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Initial Public Offering or Initial Private Placement?

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Abstract

This paper studies the choice between an auction and a negotiation when selling a large fraction of a company. Using detailed data on ownership structure in 123 public offerings and 88 negotiated private placements, we show that negotiated private placements are much more common when there are significant private benefits of control. This finding supports the idea that a negotiated transaction allow the seller to extract more of the gains from trade when the gains from trade include private benefits.

JEL classification: G24

Keywords: Private Placements; Public Offerings; IPOs; Equity offerings

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1. Introduction

Stock exchanges have stringent rules on minimum equity levels and the minimum number of shareholders that are required to list publicly. Most private companies must issue equity to be able to meet these minimum requirements. Shares can either be sold in a public offering to a large group of dispersed investors or in a private placement to a small group of specialized investors. Most theoretical papers on equity offerings show that public offerings will almost always be preferred by the seller, so why some companies use private placements has been the focus of many empirical studies in finance. The research question addressed in this paper is whether private placements are used to transfer private benefits of control from the buyer to the seller. The new and unique data in this paper includes investor level ownership on 88 private placements and 123 public offerings during their listing on the Oslo Stock Exchange (OSE) in the period 1993 to 2007. Investor level ownership records and audited financial statements of all companies before and after the listings are used to identify private benefits of control.

The main contribution of the paper is that we show a strong and robust relationship between private benefits of control before the offering and the use of private placements². This suggests that sellers use private placements to transfer private benefits of control to the buyers. Private placements are used by family firms and firms with controlling owners before the offerings. Public offerings are used by companies with more dispersed ownership before

²The agency problem investigated is between large owners and small owners. Large owners have a controlling benefit at small owners expense. Throughout the article, we mean the private benefit of controlling the firm enjoyed by the controlling/big shareholders at the expense of smaller owners when the term private benefit of control is used. Other agency problems, that we do not study, can for instance be between owners and managers in the firm.

the offerings. Companies that use private placements also have more block ownership after the listing. Public offerings reduce block ownership. The main implication of this finding is that companies with low private benefits of control should be sold in public offerings, and companies with high private benefits of control should be sold in private placements. The finding also have implications for research on auctions and negotiations. When auctions are structured like public offerings and there is a large private benefit of control, the seller is likely to prefer a negotiation over an auction.

Several papers have proposed explanations to the private placement choice made by some companies. Some papers argue that private placements are used to attract value creating investors such as monitoring or certification investors (Wruck, 1989; Hertzels and Smith, 1993). These investors ensure that companies are run optimal or put their stamp of approval on company valuations. Other papers suggests that private placements are used when buyers value private benefits of control (Zingales, 1995; Zingales, 1994; Zwiebel, 1995 and Damodaran, 2005). Most existing research on private equity offerings are on publicly listed companies. These are then studies of Seasoned Equity Offerings (SEOs). The reason for this is likely to be that there are more available data on publicly listed companies. Only investigating public companies is problematic for this research question because this leaves out the major equity offerings taken place before the actual listing. The new Norwegian data does not have this problem. Many of the companies that list on the OSE through private placements have follow-on public and employee offerings before the listing. This shows that private placements must often be used in connection with a follow-on offering to meet listing requirements. This also show that the private or public choice is not dictated by the minimum size listing requirements.

Derrien and Kecskés (2007) show that many U.K. companies list publicly without issuing equity and that these companies issue equity in a SEO after the listing. This two stage listing is cheaper than the normal IPO. On the OSE there are only a limited number of companies that are allowed to use this two stage process. In most listings on the OSE the offering is a requirement to list. The choice faced by most companies is not if there should be an offering before or after the listing. The choice is if the required offering should be public, private or to existing shareholders. Few companies have an existing shareholder base that can cover the offering in full. Listing rules require that there must be at least 500 owners to list on the main list of the OSE (100 at the Small and Medium Sized SMB/Axess list). Only 21 out of 403 companies have listings with only an offer to existing shareholders. Therefore, the main choice at the OSE is between a private placement and a public offering. This makes the OSE an ideal market to study the choice between public offerings and private placements.

The remaining paper is organized as follows. Section 2 describes related literature. Section 3 describes the road to the listing. Section 4 describes predictions and testable implications. Section 5 and 6 describes the data set and the empirical results. Section 7 concludes.

2. Literature review

All papers are summarized in Table 1. There are many theoretical papers that study equity sales. Bulow and Klemperer (1996, 2009) compare auctions to negotiations and sequential sales mechanisms.³ Bulow and Klemperer (1996) show that for a seller it is better to sell in an auction with $(N+1)$ bidders than in a negotiation with N bidders. The seller

³IPOs are not really open auctions, and private placements are not really negotiations in the exact same sense as used in all of the literature. There are, however, large similarities between IPOs and auctions and private placements and negotiations, and we therefore include a literature review on the auctions and negotiations literature. We also expect that our findings may have implications for research on auctions.

should focus on maximizing the number of bidders and not focus on finding a single bidder to negotiate with. The exception to this rule is when more information must be disclosed in the auction. When more information (that can possibly reduce the future asset value for the final owner) is disclosed in the auction it is possible that the negotiation is more profitable for the seller than the auction. Bulow and Klemperer (2009) show that buyers (usually) prefer to buy in a sequential sale (negotiation), and sellers (usually) prefer to sell in an auction. The exception to this finding is when the marginal revenue curve of the winner is very flat, there are many potential bidders and the bidder cost of obtaining value information is neither too high nor too low. French and McCormick (1984) find that negotiations should be used instead of auctions when there is an ongoing relationship between bidder and seller, there is a low asset value difference between bidder and seller, there is a low asset value difference between different bidders and the actual negotiation cost is low compared to auctions.

Zingales (1995) propose that the buyer of a company can have a higher company value than the current owner from either an increase in the private benefits of control or an increase in the cash flow. By selling to dispersed shareholders the proceeds from the sale of cash flow rights are maximized. Through bargaining with a buyer, the seller maximizes proceeds from the sale of control rights. Zingales (1994) argue that one of the most common areas of private benefits of control is dilution of minority property rights. This also shows that there should be some smaller investors in the companies that use private placements. It is also argued that control is more valuable during proxy contests. Damodaran (2005) argues that the value of a block of shares comes from the ability to influence control by changing the way the business is currently run. Damodaran (2005) argues that block shares are sold at a premium compared to dispersed shares. Value of control can be calculated as the value of the firm assuming

that it is optimally run minus the status quo value of the firm. Control of a firm does not necessarily require 51% of shares if the remaining shares are sold to a dispersed group of shareholders. Zwiebel (1995) investigates smaller block shares. It is argued that there are benefits of having blocks that are smaller than controlling stakes from partial benefits of control. Smaller block holders can join together and get control if desired. Private benefits of control can be the ability of owners, management or directors to dilute corporate funds for private benefits.⁴ Private benefits can also be synergies obtainable through mergers (during takeover contests opposing sides actively recruit block shareholders), favors by firms, access to inside information, perquisites of control and utility derived directly from power of control. Some firms, such as sports and communication firms, are likely to yield private benefits from the nature of their business. Stoughton and Zechner (1998) argue that IPOs are allocated to institutions to increase monitoring.

Many empirical papers also propose explanations to equity sales. Wruck (1989), later referred to as the monitoring hypothesis, show that active investors buy shares privately and monitor management. It is argued that monitoring will increase value by ensuring efficiency and openness to value creating takeovers. The article investigates 128 private placements made by companies listed on NYSE and AMEX in the period 1979 to 1985. Hertzels and Smith (1993), later referred to as the certification hypotheses, argues that an informed investor buy large blocks of shares in private placements to put their stamp of approval on firm valuation. The paper investigates 106 private placements made by smaller companies listed on NASDAQ in the period 1980 to 1987. It is concluded that certification is a likely reason behind private

⁴In this paper we study private benefits of control enjoyed by big owners through dilution of corporate funds.

placements. Barclay et al. (2007) investigate if monitoring (Wruck, 1989) and certification (Hertzel and Smith, 1993) explains private placements by investigating 594 U.S. publicly traded firms in the period 1979 to 1997. Their main findings is that private placements are often allocated to passive investors that help management keep control of the company. This is proposed as the entrenchment hypothesis, and it is concluded that entrenchment is a more likely reason for private placements than monitoring or certification.

Anshuman et al. (2010) propose the undervaluation hypothesis as appose to the monitoring, certification and entrenchment hypotheses. The undervaluation hypothesis is an extension of Myers and Majluf (1984), and the hypothesis propose that company management and insiders buy shares in their own company, through private placements, when they believe that the company is undervalued. The hypothesis is tested on a sample of 164 private placements in the Indian capital market in the period 2001 to 2009. It is concluded that private placements (to company insiders) can eliminate underinvestment, and the underinvestment hypothesis can explain the private placement choice after controlling for monitoring, certification and entrenchment. Wu (2003) investigates how information asymmetry and monitoring affects the company choice between public offerings and private placements. The data investigated is 728 public offerings and 360 private placements made by high technology companies that have recently been publicly listed on NYSE, Nasdaq or AMEX. The main findings are that private placement companies have a higher information asymmetry than public offering companies, and private placement investors do not monitor more than public offerings investors.

Wu (2003) concludes that monitoring is not a likely reason behind private placements. Brennan and Franks (1997) investigate 67 U.K. IPOs and find that underpricing is used to

ensure sufficient oversubscription and rationing of shares. This is done by IPO company insiders to discriminate between shareholders and reduce block sizes. Brennan and Franks (1997) argues that underpricing is used to avoid block holder formations. Aruğaslan, Cook and Kieschnick (2004) investigate 3,441 U.S. IPOs and find that determinants of initial returns, institutional share holdings and post- IPO likelihood of acquisition are not consistent with either Brennan and Franks (1997) or Stoughton and Zechner (1998). Aruğaslan et al. (2004) concludes that monitoring considerations are not important determinants of IPO underpricing. Cronqvist and Nilsson (2005) investigate how companies choose between rights offerings and private placements in SEOs. The sample is Swedish publicly traded companies in the period 1986 to 1999. It is found that companies with much asymmetric information will choose private placements over rights offerings. Companies will choose private placements to current shareholders when asymmetric information is extreme. Private placements can be used to reduce moral hazard and adverse selection costs and offset high issue cost. Companies also do private placements to new business partners.

Boone and Mulherin (2007) investigate why not all firms are sold in competitive auctions. The data includes 202 auctioned and 198 negotiated takeovers of U.S. public firms in the period 1989 to 1999. The main finding is that there is no difference in wealth effects of the target firms after a negotiation and an auction. The auction does not increase revenue for the seller. Boone and Mulherin (2008) investigate 145 auctioned and 163 negotiated takeovers by U.S. publicly traded bidders in the period 1989 to 1999. The paper test if the return to the winning bidder is related to the level of competition in the takeover market. It is assumed that there is a negative relationship between the number of bidders and the level of value uncertainty and the bidder return if the winners curse is true. The paper finds that there

is no relationship between bidder returns and competition. It is concluded that there is no winners curse in the corporate takeover market.

3. The road to the listing

The listing process includes many formal requirements. These are dictated changes the company must make to be allowed to list publicly. The private company must also make many decisions that are not formal requirements. The most notable, for this article, is if shares should be sold in a public offering or a private placement.

3.1 The formal listing process

The listing process takes between eight and 14 weeks to complete after it has been decided to take a private company public.⁵ The private company must first select an investment bank. When the terms are agreed, the listing process is initiated. The company and the investment bank have a meeting with the board of the Oslo Stock Exchange (OSE) to initiate the process. The investment bank hire an accounting firm and a law firm to complete a financial and a legal due diligence of the private company. The investment bank then (assuming everything is in order) makes a compliance report that shows that the private company meet all formal requirements to list on the OSE. Four weeks after the initial meeting with the OSE, there is a meeting between the accounting firm, the law firm and the OSE. At this time, the formal application is handed in to the OSE by the investment bank. During the next four weeks, the investment bank completes the formal listing prospectus. The OSE use this time to go through the application. The company is then accepted or rejected to list on the OSE. About 80 to 90% of all companies are accepted. Most companies are, however, accepted to list with

⁵The information about the listing process is obtained from the seminar “The road to the listing” November 3, 2009 by Deloitte Public Accountants and the Oslo Stock Exchange.

conditions. Most companies have to adjust before they are allowed to list publicly.

There are two very common conditions. The first common condition is that the equity level must be increased. Companies must show that they have sufficient equity to keep the company running for at least 12 months after the listing. It is not necessary with a positive cash flow as long as the company can run on equity for at least 12 months. Many companies on the OSE are shipping companies with high cash outflows around the listing date and high cash inflows at a later point in time. The second common condition is that one or two members of the board must be replaced with more independent board members. Many private companies have boards consisting of representatives that are related to the company in some way. Public companies must have more independent boards. When a company is accepted or accepted with conditions, the investment bank starts the roadshow (the marketing and sale of new stock). This is the main reason why a private company needs to use an investment bank. Distribution of shares is potentially hard to accomplish without the sales force of the bank. The company has 45 days to list after it has been accepted or accepted with conditions. If the company is not listed in this period, the process must be repeated. Most of the companies that list on the OSE are forced to issue equity as a part of the listing process, and out of the 403 listings at the OSE in the period 1993 to 2007 only 90 companies can list without increasing their equity level in some way. See Figure 1 for the timeline in the listing process.

3.2 Public or private sale

Due to oversubscription and share rationing it is difficult for investors to buy large blocks of shares in most IPOs. In the traditional public offering setting, investors submit bids for a given number of shares at a specified offer price (book-building). (In a fixed price offering, the

investment bank determine the price first and then investors submit bids for a given numbers of shares at the given price). It is common that IPOs are oversubscribed, which means that there are bids for more shares than the company is planning to sell. The investment bank usually set the offer price where demand is above supply. Sometimes demand is many times greater than the supply of shares (this is the oversubscription fraction reported in the newspapers after the offering). Shares are then rationed to the applicants at the price decided. An investor that bid for a very high number of shares with a very high bid price is likely to only be awarded a fraction of the applied for shares. The price is likely to be lower than the bid price because there is only one offer price to all investors. This means that the investor is likely to not be allocated the applied for block of shares even if the investors is willing to pay a higher price. Investment banks sell all shares in one offering at one price. Shares are then rationed to all investors willing to pay this price.

In a negotiated private placement, shares are sold in blocks. The investor that is willing to pay the most for a block of shares is awarded that block. This means that negotiated private placements are more suitable to transfer blocks of shares. It is easier for an investors to obtain company blocks (control) following private placements. A company that wants to sell company control should therefore issue shares in a private placement. It is possible to stage the equity sales by first selling blocks and then selling the remaining shares. This is also what we see in the data. Many companies that use private placements also sell shares publicly afterwards. Interestingly, this is the opposite order of what is predicted by Zingales (1995).⁶

⁶Zingales (1995) predicts that companies with high private benefits of control will sell shares in a public offering first. Remaining shares will be sold in a private placement at a later stage. We observe that the private placement takes place before the public offering every time this two stage process is used. This is

4. Theoretical predictions and testable implications

The value of owning shares in a company can come from two sources. The first is the residual claim to cash (cash flow rights). When all debtholders and other claimants to company cash flow has been paid, the remaining cash is the property of shareholders. The other source of share value is from the ability to control the firm (control value). An owner with a high ownership percentage can influence more control and dilute corporate resources away from smaller owners. This is private benefit of control that comes from owning a big stake in a company. The private benefit of control only goes to the controlling owner(s). Private benefit of control is enjoyed by the single biggest owner, or a group that together makes a controlling stake, at the expense of other shareholders (Zwiebel, 1995). Zwiebel (1995) explains that smaller block holders can join together and get control if desired. Transfer of control is therefore not necessarily from one big shareholder to another big shareholder. Transfer of control can also be from one big shareholder to a small group of block shareholders. Value of control can come from influencing how a company is run, but it can also come from the ability to misuse corporate resources. In some companies it is likely that it is easier to use control to move resources than in other companies. In some companies the private benefits of control are higher because it is easier to dilute corporate funds.⁷

According to Zingales (1995) the seller of a company can maximize proceed from selling cash flow rights to dispersed shareholders. The seller can maximize proceeds form selling control rights by directly bargaining with the seller. Zingales (1995) explains that companies should optimally be sold in a two stage process. Sellers should first sell a part of the company

opposite of what is predicted by Zingales (1995).

⁷E.g. It is expected that there are more private benefits of controlling a cash rich firm that produces sports cars than there is in a steel mill (even if the stand alone share value is the same).

to dispersed shareholders. Then, the control rights should be sold in a direct negotiation. In our data set there are no companies that follow this two stage strategy, so we can not test this model directly. We can, however, test if companies with more value from control rights (higher private benefits of control) are more likely to be sold in negotiations (private placements). A company with a high value of control should be sold in a private placement because it is easier to transfer control this way.⁸ The testable prediction from this is that there should be a relation between private benefits of control and the use of private placements. We label this the private benefit of control hypothesis based on Zingales (1995).

4.1 The private benefit of control hypothesis

To test the relationship between private benefits of control and the use of private placements it is necessary to measure private benefit of control. It is not possible to know the exact level of private benefit of control because it is an unobservable variable. It is, however, possible to observe some sources of private benefits of control, and we use these sources as estimates of the private benefit of control for the controlling owners. It is expected that companies with block ownership before the offering have a higher private value of control, and companies with a dispersed ownership before the offering have lower private benefits of control. Zwiebel (1995) argue that the main reason why there are block owners is because of private benefits of control from taking advantage of smaller owners. (Observed block ownership is a strong indicator of private benefits of control). Accordingly, there should be more private benefits of control in the company (before the offer) when there are more block

⁸If there are high private benefits of controlling a firm, the firm could potentially stay private so that the owner can continue to enjoy the private benefits of control. If owners still want to go public, it can be argued that it will be better for the seller to sell control rights separately. There are many benefits of being publicly listed. The most notable is access to capital. It is therefore safe to assume that also companies with high private benefits of control benefit of being publicly listed.

owners that own bigger blocks in the company (before the offer). Private benefits of control are therefore estimated on the basis of block ownership before the offerings.⁹ The ownership fraction of the largest owner is used as one measure of private benefit of control.¹⁰ The combined ownership fraction of all block holders is used as another measure of private benefit of control.

Other measures that also indicate the level of private benefit of control are the timing of the offering, company industry, dividend payout, family firms, minority power and CEO/board compositions. In 2006 there was introduced a new law that increased tax on dividends in Norway. It is expected that this new tax will reduce the level of dividend paid out after 2006, and private benefits of control will increase after 2006 because more money is left in the firms. It is expected that this new tax rule will increase private benefits of control after 2006. This is tested for by including the a dummy variable (*2006 dummy*) that takes the value of one for all companies listed after 2005. Actual dividend paid in the year before the listing year is also included. It is also expected that firms in certain industries yield a higher private benefit of control. Especially, it is expected that firms in the sports and communications industry yield a higher benefit of control (Zwiebel, 1995). Unfortunately,

⁹It is likely that tunneling is one of the major sources of private benefits of control. In tunneling, the biggest owner owns a large stake (e.g. 51%) in one firm and 100% of another firm. The biggest owner then tunnels resources from the firm with 51% ownership to the firm with 100% ownership. Tunneling can for instance be in the form of selling assets below actual value. Tunneling lets the big owner steal resources from the shareholders that own the remaining 49% of the shares in the first company. We are not able to detect tunneling in the data.

¹⁰All variables, unless otherwise specified, are obtained in the VPS ownership database prior to the offering or in the listing prospectus made before the offering. This means that all independent variables are known and observed before the private placement/public offering choice is made. The listing prospectus is mainly based on annual accounting data, so it is reasonably assumed that all information in the prospectus is available before the public offering/private placement choice is made. Even the level of capital raised should be known before the public offering/private placement choice is made. Capital raised is in most cases dictated by OSE as a requirement to list. We argue that there are no simultaneous decisions in our data, and there is no endogeneity issues in the analysis.

there are no sports companies and very few communications companies listed in Norway. This variable is therefore dropped.

It is also expected that family firms have a higher benefit of private control than non-family firms. It can be argued that family firms have already used their benefit of control by placing family members in management positions. Family firms are defined, in this paper, as firms where members of one family together hold the largest fraction of the company and more than one member of the family is in the senior management of the firm. It is expected that minority power is decreasing in private benefits of control. It is expected that the founder is the minority owner in the company. New owners can group together and gain control. It is therefore expected that minority (founder) power should decrease in the private benefits of control. Minority power is measured by founder position in the companies (E.g. The founder as the CEO or on the board of directors). The ownership concentration of the owners besides the single biggest owner is also a measure of minority power. This is measured by the Herfindahl index of the 50 biggest owners besides the single biggest owner. Finally, it is expected that there are more benefits of control in companies where the largest owner use control in an observable manner. It is expected that in companies where the largest owner is the CEO or on the board of directors there are more benefits of private control. The dummy variable private placements (0) or public offerings (1) is regressed on the private benefit of control measures in a standard probit model. This is to test if companies use private placements when there are more private benefits of control.¹¹

4.2 Alternative explanations

¹¹It is argued that value of control does not require 51% of the shares (Damodaran, 2005). We do not know how much ownership that is needed to enjoy private benefits of control, so the ownership percentage of the largest owner or the combined block ownership is included in all regressions.

Private placements have, in the previous literature, been explained with the monitoring (Wruck, 1989), the certification (Hertzel and Smith, 1993), the entrenchment (Barclay et al., 2007), the undervaluation (Anshuman et al., 2010) and the asymmetric information (Cronqvist and Nilsson, 2005) hypotheses. The monitoring hypothesis is that investors buy shares in private placements to increase company valuations through increased monitoring of management. It is likely that companies with high ownership concentration, before the initial offering, already have more monitoring of management than companies with lower ownership concentration. Block owners are more likely to monitor management than smaller owners. Block owners have more incentive to monitor management than smaller owners because they have more at stake in the companies. The monitoring hypothesis therefore predict (indirectly) that companies with lower ownership concentration should be more likely to use private placements. This is the opposite prediction of the private benefit of control hypothesis. The monitoring hypothesis is therefore controlled for by testing the relationship between ownership concentration before the initial offering and the use of private placements.

The certification hypothesis is that informed investors buy shares in private placements to put their stamp of approval on company valuations. This does not give the same implications as the private benefit of control hypothesis. There is no reason why a company with more concentrated ownership would need more certification than a company with less concentrated ownership. It is, however, likely that smaller and younger companies would be more likely to want certification, as there is less information publicly available for these companies. The certification hypothesis is therefore controlled for by including the number of employees (size) and company age in all regressions.

The entrenchment hypothesis is that private placements are used by company manage-

ment to keep their positions (even if they perform poorly). Entrenchment is a highly unlikely explanation for the companies in our sample. All companies are eventually listed publicly and this indicates that these companies are doing very well. It is very unlikely that the companies in our sample have management that consistently need ownership manipulation to keep their positions. It can also be seen in Table 3 that most of the companies in the sample have the largest owner as the CEO or on the board of directors. This indicates that these owners are active and not passive investors that help keep management in their positions. The entrenchment hypothesis will also not explain why companies with more concentrated ownership before the initial offering are more likely to use private placements. If private placements are used by companies with poor management, it is, however, likely that company results before the offering are negatively related to the use of private placements. The entrenchment hypothesis is therefore controlled for by including company results before the offering in all regressions.

The undervaluation hypothesis is that insiders buy shares in private placements when they perceive the company to be undervalued. In the capital history section in the listing prospectus (of all the listing companies) there is a clear distinction between employee offerings and private placements. Company insiders buy shares in employee offerings and not through private placements. The level of ownership for all insider investors is also disclosed before and after the equity offerings, so we know that the private placements are not made towards company insiders. The undervaluation hypothesis is therefore not relevant for our data set and question.

The asymmetric information hypothesis is that companies with very high information discrepancies (between company insiders and outsiders) use private placements to reduce

the cost of conveying information to investors. It is likely that certain (harder to value) industries are more likely to have more information asymmetry. Especially, it is expected that companies in the Information Technology (IT) sector have more information asymmetry than other companies. It is also expected that younger and smaller companies have more information asymmetry because less information is publicly available for these companies. IT, younger and smaller companies should use more private placements if this hypothesis is true. It is tested if asymmetric information drives the private placement choice by including a dummy variable for all companies in the IT sector, the company age and the number of employees in all regressions.

4.3. Other control measures

The reasons why companies issue equity is to have a sufficient level of equity and number of owners before the listing. The OSE requires a minimum of 500 investors to list on the main list of the OSE (and 100 to list in the small and medium sized list). Therefore, it is necessary to control that the number of investors prior to the offering and the capital raised do not decide the method chosen. These variables are therefore included in all regressions. Carpentier and Suret (2009) show that Canadian firms that use private placements have lower book to market ratios, are in special industries, are financially distressed or constrained, are in the development stage and in general raise less capital.

Barclay et al. (2007) show that private placements are made at a discount to certain investors. Boone and Mulherin (2007) show that market value is related to the use of private placements. The problem with these variables is that they are observed only after the listing. Most of these variables are observed the first time about six months after the initial private placement/public offering choice has been made. The variables book to market ratio, first

day return and market value are observed the first time on the day of the listing. These variables are not available for the companies in our sample because they are privately held. All companies in the sample are also eventually listed on the stock exchange, so there are no financially distressed or constrained firms in the sample. (This is, however, controlled for by including the last annual net result reported in the listing prospectus).

4.4 Private benefits of control after the listing

It can be argued that companies with high private benefits of control should stay private. The reason for this is that it is possible that most of the private benefits of controlling a firm are likely to disappear when the company becomes public. Because of this, it is necessary to test if there are benefits of controlling a private placement company after the listing as well. If control rights are sold in private placements, there must be greater values of control also after the listings. To test for this it is necessary to regress private benefits of control, after the listing, on the public offering or private placement choice (and a set of control variables).

Private benefits of control is an unobservable variable that is estimated by a portfolio of measures. Most of the measures are very persistent. (E.g. Few companies change the CEO or board members right after the listing and company specific variables such as age, number of employees, family firm, result and dividend do not change. These variables are not suitable as a single measure of private benefits of control after the listing. A more suitable measure of private benefit of control is the ownership fraction of the biggest owner(s) after the listing. If there is a more concentrated ownership also after the listing, it can be argued that there is persistence in the control. This is tested by regressing the ownership percentage of the biggest owner(s) one month after the listing on the private placement or public offering choice (before the offering) and a set of control variables.

5. Data and descriptive statistics

In total, 403 companies listed publicly on the Oslo Stock Exchange (OSE) in the period January 1993 to September 2007. Table 2 gives the yearly distribution of public offerings and private placements. All companies must list their ownership records in the Norwegian central depository (VPS) database as a part of the listing procedure. From this database the pre offering ownership in all listed companies is observed. Accounting variables are collected from the listing prospectuses. It is assumed that private placements in the six month period before the listing date are part of the listing procedure, and private placements before this are not part of the listing procedure. Company ownership at the end of month six prior to the listing date is the measure of ownership concentration prior to the offering. Most public offerings are in the calendar month before or in the same calendar month as the listing day. Private placements are spread out over the six months prior to the listing date. In Table 2, it can be seen that there is a proportionate number of private placements and public offerings over the sample period. There is a slight increase in the number of private placements compared to public offerings in the end of the sample period. It is argued that the reason for this is an increase in the Norwegian tax rates in 2006 that increases private benefits of control from more retained cash.

5.1 Descriptive statistics

There are 210 public offerings and 106 private placements by companies listing on the OSE in the period 1993 to September 2007.¹² For 19 public offerings and 6 private placements

¹²In total, 44 companies used a private placement before a public offering, and 131 companies did not offer shares to new investors in the lead up period to the listing (21 of these companies were spinoffs to existing shareholders). Private placements are made at different points in time in the six months period before the listings. Private placements before this is not included in the sample. The public offerings are usually performed in the month before the listing or in the listing month itself. Some private placements have

it has not been possible to identify the ownership before the offering from the VPS ownership database. These companies are removed from the sample.¹³ A total of 44 companies made a private placement before the public offering. These companies are regarded as only private placement companies as they made this offering first.¹⁴ Companies define the equity offering to be private or public in the capital history section in the listing prospectuses. Data on all historical equity offerings are provided in the listing prospectuses of the companies. In Table 3, it can be seen that companies that use private placements and public offerings are very similar. Private placement companies also have on average more large owners on the boards, higher ownership fraction of the largest owner after the listing, more founders on the boards (or as the CEOs) and are more likely to be family firms before the offerings. The average size of the 88 private placements is \$57.3 million (Table 3). This is just below the average size of the public offerings. For private placements, the combined sale of new and existing shares averaged about 22% of total outstanding shares at the listing date. For public offerings this number is 41%. The main differences are that private placement companies have on average lower age and fraction of company sold. There are no significant differences between companies that use private placements and public offerings on total assets, dividends, results,

a follow on offering to the public or to employees of the company. By using follow on offerings the minimum number of investors regulation, set by stock exchanges, has no influence on the equity offering method chosen. The remaining 110 listings are results of mergers with an already listed company, cross listings or companies traded actively at the Norwegian over the counter list (OTC list) before the OSE listing.

¹³For 27 public offerings and 12 private placements it has not been possible to obtain all company specific information (i.e. listing prospectuses). These companies are therefore removed from the sample.

¹⁴When there is both a public and a private sale it is common that the investors in the private placement sell a small fixed percentage of their allocated shares in the public offering. It is likely that the private placement is made to increase the capital for the company through the issue of new shares. It is also likely that the public offering is made to increase the number of shareholders. It is common that there is one fixed resell percentage that applies to all investors in the private placement. This percentage is usually very low (less than 10%). The issuing company have then sold shares with the condition that the investors must sell some of their allocated shares before the listing. It is likely that this condition is included to meet minimum spread requirements set by the OSE. The final sample is 123 public offerings and 88 private placements.

number of owners before the offering, capital raised and number of employees. The final sample is 88 companies that used a private placement and 123 companies that used a public offering. The timeline of the listing process is given in Figure 1.

5.2 Variable description

The dependent variable in most regressions is a dummy variable for public offering (1) and private placements (0).¹⁵ *Combined block ownership* is the combined ownership fraction of all investors that owns more than 5% of the company before any offering is made.¹⁶ *Holding of largest owner b. offer* is the holding fraction of the single biggest owner before the offering. *Holding of largest owner a. listing* is the holding fraction of the single biggest owner one month after the listing. *Largest owner is the CEO* and *Largest owner is on the board* are dummy variables that takes the value of one for companies where the largest owner is the CEO or on the board of the companies. *The founder is the CEO* and *The founder is on the board* are dummy variables that take the value of one if the founder is the CEO or on the board. *Herfindahl index* is the squared ownership fraction of the sum of the 50 biggest owners besides the largest owner.¹⁷ The *2006 dummy* takes the value of one for all companies listed after 2005. *(Dividend / Total Assets)* is the total dividend payment made in the year before the listing year (scaled by total assets). The *Family firm dummy* takes the value of one for

¹⁵All ownership variables are obtained from the VPS database. All other pre listing variables are obtained from the listing prospectuses that are made in connection with the listings.

¹⁶In Norway, all shareholders that own more than 5% of the outstanding shares must be reported in the listing prospectus. In the remainder of the article we refer to shareholders that own more than 5% of outstanding shares as block holders.

¹⁷In general, it is expected that private benefits of control should decrease in minority power. There are, however, some sample characteristics that may alter this expectation. In many companies there are a small group of investors that jointly owns a controlling stake in the company together (E.g. a family or a group of friends). It is expected that all of these investors will enjoy the private benefits of control even if one investor have a slightly larger stake than the others. Zwiebel (1995) also argues that there are private benefits of control from block holders that are not the single biggest owner.

family firms. Family firms are identified in the listing prospectuses as firms where members of one family together hold the largest fraction of the company and more than one member of the family is in the senior management of the firm. *Age of company* is the difference between listing year and the year of incorporation. *Number of employees* is the number of annual accumulated full time employees in the issuing company. *Capital raised* is the total number of shares sold in the offering times the offer price. *N. owners before offering* is the number of investors that own shares in the company before the offering. *Capital raised* and *N. owners before offering* are weakly negatively correlated. $(Net\ result / Total\ Assets)$ is the last annual end of year result, scaled by total assets, listed in the listing prospectus. *IT dummy* takes the value of one for companies in the Information Technology (IT) sector. *Year fixed dummy* is included as dummy variables for the different years in the sample period (1993 to 2007).

6. Empirical Results

The main finding of the paper is that companies with more block ownership, before the initial offerings, are more likely to use private placements instead of public offerings as the initial equity offering method. The companies that used private placements as their initial equity issuance method also have owners with higher ownership fractions after the listing than companies that used public offerings. There is also a bigger reduction in the ownership fraction of the biggest owner(s) following public offerings than following private placements.

6.1 *The private benefit of control hypothesis*

The dummy dependent variable private placement (0) or public offering (1) is regressed on the estimated private values of control in a probit regression.¹⁸ In Table 4 it can be

¹⁸We do not expect there to be any problems with endogeneity in the analysis. All independent variables are observed in the listing prospectus before the public offering. We assume that these variables are also

seen that companies that use private placements have a higher combined block ownership fraction before the offerings than other companies. Companies that use private placements are also more likely to be family firms. There are also more private placements after 2006 when the private benefits of control increased in all companies. Companies with more block ownership use more private placements, and companies with less block ownership use more public offerings. Companies with block holders before a private placement have new block holders after the offering. These results control for the alternative explanations for private placements, the level of capital raised and the number of investors that own shares in the companies before the offerings. The results are also robust to the removal savings banks (13).

From Table 5 it can be seen that the exact same results are obtained when the ownership fraction of the single biggest owner is used instead of the combined ownership of block shareholders. Companies with one large owner prior to the initial offering are more likely to use private placements. This show that companies where there is one large owner prior to the offering and more family ownership are more likely to use private placements than public offerings. Companies that issue equity in periods where there is likely to be more private benefits of controlling firms (after 2006) also issue more in private placements. From Table 6 it can be seen that the relationship between private benefits of control and private placements is robust to including year fixed effects. It is not possible to reject the hypothesis that private placements are used to transfer private benefits of control.

6.2 Alternative explanations

publicly available before the private placements even if these may be up to five months before the listing prospectus is available. We argue that the used independent variables are determined before the private placement/public offering choice, and any endogeneity due to simultaneity will therefore not be an issue. The variables in the listing prospectuses are also available in annual (and quarterly) reports. It is reasonably assumed that investors are able to locate this information before the private offering.

Private placements have in the previous literature (in addition to the private benefit of control hypothesis) been explained by monitoring, certification, entrenchment, undervaluation and asymmetric information. There is a positive relationship between the use of private placements and the combined block ownership fraction and the holding fraction of the largest owner before the offering. This is the opposite finding of what is predicted by the monitoring hypothesis. The monitoring hypothesis is therefore rejected. It is likely that younger and smaller companies have more need for certification from informed investors than other companies. There is not a consistent relationship between the use of private placements and company age and number of employees. The certification hypothesis is therefore also rejected. It is expected that there will be a negative relationship between company results and the use of private placements if company management use private placements to keep their control (even if they perform poorly). There is, however, not a consistent relationship between company results before the offering and the use of private placements. The entrenchment hypothesis is therefore rejected. There is also not more private placements used by younger and smaller companies in the IT industry. If private placements are used to reduce the problems associated with information asymmetry, it is expected that there will be a relationship between companies with more information asymmetry (e.g. smaller, younger and IT companies) and the use of private placements. This relationship does not exist and the asymmetric information hypothesis is therefore also rejected.

6.3 Private benefits of control after the listing

If control rights are sold in private placements, there should be greater values of control also after the listing in companies that used private placements. To test for this, it is necessary to regress private benefits of control after the listing on the public offering or private

placement choice (and a set of control variables). Private benefits of control is an unobservable variable that is estimated by a portfolio of measures in the previous regressions. In Table 7 the combined block ownership percentage of all block owners one month after the listing is regressed on the public offering or private placement choice (and the control variables for the alternative explanations). From Table 7 it can be seen that block owners have a significantly larger ownership percentage one month after the listing following private placements than following public offerings. Public offerings are related to smaller block ownership one month after the listing. In Table 8 it can be seen that the same results are found when only the ownership of the single largest owner is studied separately.

In Table 9 the reduction in the ownership percentage of the largest owner(s) is regressed on the private placement or public offering dummy and a set of control variables. The reduction of the largest owner is calculated as the change in the ownership percentage of the single largest owner from six months prior to the listing to one month after the listing. This is the largest owner in the company. This is not the same owner over time. Table 9 show that the reduction in ownership percentage of the controlling owner(s) are significantly larger in public offerings than in private placements. Private placements are related to continued large owners after the listings. Public offerings are related to a reduction in the ownership percentage of the controlling owners. Table 9 show that public offerings are used to reduce the ownership block of the biggest investors. Private placements are used to keep controlling owners. It is not possible to detect a reduction in the ability to enjoy private benefits of control after new listings following private placements. It is, however, possible to detect a significant reduction in the ability of the largest owners to enjoy private benefits of control following public offerings.

7. Conclusion

There is a strong and robust relationship between company block ownership, before the initial equity offering, and the use of private placements. The ownership fraction of the biggest owner(s) before the offering is important for the choice between private placements and public offerings. The biggest owners also have a higher ownership fraction following private placements than following public offerings. If it is assumed that the main reason that investors are willing to hold blocks of shares is to enjoy private benefits of control (either for the single biggest owner to enjoy private benefits of control alone or from block owners that come together to get control), it can be concluded that private placements are used to transfer private benefits of control. Zwiebel (1995) argue that the only reason investors hold blocks of shares is to enjoy private benefits of control. It is rejected that private placements are used because of monitoring, certification, entrenchment, undervaluation or asymmetric information considerations. It is concluded that private placements are used to transfer private benefits of control between the buyer and the seller.

The main theoretical implication of this finding is that Zingales (1995) is correct in that company control rights are better sold separately. Companies are sold based on the value of control rights when they are higher than the stand alone cash flow rights. The finding also have implications for auction theory. When the auction makes it hard to obtain blocks of shares, as in the case of the IPO, the negotiation may be preferred by the seller if there are private benefits of control. An IPO is not exactly the same as an auction and a private placement is not exactly the same as a negotiations in all senses, but there are large similarities. If the auction is designed in a way that makes it hard to buy blocks and the value of a block is higher than the sum of the cash flow value of the shares from private benefits of control, the

seller will prefer a private negotiation to a public auction. The main practical implication of this finding is that companies should use private placements when the value of control rights are higher than stand alone cash flow rights. If there are large values of controlling a firm, the firm should be sold in a private placement.

There are some limitations to the study. Private benefit of control is an unobservable variable that can come from an unlimited number of sources. Private benefit of control is estimated based on existing ownership and company specific variables. A more directly observable measure of private benefit of control would have been preferable. It is also not possible to detect tunnelling in the data. Tunnelling is likely to be a major source of private benefit of control.

For future research it would be interesting to study a bigger sample that includes more firms with obvious private benefits of control such as sports companies. It would also be very interesting to study cross company ownership and related business deals. Business deals by companies with the same ownership would allow us to study tunneling.

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Table 1 Related Studies

Auction (theory)	
Bulow and Klemperer (1996)	Seller prefer to sell in an auction
Bulow and Klemperer (2009)	Buyers prefer to buy in negotiation and sellers prefer to sell in an auction.
French and McCormick (1984)	Auctions are usually preferred
Equity offerings (theory)	
Zingales (1995)	Control rights are optimally sold private
Zingales (1994)	Private benefits of control is dilution of minority property rights
Zwiebel (1995)	There are benefits of blocks smaller than control
Stoughton and Zechner (1998)	Private placements increase monitoring
Attract certain types of investors (empirical)	
Wruck (1989)	Monitoring hypothesis
Hertzel and Smith (1993)	Certification hypotheses
Barclay et al. (2007)	Entrenchment hypothesis
Anshuman et al. (2010)	Undervaluation hypothesis
Brennan and Franks (1997)	Underpricing used to avoid block holder formations
Arugaşlan, Cook and Kieschnick (2004)	Monitoring not important
Wu (2003)	Monitoring not important
Cronqvist and Nilsson (2005)	Private placements reduce moral hazard and adverse selection
Boone and Mulherin (2007)	Auctions does not increase revenue for the seller
Boone and Mulherin (2008)	There is no relation between bidder return and competition

Table 2
IPOs and Private Placements on the Oslo Stock Exchange

This table gives the annual distribution of initial offerings: Column 1 is the sample years. Column 2 is the number of public offerings per year. Column 3 is the average underpricing of the public offerings per year. Column 4 is the total capital raised in all public offerings combined per year in USD. Column 5 is the number of private placements per year. Column 6 is the average underpricing of the private placements per year. Column 7 is the total capital raised in all private placements combined per year in USD. Underpricing is calculated as: (offer price in the listing prospectus – first day closing price) / offer price in the listing prospectus. Value of shares sold is reported in USD using a USD/NOK exchange rate of 0.1792. The sample period is January 1993 through September 2007.

Public Offerings				Private Placements		
Year	N	Distribution Underpricing %	Capital raised M USD	N	Distribution Underpricing %	Capital raised M USD
1993	5	-1.8%	\$474	4	27.4%	\$81
1994	10	4.2%	\$609	2	4.8%	\$20
1995	6	6.7%	\$467	5	8.1%	\$49
1996	4	24%	\$99	5	10.6%	\$49
1997	15	16.6%	\$972	11	34.6%	\$139
1998	8	1.9%	\$185	6	-6.1%	\$108
1999	4	18.7%	\$185	0	0	0
2000	9	-0.9%	\$517	6	36%	\$527
2001	4	-7.4%	\$183	2	6.5%	\$483
2002	2	-9.8%	\$70	1	2.5%	\$210
2003	2	-2.3%	\$83	0	0	0
2004	13	5.6%	\$1,602	1	5.5%	\$3.6
2005	20	3.3%	\$1,709	18	6.6%	\$1,711
2006	12	3.2%	\$1,417	9	9.2%	\$584
2007	9	3.3%	\$793	18	6.9%	\$1,077
Total	123	5.3%	\$9,365	88	12.7%	\$5,074

Table 3
Summary Statistics on Firms Going Public

This table show the difference between companies using initial private placements and initial public offerings. "Combined block ownership" is the combined ownership of all investors that owns more than 5% of the company before the offering. "Holding of largest owner b. offer" is the holding fraction of the single biggest owner before the offering "Holding % of largest owner a. listing" is the holding fraction of the single biggest owner one month after the listing. "Reduced % of largest owner" is the difference in the ownership fraction of the largest owner from before the offering to one month after the listing. "Largest owner is the CEO dummy", "Largest owner is on the board dummy", "The founder is the CEO dummy" and "The founder is on the board dummy" are dummy variables that take the value of one if the biggest owner or founder are the CEO or on the board. Herfindahl index is the sum of the squared ownership fraction of the 50 biggest owners besides the largest owner. "Age of company" and "Number of employees" is the age and the number of employees of the issuing company. "2006 dummy" and "Family firm dummy" takes the value of one for issues after 2006 and family firms respectively. "Capital raised " is the offer price times the number of shares sold in the offering. "N. owners before offering" and "First day return %" are the number of owners in the company before the offering and the first day return from offer price to first day closing price respectively. "Market value" is the number of outstanding shares at the listing day times the first day closing price. "Fraction of company sold" is the fraction of sold shares to outstanding shares in the offering. "Net result", "Dividends" and "Total assets" are the last annual result, dividend paid and total assets reported in the listing prospectus before the offering. The t -statistic is calculated as: $(\text{Mean private placements} - \text{mean public offerings}) / (\text{square root} [(\text{variance private placements} / \text{numbers of private placements}) + (\text{variance public offerings} / \text{numbers of public offerings})])$.

Variables	Private placement			Public offering			Difference	
	Obs.	Mean	Std.Dev	Obs.	Mean	Std.Dev	Diff.	t-stat.
Combined block ownership	88	0.78	0.23	123	0.76	0.26	0.02	(0.6)
-with no savings banks	88	0.78	0.23	110	0.74	0.26	0.04	(1.1)
Holding largest owner b. offer	88	0.5	0.31	123	0.5	0.34	-0.01	(-0.2)
-with no savings banks	88	0.5	0.31	110	0.47	0.32	0.02	(0.7)
Holding largest owner a. listing	85	0.3	0.16	123	0.26	0.18	0.04	(1.7)
Reduced % of largest owner	85	0.2	0.23	123	0.25	0.32	-0.05	(-1.3)
Largest owner is the CEO D	88	0.24	0.43	123	0.16	0.37	0.08	(1.4)
Largest owner is on the board D	88	0.52	0.5	123	0.31	0.46	0.21	(3.1)
Herfindahl index	88	0.05	0.05	123	0.04	0.05	0.01	(1.4)
The founder is the CEO D	88	0.27	0.45	123	0.18	0.38	0.09	(1.5)
The founder is on the board D	88	0.36	0.48	123	0.23	0.42	0.13	(2.0)
Age of company in years	88	19.5	28.4	123	36.2	47	-16.7	(-3.2)

Table 3 continued. Variables	Private placement			Public offering			Difference	
	Obs.	Mean	Std.Dev	Obs.	Mean	Std.Dev	Diff.	t-stat.
Number of employees	88	507	1,343	123	735	2,220	-228	(-0.9)
2006 dummy	88	0.31	0.46	123	0.17	0.38	0.14	(2.3)
Family firm dummy	88	0.27	0.45	123	0.12	0.32	0.15	(2.7)
IT dummy	88	0.15	0.36	123	0.2	0.4	-0.05	(-0.9)
Capital raised (Mill USD)	88	57.3	93.1	123	75.1	121	-17.8	(-1.2)
N. owners before offering	88	233	654	123	135	265	98	(1.3)
First day return	88	0.13	0.334	123	0.05	0.14	0.08	(2.0)
Market value E. (Mill USD)	88	351.8	525.2	123	236.6	418.7	115.2	(1.7)
Fraction of company sold	88	0.22	0.24	123	0.41	0.26	-0.19	(-5.5)
Net result (Mill USD)	88	5.6	74.5	123	4.2	30.8	1.4	(0.2)
Dividends (Mill USD)	88	0.31	0.96	123	1.4	9.3	-1.1	(-1.3)
Total assets (Mill USD)	88	912	4,926	123	408	968	504	(0.9)

Table 4
Private Placements and Private Benefits of Control of Block Owners

This table reports the coefficients and t -statistics in parentheses for the regressions with the dummy variable that takes the value of one for IPOs and zero for private placements as the dependent variable. All regressions are standard Probit models. The sample period is September 1993 to January 2007. All variables are as described in Table 3. Age, employees, capital raised and number of owners are in log in all regressions. In all Regressions the combined block ownership fraction of all investors with a holding percentage above 5% before the (first) offering are included. In Regression 1 and 2 savings banks (13) are dropped. Regression 2 includes White (1980) robust standard errors. In regression 3 all savings banks (13) are included. No independent variables have a correlation above 0.5.

	Dummy IPO (1) or Private Placement (0)		
	Reg 1	Reg 2	Reg 3
Intercept	-3.7758 (-2.3)	-3.7758 (-2.2)	-3.1326 (-1.9)
Combined block ownership fraction	-2.0244 (-2.8)	-2.0244 (-2.8)	-2.0456 (-2.8)
Largest owner is the CEO dummy	0.2298 (0.8)	0.2298 (0.8)	0.1654 (0.6)
Largest owner is on the board dummy	-0.2156 (-0.9)	-0.2156 (-0.9)	-0.2618 (-1.1)
Herfindahl index	1.515 (0.8)	1.515 (0.8)	0.4645 (0.2)
The founder is the CEO dummy	-0.3396 (-1.1)	-0.3396 (-1.1)	-0.348 (-1.2)
The founder is on the board dummy	0.2199 (0.8)	0.2199 (0.8)	0.1652 (0.6)
Age of company	0.1298 (1.6)	0.1298 (1.4)	0.2004 (2.6)
Number of employees	0.0945 (1.7)	0.0945 (1.6)	0.072 (1.4)
2006 dummy	-0.4829 (-2.0)	-0.4829 (-2.0)	-0.4951 (-2.1)
Family firm dummy	-0.5202 (-1.8)	-0.5202 (-1.9)	-0.5425 (-1.9)
Capital raised	0.2786 (3.4)	0.2786 (3.3)	0.256 (3.2)
N. Owners before the offering	-0.1256 (-1.7)	-0.1256 (-1.7)	-0.1521 (-2.1)
Net result / Total Assets	0.3123 (1.2)	0.3124 (1.6)	0.2913 (1.1)
Dividend / Total Assets	4.5216 (0.8)	4.5216 (0.9)	3.4597 (0.7)
IT dummy	0.4253 (1.5)	0.4253 (1.6)	0.4199 (1.4)
Observations	198	198	211
Pseudo R -squared	16.4%	16.4%	17.6%

Table 5
Private Placements and Private Benefits of Control of the Single Biggest Owner

This table reports the coefficients and t -statistics in parentheses for the regressions with the dummy variable that takes the value of one for IPOs and zero for private placements as the dependent variable. All regressions are standard Probit models. The sample period is September 1993 to January 2007. All variables are as described in Table 3. Age, employees, capital raised and number of owners are in log in all regressions. In all Regressions the ownership fraction of the single biggest owner before the (first) offering is included. In Regression 1 and 2 savings banks (13) are dropped. Regression 2 includes White (1980) robust standard errors. In regression 3 all savings banks (13) are included. No independent variables have a correlation above 0.5.

	Dummy IPO (1) or Private Placement (0)		
	Reg 1	Reg 2	Reg 3
Intercept	-4.6415 (-2.9)	-4.6415 (-2.8)	-4.0439 (-2.6)
Holding fraction of largest owner before offering	-1.5283 (-2.5)	-1.5283 (-2.4)	-1.5313 (-2.6)
Largest owner is the CEO dummy	0.2489 (0.9)	0.2489 (0.9)	0.1852 (0.6)
Largest owner is on the board dummy	-0.257 (-1.0)	-0.257 (-1.0)	-0.303 (-1.2)
Herfindahl index	-3.9762 (-1.6)	-3.9762 (-1.5)	-5.0464 (-2.1)
The founder is the CEO dummy	-0.3744 (-1.3)	-0.3744 (-1.3)	-0.3821 (-1.3)
The founder is on the board dummy	0.2393 (0.9)	0.2393 (0.9)	0.1855 (0.7)
Age of company	0.1346 (1.6)	0.1346 (1.4)	0.203 (2.6)
Number of employees	0.077 (1.4)	0.077 (1.3)	0.0556 (1.0)
2006 dummy	-0.5095 (-2.1)	-0.5095 (-2.2)	-0.5206 (-2.2)
Family firm dummy	-0.4829 (-1.7)	-0.4829 (-1.8)	-0.5055 (-1.8)
Capital raised	0.2998 (3.6)	0.2998 (3.4)	0.2789 (3.4)
N. Owners before the offering	-0.1183 (-1.6)	-0.1183 (-1.6)	-0.145 (-2.0)
Net result / Total Assets	0.3284 (1.2)	0.3284 (1.7)	0.3076 (1.1)
Dividend / Total Assets	3.9909 (0.8)	3.9909 (0.8)	3.0634 (0.6)
IT dummy	0.421 (1.5)	0.421 (1.6)	0.4179 (1.5)
Observations	198	198	211
Pseudo R -squared	15.8%	15.8%	16.9%

Table 6
Private Placement and Private Benefits of Control - Year Fixed Effects

This table reports the coefficients and standard t -statistics in parentheses for the regressions with the dummy variable that takes the value of one for IPOs and zero for private placements as the dependent variable. All regressions are standard Probit models. The sample period is September 1993 to January 2007. All variables are as described in Table 3. Regression 1 and 3 includes year fixed effects and the combined block ownership fraction before the offering. Regression 2 and 4 includes year fixed effects and the holding fraction of the single largest owner before the offering. In regression 3 and 4 all savings banks (13) are included. No independent variables have a correlation above 0.5.

	Dummy IPO (1) or Private Placement (0)			
	Reg 1	Reg 2	Reg 3	Reg 4
Intercept	-4.3351 (-2.2)	-5.2256 (-2.8)	-3.6263 (-1.9)	-4.5002 (-2.5)
Combined block ownership fraction	-1.9282 (-2.5)		-1.8672 (-2.4)	
Holding fraction of largest owner before offering		-1.5167 (-2.4)		-1.4764 (-2.3)
Largest owner is the CEO dummy	0.1811 (0.6)	0.204 (0.6)	0.1156 (0.4)	0.1377 (0.4)
Largest owner is on the board dummy	-0.3166 (-1.1)	-0.3572 (-1.3)	-0.3425 (-1.2)	-0.3803 (-1.4)
Herfindahl index	2.9923 (1.4)	-2.3186 (-0.9)	1.305 (0.6)	-3.8551 (-1.5)
The founder is the CEO dummy	-0.3931 (-1.2)	-0.4329 (-1.3)	-0.387 (-1.2)	-0.425 (-1.3)
The founder is on the board dummy	0.2501 (0.8)	0.2547 (0.8)	0.1538 (0.5)	0.1625 (0.5)
Age of company	0.1224 (1.4)	0.1342 (1.5)	0.2132 (2.6)	0.2212 (2.6)
Number of employees	0.0924 (1.6)	0.0727 (1.2)	0.0597 (1.0)	0.0419 (0.7)
2006 dummy	-0.29 (-0.5)	-0.1931 (-0.4)	-0.3488 (-0.6)	-0.2583 (-0.5)
Family firm dummy	-0.4996 (-1.6)	-0.463 (-1.5)	-0.5252 (-1.7)	-0.4857 (-1.6)
Capital raised	0.3048 (3.3)	0.3271 (3.4)	0.2801 (3.2)	0.303 (3.3)
N. Owners before the offering	-0.1051 (-1.3)	-0.1027 (-1.3)	-0.1416 (-1.8)	-0.1416 (-1.8)
Net result / Total Assets	0.3574 (1.2)	0.3762 (1.3)	0.3003 (1.1)	0.3239 (1.2)
Dividend / Total Assets	4.7078 (0.8)	3.4868 (0.6)	3.5196 (0.6)	2.4382 (0.4)
IT dummy	0.4174 (1.3)	0.3761 (1.1)	0.3965 (1.2)	0.3652 (1.1)
Year fixed dummy	yes	yes	yes	yes
Observations	193	193	205	205
Pseudo R -squared	21.9%	21.6%	22.1%	21.9%

Table 7
Block Owners own more of the Company Following Private Placements

This table reports the coefficients and heteroscedastic consistent t -statistics (errors adjusted for clustering across firms Rogers, 1993) in parentheses for the regressions with the combined ownership percentage of the biggest owners one month after the listing as the dependent variable. All regressions are standard OLS models. The sample period is September 1993 to January 2007. All variables are as described in Table 3. Regression 1 drops savings banks (13). Regression 2 includes savings banks (13). No independent variables have a correlation above 0.5.

	Combined block ownership % after the listing	
	Reg 1	Reg 2
Intercept	71.1734	67.771
	(2.9)	(3.2)
Dummy IPO (1) or Private Placement (0)	-4.5329	-8.4463
	(-2.0)	(-3.3)
Age of company	2.3088	0.2019
	(2.5)	(0.2)
Number of employees	0.435	1.4037
	(0.7)	(1.7)
Capital raised	-0.4381	-0.365
	(-0.4)	(-0.3)
N. Owners before the offering	-1.6963	-0.5708
	(-2.7)	(-1.0)
Net result / Total Assets	-2.1682	-1.1675
	(-1.3)	(-0.5)
IT dummy	-1.1653	-1.003
	(-0.3)	(-0.3)
Year fixed dummy	yes	yes
Observations	195	208
Adjusted R -squared	11.1%	8.1%

Table 8
The Biggest Owner have a Larger Ownership % Following Private Placements

This table reports the coefficients and heteroscedastic consistent t -statistics (errors adjusted for clustering across firms Rogers, 1993) in parentheses for the regressions with the ownership percentage of the biggest owner one month after the listing as the dependent variable. All regressions are standard OLS models. The sample period is September 1993 to January 2007. All variables are as described in Table 3. Regression 1 drops the savings banks (13). Regression 2 includes the savings banks (13). No independent variables have a correlation above 0.5.

	Ownership % of the biggest owner after the listing	
	Reg 1	Reg 2
Intercept	10.7614	6.9755
	(0.5)	(0.3)
Dummy IPO (1) or Private Placement (0)	-3.4035	-6.3423
	(-1.8)	(-3.1)
Age of company	2.9051	1.3201
	(2.5)	(1.1)
Number of employees	0.0852	0.8391
	(0.2)	(1.5)
Capital raised	0.9532	1.0741
	(0.8)	(1.0)
N. Owners before the offering	-1.9657	-1.1421
	(-2.6)	(-1.6)
Net result / Total Assets	0.7173	1.4292
	(0.3)	(0.7)
IT dummy	-6.1962	-5.6924
	(-2.3)	(-2.2)
Year fixed dummy	yes	yes
Observations	195	208
Adjusted R -squared	15.7%	9.7%

Table 9
Reduction in Controlling Ownership from the Offering

This table reports the coefficients and White (1980) heteroscedasticity consistent t -statistics in parentheses for the regressions with the change in the ownership percentage of the combined block owners and the biggest owner from before the offering to one month after the listing as the dependent variable. The regressions are standard OLS models. The sample period is September 1993 to January 2007. All variables are as described in Table 3. The sample size is 247 because only ownership variables are used and this reduces the number of missing observations. Regression 1 and 2 use the “Reduced % of block owners” as the dependent variable. Regression 3 and 4 use the “Reduced % of the largest owner” as the dependent variable. Regression 2 and 4 drop all control variables. No independent variables have a correlation above 0.5.

	Reduced % of block owners		Reduced % of largest owner	
	Reg 1	Reg 2	Reg 3	Reg 4
Intercept	-51.3017	-51.4948	46.6942	19.1943
	(-11.0)	(-28.4)	(10.4)	(8.0)
Dummy IPO (1) or Private Placement (0)	7.3362	7.2658	4.8388	6.1761
	(3.0)	(2.9)	(2.0)	(1.8)
Capital raised	-0.1724		0.1148	
	(-0.8)		(0.6)	
N. owners before offering	0.8594		-9.2535	
	(1.3)		(-13.6)	
Observations	247	247	247	247
Adjusted R -squared	3.3%	2.7%	51%	0.7%

Figure 1 Timeline of the Listings on the Oslo Stock Exchange

Listing in database is when the company list ownership records in the ownership database. This is when the ownership records are observed in the data the first time. Public Offering or Private Placement is when the companies distribute the allocated shares in the ownership database. The private placement can be at any point in time in the six month period leading up to the listing. The public offering is in most cases in the month before or the month of the listing.

Timeline of the listing	Private Placements	Public Offerings
Six months before the listing	Listing in database Meeting with the OSE Compliance report Due diligence Application submitted Prospectus is made Private Placement	Listing in database Meeting with the OSE Compliance report Due diligence Application submitted Prospectus is made
One month before the listing	(Public Offering) (Employee offering)	Public Offering (Employee offering)
Listing month	Listing	Listing

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