The Pre-IPO Dividend Puzzle

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We investigate dividend payments of companies prior to their IPOs. U.S. companies conducting an IPO between 1990 through 2006 comprise our sample. Pre-IPO dividend payments are significant both in number and size. We find support for the hypothesis that pre-IPO shareholders use dividends as a means to secure liquidity around the IPO. In such a way they avoid the bad signal of selling shares at the IPO itself. Furthermore, managers are actively managing their cash holdings prior the IPO. They fear the market undervalues the marginal dollar of excess cash in the IPO and reduce their cash holdings accordingly. We reject the hypothesis that managers can take advantage of a window of opportunity by stripping the company of its hard assets before going public.

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1. Introduction

In May 2006, Burger King conducted an Initial Public Offering (IPO). It sold primary shares to raise 400 million USD in new funds. However, shortly before going public, they paid out a dividend of 367 million USD to old shareholders in February 2006. At the same time, they paid 33 million USD in special compensation payments to its senior management. This pattern of events illustrates the puzzle we investigate here: Why would a company choose to pay dividends only to pay fees shortly afterwards to raise monies in an IPO?

An extensive literature analyzes cash holdings after IPOs, such as McLean (2008), an investigates dividend initiations after the IPO, such as Lipson, Maquieira and Megginson (1998). Surprisingly, the phenomenon of dividend payments prior to an IPO has received little attention. This paper assesses that surprising phenomenon.

First, we develop three different potential explanations as to why a firm contemplating an IPO, and its shareholders, might pay dividends prior to going public, as opposed to merely selling shares on the IPO to receive equivalent cash. The first two involve avoiding negative signals. The third is to overcome insufficient valuation of a particular asset: cash on hand is undervalued in an IPO.

Leland and Pyle (1977) argue that stock sales by insiders as part of an IPO send a negative signal to the market. Investors are afraid that inside shareholders are trading on private information and will potentially avoid investing in the IPO. Brau and Fawcett (2006) find that managers are indeed concerned about this signal. Thus, managers might try to use dividends as a means to circumvent sending this negative signal: either by substituting the dividend payment prior to the IPO for selling secondary shares to secure liquidity. Alternatively, a manager might split the amount of liquidity he receives into two parts, dividend payments prior to the IPO and secondary shares in the IPO. To be clear, if the dividend strategy succeeds, it is due to sleight of hand. The pre-IPO shareholders will have cashed the same amount and have the same share of the final company as if

they had merely sold equal valued secondary shares on the IPO. Moreover, they will be behind due to IPO fees and the higher taxes on dividends than capital gains.

In a second explanation, also starts with managers believing their company to be temporarily overvalued. The managers want to take the advantage of this window of opportunity to go public. But now it would be the cash itself, not the sale of secondary shares that would raise suspicions. With lots of cash on hand, potential investors would ask why a company needs the new funds of an equity issuance. Here too, the success of the dividend strategy would require magical misdirection. Investors would have to overlook the payment of dividends given that the company would soon be paying fees to secure cash shortly thereafter. In addition, the manager assumes a long term underperformance due to the overvaluation. Consequently, the manager will reduce the level of cash and strip the company of its hard and liquid assets before going public.

Our third hypothesis argues that the market simply undervalues excess cash in an IPO. The market focuses foremost on the prospects of the firm going public, such as new products, new technology and other stories surrounding the offering. In such a scenario, the market barely considers the amount of liquidity in the company, and thus undervalues it. Consequently it is optimal for managers to reduce the undervalued excess cash before the IPO.

Dividend payments are public information. Thus, our first two hypotheses imply that investors do not accurately monitor the company or do not fully disentangle the motivation behind such dividend payments.

We distinguish between dividend payments between two intervals: six month before the company goes public, and three years prior to the IPO. Dividend payments , even in the shorter six-month period, are large in number and economically significant. This is true both in relation to proceeds raised in an IPO, as well as in relation to the market value of the company.

By looking after the IPO, we distinguish two very different types of companies paying dividends prior to their offering. “Continuous” dividend paying companies continue to pay dividends after the offering. “Spasm” companies pay only dividends shortly the offering and refrain

from paying dividends after the offering. “spasm” companies are very similar to companies not paying dividends before or after the IPO in terms of their firm characteristics. “Continuous” dividend paying companies, by contrast, are much larger and older than both other groups.

We find evidence supporting our hypothesis that pre-IPO shareholders use dividends to extract value as they reduce ownership in the company. Dividends paid out by “spasm” companies help to explain the amount of primary shares offered: more dividends, more shares. This implies that the company refinances the dividends paid out shortly before going public by selling primary shares. “Continuous” dividend paying companies produce the opposite pattern: the more dividends they pay, the less new funds they raise through primary shares.

As one would expect, we observe a higher selling propensity by insiders for “spasm” companies once the lockup period ends. We reject the second hypothesis that manager believe their company to be overvalued and thus try to strip the company of part of its liquid assets.

“Continuous” dividend paying companies overperform both the non-dividend paying companies as well as “spasm” companies. However, these differences prove not to be significant in a multivariate setting.

We observe evidence consistent with our undervaluation of cash hypothesis. Under this hypothesis, managers will reduce their excess cash holdings until they believe the market values a dollar in cash correctly. Cash holdings in absolute terms after dividends for “spasm” companies are remarkably similar to those of non-dividend paying companies in absolute terms, both on average and in the median. However, taking into consideration the dividends already paid out, they would exhibit significantly larger cash holdings than non-dividend paying companies, supporting our hypothesis. Normalizing cash holdings by assets in place yields a similar pattern as described above.

In the next step we regress the impact of cash before the IPO on the valuation of the IPO at the offer day. We find that the coefficient of pre-IPO cash holdings on Tobin’s Q at the time of the offering is positive. However, its square term is negative. This supports the hypothesis that value of

each additional dollar of cash on the balance sheets is positive, whilst its incremental value on the firm valuation is decreasing. Thus, by managing their cash and paying out dividends prior to the IPO, companies minimize wealth losses due to undervaluation of excess cash.

The remainder of the paper proceeds as follows: Section 2 describes the literature. Section 3 illustrates three potential hypotheses explaining this phenomenon and subsequently discusses the costs and benefits of paying dividends versus selling secondary shares. In Section 4 we describe the data and Section 5 develops testable predictions and take these to the data. Section 6 concludes.

2. Literature

Each of our three hypotheses provides a reason why companies would pay a dividend as opposed to achieving the same result more cheaply by selling shares on the IPO. The only significant difference would be the cash on hand at the time of the IPO. Thus, we start with the question of how cash in a company is valued.

Several papers in the literature investigate the value of cash in established companies. Pinkowitz and Williamson (2007) look into the value of US companies across different industries. They find that on average the marginal market value of a dollar of cash in the balance sheet is one dollar. However, they observe a very pronounced cross-sectional variation across industries. Pinkowitz, Stulz and Williamson (2006) undertake a cross-country study. They show that cash holdings of companies are valued more highly in countries with good shareholder protection, whereas dividend payments are valued more highly in countries with low shareholder protection. Both use a derivation of a Fama and French (1998) model to evaluate cash.

Other papers investigate the cash holdings after the IPO and its implications, see for example McLean (2008).

Faulkender and Wang (2006) investigate the marginal value of cash of publicly listed companies. They identify three different regimes that lead to significantly different valuations of the

marginal dollar. They argue that cash distributing companies, those that pay out dividends, will receive a marginal value of cash of less than one dollar. That is because of dividend taxes, corporate taxes and individual taxes that have to be subtracted. Thus a dollar in the balance sheet may be worth, in their numerical example, only 57 cents. Furthermore they argue that highly leveraged companies will have a lower marginal value of cash, as the cash will benefit debt holders. In contrast, companies which seek to raise cash are expected to have a marginal value greater than one dollar. As they seek to raise capital for new projects, they have to pay a transaction costs for each dollar they need.

Cash raising companies are our focus of interest. Leaving aside the costs of conducting a roadshow, and the effects on increasing the costs of raising still further capital in the future, a firm with a 300 million USD IPO can expect to pay about 7% on the margin for each extra dollar of cash raised. This explains why paying dividends prior to an IPO represents a puzzle. Each dollar paid out gets replaced with a dollar that costs the firm at least $1.07. This figure will be even higher when we consider the costs incurred due to the traditional underpricing of the offering.

Companies paying out dividends before a seasoned equity offering are not rare events, as has been shown by Deangelo, Deangelo and Stulz (2007). They find that a large number of companies conducting a Seasoned Equity Offering (SEO). 41.4% of companies in their sample pay dividends in the year prior to the equity offering. They find evidence that companies that conduct a SEO issue shares because they face a high probability of future liquidity needs, which makes the dividend-payment appear puzzling or ill considered.

3. Motivation and costs of paying out dividends prior to the IPO versus selling secondary shares in the IPO

In the first part of this section we will elaborate the different potential hypotheses explaining the managers' motivation to partly exit via dividends prior to the IPO instead of selling secondary shares during the IPO. In the second part we highlight the different costs and tax treatments involved.

Potential motivation to exit via dividends

We identified three potential motivations of managers to pay out dividends prior to the offering. We discuss these three theoretically and then take them to the data in the section that follows.

Ritter and Welch (2002) cite several reasons for a company to go public. They argue that financial reasons are the primary motivation and non-financial reasons are of only minor importance. The two main financial reasons are raising new funds for the company for future investments, and old shareholders to diversify/exit (Zingales (1995). Additional reasons to conduct an IPO include the possibility to raise future funds via SEOs, higher stock liquidity, increased visibility by the firm or having a market price on the company to facilitate mergers and acquisitions.

The number of IPOs, as shown by Lowry (2003), varies greatly over time. She shows that the number depends on capital demand of businesses as well as investor sentiment, also called the "window of opportunity". Selling in favorable windows enables managers to take advantage of their knowledge of a temporary overvaluation of their company, or indeed their industry, by the stock market.

Being aware of the informational advantage of managers, potential investors try to infer from managerial behavior and the balance sheet of the firm the motivation behind any equity

issuance. By paying dividends/modifying their cash in the balance sheets, managers may try to alter or jam that signal.

Paying out dividends to avoid selling secondary shares to the market.

Managers and shareholders have the potential to significantly reduce the equity stake in the company during an IPO by issuing a large value of secondary shares. However, they generally refrain from doing so. Managers correctly fear that selling a large number of secondary shares during an IPO will send a bad signal to the market as Leland and Pyle (1977) as well as Brau and Fawcett (2006) point out. The number and type of shares offered in an IPO are part of the registration statement and the prospectus, as required by the Securities Act of 1933 (Ellis, Michaely and O'Hara (2000)) and thus known to the public. Managers believe that selling a large value of secondary shares will lead to a lower offer price. To try avoid sending this negative signal, but still to secure liquidity, managers possibly revert to paying out the total or part of the amount by which shareholders wish to disinvest in the form of dividends prior to the IPO. During the IPO the company subsequently sells primary shares, which do not send a negative signal to the market, and refinances in such a way the amount prior paid out in form of dividends,

Window of Opportunity - Stripping a company of its hard assets

Several papers have found evidence that managers act according to the "Window of Opportunity" theory, both for IPOs (Lowry (2003)) as well as for SEOs (Lee (1997), Clarke, Dunbar and Kahle (2004)). Managers believe that investor sentiment is sometimes high and thus that investors overvalue their company. Thus, the project of going public is in itself a positive net present value (NPV) project and managers do not seek the cash raised to be invested into new projects. Managers expect, however, that the value of the company will revert towards its true value and thus decrease from the offer price and underperform. Investors overvalue future investment opportunities and intangible assets, not the cash on the balance sheet.Thus, managers have an

incentive to try to strip off the company of hard assets, such as cash, before bringing the overvalued company public, which consequently underperforms in the long run. In addition, the amount of cash held by a specific company prior to going public sends a certain signal to the market. Managers might fear that a very high level in cash holdings provokes the question of potential investors as to why a company needs the new funds of the equity issuance. For example, the pecking order theory predicts that managers, due to agency costs, would first revert to internal funds, than debt and would only raise money at the stock market as the third option (Myers and Majluf (1984)). Investors might infer from an IPO where there is cash on hand that managers act on private information such as the window of opportunity. In such instances the management will try to reduce cash holding to levels of cash holdings of the average (non-dividend paying) IPO or to the average industry level in order to avoid this discount. Thus, managers have an additional motivation to decrease cash holdings under this hypothesis.

Undervaluation of cash

Under this hypothesis the market focuses on certain aspects of the firm going public. For example, it concentrates its attention to new technologies, new products or new patents. For example, during the internet bubble of the late 90's the market became very focused on new internet and biotech start-ups, which it thought would revolutionize business in the future. Valuations were often based on multiples of sales. Other aspects of the company, such as cash, were probably undervalued. Thus, a dollar of dividends paid out is more valuable than the (undervalued) marginal dollar in cash in the company at the time of the IPO. Hence, managers will reduce the amount of cash until the manager believes the cash in the company to be valued correctly.

Costs involved in paying dividends versus selling secondary shares

The tax treatment of paying dividends as opposed to selling secondary shares during the offering has changed over time. The U.S. tax system is a "classical tax system" (Graham (2003)). In

such a system interest, capital gains and dividends are paid upon receipt by the individual investors. In the context of this paper, the investor has to pay dividend taxes in case of a cash payout prior to the offering and capital gains tax in case he is selling shares during the IPO. In the following discussion, we will address first dividend taxation and then capital gains taxation.

Until 2003, dividends were taxed according to the marginal tax rate of the individual recipient, with a maximum of 35 percent. The Jobs and Growth Tax Relief Reconciliation Act of 2003 (thereafter "tax act 2003") provided a significant change of tax levels of dividend, reducing it to 15%[3] (Chetty and Saez (2005)). The impact of this reduction in dividend taxes has been investigated in several studies. Armstrong, Davila and Foster (2006) find a 20% increase in new dividend enactments. These increases were especially strong for companies with an ownership structure that benefited most from this tax reduction. Moreover, companies with a high incentive for the manager to adapt to the new tax treatment, thus companies with high share ownership and low option holdings by executives, responded especially strongly.

In this study we focus on pre-IPO shareholders and their exit strategies. On average, these individuals, for example founders, venture capitalists business partners such as venture capitalists as well as managers, own a considerable stake of the company which they bring public. Thus, we argue that it is reasonable to assume that these investors will belong to a high income group and tax group. In the subsequent investigation we assume their dividend tax rate prior the tax act 2003 to be 33 or 35 percent and after the tax act to be 15 percent. Their capital gains taxes are assumed to be 28 percent up to 1997, 20 up to 2003 and 15 percent thereafter.

INSERT Figure 1 HERE

Figure 1summarizes the tax rate on dividends as well as capital gains for an individual with an income of $100,000. In summary we can deduct that, from a tax point of view, exiting via

[3] See Appendix for a more detailed discussion on tax rate changes in our sample period

dividends is worse for pre-IPO shareholders than exiting via share-sales up until the tax act 2003 became law. Between 1990 and 1997, the tax on dividends was 7 percent higher than the capital gains tax. Between up until 2003 the difference increased to 15 percent. After 2003 they were taxed equally. In addition to the tax rate, the amount to be taxed differs. Investors have to tax the dividends as a whole, while they only have to tax the gains when selling during the IPO. From the standpoint of the company, paying out dividends or selling secondary shares does not alter its tax liabilities. Hence, the company is indifferent between these two payments to shareholders from a tax point of view.

We will examine how these different tax gaps affected the use of dividend payout prior to the IPO. We study dividend payouts up to three years before the IPO, but focus most attention on those in the six months prior to the IPO.

Exit costs

When shareholders exit, before or during the IPO, changes the type of charges incurred. We focus on companies conducting equity offerings. Hence, we assume that the company or other insiders are not able or willing to fully pay out existing shareholders from internal sources. The company is forced to refinance itself by raising equity.

The most relevant cost factors incurred during the IPO are the investment banking fees, which are proportional to the total proceeds raised. The gross spread, the sum of the management fee, the underwriting fee and the selling concession, refers to the total fees which investment banks charge in an IPO. It is clustered at 7% for the most U.S. IPOs as shown by Chen and Ritter (2000).

The gross spread is calculated as a percentage of total proceeds raised. Consequently, the exit costs via secondary shares compared to the costs of exiting via dividends plus primary shares are identical. In addition, the underpricing[4] of IPO can be viewed as an additional substantial cost[5]

[4] The difference between the offer price and the share price at the end of the first trading day
[5] Underpricing varies over time with an average of 22% over the past 20 years and a maximum average in 1999 of 71%

in going public. However, this cost is relative to the total proceeds and thus identical for both types of shares sold.

Alternatively pre-IPO shareholders can exit after the IPO, more precisely after the end of the lockup period of the IPO. IPOs are in general followed by a lockup period of 180 days. The lockup period is a voluntary agreement between the underwriter and the investment bank in which the pre-IPO shareholders agree not to sell, short sell or in any other way disinvest from the company. Thus, if pre-IPO shareholders do not exit during or before the IPO, the first time they could sell their shares is 180 days after the offer day, but the seller would avoid the investment banker fees, and the firm would avoid the warrant cost. The costs incurred at this point in time results only from the actual selling of the shares.

4. Data and descriptive statistics

Companies that conducted an IPO and issued common class A shares from the years 1996 until 2006, and that are listed on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) or NASDAQ subsequent to the offering comprise our sample. There are the following exceptions. Consistent with previous research we omit unit offerings, Real Estate Investment Trusts (REITS), American Depository Receipts (ADRs), closed-end mutual funds, financial companies and utilities. Consistent with IPO literature (Ritter and Zhang (2007)). We also drop all offerings with an offer price of less than $5. We omit companies with a negative book value. We screen for and correct the data on possible errors such as inconsistencies in primary and secondary shares offered and the resulting proceeds, the number of shares outstanding, missing or erroneous sales, and errors in the high tech firms' classification. Our final sample includes 4,227 companies

We rely on the Securities Data Company (SDC) database. From SDC we obtain information on the IPO, the offer price, insider ownership at the time of the offering, and primary and secondary

shares offered. Stock returns, share volume traded and shares outstanding are secured from the Center for Research in Security Prices (CRSP). Data on dividends, cash, assets and other financial variables used in this study are obtained from Compustat. We use third-party sources, for example as provided by Jay Ritter (2006), to correct our sample. As robustness checks, we cross-check the pre-IPO dividend payments obtained from the databases with the information provided in the offering prospectus. For each of the sample firms we collect insider trading data from Thomson Financial, which in turn obtains insider trading records published by the Securities and Exchange Commission (SEC). We examine all open market transactions following the end of the lockup period for 50 calendar days.

Are cash dividend pay-outs economically significant?

To address this question, we investigate the frequency of such payouts and their magnitude. We look at dividends paid out in different time periods prior to the offering: 3 years, 1 year, 6 month and three month prior to the offering.[6] Additionally we investigate the dividends paid out by "continuous" dividend paying companies and "spasm" companies. We define magnitude in this context as the amount of proceeds that had to be raised in the IPO in order to refill the cash distributed via dividends beforehand. Hence, we normalize the sum of these cash dividends by the proceeds of the primary shares offered during the IPO. We focus on proceeds from primary shares that benefit the company. Selling shareholders, on the other hand, receive the proceeds from their secondary shares sold. In a second analysis we relate the dividends paid to the total market capitalization of the respective company.

Are cash dividend payouts before an IPO a rare event?

We find companies pay out dividends frequently prior to their IPO. We observe a total of 1,282 IPOs, out of 4,227 IPOs in total, in which companies paid out cash dividends during the three

[6] We use the annual Compustat database, because the quarterly Compustat database lists dividends sometimes twice. In future work we will reduce the one year window to a three month window prior to the IPO.

years before the IPO. This represents 30% of all IPOs in our dataset. In the year leading up to the IPO we observe 1,036 companies paying out dividends, representing 25% of our sample. Even when focusing on the quarter leading up to the IPO and the quarter of the IPO itself we see 924 companies (21.9%) which pay out cash dividends.

Number of companies paying cash dividends before the IPO

Companies paying cash dividends	Number of continous payer	Number of spasm companies	Total Dividend Payer in the Period
3 months prior to IPO	117	726	843
6 months up to 3 months prior to IPO	83	540	623
1 year up to 6 months prior to the IPO	98	227	325
3 years up to 1 year prior to the IPO	47	552	599

Do companies paying out pre-IPO dividends differ?

We observe a stark difference between "continuous" dividend paying firms and "spasm" dividend paying firms. Table 1 illustrates the differences in the descriptive statistics between the types of companies.

INSERT Table 1 HERE

"Continuous" dividend paying companies resemble value stocks and tend to be older and larger in terms of both sales and assets in place. They are strikingly more profitable, with positive EPS, as opposed to negative EPS for companies not paying dividends. The pattern applies both on

average and at the median. Paying dividends despite negative earnings almost certainly would appear suspicious. Interestingly, we observe that "spasm" companies and non-dividend paying companies are much more similar. They exhibit very comparable cash amounts in their balance sheet *before* the IPO and *after* the dividends have been paid out.

In a next step and as a robustness check, we normalize firm variables by assets in place. "Continuous" dividend paying companies have the lowest Market-to-Book ration. Both types of dividend-paying companies tend to have larger normalized sales, higher long-term debt and higher earnings normalized by assets in place compared to non-dividend paying companies, as shown in Table 2. Comparing the normalized cash holdings, we see that dividend paying companies have similar cash holdings than non-dividend paying firms after dividends. Non dividend paying companies have a higher market-to-book ratio and lower, indeed negative, EPS ratio.

INSERT Table 2 HERE

Did dividend payout respond to tax changes?

To see whether the dividend payouts responded to significant tax changes, especially the tax act of 2003, we investigate their time path over the past decade. We find them to be closely related to the number of total IPOs in our sample, both for companies paying out dividends up to three years as well as one year before the IPO, as can be seen in Figure 2. An exception is the year 2006, in which we observe no dividend payments shortly before the IPO.

INSERT Figure 2 HERE

The ratio of cash dividends paying companies in the three year prior to the offering to non-paying firms prior to their IPO varies between 20% and 60% during the issuing years. As shown in Figure 1, the tax act in 2003 reduced the dividend taxes and closed the gap between the capital gains tax and the dividend tax. Both were set hence at 15 percent for the upper income brackets.

The effect of this regulatory change is visible in the data. Beginning in 2002, we observe an increase in the ratio of pre-IPO dividend paying companies. This is more visible for dividends paid out longer in advance than shortly before the IPO. However, the sample size in these years due to the relatively small numbers in IPOs is not large.

INSERT Table 3 HERE

In the following we seek to answer if the amount of cash paid out is different over time. We split our sample into quartiles according to the dividends paid out prior its IPO, normalized by either assets in place at the time of the offering or by the proceeds from primary shares. It is hard to see a clear pattern. Interestingly, we detect a much higher payout rate in the last years compared to the beginning of the 90s, which indicates the impact of the 2003 tax act. We see a larger number of dividend payments and especially a higher amount of the dividends paid out after 2003.

INSERT Figure 3 HERE

Is the size of the cash dividend paid out before the offering significant?

So far we have shown that the number of firms paying out dividends prior to the IPO is consistent over time and significant in terms of IPO volume. Next, we want to see whether these money transfers to existing shareholders constitute a significant percentage of the proceeds raised during the offering and if these transfers are significant in terms of market valuation of the company.

Figure 4 shows the amount of cash dividends paid out up one year respectively three years before the offering, normalized by the amount of proceeds raised from primary shares as well as the amount paid out by “Continuous” dividend payers and “spasm” dividend payers.

INSERT Figure 4 HERE

We find that, on average, dividend paying IPOs use 26% (median 9.1%) of their proceeds from primary shares to refinance their dividends paid out in the three years before the offering. 20% (median 7.1%) of the proceeds raised has been paid out in the year prior to the offering in form of dividends. 120 companies, representing 10% of our sample, use 60% of their proceeds to pay for earlier dividends. Out of dividend paying companies, 429 paid out more than 20% of the IPO proceeds raised from primary shares. Continuous" dividend payers and "spasm" dividend payers distribute a similar amount of dividends in the mean with 24% respectively 27%.

The dividends paid are economically significant in terms of market valuation of the dividend paying companies as well. Their mean represents 1.6% of the market capitalization for all IPOs and 6.4% for the subsample of companies paying out dividends 3 years before their IPO (as shown in Figure 5). While we observe that a large majority of payouts represents less than 2% (the median for dividend paying firms is 1.8%) in terms of market valuation, we observe a substantial number of economically large payouts.

INSERT Figure 5 HERE

5. Testing possible hypotheses to explain dividend payments prior to an IPO

In this section, we seek to test empirically the hypotheses laid out in theory earlier in this paper. In particular, we seek to test whether managers try to avoid to send the bad signal of selling secondary shares in IPO, if they try to time the market and strip their company of liquid asset or if they pay out dividends in reaction to an undervaluation of cash by the market.

Do managers try to avoid selling secondary shares during an IPO to avoid sending a negative signal to the market?

Brau and Fawcett (2006) show that managers are well aware of the negative signal that selling a high amount of shares during the offering sends to the market. CFOs believe that the market interprets this signal as a sign that managers are pessimistic about the future performance of the firm. Even if this selling may be due to reasons independent of future performance, such as diversification or liquidity, the market will fear this trading to be based on the informational advantage of the managers. However, managers and their counseling investment bankers might believe that not the insider selling itself, but a certain level of insider selling is sending the bad signal. Thus they might aim to avoid a certain threshold of secondary shares sold in the IPO, and reduce the envisioned amount existing shareholders seeks to sell during the IPO. In such a case the company, which paid out the dividends beforehand, will increase the amount of primary shares offered to refinance the dividend.

We normalize the primary and secondary shares valued at the offer prize by assets in place and compare these values if a firm issues a cash dividend prior to its IPO. We furthermore distinguish between “continuous” dividend payers and “spasm” dividend payers. As shown in Table 4, the value of the normalized primary shares is higher for non-dividend paying companies. However, the normalized amount of secondary shares sold by “spasm” dividend payers is very similar to non-dividend paying companies. These two types of companies exhibit as well the

strongest selling pressure by insiders after the end of the lockup period. This is further evidence that mangers of "spasm" companies try to exit without sending the bad signal of secondary shares to the market.

INSERT Table 4 HERE

If manger exit via dividend payments prior to the offering, the company will offer primary instead of secondary shares in the offering. In such a case primary shares should be a predictor of the amount of primary shares sold. We test this hypothesis in a robust OLS regression by examining if the number of secondary shares as well as primary shares is determined in part by the amount of cash dividends paid out earlier. Table 5 illustrates our findings.

INSERT Table 5 HERE

Consistent with our argument, we find that cash dividends paid out preceding the IPO are a strong and highly significant predictor of the number of primary shares offered for "spasm" companies, supporting our hypothesis for this group. If it is less costly for a manger in terms of the signal sent to exit via dividends prior to the offering, why would not all managers turn first to this possibility and only afterwards turn to selling secondary shares? Taces help to answer this. Dividends were higher taxed than capital gains. Thus, is the manager believes the signal less costly than the tax disadvantage, he would choose to sell secondary shares. Additionally, exiting via dividends implies that all shareholders seek to exit, because all shareholders will receive the dividend. Low ownership concentration would thus reduce the possibility to exit via dividends. This is supported by the descriptive characteristics of our sample. Companies which we identified as using dividends as a means to exit, "spasm" dividend payers, exhibit the highest ownership concentration of 82% in the median (compared to 62% and 55%, see Table 1) compared to the other companies.

Do managers strip their companies of hard assets?

Managers conducting an equity offering, because they believe the company to be temporarily overvalued, will expect the company to revert to its true value in the long run. The market overvalues the companies because it believes the company has better current and future investment opportunities than the managers. Thus, managers might be tempted to strip the company of its hard and liquid assets, for example by paying cash dividends prior to going public. After its IPO, the company will revert toward its true, lower value. In addition, managers fear that having too much cash on their balance sheet will worry investors. Potential investors will raise doubts about the true intentions of the IPO if the company has already a high amount of excess cash. To avoid sending this signal to investors, managers will reduce the amount of excess cash.

From the above discussion we are able to derive the following testable conjecture: dividend payments prior to the IPO will predict IPO underperformance. We calculate the three year abnormal buy and hold returns (BHRs) based on daily returns as reported by the Center for Research on Security Prices (CRSP). For our long-term performance calculation we use BHRs as Barber and Lyon (1997) suggest. For robustness we calculate Cumulative Average Abnormal Returns (CAARs). BHR returns are calculated by matching the IPO company to its size decile composed of companies listed at the NYSE, Amex as well as NASDAQ. Furthermore we use as a return benchmark the value weighted as well as equally weighted market portfolio. For further details on the calculation please refer to the Appendix.

We find that "spasm" companies similar as non pre-IPO paying dividend companies up to the first year after the offering and slightly underperform these, as shown in Figure 6.

INSERT Figure 6 HERE

Surprisingly, "continuous" dividend paying companies perform much better and outperform the market as well as their size portfolio after 12 and 36 months. This contradicts the notion that

managers strip their company of hard assets due to an overvaluation of the firm. The difference in performance is not significant using a non-parametrical test such as the Kruskal-Wallis test[7]. In a next step we want to test the impact of dividends on long-term performance using a robust OLS setting.

INSERT Table 6 HERE

As Table 6 shows, the impact of dividend payments on long-term performance is insignificant. We include the year fixed effects as well as industry fixed effects to account for potential variations on these dimensions. From these results, we can conclude that managers do not use pre-IPO dividend payments to strip a company of its hard assets prior to its IPO. As a robustness check we calculate the BHR against size and book-to-market matched portfolios which yields similar results (not shown).

Does the market undervalue excess cash?

If the market overemphasizes its focus on certain aspects of the firm, such as technology, future projects, etc., it will put less emphasis on other parts of the company, for example the cash levels of a company. Thus, it potentially undervalues excess cash, the level of cash above a certain threshold. It is, under this hypothesis, optimal for the manager to reduce the level of cash before the IPO. If all managers maximize the wealth of their shareholders in such a manner, the level of cash in non dividend paying companies gives us an indication on the level of this threshold.

We reconstruct the cash holdings prior to the IPO as if no dividends would have been paid out. Indeed, the data draws a very clear picture and is consistent with the prediction that companies actively manage their cash holdings prior to an IPO. Comparing the levels of cash if no dividends would have been paid out, as shown in Figure 7, dividend paying companies would have a 74 %

[7] The observable pattern of no-underperformance in the first year and subsequent underperformance after three years by our IPO sample is consistent with earlier studies on the performance of IPOs, such as Ritter (1991).

higher amount of cash, both on average and in the median, than non-dividend paying companies. However, the difference is mostly driven by "continuous" dividend paying companies.

INSERT Figure 7 HERE

Interestingly, the cash holding of "spasm" companies are lower than non-dividend paying companies after dividend payments. However, If we would take these dividend payments into account, cash holdings of "spasm" dividend would be significantly higher than those of non-dividend paying companies. In a second step we want to test whether the coefficient of cash prior to the IPO on the valuation of the IPO value (we take the Market-to-Book value as a proxy) is linear. If, on the other hand, the market increasingly undervalues the marginal dollar in excess cash, the slope of the coefficient of cash on the valuation of the IPO should be concave. We test this assumption in a robust OLS regression. We regress the amount of cash prior to the IPO as well as its square term on the Market to Book value at the time of the offering.

INSERT Table 7 HERE

Table 7 shows that, while cash prior to the IPO has an (insignificant) positive coefficient, the square term of the cash variable has a, at the 9% level, negative impact on the Market-to-Book value of the company at the time of the offering. This indicates that the positive impact of cash on the company is decreasing with the amount of cash in the books of a company prior to its IPO. This finding is consistent with the notion that the market puts less value on each marginal dollar in excess cash. Managers reacting to this market behavior will seek to reduce their cash holding before the IPO accordingly.

6. Conclusion

In this paper we investigate dividend payments of companies prior to their IPO. We find these payments to be significant economically across our whole sample period from 1990 through 2006. These payments are a puzzle, as, especially before the 2003 tax act, dividends were taxed higher than capital gains and thus it was more costly for shareholders to receive dividends than selling secondary shares in an IPO.

We develop and test three hypotheses which could explain this phenomenon. We distinguish between continuous dividend paying companies and those which pay dividends only prior to the offering. We find evidence that the latter group uses dividends as a means to exit the company before the IPO itself. In such a way they are able to avoid sending a negative signal to the market by selling a large amount of secondary shares during the IPO itself. This group exhibits a large selling pressure by insiders after the lockup period as well. We reject the second hypothesis that managers believe their company to be in a window of opportunity and thus temporarily overvalued. After the IPO, the company would revert to its true, lower, level. Managers will consequently strip the company of its hard assets and reduce the cash levels in a company, in order to avoid suspicion by potential investors about the true motivation for the IPO. However, we do not find that pre-IPO dividend paying companies underperform non-dividend paying IPOs. However, we fund support for our third hypothesis. The market focuses on certain aspects of company going public such as products, technology and industry performance and ignores and thus undervalues cash levels. As a consequence, managers try to actively manage the cash levels of a company by reducing the excess cash to levels of non pre-IPO dividend paying companies. Consistent, we observe that the market decreases the value it attributes on an incremental dollar in cash of an IPO.

7. Figures

Figure 1: Capital gains and dividend tax rates for an individual with an income of $100,000

Figure 2: Number of companies paying out cash dividends before the IPO in relation to the whole sample per year

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. Pre-IPO Dividend Payer is a company paying a cash dividend one respectively three years prior to the offering date, as reported in CRSP.

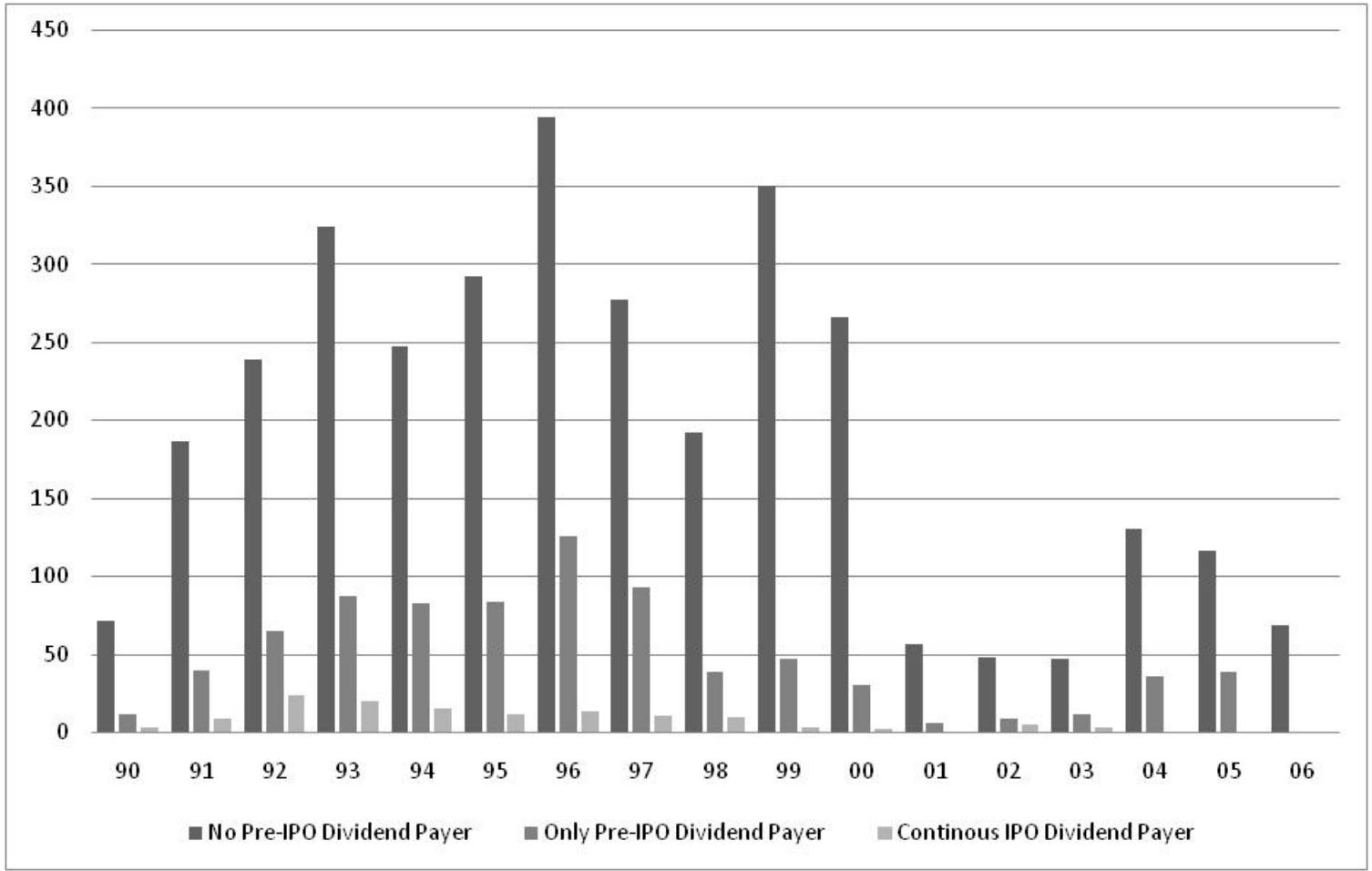


Figure 3: The number of companies paying out dividends, per quartile and normalized by proceeds raised from primary shares per year

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. Pre-IPO Dividend Payer is a company paying a cash dividend one respectively three years prior to the offering date, as reported in CRSP. Cash dividends are obtained from CRSP. We split our sample into quartiles according to the dividend paid out normalized by the value of primary shares offered at the IPO.

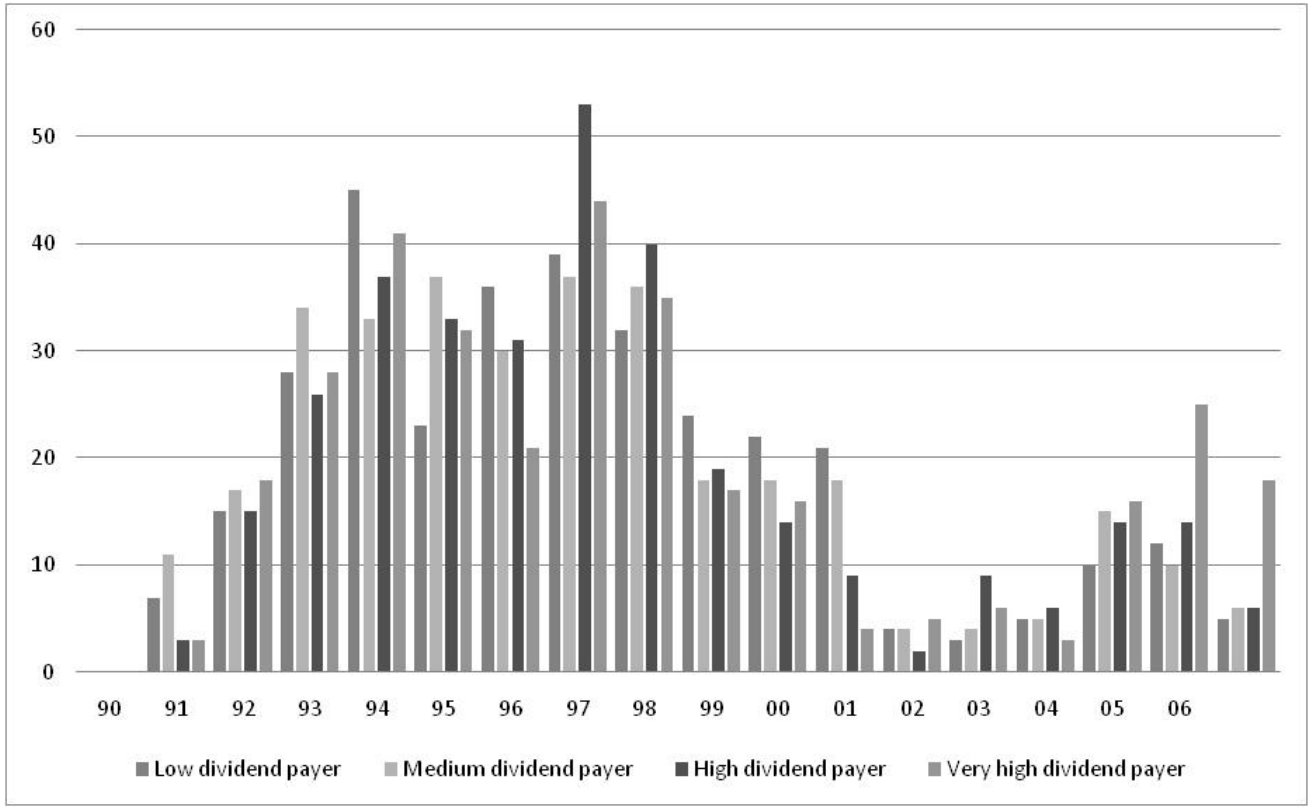
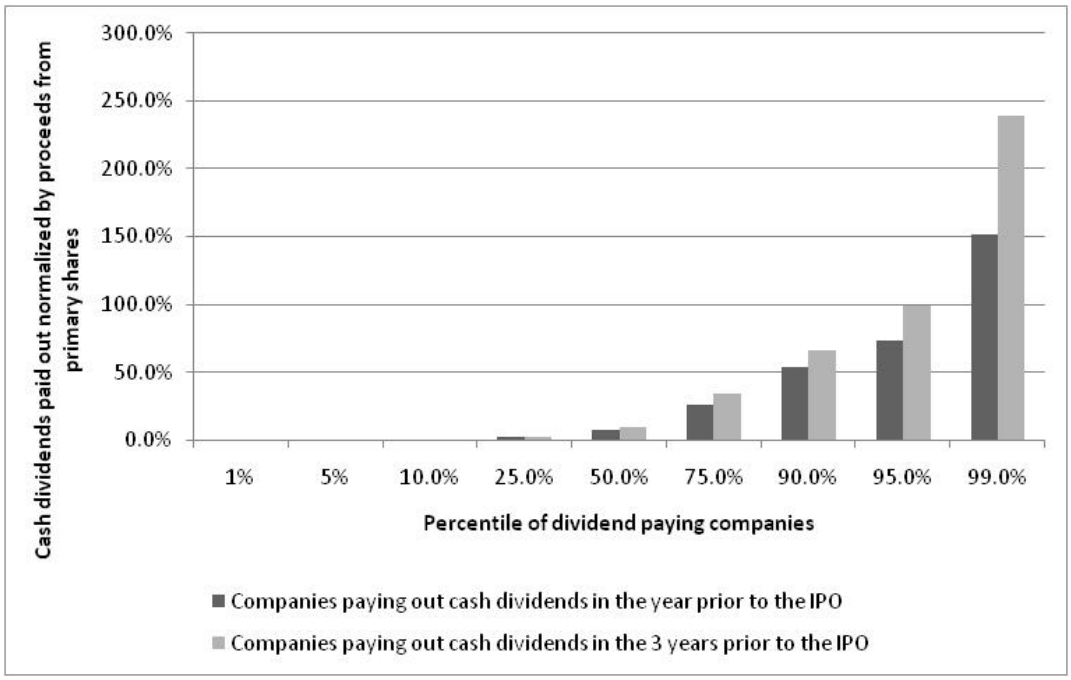


Figure 4: Cash dividend paid out before IPO normalized by proceeds raised from primary shares

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. Pre-IPO Dividend Payer is a company paying a cash dividend one respectively three years prior to the offering date, as reported in CRSP. Cash dividends are obtained from CRSP and normalized by the primary shares offered at the IPO.



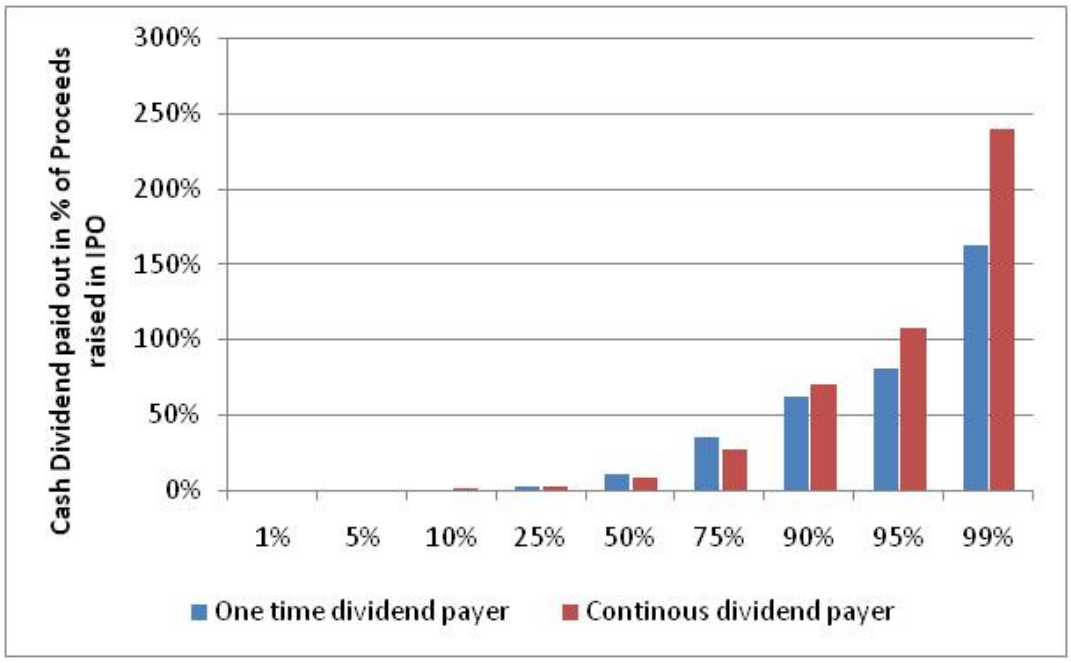
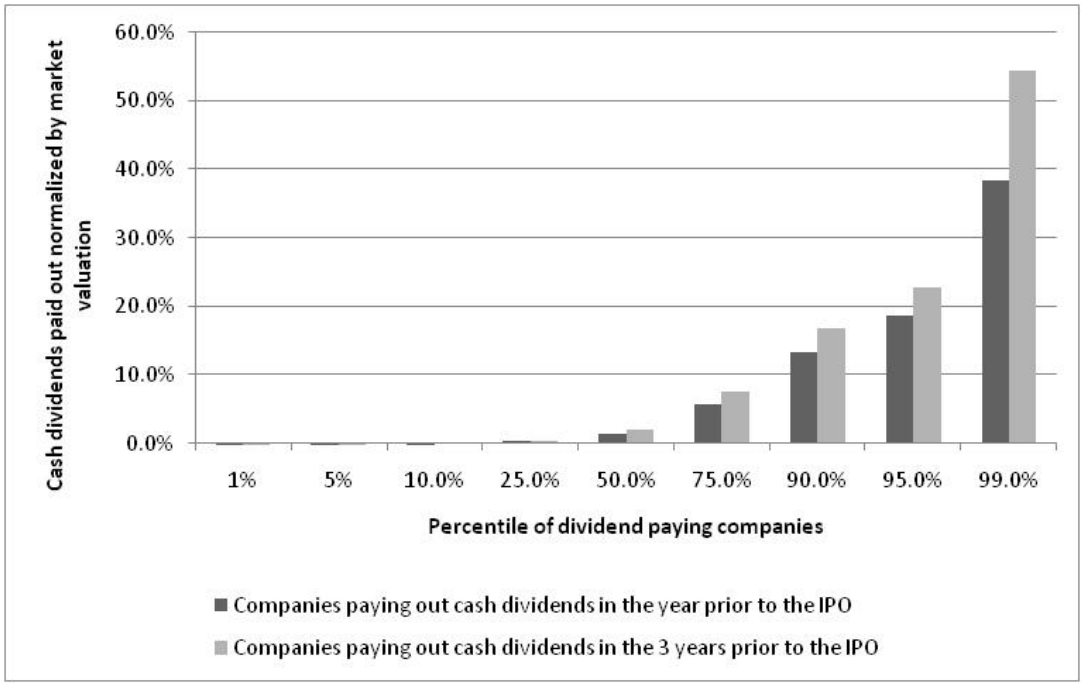


Figure 5: Distribution of the value of dividend payments prior to the IPO normalized by the market valuation of the firm

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. Pre-IPO Dividend Payer is a company paying a cash dividend one respectively three years prior to the offering date, as reported in CRSP. Cash dividends are obtained from CRSP and normalized by the market valuation at the offer date of the IPO (shares outstanding after IPO * Offer Price).



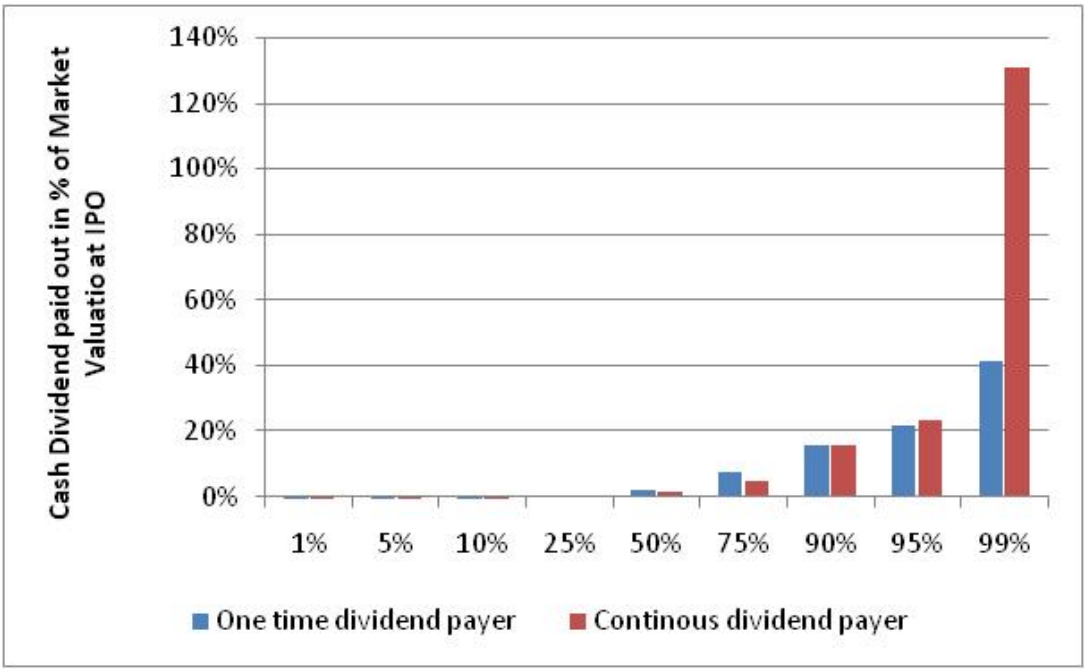
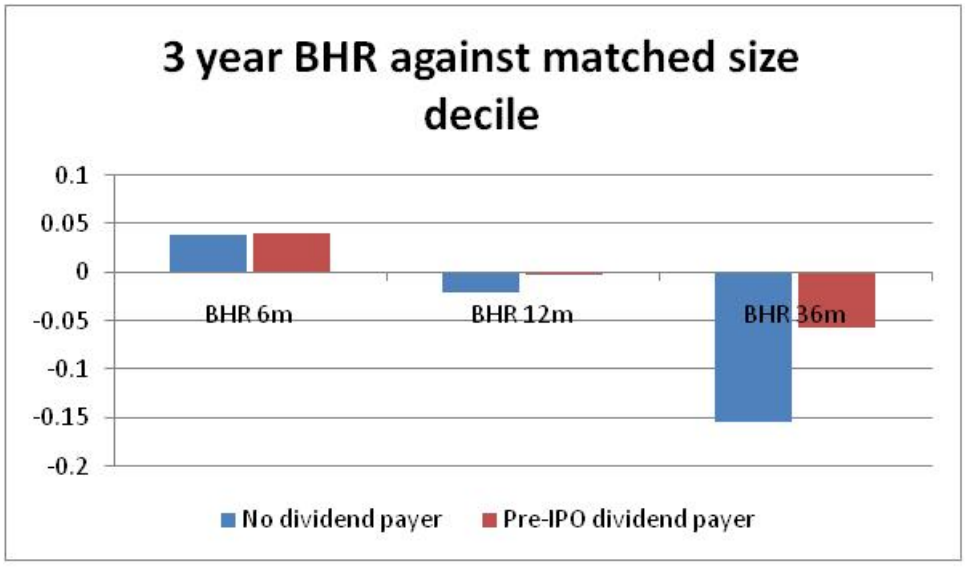
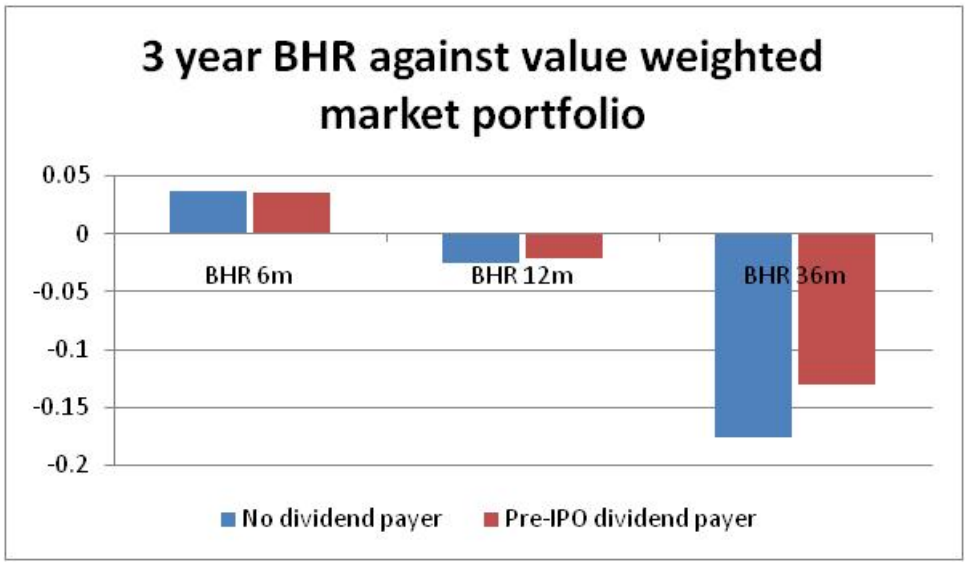
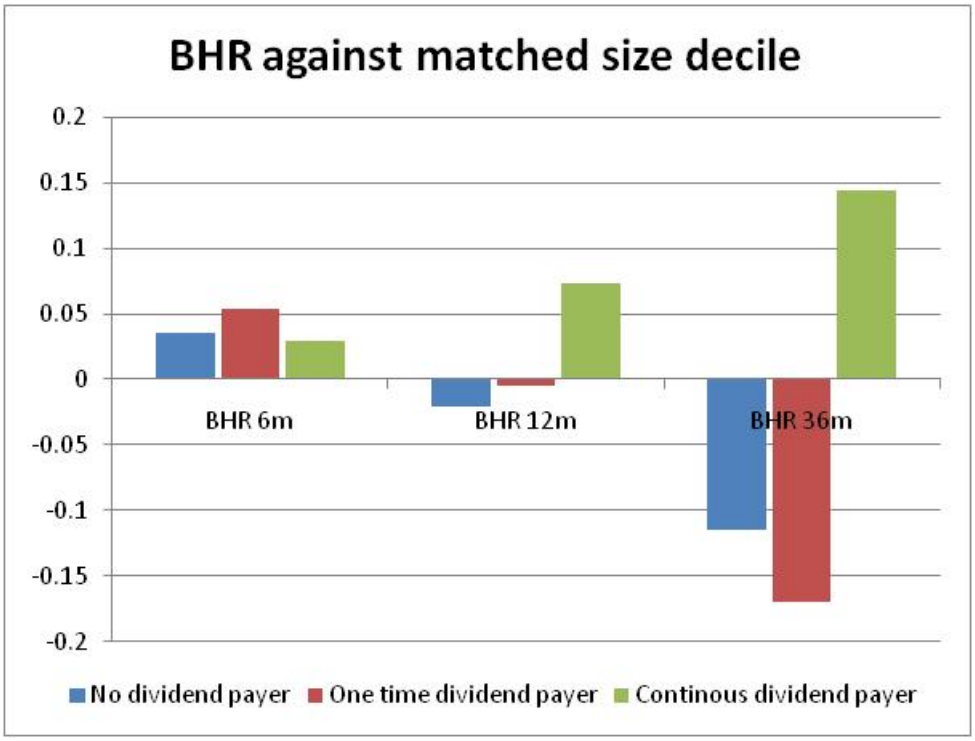


Figure 6: Long-term performance by type of company

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. Pre-IPO Dividend Payer is a company paying a cash dividend three years prior up to the offering date, as reported in CRSP. We calculate the three year abnormal buy and hold returns (BHRs) based on daily returns as reported by the Center for Research on Security Prices (CRSP). BHR returns are calculated by matching the IPO company to its size decile composed of companies listed at the NYSE, Amex as well as NASDAQ.






BHR against matched size decile
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
BHR 6m
BHR 12m
BHR 36m
No dividend payer
One time dividend payer
Continous dividend payer

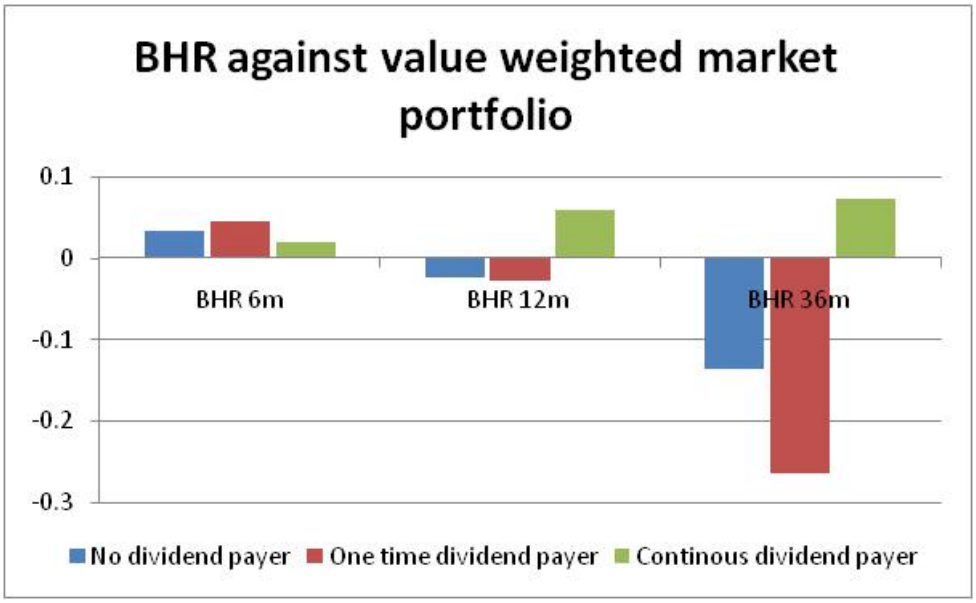
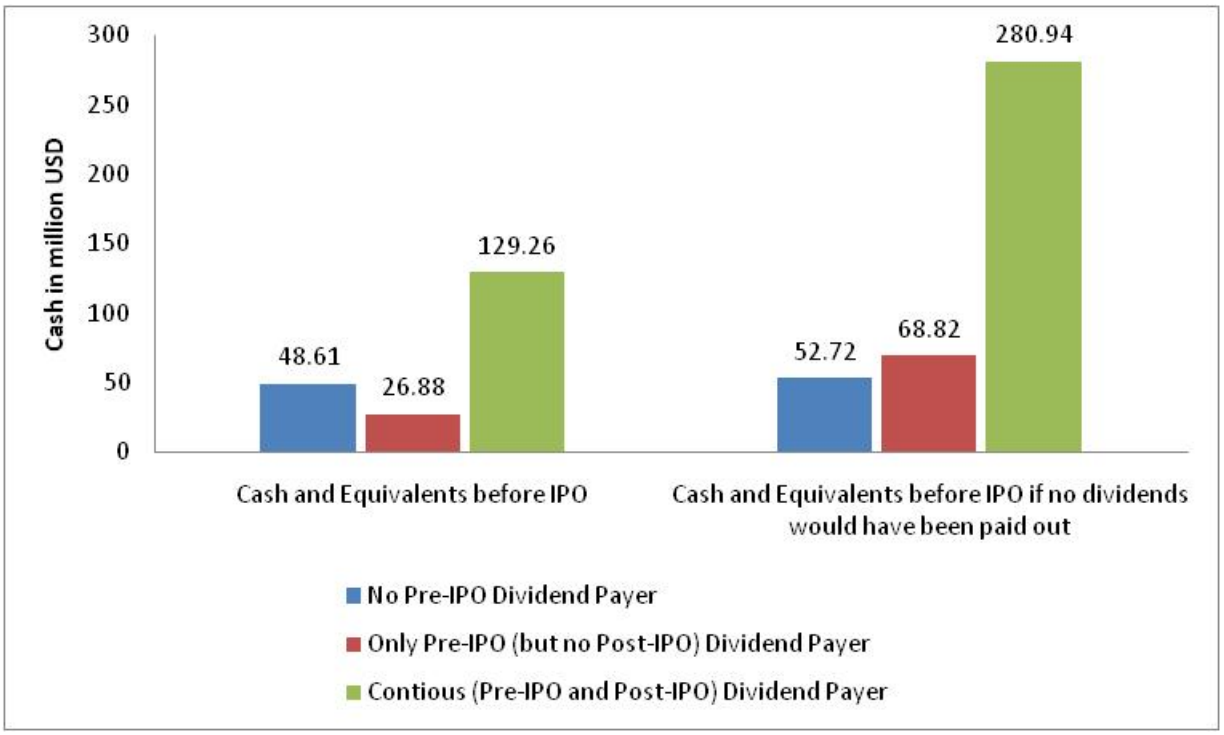

BHR against value weighted market portfolio
0.1
0
-0.1
-0.2
-0.3
BHR 6m
BHR 12m
BHR 36m
No dividend payer
One time dividend payer
Continous dividend payer

Figure 7: Amount of cash at time of IPO with and without dividends

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. Pre-IPO Dividend Payer is a company paying a cash dividend three years prior up to the offering date, as reported in CRSP. Cash and Equivalents are obtained from Compustat, Cash and Equivalents before IPO if no dividends would have been paid out are Cash and Equivalents plus dividends paid in the three years prior to the IPO



8. Tables

Table 1: Sample descriptive (Not-normalized)

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2005 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. We distinguish between three groups of companies: companies which did not pay out any dividends in the quarter leading up to the IPO or the quarter of the IPO, companies which paid out dividends in that time but did not continue to pay out dividends after the IPO as well as companies which paid out dividends prior to the IPO and which continued to pay out dividends after the IPO, as reported in CRSP. The ratio measures the difference between dividend paying and not dividend

All below variables are from the merged Compustat/CRSP database. Proceeds are shown in million $. Market Capitalization as defined as shares outstanding after IPO * Offer Price and displayed in million USD. Cash and Equivalents, Long Term Debt, R&D, Advertising Expenses, Non Cash Assets, Net Sales, Cost of Sales as well as SGA are expressed in million USD. Non-Cash Assets are defined as all assets-cash and equivalents. Firm age is the age of the firm in years as reported by Jay Ritter. Concentration of insiders is reported by SDC. Cash if no Dividends would have been paid out is the amount of cash a firm has prior to its IPO plus the amount of dividends pais out in the 3 years before the IPO. Pre-Ipo dividends are measured both in the quarter of the IPO plus the quarter leading up to the IPO as well as in the period 3 years up to the IPO.

	No Pre-IPO Dividend Payer			Only Pre-IPO (but no Post-IPO) Dividend Payer			Contious (Pre-IPO and Post-IPO) Dividend Payer		
	Obs	Mean	Median	Obs	Mean	Median	Obs	Mean	Median
Market Capitalization (valued at offer price)	2806	638	168	671	504	142	98	1154	234
Cash and Equivalents before IPO	3159	48.60	2.98	781	26.74	1.93	121	128.27	6.70
Cash if no Dividends would have been paid out	3157	52.72	0.00	781	59.87	5.35	120	221.71	10.85
Pre-IPO dividends 3 years prior IPO	3301	3.97	0.00	799	40.80	4.18	124	146.92	6.58
Pre-IPO dividends 6 months prior IPO	3303	0.00	0.00	799	33.13	3.43	125	93.44	4.15
Long Term Debt	3227	92.78	0.66	791	92.76	3.03	125	380.85	25.10
R&D	3283	6.61	0.52	793	5.76	0.00	123	11.46	0.00
Advertising Expenses	954	8.48	1.20	205	8.75	2.30	29	14.11	5.50
Non Cash Assets	3231	620	30	792	586	61	125	2542	268
Net Sales	3226	252	39	792	298	81	125	934	276
Cost of Sales	3225	178	21	792	209	48	125	642	185
SGA	2742	50.06	17.80	682	51.22	16.73	92	127.60	31.26
Dilution	1296	0.03	0.00	229	0.08	0.00	23	0.09	0.00
EPS	3220	-0.38	0.08	788	0.38	0.58	124	1.26	1.22
Firm Age	3303	13.67	7.00	799	18.10	11.00	125	34.31	24.00
Concentration of Insider Ownership prior IPO in %	2310	61.18	62.00	575	73.02	82.00	69	52.30	55.00

Table 2: Sample descriptive, normalized

The sample consists of companies undertaking an initial public offering (IPO) starting January 1st, 1990 until December 31st, 2005 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded. We distinguish between three groups of companies: companies which did not pay out any dividends in the quarter leading up to the IPO or the quarter of the IPO, companies which paid out dividends in that time but did not continue to pay out dividends after the IPO as well as companies which paid out dividends prior to the IPO and which continued to pay out dividends after the IPO, as reported in CRSP. The ratio measures the difference between dividend paying and not dividend paying firms, based on dividend paying firms, in percent.

All below variables are from the merged Compustat/CRSP database and subsequently normalized by assets in place. Proceeds are shown in million $. Market Capitalization as defined as shares outstanding after IPO * Offer Price and displayed in million USD. Cash and Equivalents, Long Term Debt, R&D, Advertising Expenses, Non Cash Assets, Net Sales, Cost of Sales as well as SGA are expressed in million USD. Non-Cash Assets are defined as all assets-cash and equivalents. Firm age is the age of the firm in years as reported by Jay Ritter. Concentration of insiders is reported by SDC. Cash if no Dividends would have been paid out is the amount of cash a firm has prior to its IPO plus the amount of dividends pais out in the 3 years before the IPO. Pre-Ipo dividends are measured both in the quarter of the IPO plus the quarter leading up to

	No Pre-IPO Dividend Payer			Only Pre-IPO (but no Post-IPO) Dividend Payer			Contious (Pre-IPO and Post-IPO) Dividend Payer		
	Obs	Mean	Median	Obs	Mean	Median	Obs	Mean	Median
Total Assets	3234	705.73	69.37	794	637.34	77.81	124	2707.52	333.90
Market Capitalisation normalized by Assets	2744	3.66	2.26	666	2.57	1.72	97	1.49	0.93
Cash and Equivalents before IPO normalized by Assets	3115	0.08	0.04	776	0.05	0.02	120	0.07	0.03
Cash if no Dividends would have been paid out	3114	0.09	0.04	775	0.15	0.06	120	0.16	0.04
Pre-IPO dividends 3 years prior IPO normalized by Assets	3233	0.01	0.00	793	0.11	0.05	124	0.12	0.02
Pre-IPO dividends 6 months prior IPO normalized by Assets	3234	0.00	0.00	794	0.10	0.04	124	0.09	0.01
Long Term Debt normalized by Assets	3226	0.10	0.01	793	0.14	0.05	124	0.16	0.09
R&D normalized by Assets	3214	0.07	0.02	787	0.02	0.00	122	0.01	0.00
Advertising Expenses normalized by Assets	953	0.05	0.02	205	0.06	0.02	29	0.05	0.02
Non Cash Assets normalized by Assets	3230	0.59	0.62	794	0.76	0.85	124	0.88	0.95
Net Sales normalized by Assets	3221	0.81	0.61	794	1.21	1.03	124	1.17	1.02
Cost of Sales normalized by Assets	3221	0.54	0.33	794	0.81	0.62	124	0.82	0.63
SGA normalized by Assets	2738	0.33	0.27	684	0.30	0.25	91	0.27	0.22
Dilution normalized by Assets	1294	0.03	0.00	230	0.08	0.00	23	0.09	0.00
EPS normalized by Assets	3218	-0.38	0.08	790	0.38	0.58	123	1.27	1.22
Firm Age	3303	13.66	7.00	801	18.22	11.00	124	33.85	23.50
Concentration of Insider Ownership prior IPO in %	2310	61.18	62.00	576	73.04	82.50	69	52.30	55.00

Table 3: Number of companies paying / non-paying dividends before undertaking an IPO 1990-2006

Issue Year	No Pre-IPO Dividend Payer	Only Pre-IPO Dividend Payer	Ratio: Only Pre-IPO Dividend Payer/No Dividend Payer	Continous IPO Dividend Payer	Ratio: Continous Dividend Payer/No Dividend Payer	Ratio: Dividend Payer/No Dividend Payer	Total IPOs
1990	71	11	0.15	3	0.04	0.20	85
1991	186	39	0.21	8	0.04	0.25	233
1992	239	65	0.27	23	0.10	0.37	327
1993	324	87	0.27	20	0.06	0.33	431
1994	247	82	0.33	15	0.06	0.39	344
1995	292	83	0.28	11	0.04	0.32	386
1996	394	125	0.32	13	0.03	0.35	532
1997	277	93	0.34	10	0.04	0.37	380
1998	192	38	0.20	9	0.05	0.24	239
1999	350	47	0.13	3	0.01	0.14	400
2000	266	30	0.11	2	0.01	0.12	298
2001	56	6	0.11	0	0.00	0.11	62
2002	48	8	0.17	5	0.10	0.27	61
2003	47	11	0.23	3	0.06	0.30	61
2004	130	36	0.28	0	0.00	0.28	166
2005	116	38	0.33	0	0.00	0.33	154
2006	68	0	0.00	0	0.00	0.00	68
Total	3303	799	0.24	125	0.00	0.28	4227

Table 4: Descriptive statistics of secondary and primary shares offered in an IPO in relation to whether a firm pays out cash dividends in the three years prior to its offering

Descriptive statistics of secondary and primary shares offered in an IPO in relation to whether a firm pays out a cash dividends in the two years prior to the offering as recorded in CRSP. *Market Value Primary (Secondary) Shares Normalized by Assets* is the ratio of number of primary shares (secondary) shares offered valued at the offer price (both as recorded ba SDC) and divided by the total assets (data item 4 in CRSP). We distinguish between three groups of companies: companies which did not pay out any dividends in the quarter leading up to the IPO or the quarter of the IPO, companies which paid out dividends in that time but did not continue to pay out dividends after the IPO as well as companies which paid out dividends prior to the IPO and which continued to pay out dividends after the IPO, as reported in CRSP.

		Market Value Primary Shares Normalized by Assets	Primary Shares as Percentage of Shares Offered	Market Value Secondary Shares Normalized by Assets	Secondary Shares as Percentage of Shares Offered	Ratio MV Prim Shares / Secondary Shares	Dividends Paid Six Months Prior IPO	Insider Trading After Lockup
No Prior Cash Dividend	N	3235	3303	3235	3303		3235	3235
	mean	0.55	90.43	0.06	9.33	9.41	0.00	-22271.16
	median	0.50	100.00	0.00	0.00		0.00	0.00
Only Pre-IPO Dividend Payer	N	792	799	792	799		792	792
	mean	0.46	87.71	0.08	12.02	5.51	0.10	-21165.32
	median	0.42	100.00	0.00	0.00		0.04	0.00
Continous IPO Dividend Payer	N	125	125	125	125		125	125
	mean	0.27	77.22	0.08	22.51	3.24	0.09	-12710.21
	median	0.19	100.00	0.00	0.00		0.01	0.00
Total	N	4152	4227	4152	4227		4152	4152
	mean	0.52	89.53	0.06	10.23	8.19	0.02	-21772.38
	median	0.48	100.00	0.00	0.00		0.00	0.00

Table 5: The predictive power of dividend payments prior to the offering on the amount of primary and secondary shares offered in an IPO

Robust OLS regression. The sample consists of companies undertaking an Initial Public Offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded.

Financial variables are from the merged Compustat/CRSP database. *Dividends paid in the 2 quarters leading up to the IPO* are the dividends paid in the two quarters up to the IPO. *Dividends prior the IPO by companies not paying dividends after the IPO* are the dividends paid in the two quarters up to the IPO by companies which not *not* continue to pay dividends after the IPO. Proceeds are defined as primary and secondary shares offered times the offer price. Market Capitalization as defined as shares outstanding after IPO * Offer Price. Year founded is the founding year of the company as reported by Jay Ritter on his webpage. % of Insider Ownership prior IPO is the percentage of insider ownership as reported by SDC. Venture backed is a dummy variable equaling one if the company was backed by a venture capitalist, and issue year the year of the IPO as reported by SDC. We included two digit SIC codes to account for industry effects as well as offer year dummies to account for year effects.

	dependent variable:	
	primary shares offered	secondary shares offered
Dividends paid in the 2 quarters leading up to the IPO	-1.31e+04***	41474.472***
	-4.22	6.29
Dividends prior the IPO by companies not paying dividends after the IPO	29361.902***	-2.43e+04**
	3.03	-2.21
Cash and Short Term Assets before IPO	-9890.500***	5735.541
	-4.56	1.22
Total Assets	1719.171***	-1192.646
	3.79	-1.23
Year Founded	-1024.889	-7082.048
	-0.25	-1.43
% of Insider Ownership prior IPO	2947.628*	-6979.036**
	1.72	-2.04
Proceeds of IPO	32881.718***	16760.942**
	10.14	2.2
Market Capitalization	-0.001**	
	-2.54	
Venture Backed	3.15e+05***	-5.50e+05***
	2.95	-2.98
Issue Year Fixed Effects	yes	yes
Industry Fixed Effects	yes	yes
Constant	-3.01E+08	-5.15E+07
	-0.08	-1.59
R-squared	0.622	0.786
N	2377	1041

* p<0.10, ** p<0.05, *** p<0.01

Table 6: Impact of Pre-IPO dividend paying companies on long-term performance

Robust OLS regression. The sample consists of companies undertaking an Initial Public Offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded.

Financial variables are from the merged Compustat/CRSP database. Dividends paid up to 3 years prior the IPO is the sum of the cash dividends paid by the company in the 3 years before going public. The log of the firm size as defined as the log of the shares outstanding after IPO * Offer Price. Log Market to Book ratio is the log of firm size divided by assets in place. Year founded is the founding year of the company as reported by Jay Ritter on his webpage. Venture backed is a dummy variable equaling one if the company was backed by a venture capitalist, and Issue year the year of the IPO as reported by SDC. We included two digit SIC codes to account for industry effects as well as offer year dummies to account for year effects.

	Benchmark: matched site decile			Benchmark: value weighted market portfolio		
	6 month BHR	12 month BHR	36 month BHR	6 month BHR	12 month BHR	36 month BHR
Only Pre-IPO Dividend	0.027	0.01	-0.053	0.029	0.011	-0.061
Payer	0.9	0.34	-0.7	0.96	0.37	-0.82
Continous IPO Dividend	-0.002	0.042	0.202	0.007	0.043	0.201
Payer	-0.05	0.73	1.23	0.17	0.75	1.23
Log Market to Book	-0.072***	-0.121***	0.052	-0.071***	-0.117***	0.067
Value	-3.72	-4.85	0.87	-3.62	-4.64	1.13
Log Firm Size	0.079***	0.145***	0.314***	0.071***	0.131***	0.278***
	5.37	8.37	6.26	4.79	7.55	5.55
Venture Backed	0.022	0.048	0.056	0.021	0.049	0.052
	0.8	1.45	0.67	0.74	1.45	0.63
Firm Age	0	0	0.001	0	0	0.001
	-0.18	0.09	1.12	-0.17	0.18	1.13
Industry Fixed Effects	yes	yes	yes	yes	yes	yes
Year Fixed Effects	yes	yes	yes	yes	yes	yes
R-squared	0.044	0.048	0.054	0.051	0.035	0.041
N	3487	3488	3491	3487	3488	3491

* p<0.10, ** p<0.05, *** p<0.01

Table 7: Impact of Cash before the IPO on the Valuation of the Company

Robust OLS regression. The sample consists of companies undertaking an Initial Public Offering (IPO) starting January 1st, 1990 until December 31st, 2006 as listed by the Security Data Corporation (SDC Platinum). Firms included have to trade on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and the NASDAQ. We excluded unit offers as well as Real Estate Investment Trusts (REITS), American Depository Receipts (ADR), closed end mutual funds, utility companies and offerings by financial institutions. Furthermore we restrict equity offerings to common class A shares. Issuers with no listed or negative book value on either Compustat or the SDC database have been excluded.

Financial variables are from the merged Compustat/CRSP database and are normalized by assets (data item 6) in place. (Squared) Cash and Short Term Assets before IPO is the (squared) amount of cash and short term assets before going public. Dividends prior to IPO by continous dividend payer are the dividends paid in the two quarters up to the IPO by companies which continue to pay dividends after the IPO. Dividends prior the IPO by companies not paying dividends after the IPO are the dividends paid in the two quarters up to the IPO by companies which not notcontinue to pay dividends after the IPO. Market Capitalization as defined as shares outstanding after IPO * Offer Price. RD is data item 46, Sales data item 12 and Cost of Sales data 41 from Compustat. Year founded is the founding year of the company as reported by Jay Ritter on his webpage. Venture backed is a dummy variable equaling one if the company was backed by a venture capitalist, and issue year the year of the IPO as reported by SDC. We included two digit SIC codes to account for industry effects, dummy variables for the exchange at which the company is listed as well as offer year dummies to account for year effects.

	Dependant Variable: Tobins' Q
Cash and Short Term Assets before IPO	4.005
	0.96
Squared Cash and Short Term Assets before IPO	-10.811*
	-1.71
Dividends prior to the IPO by continous dividend payer	5.114
	1.59
Dividends prior the IPO by companies not paying dividends after the IPO	3.606
	1.42
Market Capitalisation	0.575***
	5.38
Long Term Debt	20.667***
	3
RD	9.290**
	2.11
Non-Cash Asset	-2.535
	-1.07
Sales	2.499*
	1.82
Cost of Sales	-1.804
	-1.24
Earnings per Share	-0.161
	-1.12
Year Founded	0.044
	0.78
Exhange Listed	yes
issue Year	yes
Year Effects	yes
issue_year_17	4.883
	1.18
Constant	0.98
R-squared	0.173
N	3940

* p<0.10, ** p<0.05, *** p<0.01

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10. Appendix

Tax Rate Changes in the U.S.

Shareholder capital gains taxes arise through trades on the secondary market, liquidating distributions and share repurchases. The amount is calculated by subtracting the value of the sell and the investor's tax base. The Tax Reform Act in 1986 equalized the capital gains tax and ordinary tax rates with a maximum rate of 28 percent. In 1997 the U.S. government passed the Taxpayer Relief Act which reduced the capital gains tax furthermore to 20 percent (Lang and Shackelford (2000). The tax act of 2003 furthermore reduced the capital gains tax. After 2003, the maximal capital gains tax equaled the dividend tax at maximal 15 percent. The Jobs and Growth Tax Relief Reconciliation Act of 2003 provided a significant change of tax levels of dividend. After the tax act 2003, taxpayers in the bottom two income tax brackets, with a marginal tax rate of 10 or 15 percent, face a 5 percent dividend tax. Taxpayers with marginal tax rates of 25, 28, 33 or 35 percent, which thus belong to the upper four tax brackets, face a reduced dividend tax rate of 15 percent[8] (Chetty and Saez (2005)).

Long Term Performance Calculation

We calculate the three year abnormal buy and hold returns (BHRs) based on monthly returns as reported by the Center for Research on Security Prices (CRSP). The returns are calculated as follows:

$r(t) = [(p(t)f(t)+d(t))/p(t')]-1$

For time t (a holding period), let:

t' = time of last available price < t

r(t) = return on purchase at t', sale at t

[8] Taxpayers participating in the Alternative Minimum Tax schedule with a 28 percent percent flat rate benefit as well from the 15 percent dividend tax.

p(t) = last sale price or closing bid/ask average at time t

d(t) = cash adjustment for t

f(t) = price adjustment factor for t

p(t') = last sale price or closing bid/ask average at time of last available price < t.

For our long term performance calculation we use BHRs instead of cumulative abnormal returns (CAARs) as Barber and Lyon (1997) suggest.

The Abnormal Returns are calculated as follows

$$AR_{i\tau} = R_{i\tau} - E(R_{i\tau})$$

with $R_{i\tau}$ = Buy and Hold Return (BHR) of firm i for period τ (one or three years or till the company is delisted)

$E(R_{i\tau})$ = Expected (=reference) BHR of firm i for period τ (one or three years)

BHR is hereby defined by the following formula

$$\text{BHR} = \sum_{i=1}^{n} \frac{\text{p}_\text{i}(\text{T}) - \text{p}_\text{i}(t)}{p_{Index}(T) - p_{Index}(t)}$$

with p_i = price of stock i

t = month after Issue

T = end of time period (one / three years) or delisting date of the issuing firm