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Earnings Management and Long-Run Stock Underperformance of Private Placements

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Author Abstract

The study investigates whether private placement issuers manipulate their earnings around the time of issuance and the effect of earnings management on the long-run stock performance. We find that managers of U.S. private placement issuers tend to engage in income-increasing earnings management in the year prior to the issuance of private placements. We further speculate that earnings management serves as a likely source of investor over-optimism at the time of private placements. To support this speculation, we find evidence suggesting that the income-increasing accounting accruals made at the time of private placements predict the post-issue long-term stock underperformance. The study contributes to the large body of literature on earnings manipulation around the time of securities issuance.

INTRODUCTION

This study seeks to accomplish two goals regarding the issuance of seasoned private placements of common equity (hereafter, private placements): (1) to investigate managers' earnings manipulation behavior of U.S. issuers around the time of the issuance; (2) to examine whether such earnings manipulation behavior helps explain the long-term post-issue stock underperformance.

Private placements, together with seasoned public offerings of common equity (SEO), are two important vehicles by which public firms obtain equity financing. Contrary to seasoned public offerings of common equity, which issue new equity to the general public, private placement issuers sell new equity to a restricted number of investors. More than 30 percent of seasoned equity financing from external investors in recent years has come from private placements (Federal Reserve Bulletin, see Appendix A). While there is a sizeable body of literature on earnings management around the time of seasoned public offerings and on the

issuers' post-issue stock underperformance, research on these issues related to private placements is scarce.

Studies on earnings management constitute an important research stream in the literature about the quality of earnings. Typical research methodology on earnings management first identifies a firm-specific event around which managers' incentives to engage in opportunistic earnings manipulation appear to be strong, then employs various accrual models to test the researchers' earnings management hypotheses (Healy and Wahlen 1999). In response to the call of Dechow and Skinner (2000) for further research on earnings management incentives around the time of securities issuance, this study examines, among other things, earnings management around the time of private placement, an important corporate event.

Earnings have been widely used by investors to assess firm value and security offerings provide a direct incentive to manipulate earnings (Dechow and Skinner 2000). Managers of an issuing firm could use the accounting methods allowed under generally accepted accounting principles (GAAP) to inflate reported earnings at the time of the issuance in an attempt to portray a rosy picture of the firm's prospects. To the extent that such income-increasing accounting choices are not detected by investors, managers may obtain more favorable terms when selling new shares, thus gaining direct monetary benefits for themselves and the firm. Existing literature provides an abundance of evidence of earnings management around the time of various types of security issues, particularly initial public offerings (Aharony et al. 1993; Friedlan 1994; Teoh et al. 1998a; DuCharme et al. 2001), seasoned public equity offerings (Teoh et al. 1998b; Rangan 1998), convertible bond issues (Margetis 2004), and stock-for-stock mergers (Erickson and Wang 1999). Since private placement is one of the most important sources of corporate financing, this study predicts that managers of the issuing firms have strong economic incentives to inflate reported earnings around the time securities are issued.

This study finds that managers of U.S. private placement issuers tend to engage in income-increasing earnings management around the time of the issuance. The mean and median of the discretionary accruals, the proxy for earnings management, of 348 sample firms from 1989 to 2001 are 3.27 percent and 2.49 percent of total assets in the year prior to the issue year. To eliminate the impact of other influencing factors, the study employs a control sample consisting of firms matched on size and leverage in the same industry of the issuing firms. In the year prior to the private placements, the discretionary accruals of the issuing firms significantly exceed their non-issuing peers by 3.99 percent in mean and 1.98 percent in median.

Issuing private placements could be an endogenous choice. To mitigate this self-selection bias, the study also adopts the propensity score matching method to form the control sample. Consistent with those of size and leverage matching, discretionary accruals of issuing firms significantly exceed their non-issuing peers by 4.27 percent in mean and 1.87

percent in median in the year prior to the issuance. This result suggests that the findings on earnings management are not sensitive to alternative matching methods in selecting the control sample.

Among various anomalies in the semi-strong form of the market efficiency hypothesis, private placement has recently been found to be mispriced at the time of the issuance. In particular, Hertzel et al. (2002) observe that firms conducting private placements experience negative abnormal stock returns during the post-issue period. They postulate that the reason for the post-issue stock underperformance is that, at the time of the issuance, investors are over-optimistic about the issuing firms' future performance. However, the source of the over-optimism is not identified clearly.

Thus, the second purpose of this study is to examine whether earnings management at the time of private placements serves as a likely source of investor over-optimism. If investors misinterpret the manipulated earnings around the time of private placements, the stock price would be temporarily overvalued. However, when the inflated earnings do not persist in the future and/or the income-increasing accruals made at the time of issuance reverse in the subsequent periods, investors become disappointed and beat down the stock price of the issuing firms. To test this projection, this study proposes that the income-increasing accounting accruals made at the time of private placements predict the post-issue stock underperformance.

To explore the relationship of discretionary accruals at the time of private placement issuance with the post-issue stock performance, the sample is divided into four groups according to the discretionary accruals made in the year prior to the issuing year. The quartile group with the smallest discretionary accruals is called the conservative group and the one with the largest discretionary accruals is called the aggressive group. The study finds that the aggressive group has consistently poorer post-issue stock performance than the conservative group. For example, the three-year post-issue market excess return of the aggressive group lags that of the conservative group by 13.29 percent, and the three-year post-issue abnormal return of the aggressive group lags that of the conservative group by 35.23 percent. This result suggests that firms that inflate their earnings more aggressively around the time of private placements experience poorer stock performance subsequent to the issuance.

The study also runs regressions of the post-issue stock performance on discretionary accruals at the time of private placements, along with control variables such as size, book to market ratio, and industry dummies. Three-year market excess returns and the abnormal returns of issuing firms are both significantly negatively correlated with the discretionary accruals made in the year prior to the issuance. This evidence supports the hypothesis that the discretionary accruals around the issuance of private placements predict the post-issue

stock underperformance. Thus, earnings manipulation around the time of private placements could be a source that causes investors' over-optimism at the time of the issuance.

This study makes a number of contributions to the literature. First, the study adds evidence to the sizeable body of research on earnings management around the time of security issuance by documenting income increasing earnings management around the time of private placements. Therefore, it complements the findings of prior studies on other types of security issuances. Second, the study sheds new light on the capital market anomaly related to private placements. While existing literature attributes post-issue stock underperformance to investor over-optimism at the time of the private placement, the findings of this study suggest that a possible source of this over-optimism is earnings management around the time the securities are issued.

BACKGROUND AND LITERATURE REVIEW

Public offerings and private placements, focusing on raising equity capital from external investors, are two important ways for public companies to conduct seasoned equity offerings. Both individuals and institutional investors can participate in public offerings, which are usually conducted via a managing investment bank as the underwriter or underwriting syndicate. U.S. companies must register the issue with the Security and Exchange Commission (SEC) when they conduct public offerings.

Companies can avoid this costly process if they conduct equity offerings privately. Private placements refer to the direct issuance of equity securities to a restricted number of investors. Most private placement investors are large institutional investors such as mutual funds and pension funds. The price of the issue is determined by negotiation between the issuer and the investors (Ross et al. 2002; Keown et al. 2003; Marciukaityte 2001).

There are several other advantages of private placements over public offerings. First, the issuers are exempted from the registration and disclosure requirements of various securities statutes. Second, investment dealers' fee for a private placement is much less than that for a public offering. Third, private placements can also help firms raise capital quickly. Fourth, obtaining private placements significantly improves a firm's ability to attract additional capital, research partners, and commercial partners (Srivastava 1989; Folta and Janney 2004; Janney and Folta 2006).

Most studies on seasoned public offerings in the mid-1980s examine the stock market reaction to the issue announcements. These studies generally document a negative market reaction to the announcement of the issuance. On average, the two-day abnormal stock returns on announcement of public offerings are -3.14 percent for industrial companies and -0.75 percent for utility companies (Smith 1986), suggesting that stock price is overvalued when firms conduct public offerings. A theory developed by Myers and Majluf (1984) to explain this negative market reaction argues that managers know a good deal about the

company they manage, so when the company's stock price is undervalued, managers will be less likely to issue equity to new investors because it would let them take advantage of existing shareholders. It is more likely that managers decide to issue new equity when the stock price is overvalued, so stock price falls when firms announce the public offerings because it sends a signal to the market that managers believe the company's stock is overvalued.

Loughran and Ritter (1995) conduct the first study to examine the long-run post-issue stock performance of firms that conduct public offerings. They find that after public offerings, firms experience negative abnormal stock returns for up to five years compared to similar size firms in the same industry which do not issue new equity. Spiess and Affleck-Graves (1995) find similar results, so both studies conclude that managers take advantage of a firm's specific information to issue equity when the firm's stock is overvalued. This explanation was called the windows of opportunity hypothesis. Considering the negative market reaction to the announcement of the new issues, the underreaction hypothesis is developed to explain the poor post-issue stock performance. The underreaction hypothesis maintains that the stock market reflects only part of the information about the share price when new issues are announced. Daniel et al. (1998) develop a model to explain the underreaction phenomenon from the behavioral theory approach and conclude that investors tend to overestimate their ability to generate information and tend to underestimate their forecast errors. Unlike firms making public offerings, firms conducting private placements experience positive market reaction at the announcement of issuance. Wruck (1989) documents a 4.5 percent average abnormal return during the announcement period and Hertzel and Smith (1993) report a similar result. However, the two papers differ in their explanations for this phenomenon. First, Wruck proposes an ownership structure hypothesis to interpret her findings, explaining that the higher the level of ownership concentration, the easier it is for a small group of shareholders to influence managers' behavior to align managers' and shareholders' interests. To support this explanation, Wruck finds that the total holdings of those investors reported in proxy statements increase from an average of 31 percent to an average of 37 percent of the firm's voting shares and the change in firm value at the announcement of a private placement is strongly correlated with the resulting change in ownership concentration. Hertzel and Smith (1993), on the other hand, propose the information hypothesis to explain the positive market reaction. Following Myers and Majlufs (1984) assumption, Herzel and Smith conclude that undervalued firms will not likely issue equity publicly to avoid releasing negative signals about the firms' value. In addition, they argue that the willingness of private placement investors to commit funds to the issuers conveys a signal to the market that the issuers are undervalued. To support this hypothesis, they find a correlation between the positive abnormal returns at the announcement time and the potential undervaluation.

The findings of Wruck (1989) and Hertzel and Smith (1993) tend to support the view that the involvement of large investors that purchase private placements increases the issuer's value by providing either a monitoring role or a certification role. Given that most private placement investors are large institutional investors such as mutual funds and pension funds, this is consistent with many studies documenting that institutional investors have an effective monitoring effect on management behavior (In a review of corporate governance studies, Shleifer and Vishny (1997) conclude that institutional investors in the U.S. reduce agency cost in firms and pressure managers to improve their true economic performance).

If the institutional investors that purchase private placements do enhance the monitoring role and constrain managers' opportunistic behavior, different from the public offerings, we may not find earnings management behavior around the time of private placement issuance. However, recent findings on private placements have suggested that most of those institutional investors involved in private placements are passive and that they bring no more of a monitoring role than do investors in public offerings (Barclay et al. 2005; Wu 2004). Therefore, it is still likely that managers engage in earnings management to mislead investors at the time of private placements.

Hertzel et al. (2002) find that, along with positive market reaction to the announcements of issuance, public firms conducting private placements experience poor post-issue stock performance, which is not consistent with the underreaction hypothesis drawn from public offering studies. Under the underreaction hypothesis, the positive announcement effect should cause firms conducting private placements to experience positive abnormal returns in the long run. Hertzel et al. conclude that investors are overoptimistic about the prospects of firms that issue equity, publicly and privately. The importance of this finding is that, contrary to the traditional belief, firms conducting private placements are overvalued, possibly because investors are overoptimistic about the monitoring role of new institutional investors.

Recent studies have challenged the anticipated monitoring effect by the involvement of new institutional investors. Larcker et al. (2005) find that fourteen corporate governance factors, including institutional ownership, explain only 0.6 percent to 5.1 percent of the cross-sectional variation of a wide set of dependent variables, including abnormal accruals. This finding suggests that institutional ownership has very limited ability to explain managerial behavior and organizational performance. Barclay et al. (2005) provide evidence that supports the entrenchment hypothesis, which proposes that managers consider not only the interests of shareholders but their own interests as well when they conduct private placements. The entrenchment hypothesis also maintains that managers dislike being monitored (Brennan and Franks 1997; Field and Sheehan 2004), and are, therefore, likely to place the equity with passive institutional investors who will not interfere with managerial decisions. Barclay et al. find that, after the issuance, most private placement purchasers remain passive, that firm value declines, and that there are few acquisitions. Wu (2004)

examines the monitoring role of managers on the choice between public offerings and private placements and finds that private placement investors do not engage in more monitoring than public offering investors do. In the absence of the monitoring roles brought by the new passive institutional investors, managers may act opportunistically when they conduct private placements if there are strong incentives for them to do so.

HYPOTHESIS DEVELOPMENT

Earnings are among the most important measures investors use to assess a firm's future performance (Healy and Wahlen 1999). Dechow and Skinner (2000) suggest that, around the time of new securities issuance, managers have strong incentives to manipulate earnings to portray a rosy picture of the firm's future performance and, consequently, may sell the securities on more favorable terms and therefore reduce the cost of financing. Empirical evidence on certain types of securities issue appears to support this argument. For example, both the initial public offering issuers (Aharony et al. 1993; Friedlan 1994; Teoh et al. 1998a; DuCharme et al. 2001) and seasoned public equity issuers (Teoh et al. 1998b; Rangan 1998) tend to make income-increasing accounting choices around the time of issuance in an attempt to increase the selling prices of the new equity. In corporate stock for stock mergers, the acquiring firms manage earnings upward in the periods prior to the merger agreement to increase their stock prices in order to reduce the cost of buying the target firms (Erickson and Wang 1999). Unlisted firms also tend to manipulate earnings upward prior to receiving venture capital financing in order to show a better picture of their company's prospects, thereby increasing the chances of being funded by venture capitalists (Beuselinck et al. 2005). Similarly, firms conducting private placements may also have incentives to report inflated earnings prior to the issuance in order to attract more investors since the manipulated earnings may lead the investors to believe that the reported earnings could continue into the future and therefore become overly optimistic about the issuers' future performance. This would allow private placement issuers to boost their images and sell their new equity on more favorable terms.

It would be pointless for managers to manipulate earnings if private placement purchasers could see through it. However, Healy and Wahlen (1999) argue that investors may not fully see through earnings management that is reflected in accruals; even for underwriters, fully adjusting for accounting choices may be difficult and costly (Friedlan 1994). Since most private placement investors are institutional investors, managers' opportunities to manage earnings around the issuance may be restrained because of the active involvement of institutional investors (Chung et al. 2002). However, Barclay et al. (2005) find that managers issuing private placements deliberately select passive institutional investors, and Wu (2004) provides evidence showing that private placements investors do not provide more monitoring roles than public investors. Therefore, it is likely that private placement issuers

still have the opportunity to manipulate earnings around the issuance and that such behavior may go undetected by private placement investors.

Engaging in earnings management at the time of private placement is not without downside risks. First, subsequent discovery of the earnings management around the time of private placement may lead to lawsuits by investors if the earnings overstatement leads to investor losses (DuCharme et al. 2004). Second, such a discovery will undoubtedly reduce the credibility of the issuing firms' financial statements and impair their ability to raise additional capital at favorable terms in the future. Finally, U.S. firms identified by the Securities and Exchange Commission (SEC) as violators of GAAP will face an increase in their future costs of capital.

Even so, because the economic benefits of reporting inflated earnings prior to private placement are substantial, if managers do not think they are likely to be discovered or if the costs of discovery are perceived less than the potential benefits, they are likely to adopt the discretionary accounting choices that increase the reported earnings around the time of private placement issuance. Therefore, the first hypothesis of the study is:

[H.sub.1]: Managers of U.S. private placement issuing firms manipulate reported earnings upward around the time of issuance.

Hertzel et al. (2002) recently pinpoint the long-term stock underperformance subsequent to private placements. Relative to control firms matched by size and book to market ratio, the mean three-year buy and hold abnormal return is -23.8 percent, which is similar to that found for initial public offerings and seasoned public equity offerings. Hertzel et al. argue that the post-issue stock underperformance is likely due to the investors' over-optimism about the issuers' future performance around the time of private placements, although they do not identify clearly the source of the over-optimism.

This study proposes that earnings management around the time of the issuance of private placements is a likely source of investor over-optimism. If investors expect the reported (but manipulated) earnings around the time of private placements to persist into the future, stock price will be temporarily overvalued. Then, when the income-increasing accruals reverse in subsequent periods and the earnings trend does not persist, investors may become disappointed and beat down the stock price. Thus, if earnings management at the time of issuance is a source of investor over-optimism, the aggressive accounting accruals at the time of the private placement issuance will cause post-issue stock underperformance. Several studies examining seasoned public offerings have made a similar prediction and found evidence supporting this prediction. For example, Teoh et al. (1998b) and Rangan (1998) find that earnings management around the issuance of seasoned public offerings explains a portion of the post-issue stock underperformance. Teoh et al. (1998a) find that the manipulated earnings around the issuance of initial public offerings are correlated with post-issue stock underperformance. The higher the discretionary accruals around the

issuance of initial and seasoned public offerings, the lower the abnormal post-issue stock returns. Following this line of reasoning, the second hypothesis is:

[H.sub.2]: Earnings management around the time of private placements conducted by U.S. issuers predicts post-issue stock underperformance.

SAMPLE AND METHODOLOGY

The initial U.S. sample of private placement issues is obtained from the New Issues Database from Securities Data Corporation. The issuers' financial data are obtained from Standard and Poor's Research Insight database, and stock returns from the Center for Research in Security Prices (CRSP). The New Issues Database contains 831 private placement common stock issues from 1989 to 2001 in the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), and the NASDAQ. To qualify for the study sample, firms issuing private placements must have the necessary financial data to allow a calculation of discretionary accruals in the year prior to the issue, matching measurements, and stock returns for at least one month after the issue. Financial and utility firms are eliminated from the sample because these firms are subject to special regulations. In order to reduce the confounding effects on earnings management from public equity offerings, firms conducting both public offerings and private placements in the same year are also excluded from the sample. If firms issued multiple private placements within three years, only the first issue is kept in the final sample.

The final sample contains 348 observations. Table 1 presents the sample size and gross proceeds by year and industry classification for the U.S. private placements issues. Because the study adopts the cash flow approach to calculate discretionary accruals for the U.S. firms, the sample starts from the year 1989. The study also needs to test the stock performance five years after the issuance, so sample data ends in the year 2001. Four years (1992, 1993, 2000, and 2001) are very active and contain more than 25 issues each year. Chemical products, instruments and related products, and service industries each carry more than 10 percent of the sample.

Identifying of the timing of earnings management a priori is critical in any earnings management study. In keeping with the earnings management research on IPOs and SEOs, a company's annual financial statements are defined as being for the issuing year (year 0) if the fiscal year-end of the financial statements is within 12 months after the private placement date. Based on this definition, it is possible that the annual financial statements of an issuing firm for year 0 will cover some months prior to the private placement date because the fiscal year-end can be less than 12 months after the private placement date. Once year 0 is defined, financial statements for other years surrounding the private placement date (i.e., year -2, -1, +1 and +2) can be defined accordingly.

Extant earnings management literature on IPOs and SEOs documents that earnings management is most prominent in the year preceding the issuing year (year -1) and/or the year of the issuing year (year 0). Several studies (Friedlan 1994; Aharony et al. 1993; DuCharme et al. 2000) have examined earnings management prior to making IPOs and find that IPO firms tend to inflate earnings in the year prior to the IPO (year -1). Teoh et al. (1998a) define the issue year (year 0) as the fiscal year in which the IPO occurs (which is the same definition this study uses) and includes both pre- and post-IPO months, arguing that IPO firms have incentive to manipulate both pre- and immediate post-IPO earnings. Teoh et al. (1998b) study earnings manipulation around the issue of SEOs and find that discretionary current accruals for SEO firms are positive in year -1 and more prominent in year 0.

While the same arguments about earnings management for IPOs and SEOs can be made for private placements, the relative strength of these arguments and the effects of some other factors also need to be considered in determining the timing of earnings management by private placement issuers:

1. Most IPO and SEO studies maintain that earnings management made in year -1 helps to inflate stock prices and to increase the proceeds from the issuance.

2. Since the reverse of accruals made in earlier years increases the litigation risk for the issuers, managers have incentives to continue to manage earnings upward after issuing securities.

3. Prior to issuing securities, firms have strong incentive to release optimistic earnings forecasts and to announce good news in order to boost the stock price or investors' confidence. Ruland et al. (1990) find that firms issuing earnings forecasts are more likely to finance externally in the subsequent three months than are the control firms that did not issue earnings forecasts. Frankel et al. (1995) also find that firms are more likely disclose earnings forecasts if they plan to raise capital. When managers conduct voluntary disclosures, they tend to disclose information favoring them or existing shareholders. For example, Aboody and Kasznik (2000) find that CEOs opportunistically manage the timing of their information disclosures to increase the value of their stock option awards by delaying announcements of good news and rushing forward bad news before the awards. Again, to reduce the risk of litigation or to increase the credibility of managers' voluntary disclosures, the issuing firms have incentive to inflate earnings in the annual reports that cover the time period when the earnings forecasts and good news are released.

4. The ability of managers to boost earnings in consecutive years is limited by a number of factors. First, the current accrual accounting system provides a limited set of methods by which to manipulate earnings (Watts and Zimmerman 1986). Second, since the balance sheet accumulates the effect of previous accounting choices, managers' ability to manipulate

earnings decreases with how much net asset values have been already overstated on the balance sheet (Barton and Simko 2002).

5. Since all accruals will reverse in the future, the external auditor bears a higher risk of litigation if income-increasing earnings management occurs in consecutive years. Therefore, if earnings management occurs in one year, the external auditor has incentive to curtail earnings management in the following year.

6. The issuing firms may also face litigation and reputation damage if a large amount of earnings management is detected by the investors.

7. Since private placement buyers are mostly institutional investors, the ability of these investors, even though passive, to initiate lawsuits against the issuer, if earnings management is detected, is likely to be greater than the ability of investors in IPOs or SEOs to do so. This is because the free-rider problem is less severe among the private placement buyers.

Thus, the timing and extent of earnings management around the time of private placements are an empirical issue. It is possible that the issuers manage earnings upward in both year -1 and year 0, while it is also possible that the issuers manage earnings upward only in year -1 and not in year 0, or vice versa. Since this study examines the discretionary accruals in each of the five years surrounding the issuing year, the timing and extent of the earnings management made by U.S. issuing firms will likely be captured by this time span.

If earnings management has occurred, it is likely that there is evidence in measures that reflect accounting policy choices. It would be informative not only to find evidence of earnings management, but also to identify the accounting choice or choices that have been employed to achieve the desired earnings. However, since most accounting choices are not observed by outsiders, researchers rely on various aggregate measures of earnings management, assuming that methods used by managers to manipulate earnings would be spread over a portfolio of accounting choices. Most recent studies on earnings management have used estimations of discretionary accruals as a measure of earnings management, so this study will adopt the same measurement as the proxy for earnings management.

Dechow et al. (1995) assess the relative performance of five alternative discretionary accrual models for detecting earnings management and conclude that a modified version of the Jones (1991) model provides the most powerful tests of earnings management. Further, Subramanyam (1996) finds that the cross-sectional variation of modified Jones (1991) model provides better estimates of the normal accruals than the times-series model does. Bartov et al. (2000) find that the cross-sectional modified Jones model outperforms the time-series modified Jones model in identifying firms with qualified audit opinions. Therefore, this study will adopt the modified Jones (1991) model and the cross-sectional estimation method to measure discretionary accruals. Also, since firms' past performances could also affect the

level of their accruals (Kathori et al. 2005), the lagged return on assets (ROA) is also included in the regressions to estimate nondiscretionary accruals for each firm.

Total accruals are measured using the cash flow approach:

[TA.sub.t] = [NI.sub.t] - [CFO.sub.t]] / [A.sub.t-1] (1)

where:

Table 1: Summary of U.S. private placements sample size and gross proceeds

Panel A: Sample size and gross proceeds by calendar year

Year	Sample size	Percentage	Gross proceeds (million $)
1989	17	4.89%	1,214.65
1990	13	3.74%	688.74
1991	14	4.02%	213.50
1992	25	7.18%	275.50
1993	25	7.18%	324.25
1994	19	5.46%	272.27
1995	16	4.60%	474.40
1996	15	4.31%	199.65
1997	16	4.60%	464.96
1998	7	2.01%	169.33
1999	18	5.17%	872.46
2000	40	11.49%	1,710.40
2001	123	35.34%	2,675.25
Total	348	100.00%	9,556.08

Panel B: Sample size and gross proceeds by industry classification

Industry classification	Sample size	Percentage	Gross proceeds (million $)
Mining	9	2.59%	221.76
Oil And Gas	6	1.72%	438.42
Food Products	6	1.72%	368.10
Chemical Products	94	27.01%	2,218.40
Computer Equipment	16	4.60%	431.52
Electronic Equipment	25	7.18%	299.00
Transportation	18	5.17%	470.88
Instruments And Related Product	38	10.92%	677.54
Communications	12	3.45%	294.48
Wholesale	6	1.72%	69.90
Retail	21	6.03%	893.97

[TA.sub.t] = total accruals

[NI.sub.t] = income before extraordinary items and discontinued operations (Research Insight data item #123)

[CFO.sub.t] = cash flow from operations (Research Insight data item #308 minus data item #124)

To calculate the discretionary accruals, the non-discretionary portion of total accruals must be estimated. The expected nondiscretionary accruals for firm i in year t (N[DA.sub.it]) are measured as:

[MATHEMATICAL EXPRESSION NOT REPRODUCIBLE IN ASCII] (2)

Table 1: Summary of U.S. private placements sample size and gross proceeds

Panel A: Sample size and gross proceeds by calendar year

Year	Sample size	Percentage	Gross proceeds (million $)
Financial Services	12	3.45%	482.88
Services	67	19.25%	1,886.05
Others	18	5.17%	801.54
Total	348	100.00%	9,556.08

where:

[DELTA] [REV.sub.it] = change in revenue for firm i in year t

[DELTA] [REC.sub.it] = change in net receivables for firm i in year t

[PPE.sub.it] = gross property, plant, and equipment for firm i at the end of year t

[ROA.sub.t-1] = Return on average assets in year t-1

[[beta].sub.0it], [[beta].sub.1it], [[beta].sub.2it], [[beta].sub.3it] = firm-specific parameters for firm i in year t.

In equation (2), the firm-specific parameters, [[beta].sub.0it], [[beta].sub.1it], [[beta].sub.2it], and [[beta].sub.3it], are estimated cross-sectionally using the two-digit SIC code for firm j's data (j [not equal to] i):

[MATHEMATICAL EXPRESSION NOT REPRODUCIBLE IN ASCII] (3)

Once the nondiscretionary accruals are estimated, the discretionary accruals for firm i in year t ([DA.sub.it]) are calculated as the prediction error:

[DA.sub.it] = [TA.sub.it] - [NDA.sub.it] (4)

Managers of issuing firms may have managed earnings for reasons other than trying to induce investor optimism. Two prominent reasons relate to firms' desire to reduce the political cost and the debt default cost (Watt and Zimmerman, 1986). Empirically, a firm's political cost is usually proxied by firm size, and debt default cost is proxied by the leverage of the firm. To mitigate the impact of these two factors on the measurement of earnings management, this study employs a matched control sample of non-issuers. If the discretionary accruals of the issuing firms are significantly different from those of the non-issuing control firms in year t, then there is evidence of earnings management among the issuing firms in year t and the results of earnings management of the issuers are not likely

due to incentives other than inducing investors to accept terms more favorable to the issuers.

For the matching procedure, one control firm is selected for each private placement firm by matching the two-digit SIC code, total assets, and debt-to-asset ratio at the end of year -1. The control firm should not have conducted private placements in the following three years. Because there are two continuous variables in the matching, this study employs the procedure proposed by Murray (1983). Thus, for each potential matched firm, the Mahalanobis distance is calculated as:

[D.sup.2] = ([M.sub.b] - [M.sub.c])'[W.sup.-1] ([M.sub.b] - [M.sub.c]), (5)

where:

[D.sup.2] = the distance measure of firm b from private placement firm c,

[M.sub.b] = a vector of matching variables for firm b,

[M.sub.c] = a vector of matching variables for private placement firm c,

W = the covariance matrix of the cross-section of matching variables.

[D.sup.2] is considered as a univariate measure of multidimensional differences and is calculated for all non-issuing firms within the same two-digit SIC code as the issuing firm. The control firm is the one that has the smallest [D.sup.2]. The Mahalanobis distance approach provides a more precise matching measurement than the Euclidean distance approach in that it considers the variance and covariance of each matching variable (Murray 1983).

Three measures of stock performance are used in this study: raw return, market excess return, and abnormal return. All the measures are the buy-and-hold returns over a three-year period. The raw returns and market excess returns do not adjust for firms' risk and, therefore, are biased estimates of stock performance. The purpose of including these two measures is so they can serve as benchmarks for the abnormal returns.

The method used to calculate the abnormal returns is similar to Hertzel et al. (2002). Specifically, the abnormal return of an issuing firm is calculated as the difference between the buy-and-hold raw return of the issuer and that of a matched non-issuer. Finding the correct matching firm is critical in this process because measures of long-term abnormal stock returns could be subject to greater measurement errors than measures of short-term returns (Kothari and Warner 1997). Barber and Lyon (1997) analyze the empirical power and specification of test statistics in event studies designed to investigate long-run abnormal stock performance and conclude that the control firm approach, in which sample firms are matched by similar size and book to market ratios of industry peers, yields well specified test statistics. The matching procedure in this study will employ the Mahalanobis distance

approach using two continuous variables--firm size and book to market ratio--for a firm within the same two-digit SIC code as the issuer. The firm with smallest [D.sup.2] in the same two-digit SIC code is the control firm for the issuer.

With the issuing year defined as year 0, discretionary accruals of issuing firms in years -2, -1, 0, +1, +2 are calculated. The most important measures used to test Hypothesis 1 are discretionary accruals in years -1 and 0, since discretionary accruals for other years are not expected to be significantly different from zero. A statistically significant positive measure of discretionary accruals in either year -1 or year 0 (or both) will lend support to Hypothesis 1.

Testing Hypothesis 2 involves two steps. In the first step, four portfolios of issuers are formed based on the quartiles of discretionary accruals around the issue year; the discretionary accruals for the year that are significantly positive are used to form the portfolios, and the two extreme portfolios are called the aggressive (quartile 4) and the conservative (quartile 1) private placement issuers. The abnormal returns for each portfolio are calculated as the cumulative buy-and-hold return on sample firms less the simple cumulative buy-and-hold return on control firms over the three-year post-issue period. Hypothesis 2 predicts that the most aggressive issuers will exhibit the most negative post-issue abnormal returns and that the most conservative issuers will exhibit the least negative (in terms of magnitude) post-issue abnormal returns. This first step provides a view of the relationship between the earnings management around the time of private placements and the post-issue stock performance.

Building on the results of the first step, the second step is a formal statistical test of Hypothesis 2. Specifically, OLS regressions are run using individual issuer's three-year post-issue raw return, market access return, and abnormal return as the dependent variable. The independent variable of primary interest to the study is the abnormal accruals for year -1 or year 0, whichever is significantly positive. The regressions also include an industry dummy, firm size, and book to market variables as control variables. The industry dummy accounts for post-issue stock performance across industries and firm size and book to market variables control for firm characteristics. A significantly negative estimate of the coefficient of the discretionary accruals variable will lend support to Hypothesis 2.

The OLS regression model is specified as:

[R.sub.i] = [[beta].sub.0] + [[beta].sub.1] ([DA.sub.i]) + [[beta].sub.2] ([Size.sub.i]) + [[beta].sub.3] ([BtoM.sub.i]) + [summation] [gamma] ([Industry_dummies.sub.i]) + [[epsilon].sub.i] (6)

where:

[R.sub.i] = issuer's raw return, market excess return, or abnormal return

[DA.sub.i] = issuer's discretionary accruals around issuance

[Size.sub.i] = issuer's market value of equity

[BtoM.sub.i] = book to market ratio

[Industry_dummies.sub.i] = industry dummy variables

EMPIRICAL RESULTS

Table 2 reports five years of asset-scaled discretionary accruals around the issue of private placements for the U.S. issuers and those for the control firms. The mean and median for year -2 are not significantly different from zero; but for year -1, the year prior to the private placements, the discretionary accruals of the issuing firms have a mean of 3.27 percent and a median of 2.49 percent of total assets, both of which are significantly positive. For years 0, +1, and +2, the means and medians are greater than zero; however, they are not statistically significant at the conventional levels (except for the median for year +1, which is significant at ten percent level).

Since managers' incentives to manage earnings could also be due to firm size and leverage, the results from the modified Jones model should be compared with those of the control group to draw an overall inference about earnings management around the time of private placements. Table 2 also reports the mean and median for those control firms over the same time period, none of which is significantly different from zero. The study conducts pair-wise comparison tests on the differences in discretionary accruals between private placement issuers and their control firms, and the result shows that in the year -1, private placement issuers have significantly greater discretionary accruals in both mean and median than their non-issue peers, suggesting that the observed abnormally high magnitude of earnings managements in year -1 cannot be attributed to firm size, leverage or the industry-specific categories of the sample. The comparison of the mean and median of discretionary accruals between the issuing firms and the control firms does not reveal any statistically significant difference in other years. Thus, the empirical results support the first hypothesis that managers tend to manipulate earnings upward in the year prior to the issue of private placements.

Existing literature documents that after issuing private placements, firms experience negative abnormal stock performance (Hertzel et al., 2002). This study examines the sample firms and finds results consistent with existing literature. The average three-year buy-and-hold abnormal stock returns for the sample are -32.83 percent. The existing literature has postulated that the negative abnormal stock return is due to investors' over-optimism about these issuing firms' future performance. This study argues that earnings management around the private placement issue could be a factor for the investors' over optimism, because the inflated earnings around the issuance could mislead investors about the issuer's future performance. The reversal of accruals in the following years results in a drop

in the issuer's stock price. Thus, the more the earnings management, the poorer the post-issue stock performance.

Table 2: Discretionary accruals for U.S. issuing firms versus control firms

Variable	Mean	Std. Dev.	Median	Min	Max
Year –2 (N=289)					
PP firms	-0.0021	0.3535	0.0104	-1.7926	1.2482
	(t=-0.10, pr=0.920)		(pr=0.281)		
Control firms	0.0044	0.2920	0.0045	-1.2817	1.6583
	(t=0.24, pr=0.811)		(pr=0.444)		
Test of difference	(t=-0.23, p=0.815)		(pr=0.672)		
Year –1 (N=348)					
PP firms	0.0327**	0.2816	0.0249***	-1.4318	1.5114
	(t=2.15, pr=0.032)		(pr=0.001)		
Control firms	-0.0072	0.2125	0.0051	-0.8906	0.8037
	(t=-0.64, pr=0.521)		(pr=0.782)		
Test of difference	(t=2.11, pr=0.035)		(pr=0.059)		
Year 0 (N=321)					
PP firms	0.0054	0.2466	0.0128	-1.1477	1.5460
	(t=0.39, pr=0.694)		(pr=0.307)		
Control firms	-0.0018	0.1991	0.0055	-1.4221	0.7863
	(t=-0.16, pr=0.874)		(pr=0.281)		
Test of difference	(t=0.40, p=0.687)		(pr=0.865)		
Year +1 (N=291)					
PP firms	0.0127	0.1805	0.0143*	-0.6056	0.8132
	(t=1.20, pr=0.231)		(pr=0.066)		
Control firms	-0.0020	0.2189	-0.0080	-1.1885	1.5788
	(t=-0.14, pr=0.886)		(pr=0.627)		
Test of difference	(t=0.83, p=0.405)		(pr=0.157)		
Year +2 (N=260)					
PP firms	0.0193	0.1963	0.0068	-1.2727	1.1556
	(t=1.58, pr=0.114)		(pr=0.108)		
Control firms	-0.0130	0.1855	0.0023	-0.8277	0.8948
	(t=-0.95, pr=0.343)		(pr=0.553)		
Test of difference	(t=1.76, p=0.079)		(pr=0.187)		

Footnotes:
Paired-sample t-test is used to evaluate difference in means, and Wilcoxon rank-sum test is used to evaluate the difference in medians.
***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively, two-tailed test.

To test this hypothesis, the study first classifies the issuing firms according to the level of their discretionary accruals in year -1 to derive four portfolios. The quartile group with the lowest discretionary accruals is called the conservative group, and the group with the highest discretionary accruals is called the aggressive group. Buy-and-hold raw returns are developed for each portfolio, and the portfolio is rebalanced every year. Market excess returns for each portfolio are also calculated. In addition, the study adopts the Mahalanobis distance approach to develop a control firm for each sample firm with a similar size and book to market ratio in the same industry. The buy-and-hold excess returns over their control firms for each portfolio are also developed as abnormal returns.

Table 3 reports the raw returns, the market excess returns, and the abnormal returns for the conservative and aggressive portfolio for each year over a three-year post-issue period. The market excess returns for the conservative portfolio over the three-year period are 3.54 percent and they are -9.75 percent for the aggressive portfolio. The abnormal returns for the conservative portfolio over the period are -15.98 percent and they are -51.21 percent for the aggressive portfolio. Figure 1 depicts the size and book-to-market value adjusted abnormal returns for each quartile, showing that the aggressive quartile performs more poorly than the conservative quartile and suggesting that the higher the level of discretionary accruals prior to the private placement issuance, the poorer the post-issue stock performance.

Footnote:

The total sample is classified into four groups by the issuer's discretionary accruals in the year preceding the issuing year. The conservative group is the quartile group with the smallest discretionary accruals and the aggressive group is the one with the largest discretionary accruals.

[FIGURE 1 OMITTED]

The study runs OLS regressions of three-year post-issue stock raw returns, market excess returns, and abnormal returns on discretionary accruals in year -1, as well as on the control variables of market value, book-to-market, and industry dummies. The regression is run at the firm level, and Table 4 reports the regression results. The variable of most interest is the discretionary accruals in year -1. The coefficient of the discretionary accruals in year -1 on the three-year market excess returns is -0.3485 and significant at the 5% level (t = -1.96); the coefficient of discretionary accruals in year -1 on the three-year abnormal returns is -0.4343 and also significant at the 5% level (t = -1.83).

Thus, the results in table 4 support the second hypothesis. For private placement issuers in the U.S., the higher the discretionary accruals in year -1, the poorer the three-year post-issue market excess returns and abnormal returns. Therefore, the level of earnings management is associated with the three-year post issue stock underperformance, suggesting that earnings management could be a factor causing investors' over optimism prior to the issue of private placements.

SENSITIVITY ANALYSIS

The selection of control firms is crucial in many empirical studies. To test the first hypotheses, a control firm for each private placement-issuing firm is chosen to mitigate the influence of factors such as industry, size, and leverage. The discretionary accruals of private placement firms in the year prior to the issues are significantly greater than those of control firms, so the detected earnings management is not due to factors other than the private placement. To test the second hypotheses, control firms are also developed for the calculation of the issuers' post-issue abnormal returns. Compared to raw returns and market

excess returns, abnormal returns are a more accurate measure of stock performance in that they mitigate some systematic and firm specific factors that can influence the stock returns.

Empirical studies have used a variety of matching methods to derive the control firms. When two or more continuous variables are used in the matching, many studies have adopted the Euclidean distance approach and have chosen the firm with the closest Euclidean distance to the experimental firm as its control firm. Murray (1983) is the first to apply the Mahalanobis distance approach to accounting and finance empirical research. The Mahalanobis distance approach, as used in this study, improves the Euclidean distance approach by considering the variance and covariance of these control variables when calculating the distance and, thus, provides more accurate matching. However, the application of the Mahalanobis distance approach is seldom used in accounting and finance studies.

An alternative matching approach, the propensity score matching approach that structures non-experimental data to look like experimental data, has gained popularity in economics research in recent years. Rosenbaum and Rubin (1983) advocate the use of propensity scores, which measure the probability that firms receive treatment, to reduce the dimensionality of the matching. By matching on the scalar variable, sample firms could be matched with the nearest non-treated firms having a similar treatment condition on covariates. Since the propensity score matching method is a significant improvement in matching techniques, it becomes a rapid growing method in accounting and corporate finance as a sensitivity analysis to address self-selection issues (Li and Prabhala 2007).

Table 3: Post-issue stock returns for extreme discretionary accruals quartiles: U.S. issuers

Years after issuance	Raw returns		Market excess returns		Abnormal returns	
	Conservative	Aggressive	Conservative	Aggressive	Conservative	Aggressive
1	-11.73	-6.72	-8.49	-3.78	-23.16	-27.67
2	19.25	-5.03	12.91	-13.08	-21.49	-41.66
3	18.22	16.78	3.54	-9.75	-15.98	-51.21

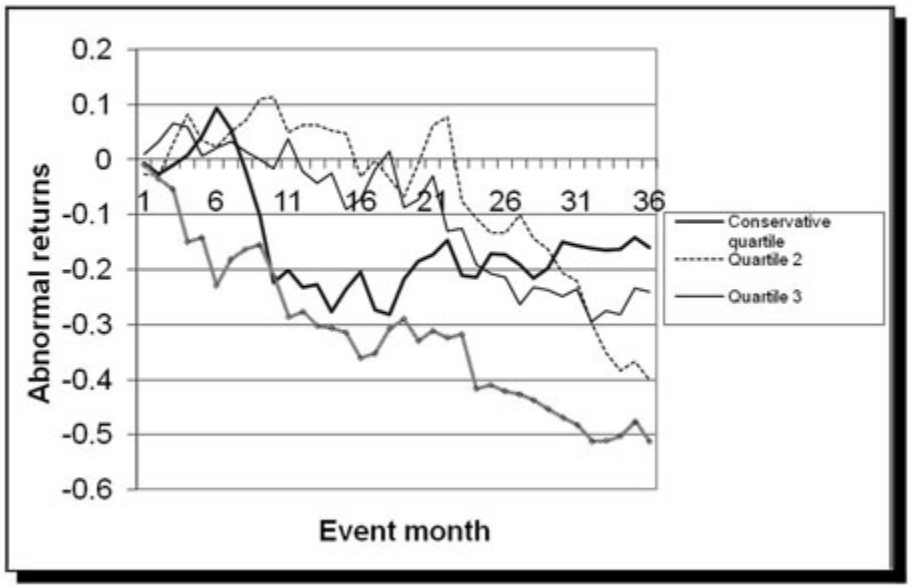
Footnote:
The total sample is classified into four groups by the issuer's discretionary accruals in the year preceding the issuing year. The conservative group is the quartile group with the smallest discretionary accruals and the aggressive group is the one with the largest discretionary accruals.

The sensitivity analysis conducted in this study uses the propensity score matching method to select the control sample. A logistic regression is processed to calculate propensity scores for the sample firms and the potential control firms. Following existing literature, the independent variables include trading system, industry, issue year, firm size, leverage, book to market ratio, sales, return on assets, and research and development expenses (Spiess and Affleck-Graves 1995, Schultz 2003, Mclaughlin et al. 1996, Loughran and Ritter 1995, and Jung et al. 1996). The propensity scores, the probability that a firm may conduct private placements, are derived after the regression. The logistic regression results are shown in Table 5.

Overall, the logistic model for U.S. firms reports a 70 percent accuracy for the issuing firms and a 75 percent accuracy for non-issuing firms. To be qualified into the pool of non-issuing firms, a firm must have necessary data to calculate discretionary accruals and stock returns. Once the propensity score is calculated for each firm, the control sample can be derived. A non-issuing firm with the nearest neighbor of propensity score in the same industry is chosen as the control firm for each issuing firm.

The annual discretionary accruals for the five-year period surrounding the issue year are calculated for the control firm for each private placement issuer. Table 6 reports the five year discretionary accruals for the issuers and their control firms. Similar to the results from using the Mahalanobis distance matching to select the control sample, the mean and median of discretionary accruals in year -1 of the sample firms are both significantly greater than those of their control firms. There is no significant difference in discretionary accruals between the issuing firms and control firms for years -2, 0, and +1. Although year +2's the mean of discretionary accruals for sample firms is significantly and marginally greater than that for the control firms, the median is not significantly different between the two groups. Thus, the results are consistent with the Mahalanobis distance approach, suggesting that the empirical results in support of the first hypothesis are not sensitive to alternative matching procedures in selecting the control sample.

Figure 1: Abnormal returns classified by discretionary accruals around issue year quartiles for U.S. issuers



Raw returns are derived for the control firms and three years post-issue abnormal returns are developed as buy-and-hold excess returns over these control firms. Table 7 reports the results of the regression of post-issue stock performance on discretionary accruals for year -1. The coefficient of discretionary accruals in year -1 on three-year abnormal returns is -0.5082 and is significant at the 10 percent level. The results are qualitatively the same as

those from the Mahalanobis distance approach in selecting the control sample, suggesting that the findings on the association between post-issue stock performance and earnings management around the time of private placements are not sensitive to alternative matching methods.

CONCLUSION

Private placements provide direct incentive to managers to manipulate earnings. In doing so, managers may portray a rosy picture of the firms' prospects to attract new investors and obtain more favorable terms for selling new shares. This study investigates whether private placement issuers manipulate their earnings around the time of issue, and the results indicate that managers tend to income increasingly manage their earnings around the private placement.

The study also examines the effect on stock performance of earnings management around the issue of private placements. Investors could be misled by the manipulated earnings and become over-optimistic about the issuers' future performances. When the income-increasing accruals reverse in subsequent periods, investors become disappointed and beat down the stock price to the firms' fundamental values. Thus, the study finds that post-issue stock underperformance is associated with earnings management prior to the private placement and that, the higher the level of earnings management before the issue of private placements, the poorer the post-issue stock performance will be.

The study also investigates whether an alternative matching technique could have influence on the findings. A popular matching method in economics, propensity score matching, is used to replace the Mahalanobis distance approach and the results are similar, suggesting that the findings are not sensitive to alternative matching methods.

Table 4: Regressions of post-issue stock performance on discretionary accruals in year –1 and control variables for U.S. issuers

		Three-year raw returns	Three-year market excess returns	Three-year abnormal returns
Discretionary Accruals	Coef	-0.2327	**-0.3485****	**-0.4343****
	(t)	(-1.22)	**(-1.96)**	**(-1.83)**
Market Value	(t)	-0.12	(-0.06)	-0.48
Book to Market	(t)	-1.98	-1.76	-1.25
Industry dummies		Not reported	Not reported	Not reported
Obs		293	293	293
R-square		3.31%	3.81%	4.17%

Footnotes:
***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively , one-tailed test

Testing earnings management using accrual models is a simultaneous test of earnings management and the validity of the accrual models (Kothari et al., 2005), so this study is limited by the accuracy of the accrual model that is adopted to capture the existence and level of earnings management. Although the study adopts the best performing accrual

model, to the extent that the model could fail to correctly extract the discretionary portion from the total accruals, the results should be interpreted with caution.

This study is also limited by the effectiveness of the matching models in dealing with self-selection bias since issuing private placements could be an endogenous choice. To deal with the self-selection problem, this study conduct a sensitivity test using propensity score matching method. Issuing firms are matched with control firms by the similar probability to issue private placements. Although the consistent results using the propensity score matching method with the dimension by dimension matching using Mahalanobis distance are conforming, the robustness of this study is based on the assumption that unobserved private information should not explain outcome differentials between firms choosing to issue private placements and those choosing not to.

The findings of this study document that on average firms issuing private placements have tendency to manipulate their earnings around the issuance. However, the magnitude of the manipulations is different across the issuing firms. It will be interesting to investigate what factors affect the firms' decision to manage earnings or the magnitude of the manipulations, whether these factors have similar impact on private placement issuers with other equity issuers, such as initial public offerings, seasoned public offerings, right offerings and convertible bond offerings, etc and whether these factors have similar impact across countries.

APPENDIX A: NEW U.S. SEASONED SECURITY ISSUES OF CORPORATION BY TYPE OF OFFERING, 1996-2003

	1996	1997	1998	1999
Public offerings *	114.6	110.9	121.3	125
Private placements *	43.2	61.9	84.7	112.7
Total *	157.8	172.8	206	237.7
% of Private placements	27.4%	35.8%	41.1%	47.4%

	2000	2001	2002	2003
Public offerings *	134.9	120.9	110.4	123.3
Private placements *	177	100	60.5	58.8
Total *	311.9	220.9	170.9	182.1
% of Private placements	56.7%	45.3%	35.4%	32.3%

Footnotes:

Source: Board of Governors of the Federal Reserve System, Federal Reserve Bulletin.

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Table 5: Logistic analysis of private placement decision		
Independent variables	Coefficient	z-stat
Return on Assets	-0.0906**	-2.1
Leverage	0.0694	0.5
Size	-0.0855***	-2.83
R & D/ Assets	0.4763**	2.54
Book to Market	-0.1761***	-3.88

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Table 5: Logistic analysis of private placement decision		
Independent variables	Coefficient	z-stat
Sales/Assets	-0.5164***	-5.06
Traded on American Stock Exchange	0.3466	1.52
Traded on NASDAQ	0.2589*	1.89
Industry Dummies	3 are significant	
Year Dummies	5 are significant	
Intercept	-4.5894***	-10.82
Number of Obs	36942	
Pseudo R-square	11.59%	
Footnotes: ***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively. The dependent variable is 1 if a firm issues private placement in a certain year and 0 otherwise.		

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Table 6: Discretionary accruals for U.S. private placement firms versus control firms – propensity score matching

Variable	Mean	Std. Dev.	Median	Min	Max
Year -2 (N=289)					
PP firms	-0.0021	0.3535	0.0104	-1.7926	1.2482
	(t=-0.10, pr=0.920)		(pr=0.281)		
Control firms	0.0081	0.2920	0.0102*	-1.7113	1.2321
	(t=0.52, pr=0.601)		(pr=0.059)		
Test of difference	(t=-0.39, p=0.694)		(pr=0.869)		
Year -1 (N=348)					
PP firms	0.0327**	0.2816	0.0249***	-1.4318	1.5114
	(t=2.15, pr=0.032)		(pr=0.001)		
Control firms	-0.0100	0.2125	0.0062	-1.7070	1.5687
	(t=-0.56, pr=0.577)		(pr=0.957)		
Test of difference	(t=1.82, pr=0.069)		(pr=0.042)		
Year 0 (N=321)					
PP firms	0.0054	0.2466	0.0128	-1.1477	1.5460
	(t=0.39, pr=0.694)		(pr=0.307)		
Control firms	0.0050	0.1991	0.0060	-1.4365	1.1002
	(t=-0.39, pr=0.695)		(pr=0.420)		
Test of difference	(t=0.02, p=0.983)		(pr=0.662)		
Year +1 (N=291)					
PP firms	0.0127	0.1805	0.0143*	-0.6056	0.8132
	(t=1.20, pr=0.231)		(pr=0.066)		
Control firms	-0.0102	0.2189	-0.0030	-0.9299	1.1316
	(t=-0.78, pr=0.435)		(pr=0.996)		
Test of difference	(t=1.36, p=0.173)		(pr=0.171)		
Year +2 (N=260)					
PP firms	0.0193	0.1963	0.0068	-1.2727	1.1556
	(t=1.58, pr=0.114)		(pr=0.108)		
Control firms	-0.0072	0.1855	-0.0032	-0.6795	0.5421
	(t=-0.78, pr=0.434)		(pr=0.970)		
Test of difference	(t=1.73, p=0.083)		(pr=0.526)		

Footnotes:
Paired-sample t-test is used to evaluate difference in means, and Wilcoxon rank-sum test is used to evaluate the difference in medians.
***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively, two-tailed test.

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Table 7: Regressions of post-issue stock performance on discretionary accruals in year –1 and control variables for U.S. issuers – propensity score matching

		Three-year raw returns	Three-year market excess returns	Three-year abnormal returns
Discretionary Accruals	Coef	-0.2327	**-0.3485****	**-0.5082***
	(t)	(-1.22)	**(-1.96)**	**(-1.43)**
Market Value	(t)	-0.12	(-0.06)	(-0.05)
Book to Market	(t)	-1.98	-1.76	-0.04
Industry dummies		Not reported	Not reported	Not reported
Obs		293	293	293
R-square		3.31%	3.81%	4.28%

Footnotes:
***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively, one-tailed test.

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APPENDIX A: NEW U.S. SEASONED SECURITY ISSUES OF CORPORATION BY TYPE OF OFFERING, 1996-2003

	1996	1997	1998	1999	2000	2001	2002	2003
Public offerings*	114.6	110.9	121.3	125	134.9	120.9	110.4	123.3
Private placements*	43.2	61.9	84.7	112.7	177	100	60.5	58.8
Total*	157.8	172.8	206	237.7	311.9	220.9	170.9	182.1
% of Private placements	27.4%	35.8%	41.1%	47.4%	56.7%	45.3%	35.4%	32.3%

Footnotes:
Source: Board of Governors of the Federal Reserve System, Federal Reserve Bulletin.
* Numbers are in billions of dollars.

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Table 1: Summary of U.S. private placements sample size and gross proceeds

Panel A: Sample size and gross proceeds by calendar year

Year	Sample size	Percentage	Gross proceeds (million $)
1989	17	4.89%	1,214.65
1990	13	3.74%	688.74
1991	14	4.02%	213.50
1992	25	7.18%	275.50
1993	25	7.18%	324.25
1994	19	5.46%	272.27

1995 16 4.60% 474.40
1996 15 4.31% 199.65
1997 16 4.60% 464.96
1998 7 2.01% 169.33
1999 18 5.17% 872.46
2000 40 11.49% 1,710.40
2001 123 35.34% 2,675.25
Total 348 100.00% 9,556.08

Panel B: Sample size and gross proceeds by industry classification

Gross
proceeds
Sample (million
Industry classification size Percentage $)

Mining 9 2.59% 221.76
Oil And Gas 6 1.72% 438.42
Food Products 6 1.72% 368.10
Chemical Products 94 27.01% 2,218.40
Computer Equipment 16 4.60% 431.52
Electronic Equipment 25 7.18% 299.00
Transportation 18 5.17% 470.88
Instruments And Related Product 38 10.92% 677.54
Communications 12 3.45% 294.48
Wholesale 6 1.72% 69.90
Retail 21 6.03% 893.97

Panel A: Sample size and gross proceeds by calendar year

Gross
proceeds
Sample (million
Year size Percentage $)

Financial Services 12 3.45% 482.88
Services 67 19.25% 1,886.05
Others 18 5.17% 801.54
Total 348 100.00% 9,556.08

Table 2: Discretionary accruals for U.S. issuing firms versus control firms

Std.
Variable Mean Dev.

Year -2 (N=289)

PP firms -0.0021 0.3535
(t=-0.10, pr=0.920)

Control firms 0.0044 0.2920
(t=0.24, pr=0.811)

Test of difference (t=-0.23, p=0.815)

Year -1 (N=348)

PP firms 0.0327 ** 0.2816
(t=2.15, pr=0.032)

Control firms -0.0072 0.2125
(t=-0.64, pr=0.521)

Test of difference (t=2.11, pr=0.035)

Year 0 (N=321)

PP firms 0.0054 0.2466
(t=0.39, pr=0.694)

Control firms -0.0018 0.1991
(t=-0.16, pr=0.874)

Test of difference (t=0.40, p=0.687)

Year +1 (N=291)

PP firms 0.0127 0.1805
(t=1.20, pr=0.231)

Control firms -0.0020 0.2189
(t=-0.14, pr=0.886)

Test of difference (t=0.83, p=0.405)

Year +2 (N=260)

PP firms 0.0193 0.1963
(t=1.58, pr=0.114)

Control firms -0.0130 0.1855
(t=-0.95, pr=0.343)

Test of difference (t=1.76, p=0.079)

Variable Median Min Max

Year -2 (N=289)

PP firms 0.0104 -1.7926 1.2482

(pr=0.281)

Control firms 0.0045 -1.2817 1.6583
(pr=0.444)

Test of difference (pr=0.672)

Year -1 (N=348)

PP firms 0.0249 *** -1.4318 1.5114
(pr=0.001)

Control firms 0.0051 -0.8906 0.8037
(pr=0.782)

Test of difference (pr=0.059)

Year 0 (N=321)

PP firms 0.0128 -1.1477 1.5460
(pr=0.307)

Control firms 0.0055 -1.4221 0.7863
(pr=0.281)

Test of difference (pr=0.865)

Year +1 (N=291)

PP firms 0.0143 * -0.6056 0.8132
(pr=0.066)

Control firms -0.0080 -1.1885 1.5788
(pr=0.627)

Test of difference (pr=0.157)

Year +2 (N=260)

PP firms 0.0068 -1.2727 1.1556
(pr=0.108)

Control firms 0.0023 -0.8277 0.8948
(pr=0.553)

Test of difference (pr=0.187)

Footnotes:

Paired-sample t-test is used to evaluate difference in means, and

Wilcoxon rank-sum test is used to evaluate the difference in medians.

***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively, two-tailed test.

Table 3: Post-issue stock returns for extreme discretionary accruals quartiles: U.S. issuers

Years after issuance	Raw returns		Market excess returns	
	Conservative	Aggressive	Conservative	Aggressive
1	-11.73	-6.72	-8.49	-3.78
2	19.25	-5.03	12.91	-13.08
3	18.22		3.54	

Years after issuance	Abnormal returns	
	Conservative	Aggressive
1	-23.16	-27.67
2	-21.49	-41.66
3	-51.21	

Table 4: Regressions of post-issue stock performance on discretionary accruals in year -1 and control variables for U.S. issuers

	Three-year raw returns	Three-year market excess returns	Three-year abnormal returns
Discretionary Accruals (t)	Coef -0.2327 (-1.22)	-0.3485 ** (-1.96)	-0.4343 ** (-1.83)
Market Value (t)	-0.12	(-0.06)	-0.48
Book to Market (t)	-1.98	-1.76	-1.25
Industry dummies	Not reported	Not reported	Not reported
Obs	293	293	293
R-square	3.31%	3.81%	4.17%

Footnotes:
***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively , one-tailed test

Table 5: Logistic analysis of private placement decision

Independent variables	Coefficient	z-stat

Return on Assets -0.0906 ** -2.1
Leverage 0.0694 0.5
Size -0.0855 *** -2.83
R & D/ Assets 0.4763 ** 2.54
Book to Market -0.1761 *** -3.88
Sales/Assets -0.5164 *** -5.06
Traded on American Stock Exchange 0.3466 1.52
Traded on NASDAQ 0.2589 * 1.89
Industry Dummies 3 are significant
Year Dummies 5 are significant
Intercept -4.5894 *** -10.82
Number of Obs 36942
Pseudo R-square 11.59%
Footnotes:

***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively.

The dependent variable is 1 if a firm issues private placement in a certain year and 0 otherwise.

Table 6: Discretionary accruals for U.S. private placement firms versus control firms--propensity score matching

Variable Mean Std. Dev.

Year -2 (N=289)

PP firms -0.0021 0.3535
(t=-0.10, pr=0.920)

Control firms 0.0081 0.2920
(t=0.52, pr=0.601)

Test of difference (t=-0.39, p=0.694)

Year -1 (N=348)

PP firms 0.0327 ** 0.2816
(t=2.15, pr=0.032)

Control firms -0.0100 0.2125
(t=-0.56, pr=0.577)

Test of difference (t=1.82, pr=0.069)

Year 0 (N=321)

PP firms 0.0054 0.2466
(t=0.39, pr=0.694)

Control firms 0.0050 0.1991
(t=-0.39, pr=0.695)

Test of difference (t=0.02, p=0.983)

Year +1 (N=291)

PP firms 0.0127 0.1805
(t=1.20, pr=0.231)

Control firms -0.0102 0.2189
(t=-0.78, pr=0.435)

Test of difference (t=1.36, p=0.173)

Year +2 (N=260)

PP firms 0.0193 0.1963
(t=1.58, pr=0.114)

Control firms -0.0072 0.1855
(t=-0.78, pr=0.434)

Test of difference (t=1.73, p=0.083)

Variable Median Min Max

Year -2 (N=289)

PP firms 0.0104 -1.7926 1.2482
(pr=0.281)

Control firms 0.0102 * -1.7113 1.2321
(pr=0.059)

Test of difference (pr=0.869)

Year -1 (N=348)

PP firms 0.0249 *** -1.4318 1.5114
(pr=0.001)

Control firms 0.0062 -1.7070 1.5687
(pr=0.957)

Test of difference (pr=0.042)

Year 0 (N=321)

PP firms 0.0128 -1.1477 1.5460
(pr=0.307)

Control firms 0.0060 -1.4365 1.1002
(pr=0.420)

Test of difference (pr=0.662)

Year +1 (N=291)

PP firms 0.0143 * -0.6056 0.8132
(pr=0.066)

Control firms -0.0030 -0.9299 1.1316
(pr=0.996)

Test of difference (pr=0.171)

Year +2 (N=260)

PP firms 0.0068 -1.2727 1.1556
(pr=0.108)

Control firms -0.0032 -0.6795 0.5421
(pr=0.970)

Test of difference (pr=0.526)

Footnotes:

Paired-sample t-test is used to evaluate difference in means, and Wilcoxon rank-sum test is used to evaluate the difference in medians.

***, **, *: Significant different from zero at 0.01, 0.05, and 0.10, respectively, two-tailed test.

Table 7: Regressions of post-issue stock performance on discretionary accruals in year -1 and control variables for U.S. issuers--propensity score matching

Three-year Three-year Three-year
raw returns market abnormal
excess returns
returns

Discretionary Coef -0.2327 -0.3485 ** -0.5082 *
Accruals (t) (-1.22) (-1.96) (-1.43)
Market Value (t) -0.12 (-0.06) (-0.05)
Book to Market (t) -1.98 -1.76 -0.04

```
Industry dummies Not reported Not reported Not reported
Obs 293 293 293
R-square 3.31% 3.81% 4.28%

Footnotes:

***, **, *: Significant different from zero at 0.01, 0.05, and 0.10,
respectively, one-tailed test.
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