 6 Results and discussion

### 6.1 Announcement effect

From the event study we receive a positive announcement effect for the pure private placements of 0.70%, as seen in *table 6.1.1* below. We obtain a z-value of 2.68, which infers statistical significance. Further we find that the pure private placement has a positive run-up value of 2.96%, with a z-value of 4.85. Statistical significance is confirmed for both effects by the p-values of 0.0074 and 0.0002 respectively. Seeing as both p-values are less than 0.01, we find a significant announcement and run-up effect at a 1% level. The positive and significant abnormal return is in line with what most researchers have found in previous research.

*Table 6.1.1 Announcement and run-up effects of Pure Private Placements*

Pure Private Placement	Dummy 1	Dummy 2
Mean	0.007012	0.029634
Standard Deviation	0.118501	0.140622
Observations	471	471
Z-value	2.6786	4.8505
P-value	0.0074	0.0002

When looking at the same results for the private placements with subsequent repair issues in *table 6.1.2*, we receive a considerably larger positive announcement effect of 2.27%. Seeing as the average market reaction is this big on average we would believe it to be significant, however the z-value tells a different story. The z-value of 1.18 is not even close to 2, and since the p-value of 0.238 is higher than the 5% significance level, the result is insignificant. The run-up effect of the private placements with repair issues of 1.60% is also insignificant and smaller than the effect of the pure private placements.

*Table 6.1.2 Announcement and run-up effects of Private Placements with repair issues*

Private Placement with rep	Dummy 1	Dummy 2
<b>Mean</b>	0.022652	0.015999
<b>Standard Deviation</b>	0.190371	0.281384
<b>Observations</b>	45	45
<b>Z-value</b>	1.1775	0.4583
<b>P-value</b>	0.2380	0.6456

The insignificant announcement effect of the private placements with subsequent repair issues may be due to for example extreme outliers or incorrect announcement dates. However, we have thoroughly checked each single one of the announcement dates we received and changed the one's we found to be wrong. Thus we have confidence in the fact that the announcement dates are not to blame for the insignificance. A possible reason for the insignificance found is rather that this sample consists of a relatively small dataset of only 45. Seeing as we are confident in our announcement dates and we are not able to increase the dataset, we will now try to correct for possible outliers by using 2 statistical methods called trimming and winsorizing. We will use these methods as a robustness test on both samples.

When using trimming as a robustness test, we trim the data in both ends by eliminating 5 %, 7 % and 10 % of the highest and the lowest observations in the dataset. This gives us new trimmed means and trimmed t-values as shown in *table 6.1.3* below. However, we can see that the t-values actually decrease the larger the trimming. This is true for both samples. For the pure private placements we have



gone from having a significant z-value to having insignificant trimmed t-values. This indicates that the significance we found earlier may not be robust. Additionally the t-values of the private placements with repair issues remain insignificant, thus we do not gain any significance by trimming the values.

*Table 6.1.3 Trimmed means and t-values*

	Trimmed 5%	Trimmed 7%	Trimmed 10%
<b>Pure private placement</b>			
<b>Mean</b>	0.003346	0.002123	0.001487
<b>Standard deviation</b>	0.004036	0.005331	0.004519
<b>Observations</b>	425	407	377
<b>T-value</b>	0.8290	0.3981	0.3291
<b>Private Placement with rep</b>			
<b>Mean</b>	0.012102	0.009138	0.005202
<b>Standard deviation</b>	0.025742	0.024976	0.024932
<b>Observations</b>	41	39	35
<b>T-value</b>	0.4701	0.3659	0.2087

The next robustness test we tried was winsorizing. Instead of removing 5%, 7% and 10% of the dataset and reducing the sample size, we just replaced these percentages with the most extreme of the remaining values. The new winsorized results are presented in *table 6.1.4* below.

*Table 6.1.4 Winsorized means and t-values*

	Winsorized 5%	Winsorized 7%	Winsorized 10%
<b>Pure private placement</b>			
<b>Mean</b>	0.006318	0.003473	0.002206
<b>Standard deviation</b>	0.004037	0.005106	0.004189
<b>Observations</b>	471	471	471
<b>T-value</b>	1.5652	0.6803	0.5504
<b>Private Placement with rep</b>			
<b>Mean</b>	0.017239	0.013761	0.007879
<b>Standard deviation</b>	0.025771	0.023769	0.021261
<b>Observations</b>	45	45	45
<b>T-value</b>	0.6689	0.5789	0.3706

As we can see from the table we still do not receive significant t-values after winsorizing. Also here the pure private placements no longer have the significant results as before, indicating a lack of robustness in the results. Both trimming and winsorizing gives automatically reduced standard deviations, however the means are also reduced by these methods since the most extreme positive values also are removed. For both these samples and methods the effect of the reduced standard deviation is smaller than the effect of the reduced mean.

Removing or replacing the most extreme outliers did not work in order to find a significant announcement effect for either of the samples. Thus we conclude that our earlier significant results for the pure private placements are not very robust. However, although no significance is found for the private placements with repair issues, we believe that the insignificance in this sample may be due to the relatively low sample size of only 45. Several investment bankers stated that announcing a subsequent repair issue at the same time as a private placement is received positively in the market. Our expectations of a positive announcement effect for private placements with subsequent repair offerings were mainly driven by this information. We still have reason to believe that the announcement effect most likely is positive, and that the results might have been significant with a larger sample available.

### ***6.2 Significantly different announcement effects?***

From above, we found that the announcement effect of the private placements with subsequent repair offerings is rendered insignificant. However, we have a clear indication that the announcement of a private placement with a subsequent repair issue gives a greater positive effect than announcing a pure private placement. The fact that there is a difference between the average means of the two samples of as much as 1.56 % supports this.

To test if the difference between the two abnormal announcement effects is significant, we will as mentioned use a cross sectional regression. The results from the regression are presented in *table 6.2.1* below.

*Table 6.2.1 Results from the cross sectional regression*

	$\Phi_0$	Discount	Size	Dummy
<b>Coefficient</b>	0.001165	-0.003550	0.000766	0.005275
<b>Standard error</b>	0.001449	0.002263	0.002028	0.004844
<b>T-statistic</b>	0.8039	-1.5690	0.3777	1.0890
<b>P-value</b>	0.4219	0.1173	0.7058	0.2767

As the table shows, discount has a negative effect on the abnormal return while size has a positive effect. Both these effects are however insignificant seeing as their p-values are larger than 0.05. More importantly we also find a positive effect of 0.5% from the dummy, when we include a subsequent repair offering. This gives a new abnormal return of  $0.12\% + 0.5\% = 0.17\%$  for these issues. However, compared to the abnormal return of 0.12% for the pure private placements there is no significant difference between the results. This can be supported by looking at the dummy's p-value of 0.28 which is larger than 0.05 and therefore insignificant at a 5% level. Thus, we will keep the nil hypothesis:  $AR_{\text{pure pp}} = AR_{\text{pp with repair issue}}$ .

However, we can keep in mind that the result we found here also may have been affected by the insignificance we have found for the announcement effect of the private placements with subsequent repair issues.

### **6.3 Discount**

When analyzing the price discounts in *sample 1* and *sample 2*, we find great differences between the discount given to participants in a pure private placement and in a private placement with a repair offering. When using the entire datasets, we find a mean price discount of 0.53% for the pure private placements, and a mean of 17.87% for the private placements with repair issues.

However, when examining the two datasets more closely we observe indicators that some of our data might be biased. Some of the private placements, both with and without repair issues, give substantial negative price discounts. Considering that it is not very likely that shareholders will subscribe for shares at the private placement's subscription price when the market price actually is considerably

lower, a negative discount is not logical. Due to the large negative discounts, these data are obviously not representative. Thus we extract two new average discounts in *table 6.3.1*, excluding the negative price discounts entirely. We obtain an average discount of 9.60% for the pure private placements and a 23.44% average for the private placements with repair issues. This is a great increase from the averages we got when including the entire dataset.

*Table 6.3.1 Discount sizes with no negative discounts*

	Pure PP	PP with repair issue
<b>Mean</b>	9.60 %	23.44 %
<b>Max</b>	89.67 %	80.04 %
<b>Min</b>	0.00 %	0.00 %
<b>Median</b>	3.62 %	18.82 %
<b>Variance</b>	0.02831	0.04291
<b>Observations</b>	360	40

As we can see, this maneuver has had a larger effect on the mean of our first sample. This can be explained by the fact that *sample 1* contained considerably more observations than *sample 2*, including more biased data. It was thus necessary to subtract more data from *sample 1*, which subsequently results in a greater difference in the mean discount compared to the original samples.

However, some smaller negative discounts are in fact possible. One reason for this is that sometimes the subscription prices are set as an average market price of a certain period before the announcement. In order to obtain more representative results we have removed not all the negative discounts as above, but only the most biased. When removing the most biased data, we have not only removed the most extreme negative outliers, but also the most extreme positive outliers. By extracting these outliers in our samples, we get a new mean discount of 5.81% for the pure private placement, whereas we find the mean discount for the private placement with a repair offering to be 17.92%, see *table 6.3.2* below.

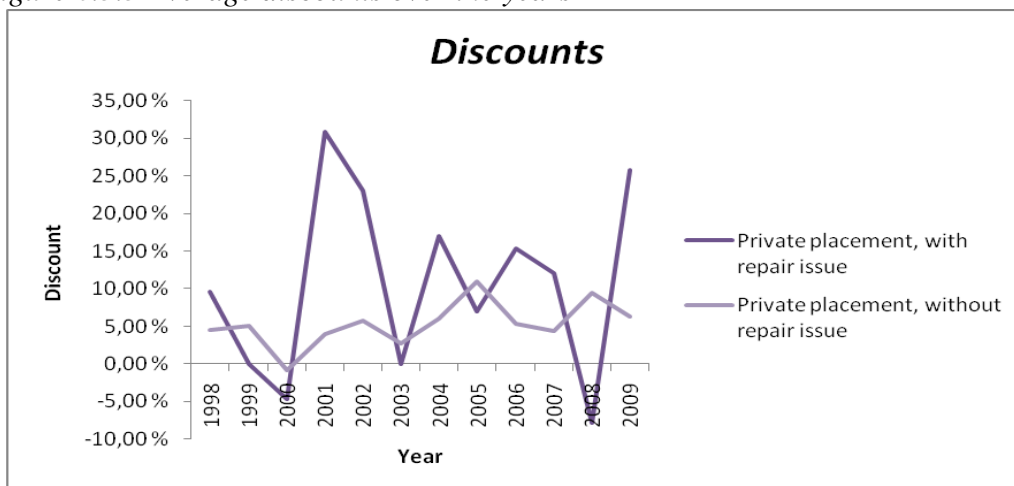
*Table 6.3.2 Discount sizes without extreme outliers*

	Pure PP	PP with repair issue
<b>Mean</b>	5.81 %	17.92 %
<b>Max</b>	89.67 %	71.43 %
<b>Min</b>	-55.65 %	-16.36 %
<b>Median</b>	2.872 %	14.62 %
<b>Variance</b>	0.03208	0.03115
<b>Observations</b>	444	43

The means in *table 6.3.2* are again reduced from the means we found by including all the data and by excluding all the negative data. We feel that these means are the most representative, seeing as smaller negative discounts are in fact possible. Although the means are reduced, the results above still reveal a significantly higher price discount in private placements with subsequent repair offerings than in the pure private placements. This confirms our expectations as well as the common comprehension of the importance of discounts in private placements, and proves a quite interesting feature of the subsequent repair offerings. The higher the discount given in a completed private placement, the more likely it is that a company chooses to perform a subsequent repair offering. More precisely, when the private placement discount is above 10% and up to 20%, there seems to be a higher chance of a company performing a subsequent repair offering than if the discount is below 10%. Furthermore, these results are congruent with the information we got from our sources. Some of the investment bankers stated that there is some sort of a threshold level of about 10% for whether a subsequent repair offering is worth performing. We conclude that the size of the price discount may be a factor which affects the decision of whether or not to perform a subsequent repair issue. Alternatively, if the issuer knows that there will be a repair issue subsequent to the private placement, it will be less problematic to give the investors a deep discount in the private placement.

As mentioned above, we find a higher average discount for private placements with subsequent repair offerings than pure private placements. *Figure 6.3.3* below shows the evolvement of average discounts per year for both samples.

Figure 6.3.3 Average discounts over the years



The graph illustrates substantial increases in price discounts for private placements with repair issues in the time periods 2000 – 2002 and 2008 – 2009. Possible reasons may be that during the burst of the IT bubble and the financial crisis companies had a hard time raising money and thus offered higher discounts to investors in private placements. Hence, there is a possibility that subsequent repair offerings were offered to non-participating investors to make up for the high discounts. Our background information also confirms that during the financial crisis, high discounts were offered to investors in private placements because of hard times in the financial markets.

## 6.4 Size

### 6.4.1 Size of subsequent repair issue relative to private placement

When taking a look at the size of a subsequent repair issue as a percentage of the corresponding private placement, we have a great range. It is most common that the pure private placement has the largest amount of shares, however the opposite does occur. When using the entire dataset, our results show that subsequent repair offerings have an average size of 53.26% relative to the private placements. However, just as with the discount data, we have some outliers here as well. By removing one extreme outlier, the average size is now 37.98%, as shown below in *table 6.4.1.1*. What we do not see in the two averages mentioned above is that some of the repair offerings in our data were actually undersubscribed. By still

extracting the one extreme outlier and based on the shares that were initially offered in the repair offering, we find another mean size of 44.15%.

*Table 6.4.1.1 Subsequent repair issue as a % of Private Placement*

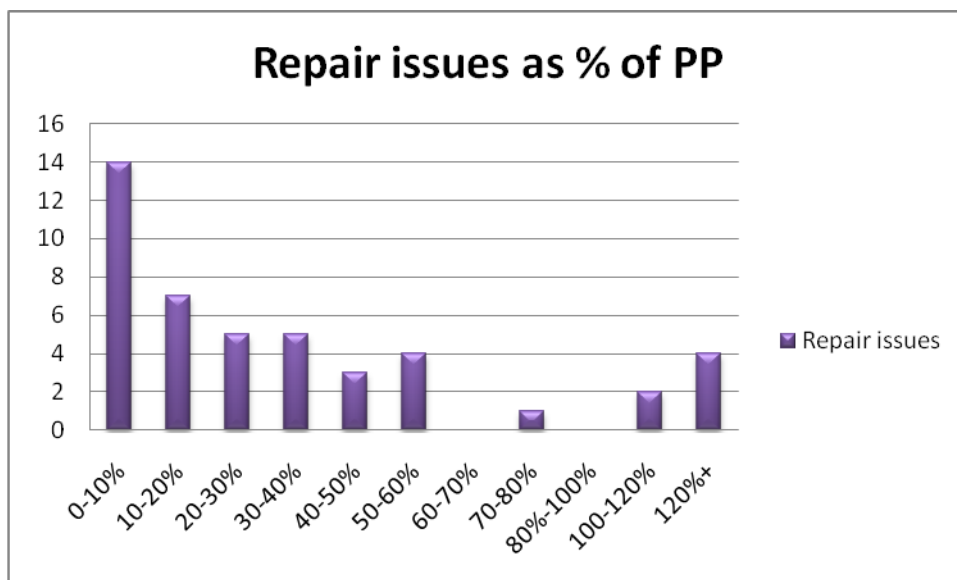
Subsequent repair issue as a % of Private Placements		
	Subscribed	Planned
<b>Mean</b>	37.98 %	44.15 %
<b>Max</b>	224.88 %	224.88 %
<b>Min</b>	0.19 %	4.08 %
<b>Median</b>	22.40 %	30.28 %
<b>Variance</b>	0.25664	0.23469

The results above show that the average size of a subsequent offering is generally lower than the accompanying private placement. Furthermore, it is worth mentioning that we also find some cases of oversubscription, although fewer cases than undersubscription. This however does not affect the mean. The mean is not affected due to the fact that when a subsequent repair offering is oversubscribed, we see that in nearly all the cases the subscribed amount of shares is not issued. Instead, the company chooses to issue the predetermined and originally offered amount. It is thus not favorable for companies to increase their capital too much and beyond what is planned.

From our background conversations with the investment bankers we are made aware of the fact that when deciding the size of a repair offering, companies can employ two different methods. The first method entails the board offering shares in the subsequent repair offering simply as a fixed percentage of the shares offered in the private placement. This method was confirmed by one company that we interviewed. In this company, the board decided that the shares offered in the repair offering ought to be 30% of the total amount of shares in the private placement. The other method is to decide the size through more thorough calculations. By calculating the fraction of shareholders reached through the private placement and their shares in the company, it is possible to determine the right amount of shares to be offered to the remaining shareholders to not dilute their shares. This is a method which also can lead to the more rare case where the repair issue actually is larger than the private placement.

Looking at our results in the *table 6.4.1.1* above and *figure 6.4.1.2* below, the large dispersion in the data makes the second method of choosing the size of the repair issue seem more likely.

*Figure 6.4.1.2 Repair issues as a % of Private Placement*



The figure above shows the number of subsequent repair issues in each size category. As we can see, the subsequent repair issues are mainly from 0% and up to 60% of the private placements, with the category 0-10% having the highest number of repair issues. We cannot confirm the usage of the second method through calculations, seeing as we do not have any information about how many shareholders participate in the two issues and how many shares they hold. However, we can confirm that from our dataset we have not found a tendency of choosing a certain percentage as in the first method.

#### *6.4.2 Issue size relative to market capital*

It is obvious that the larger the private placement, the more diluted are the shares of the shareholders that are not invited. Thus, an important reason for performing a repair issue is to prevent dilution of all existing shareholders. Having this in mind, we aimed to compare the percentage of shares issued in private placements with and without repair issues relative to the issuing company's market capital. We found that the pure private placements have an average issue size of 19.47%,



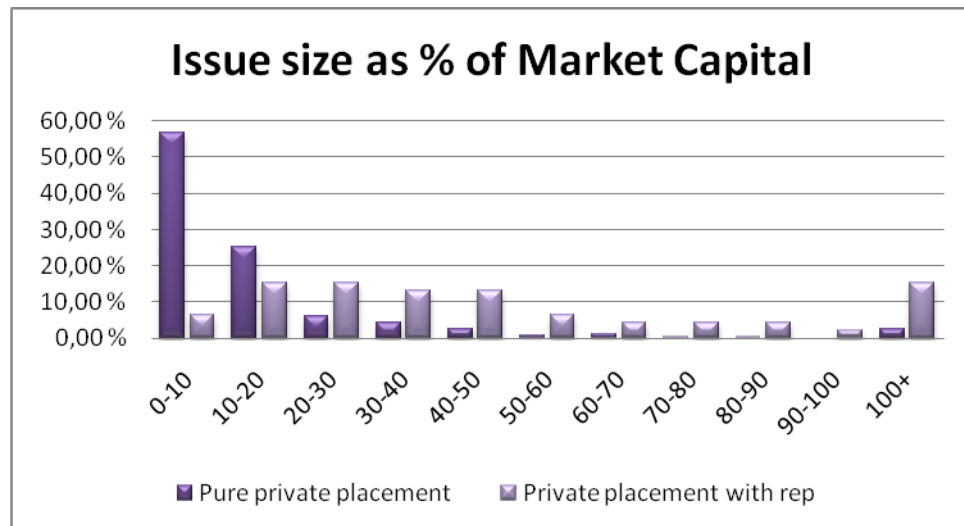
whereas the private placements with repair issues have an average issue size of 61.36%, as shown in *table 6.4.2.1* below.

*Table 6.4.2.1 Issue size as a % of market capital*

	Pure PP	PP with repair issue
<b>Mean</b>	19.47 %	61.36 %
<b>Max</b>	1077.54 %	308.21%
<b>Min</b>	0.03 %	3.99 %
<b>Median</b>	9.65 %	38.07 %
<b>Variance</b>	0,38530	0.41908

What we also observe from this table is that although the average of the pure private placements is considerably smaller, it contains more extreme values. The pure private placements have both a higher maximum size and a lower minimum size. This may be due to the differing sample sizes. In *figure 6.4.2.2* we take a closer look at the distribution of the issue sizes. The figure shows how the private placements with and without repair issues are spread over different size categories.

*Figure 6.4.2.2 Issue size as a % of market capital*



As we can see, almost 60% of the pure private placements are between 0-10% of the company's total market value. The pure private placements also have the largest share in the category 10-20%, but from 20-30% and higher the private

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placements with subsequent repair issues dominate. An exception is however in the category 100%+, but these are extreme outliers and quite rare.

Based on the differing averages from *table 6.4.2.1* and the spread in *figure 6.4.2.2*, our expectations of companies performing a subsequent repair issue after issuing a large amount of shares in a private placement are clearly confirmed. This means that the larger the relative issue size, the higher is the probability that companies actually perform a repair issue after the private placement. This conclusion also supports our equality theory; subsequent repair issues are conducted as an attempt to treat all shareholders equally.

## 7 Conclusion

The principle purpose of this master was to examine why companies perform subsequent repair offerings after private placements. To investigate this we used data on private placements and rights offerings from the Oslo Stock Exchange between 1997 and 2009. To take a look at whether there were any financial reasons for performing subsequent repair issues, we performed an event study to find the announcement effect of private placements with and without the repair issues. From the study we found an announcement effect of 0.70% for the pure private placements and a considerably larger announcement effect of 2.96% for the private placements with repair issues. This difference indicates a possible financial reason for performing repair issues. However, while the announcement effect of 0.70% is statistically significant, the results for the private placements with repair issues were rendered insignificant. When testing the differences between the two means we did not obtain significance here either.

Additionally, we used trimming and winsorizing as robustness tests to see whether there were outliers greatly affecting the means. Both our results were found to be insignificant with our new robust means. Logically speaking, an announcement of a subsequent repair issue should only be positively received in the market, seeing that it is solely beneficial for all shareholders. We suspect that the insignificance in *sample 2* may be due to the very low sample size of only 45.

In addition to examining the announcement effect of private placements with subsequent repair issues, we also looked at other reasons for contemplating such an offering. The main reason, which is both claimed by the investment bankers and is supported by issuing company's prospectus, is equality for the shareholders. A finding that supports this theory of equality is the considerable differences between the average price discount in the pure private placements of 5.81% versus the price discount of the private placements with repair issues of 17.92%. This difference suggests that subsequent offerings are performed when the private placement discounts are high, putting weight on the equal treatment of the excluded shareholders. Thus we can conclude that the size of the discount may be a factor when contemplating whether or not to perform a subsequent repair issue.

Based on our conversations with investment bankers we learned that there are basically two ways of setting the size of a repair issue. The first just sets a certain percentage, while the other is more mathematical. The second method is based on how many shareholders are included and excluded in the private placement and aims to set the size to keep the dispersion of shares to a minimum. Our findings show an average repair issue size of 27.98% of the private placement. However, the spread between the highest and lowest fractions was very varying. This indicates that it might be the second method which is the most used.

We have found the average size of the pure private placements (19.16%) to be much smaller than that of the private placements with subsequent repair issues (61.36%), when compared to total market value of the firm. This is another finding that supports the equality theory and tells us that the size of the private placement also is a factor which influences the choice of performing a subsequent repair issue. The larger the size, the higher the possibility of contemplating a repair issue. This is fair because the larger the private placement, the more diluted are the shares of the excluded shareholders.

To sum up, we have tested the influence of three different factors on a company's choice of whether or not to perform a subsequent repair issue. The announcement effect's influence is somewhat unclear seeing as we did not find significant

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results. However, we have shown that both the price discount in the private placement and the size of the private placement affects the decision of contemplating a repair issue.

For future research on the topic, we suggest including all the private placements with subsequent repair issues and not excluding any on the basis of size. This will give a larger dataset and might provide more significant results when testing the announcement effect. Additionally, we preferred to compare the private placements with and without subsequent repair issues when finding the announcement effect. It would be interesting to compare the standard rights issues to repair issues instead, this could yield different results.

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## **Executive Summary**

In our thesis we would like to explore the recent development of a special type of subsequent offerings in Norway, called “reparasjonsemissjon”.

We start by looking at what a “reparasjonsemissjon” actually is by defining this phenomenon and looking at common characteristics. Then we proceed by looking at existing literature. Seeing as this a relatively new phenomenon, with little or no research done in the area, we have so far focused on reading existing articles on Seasoned Equity Offerings (SEOs) and Private Placements. On the topics of SEOs and Private placements, there is a general consensus that they in fact have opposite announcement effects. While the announcement of a SEO has a negative effect on the stock price performance, an announcement of a private placement has a positive effect. However, in the long run both underperform.

Then we continue by formulating our research questions. Based on the existing literature, we come up with two interesting questions that we would like examine; namely the incentives companies have for conducting a “reparasjonsemissjon,” and the announcement effect and long-term performance of these offerings.

We plan to make use of both qualitative and quantitative data. Having the first research question in mind, we hope we will get the chance to interview companies that actually have issued these relatively new offerings and banks that have facilitated them. When it comes to the second research question, we plan to use gathered data on “reparasjonsemissjoner” and private placements from Øyvind Norli. The data set contains data on Norwegian issues conducted at Oslo Stock Exchange.

At the end we hope to get a thorough insight into why the “reparasjonsemissjon” is an increasing phenomenon in Norway.

## 1 Introduction

The phenomenon “reparasjonsemissjon” has become relatively common in Norway over the last years. Studying the prospectus for companies that have issued shares in a “reparasjonsemissjon,” we find that they use the term subsequent offering to explain “reparasjonsemissjon” in English. We will be using both terms throughout this paper. Thus, we define a “reparasjonsemissjon”/subsequent offering as a planned seasoned equity offering *following* a private placement.

To understand the definition, we need to know what a private placement and a seasoned equity offering is, namely two different ways of issuing equity. When we have an equity issuance, we have a sale of new stock or equity by a firm to investors. It can be done as a private placement, where we have a direct transaction between the firm and one or a small group of investors. Or it can be done publicly where the firm registers the securities with the authorities and the sale take place in an organized market (secondary market) where any registered investor can invest. A seasoned equity offering is a common type of public equity issuance; it entails that an already publicly-traded company issues new equity. We will later take a closer look at what it entails in the context of the subsequent offering.

By looking at the prospectus of the companies which have conducted a subsequent offering we can see a couple of similarities in the processes. Common for all, is that the subsequent offer is only offered to those who hold shares in the company at the time of the private placement, and did not participate in the actual private placement. Each eligible shareholder then gets subscription rights according to the amount of shares they hold at the date of the private placement. For example, in Clevis Parma’s subsequent offering (20.07.09) every eligible shareholder received 1 subscription right for every 4,282582 share held.

From the different firm’s prospectus we observe that the time between the private placement and the subsequent offer varies from company to company. The subscription periods of most of the subsequent offerings start about a month after the private placement is performed. However, there are some that start just a week

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after the private placement, while others are up to 3 months after. The lengths of the subscription periods are also varying, but two weeks seems to be a common length. We also see that the amounts of shares offered in the subsequent offerings are of a much lower number than the amount offered in the private placement.

The reason we believe this is a very interesting topic is because it is such a new phenomenon, that possibly no one has looked at the reasons behind contemplating a “reparasjonsemisjon” and the financial impacts of doing so. In other words, since “reparasjonsemisjon” has become a new trend, we are very motivated to get an insight into why companies switch from regular equity offerings to these new offerings. In addition, seeing that “reparasjonsemisjon” is a typical Norwegian phenomenon, it motivates us even more since we are especially interested in the Norwegian stock market.

## **2 Existing literature**

Because a ”reparasjonsemisjon” is such a new phenomenon, we have not been able to uncover any literature on the topic. Instead, seeing as a “reparasjonsemisjon” is a combination of a private placement and a seasoned equity offering, we have looked at the existing literature on those two topics.

### ***2.1 Seasoned Equity Offerings***

As mentioned above, a seasoned equity offering is when an already publicly-traded company issue new equity. Below we review important research in this field emphasizing how information asymmetry might have an impact on the choice of flotation method and, hence, the announcement effect. Finally, we look into the research on post-offering performance.

*Masulis and Korwar (1986)* document a statistically significant fall in the value of common stock on the announcement of stock offerings. Furthermore, they prove that larger pre-announcement stock price run-ups are associated with larger stock price drops on the offering announcement.

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The research of *Eckbo and Masulis (1995)* is supportive of Masulis and Korwar's findings. They find that the market reaction to equity issues is most negative for firm commitment offers, standby rights issues results in a significantly negative two-day announcement effect, while rights issues have only a an insignificant announcement effect.

Flotation method choices of seasoned equity stock differ substantially across countries. While 99% of all issues by U.S. companies in 1980 chose the firm commitment method (*Eckbo and Masulis 1995*), equity issuers in smaller capital markets continue to use rights offers (*Bøhren, Eckbo, and Michalsen 1997*).

According to *Bøhren, Eckbo, and Michalsen (1997)*, rights with standby underwriting (standby offers) have become the dominant flotation method in the Oslo Stock Exchange (OSE). The firm commitment method, on the other hand, is not observed for public offerings on the OSE. They provide evidence on expected shareholder subscription as a determinant of the flotation method, a central variable in the asymmetric information framework of *Eckbo and Masulis (1992)*. They find that the probability that the issuer selects to underwrite a rights offer increases significantly as expected shareholder take-up decreases. Moreover, they find little evidence of managerial reluctance to issue rights with a deep discount, and do not detect any significant evidence that a deep discount signals negative information about equity value, as opposed to *Heinkel and Schwartz (1986)*.

Furthermore, *Bøhren, Eckbo, and Michalsen (1997)* find, contrary to the U.S. evidence, that the two-day announcement effect of rights offers is significantly positive and greater for uninsured rights than for standbys, and the effect is more negative the greater the issue size. They also find the effect more negative the greater the pre-announcement run-up in the issuers' stock price, and more positive the greater the proportion of the voting stock held by board members and the CEO prior to the issue. These results are consistent with other research in smaller capital markets and support the hypothesis that issue markets reflect information asymmetries, which again possibly influence the choice of flotation method.

*Spiess and Affleck-Graves (1994)* conclude that post-offering performance for SEOs is similar to that of IPOs. They find that long-term negative abnormal

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returns are a general feature found in all common stock offerings. Furthermore, they claim that these results are “consistent with managers being able to take advantage of firm-specific information to issue equity when the firm’s stock is overvalued.”

Research from the U.S., mentioned above, shows a fall in the value of common stock on the announcement of SEOs. Thus, announcing a SEO can be interpreted as a sign of an overvalued stock, and may cause a negative announcement effect.

*Loughran and Ritter (1997)* find that issuers continue to invest heavily even while their performance deteriorates post-offering. This occurs even in the fourth and fifth year of underperformance. They suggest that the managers are just as overoptimistic about the issuing firm’s future profitability as are investors.

## ***2.2 Private Placements***

We will now take a look at the most important findings from some of the research done on private placements. To begin with, we will take a look at the underinvestment problem, which is a basis for later research.

*Mayers and Majluf (1984)* show that when we have information asymmetry, better informed managers issue common stock only when they believe their stock is overvalued. Thus the market reacts negatively to an earnings announcement. To avoid a wealth transfer from old to new stockholders, they show that the managers of undervalued firms with little financial slack will choose to forgo a profitable investment opportunity in order to avoid issuing common stock. This is called the underinvestment problem.

The two next articles we go through both show positive announcement effects when a private placement is announced, but they provide different explanations as to what gives this positive effect; ownership concentration and information-signaling.

*Wruck (1989)* found that the positive announcement effect of a private placement is highly correlated with the resulting change in *ownership concentration*.

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Assuming no other changes in share ownership, a private sale puts a block in place and dilutes the voting power of existing blocks. On the other hand, a public sale simply dilutes the voting power of existing shareholder blocks.

Over half of the private placement purchasers are not previously affiliated with the firm they purchase shares in, meaning they have not been managers or previous shareholders in the firm. Thus, when a well-informed non-management investor buys a security block this is expected to give the market a positive signal, whereas a public offering is expected to give a negative signal.

Increased ownership concentration increases firm value if it helps align the incentives of the owners and the shareholders. Although, it can also decrease firm value if the private sale allows entrenchment. Wruck's results show that for low levels (0% to 5%) and high levels ( $\geq 25\%$ ) of ownership concentration after the sale the changes in firm value at announcement are positively associated with the change in ownership concentration. However, in the middle range (5% to 25%) this relationship is negative.

*Hertzel and Smith (1993)* provide an *information-signaling* explanation of the value gains associated with private placement announcements. Their model extends the model of Myers and Majluf and allows for the possibility that, at some cost, private placement investors can correctly estimate the firm's true value through their negotiations with the management. Thus the investor's willingness to commit funds to the firm, in addition to the management's decision to forgo a public issue, will convey a signal to the market that the firm is undervalued.

Having looked at some of the reasons for the positive announcement effect, we will now move on to the long-term stock performance of the issuing firm.

*Rees et al. 2002* show that public firms that perform private placements experience positive announcement effects and negative post announcement stock price performance. This finding is inconsistent with the underreaction hypothesis, and instead suggests overoptimism about the issuing firm's prospects. However, in contrast to public offerings, private issues tend to follow periods of poor

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operating performance. Thus, the overoptimism at the time of the issue is not due to the behavioral tendency to overweight recent experiences.

*Chou, Gombola and Liu (2009)* conclude that the post-offering performance of private equity issuers is related to growth opportunities. They find significant long run underperformance in stock returns following private placements only for firms with high Tobin's q. In addition, these high Tobin's q firms also have poor operating performance. They investigate three potential explanations and find that the results are consistent with the view that investors are overly optimistic about the prospects of high growth firms.

Having looked at both the previous research on SEOs and Private Placements and seeing their traditionally opposite announcement effects and same long-run underperformance, we take a look at one last article which looks at characteristics of the issuing firms.

*Lee and Kocher (2001)* compare the firm characteristics of firms issuing common stock through private placements and those using public offering methods. Their results show that the private placements are smaller in size, have more growth opportunities and thus have a greater degree information asymmetry than public offering firms. Additionally, private placement firms have less financial slack than public offering firms, giving them a greater need for external capital. Due to all this, the firms issuing stocks through private placement are more likely to be driven by their needs for external capital, rather than being motivated by an overvaluation in their stocks. These findings are consistent with the information hypothesis.

### **3 Research question**

Looking at the existing literature on SEOs and Private Placements, we have found two main questions we would like to answer with our research:

1. *Why do companies chose to undertake a "reparasjonsemisjon"?*
2. *What are the announcement effect and the long-run performance of a "reparasjonsemisjon"?*

We would like to take a look at why this type of offering has become more common the recent years. What incentives does a company have to go through with a “reparasjonsemissjon”? Thus far, we have thought about three possible reasons. One reason is based on fairness. Seeing as a private equity issue is mostly directly negotiated with a single or a small group of investors, many or maybe all the existing shareholders are left out of this issuing. A “reparasjonsemissjon” can therefore be a way of pleasing the existing shareholders, by letting them also have the opportunity to be included in a possible company value increase. In addition, it can prevent dilution of the current stockholders’ shares after the first issuing.

We have already found some data supporting this reason in the prospectus from the equity issuance:

- In the prospectus of Star Reefers (12.03.10) they explain that: “In order to treat all shareholders in the Company equally and secure that all shareholders are given the possibility of maintaining their relative ownership shares in the Company, shareholders that were not offered to participate in the Private Placement will be offered to participate in the Subsequent Offering” ([www.sebenskilda.no](http://www.sebenskilda.no)).
- Scandinavian Property Development (23.07.09) had two objectives when implementing their subsequent offering: “(i) the shareholders of the Company as of 26 June 2009 who were not offered to participate in the Private Placement are given the opportunity to, as far as possible, maintain their relative shareholding in the Company following the Private Placement and the Subsequent Offering, and (ii) the shareholders of the Company as of 25 June 2009 who participated in the Private Placement, but who had their subscription reduced to a number of Placement Shares which was lower than their pro rata share of the Private Placement, are given the opportunity to subscribe for and, as far as possible, be allocated a number of Offer Shares equal to the number of Placement Shares by which their subscription was reduced.” ([www.sebenskilda.no](http://www.sebenskilda.no))
- Rocksource (03.06.10): “The main purpose of the Subsequent Offering is to enable Shareholders who were not allocated Shares in the Private Placement the ability to subscribe for Shares at the same price as in the Private Placement and to limit dilution from the Private Placement.”



The second possible reason for going through with a “reparasjonsemissjon” could be money demand. It may be a kind of “safety net” in case the private placement does not provide the needed amount, thus the “reparasjonsemissjon” is a second chance of raising enough equity to follow through with a company’s plans. However, seeing as the secondary offerings usually contain much less shares for sale than the private placement, our first reason may be more plausible.

A third reason for conducting a private placement before the secondary equity offering might be that the companies see this as a faster and more “secure” way to access the equity needed. However, if it is the speed that is the factor here, why do they go through with a secondary offering afterwards? And if getting hold of the money fast enough actually is a factor, are the companies that perform a “reparasjonsemissjon” in a worse state financially than other firms?

In addition to our first question, it would be interesting to compare the announcement effect and the long-run performance of a “reparasjonsemissjon” to the effects and long-run performance of the SEOs and Private Placements, as a “reparasjonsemissjon can be considered a “hybrid” of the two. Considering the fact that the phenomenon is as new as it is, long-run performance may be difficult to determine.

Throughout the process of writing the thesis, these two research questions might be reconsidered and possibly narrowed down a little.

## **4 Data**

### ***4.1 Qualitative data***

Regarding our first research question: “Why do firms undertake a “reparasjonsemissjon”?” we plan on getting this information through qualitative data. We would like to set up interviews with several companies which have carried out such a “reparasjonsemissjon” to get an insight as to why they chose this form of equity issuing. Another possible source it would be interesting to interview would for example be DnB Nor Markets or SEB Enskilda, which have facilitated several subsequent offerings. In addition, we have started looking at the

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firm's prospectus, where they often supply a reason for the subsequent offering. This too can be a useful information source.

#### *4.2 Quantitative data*

The second question will be answered by empirical tests of the gathered data from Øyvind Norli. We have data on both private placements and seasoned equity offerings, and we have gone through the seasoned equity offerings to identify which of these were in fact secondary offerings.

### **5 Methodology**

In addition to setting up interviews with companies issuing equity through secondary offerings and the banks who facilitate the sales, we need to perform empirical tests to find the financial effects of a "reparasjonsemissjon".

To find out the announcement effect of the subsequent offering, we need to examine the stock-price performance both before and after the sale is announced. Before, to get an insight into the circumstances around the time the managers chose to issue and after, to reveal whether the changes in shareholder value are permanent or transitory. We would like to use our data to check whether we have any abnormal performance and will use a standardized test statistic to determine whether the mean abnormal return is significantly different from zero. The benchmark we will compare the returns with will be both firms which have not performed any equity issuing, in addition to companies which have performed a regular seasoned equity offering with no private placement on beforehand.

Determining whether we have any abnormal performance as a consequence of announcing a subsequent offering will be our starting point. In case we find that mean abnormal returns are significantly different from zero, we would find it interesting to investigate what determinants that causes the announcement effect. For instance, is it well documented that issue size is a determinant that influences the announcement effect; the greater the issue, the more negative announcement effect. The fact that a subsequent offering usually is of a smaller issue size than a

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private placement and a regular seasoned equity issue can be an explanatory factor in case of a different announcement effect.

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