

Reactions of Issuers and Rivals to Private Placements of Common Equity

Scott Besley

Phone: (813) 974-6341

E-mail: sbesley@coba.usf.edu

Ninon Kohers

Phone: (813) 974-6337

E-mail: nkohers@coba.usf.edu

Department of Finance
College of Business Administration, BSN 3403
University of South Florida
Tampa, FL 33620-5500
Fax: (813) 974-3030

Reactions of Issuers and Rivals to Private Placements of Common Equity

Abstract

Both the theoretical and empirical literature suggest that leverage decreasing activities should be viewed as unfavorable information by shareholders. However, the empirical research relating to private equity placements suggests the opposite. In an attempt to mitigate these seemingly contradictory findings, this study examines stock price reactions of both issuing firms and rival firms to announcements of private placements of common stock. The results show that issuers' stock prices tend to react positively while rivals' stock prices tend to react negatively to such announcements. The results are consistent with the general signaling theory that sophisticated private investors' willingness to commit a block of funds to a firm certifies the actual value and revises the market's perception of the firm's future returns distributions. The results also are consistent with the theoretical view that publicly owned companies might select private placements to protect valuable information from being disclosed publicly, especially when such information would enable issuers to gain a competitive advantage compared to rival firms.

Reactions of Issuers and Rivals to Private Placements of Common Equity¹

The finance literature contains several empirical studies that examine stock price reactions to announcements of equity issues. On the one hand, a number of studies exist that examine the reactions of stock prices to announcements of *public* issues of common stock by established firms--seasoned (public) equity offerings (SEOs)--and the results demonstrate that stock prices react *negatively* to such announcements.² On the other hand, few studies exist that examine the reactions of stock prices to announcements of *private* placement of common stock--private equity offerings (PEOs)--and the results suggest that stock prices react *positively* to such announcements.³

One possible explanation for the negative reaction of stock prices to public issues of equity comes from the argument made by Myers and Majluf (1984) that managers would under invest--i.e., forgo some projects with positive net present values--if new equity is needed to finance projects so that *new* stockholders do not benefit at the expense of *existing* stockholders. In other words, managers tend to act in the best interests of the *existing* stockholders of the firm. Accordingly, "good" investments will be financed internally or with the least risky type of external financing (i.e., debt), and equity will be issued only if a manager believes the firm is overvalued. The results of studies by Loughran and Ritter (1995) and Speiss and Affleck-Graves (1995) suggest that overvalued firms do indeed issue SEOs.

¹ We appreciate the helpful comments provided by Cynthia Campbell on a previous version of this paper.

² Studies of public placements include Asquith and Mullins (1986), Bayless and Chaplinsky (1996), Masulis and Korwar (1986), and Mikkelson and Partch (1986), among others.

³ Studies by Alli and Thompson (1993), Goh, Gombola, Lee, and Liu (1999), Hertz and Rees (1998), Hertz and Smith (1993), and Wruck (1989) show significant positive stock price reactions to private placements of common stock.

In the development of their argument, Myers and Majluf presume that managers have greater knowledge about a firm's value than outside stockholders. Hertz and Smith (1993) suggest that this information asymmetry is mitigated somewhat by private placements of equity because the wealth benefit that accrues to new shareholders relative to existing shareholders is less than it would be for comparable public issues. Thus, when undervalued firms issue equity privately, managers are less likely to under invest, which should result in positive stock price reactions to announcements of such issues. Hertz and Smith provide empirical results that suggest stocks that are issued privately are actually undervalued.

Private issues are typically sold to well-informed investors, and issuers are not required to disclose sensitive information that would have to be disclosed with public issues. Thus, it has been suggested that one reason stock price reactions to announcements of private issues differ from stock price reactions to announcements of public issues is because the two announcements provide different information to the financial markets. To address this issue further, in this study, we examine the stock price reactions of both issuing firms and their rivals to announcements of private placements of common stock to help determine if the information provided by such announcements differs for the two groups. The results of this study suggest that the stock price reactions of these two groups do differ--stock prices of issuers react positively to announcements of private placements of common stock, while stock prices of the issuers' rivals react negatively. *A priori*, we would expect this result if firms issue common stock privately in an effort to keep sensitive information "private"--i.e., out of the hands of competitors.

The remainder of this paper is organized as follows: In the next section, we present explanations for both the existence of private placements of equity and the conclusions that have

been suggested from previous research in this area. Section II includes a discussion of the research methods and the data utilized in the study. Section III presents the results, and Section IV contains a general summary and conclusions of this study.

I. Private Placements--Basic Intuition

The most distinguishable characteristic of a private equity placement is the direct sale of unregistered securities to a small number of well-informed investors. As such, it is possible there are informational implications associated with private placements. For example, private investors generally are regarded as more knowledgeable than other investors with respect to the firm's future prospects because they either possess, or have access to, information not disclosed to the general public.⁴ Because private investors generally are better informed than other less informed investors, the private placement of equity might provide (signal) information to less informed investors. Also, private placements are exempt from SEC registration, so they require less disclosure of verifiable information than public placements. Financial economists, such as Bhattacharya and Chiesa (1995) and Yosha (1995), suggest that private financings help firms protect such valuable information as potentially profitable projects and new technological developments from being disclosed publicly; information that might be of value to rival firms

⁴ Hartzel and Smith (1993) hypothesize that outside private investors are able to acquire inside information and investigate firm value at a low cost through the negotiating process involved in a private placement. As for financial institutions, it is well acknowledged in the existing literature that they have either a cost advantage or the necessary technology to produce the needed information for assessing firm value (Diamond, 1984, James, 1987, Lummer and McConnell, 1989). The role of information production is especially prominent in small, young, and risky firms that are typically associated with relatively severe information asymmetry problems (Carey, Prowse, Rea, and Udell, 1993).

remains private.⁵ Also, to the extent that private investors often purchase a block of securities carrying voting rights, privately placing equity could bring changes in the firm's ownership structure.

Based on the characteristics just mentioned, explanations to the valuation effects of private placements can be examined with respect to three general areas: general signaling theory, theory of intra-industry information transfer (contagion), and ownership structure (agency).

A. General Signaling

Proponents of the general signaling theory believe that firms' actions provide signals, or information, to investors. Thus, according to the general signaling theory, the fact that knowledgeable private investors are willing to commit funds to a private placement might provide information to the less informed outside investors that results in revisions of their perceptions of the firm's future returns distribution and, hence, changes in shareholder wealth. For example, Leland and Pyle (1977) present a model in which risk-averse managers' fractional stock ownership serves as a credible signal of firm value. From a diversification standpoint, investors are exposed to greater risk when they increase their investment in a single firm. Presumably, risk-averse managers would do so only if the increased risk exposure can be offset by greater expected future returns. Because private investors, which include managers and other investors close to the firm, are more knowledgeable about the firm's returns distribution than less informed investors, their willingness to retain a greater ownership share via private placements could signal positive

⁵Carey, et al.(1993) suggest that small, young, and risky firms might not have an opportunity to access the marketplace, which could force them to the private marketplace. However, Darrough and Stoughton (1990) show that in an entry game, when small growing firms face a high entry cost, the incentive to hide proprietary information is a greater concern.

information about future prospects. In addition, firms would prefer to privately place equity when it is believed the firm is undervalued (Hertzel and Smith, 1993).⁶ As a result, a private equity placement might signal favorable future returns to outside stockholders, which suggests stock prices would react positively to the announcement of a private placement of equity.

B. Information Transfer (Contagion)

The theory of intra-industry information transfer, or information contagion, contends that information disclosed by one industry member might affect the stock prices of its competitor(s), or rivals. The direction of rivals' stock price reactions depends on whether the information reflects industry-wide commonalities or is considered firm-specific (Baginski, 1987). For example, there is a great deal of documentation in the accounting literature that indicates the stock price reactions of announcing firms and their rivals are significantly positively related for announcements such as earnings and management forecasts of future earnings, which suggests this type of information reflects industry-wide commonalities (Baginski, 1987, Foster, 1981). Similarly, Szewczyk (1992) investigated intra-industry information transfer associated with announcements of public placements of common stocks, and found that the stock price reactions of both issuing firms and industry rival firms were negative, which suggests that any information contained in public equity placements is common to the industry. In contrast, if managers choose private equity placements specifically to prevent dissemination of private information that, if made public, would be helpful

⁶ Hertzel and Smith (1993) show that with reduced asymmetric information, private equity placements can resolve the under investment problem associated with public equity offers presented in Myers and Majluf (1984), namely, forgoing profitable investment opportunities. It is preferred to issue equity privately if the existing stockholders could retain more firm value than they would in a public placement. They suggest that firms might use private equity placements intentionally to signal undervaluation by the market. Such a signal is made costly, and hence credible, by the resale restrictions associated with such placements.

to rivals, it is possible private equity placements might be considered “bad news” for rival firms. On the other hand, if private placements of equity are passive decisions by managers because firms have difficulty accessing the public marketplace (Carey, Prowse, Rea, and Udell, 1993), private equity placements might also signal similar opportunities for rival firms. To date, the reaction of rival firms to private equity placements has not been examined.

C. Ownership Structure (Agency Issues)

Most private equity placements increase ownership concentration of extant large shareholders or create additional large shareholders (Wruck, 1989). Shleifer and Vishny (1986) assert that large shareholders have the capacity, as well as the incentive, to monitor management because they want to protect future expected returns. Small, atomistic shareholders, on the other hand, delegate the monitoring task to large shareholders. Moreover, the incentive of large shareholders to monitor management increases with the proportion of a firm’s shares they hold. Shleifer and Vishny show that an increase in large shareholders’ minority ownership interest would result in an increase in the firm’s market value. This same logic can be applied to form expectations that a private equity placement tends to enhance firm value.

When managers purchase a block of securities, however, differing opinions arise. On the one side, Jensen and Meckling (1976) maintain that increases in the proportion of management holdings would better align management’s interests with other shareholders, mitigate agency costs, and enhance firm value. Leland and Pyle (1977) argue that when risk-averse managers increase their stake in the company, outside investors would interpret it as a signal of favorable future prospects of the firm. On the other hand, corporate control theory contends that increasing

management's shareholdings would promote managerial entrenchment, decrease the possibility of a successful value-increasing takeover, and consequently reduce firm value (Stulz, 1988).

Hertzel and Smith (1993) and Morck, Shleifer, and Vishny (1988) claim that for small firms, the ownership structure effects are relatively unimportant. As they explain, the benefit of increased monitoring might be more important in large firms because they usually are more liquid with relatively low managerial ownership. Small firms, on the other hand, appear to have a relatively high managerial share ownership and are more likely to participate in developing speculative products. Consequently, because most private placements are initiated by small firms, private placements of equity probably are driven more by the need to raise capital or to signal the market than to restructure ownership.

II. Data and Methodology

A. Data/Sample

In this study, we examine 126 firms that privately placed issues of common stock and 409 corresponding rival firms from the period 1985 through 1997. To be included in the final sample, the data for each firm were screened to ensure that (1) the private placement was a pure equity issue of common stock such that no other class of security was jointly issued, (2) the announcement date could be determined using the *Wall Street Journal* or the *Lexis-Nexis* News Wire file, (3) appropriate stock and firm information was available on the Center for Research in Security Prices (CRSP) files and the Securities Data Corporation (SDC) database, and (4) no other announcements, such as a merger, acquisition, stock repurchase, and so forth, appeared on the news wire around the issue announcement date.

The rival firm portfolios were initially constructed by grouping firms using the four-digit primary Standard Industrial Classification (SIC) code, similar to procedure used by Firth (1996) and others. Although firms sharing the same four digit SIC code are classified in the same industry, they might not be rivals with respect to the products manufactured; many firms classified in the same industry do not produce similar or competing products--e.g., in the medical equipment industry, firms that produce equipment used to diagnose heart problems do not compete directly with firms that produce diagnostic equipment used by ophthalmologists. Therefore, to determine whether a firm should be classified as part of a rival group of an issuing firm, the firm should not only have the same SIC code as the issuing firm but it also should have a similar product line. Consequently, where it was possible, rivals were chosen based on their product lines relative to the product lines of the issuers. As with the issuing firms, rivals were included in the final sample only if sufficient data were available for the period of study and no other significant announcements occurred around the date the private placement was announced.

Public utility firms and financial institutions were excluded from the sample, because, according to Smith (1986), firms in such industries are subject to extensive regulations and might not choose freely among different financing methods. Further, such regulations might artificially affect stock prices of firms in those industries as well.

Tables 1-3 summarize the characteristics of the sample. Table 1 shows the annual distribution of sample firms during the period studied. The number of firms issuing private placements is well dispersed over the years examined, with the exception of 1989 through 1993, which includes more than two thirds of the observations. Within this time frame, the frequency of observations is highest during 1992 and 1993, when 42.7 percent of the private placements were

announced. This period probably reflects the early stages of the “high-tech” growth phenomenon and the emerging prominence of technology in the economy, which could explain the increased need for equity financing by many of the high-tech firms in the sample. The influence of time-period effects is further examined later in the paper.

The industry composition of the sample of private issue firms is presented in Table 2. While 82 different industry categories are represented, the strong representation of firms involved in high-tech lines of business is obvious. More specifically, a percentage breakdown reveals that approximately 71 percent of the firms in the sample are from high-tech areas related to biotechnology, pharmaceuticals, chemicals, computers, electronics, and communications. This high-tech dominance suggests that high technology firms in need of capital have been drawn to private equity issues, perhaps as a means of keeping proprietary information away from competing firms.

Descriptive statistics for the private issue sample are provided in Table 3. Size-related measures show that the private issuers tend to be smaller than the average industry-matched firm. Specifically, the mean market value for the firms issuing private equity is \$95.57 million, while the corresponding mean market value for industry rivals is approximately \$1.45 billion. Also, the average size of the equity issue is almost \$8 million, while the number of shares issued averages around 1.16 million shares. This issue size represents about 15 percent of the issuing firm’s total number of shares after the issue, or about 20 percent of the firm’s value.

An examination of the ownership structure of the issuers shows significant insider holdings (22 percent), with institutional ownership of approximately 12.6 percent on average. Further, prior to the private equity issue, the sample firms already have relatively large blockholder

ownership that represents almost 35 percent of the stock. The influence of these corporate governance-related factors in private equity issues is examined later in the paper.

In general, the summary statistics indicate that the sample of firms issuing private equity are relatively small- to medium-sized firms primarily engaged in technology-dominated lines of business. While both the issuing firms and the placement sizes are somewhat smaller than those studied by previous researchers, an examination of firms with these different characteristics can add to the information provided by previous research.

B. Testable Hypotheses

Signaling theory predicts that the announcement of a private equity placement is interpreted by the stockholders as a signal of the firm's future returns distribution, and will affect shareholder wealth if the distribution is expected to change. The sign of the abnormal return to shareholders around the announcement depends on whether the market interprets the announcement as a positive or a negative signal of the firm's value. The test of the general signaling theory is thus a test of whether shareholders experience a wealth change surrounding private equity placements. In this case, therefore, the testable hypothesis is that the announcement of a private placement of equity does not affect the market value of the issuing firm. Of course, if we find significant stock price reactions, then the results would suggest announcements of private equity placements provide information to outside shareholders.

The theory of intra-industry information transfer contends that information disclosed about one industry member might affect stock prices of rivals. In this case, the testable hypothesis is that stock prices of rivals do not react to announcements by issuing firms of private equity placements.

If we find this to be the case, then these results suggest the information conveyed by private placements of equity is primarily firm-specific. However, if theoretical models by Bhattacharya and Chiesa (1995) and Yosha (1995) hold, privately placing equity is expected to signal competitive shifts within the industry, which represents a scenario where the stock prices of issuing firms and rival firms react differently to the announcement of a private placement of equity. On the other hand, if a private equity placement is simply considered a substitute for a public equity placement, the results should parallel those of Szewczyk (1992), who found that both firms issuing equity publicly and their rivals experience similar stock reactions.

C. Methodology

General signaling theory proposes that corporate events such as private placements of equity might send new information about the firm's future prospects to the financial markets and cause significant stock price movements. To test for such reactions, standard event study methodology is used. Specifically, the abnormal return for Security i on day t (AR_{it}) is the actual return (R_{it}) minus the security's expected return:

$$AR_{it} = R_{it} - (\hat{\mathbf{a}}_i + \hat{\mathbf{b}}_i R_{mt})$$

where the estimated parameters are obtained from the OLS regression of security returns with market returns during the estimation period, and R_{mt} is the return on the market index for day t . The CRSP value-weighted index is used as the market index proxy. Also, the estimation period used in

the OLS regression spans from day -250 to day -60, where day 0 denotes the event day, i.e., the day on which the private equity issue is announced.⁷

To account for possible information leakages as well as delayed stock price reactions, accumulated stock-price performances were examined during various event windows in addition to direct stock price reactions on the event date--i.e., the announcement of a private placement. The event windows, which range from three days prior to the recognized announcement date to one day after, were selected so the results of this study can be compared to those of previous studies.

Rival firms' reaction to information contagion is examined using the standard event study methodology also. Rival firms' stock price reactions are measured around the event dates examined for private placement issuers. For rival firms, there might be a delay in the stock price reactions because information spillover might involve interpretation lags. The delay, however, should be reflected in the cumulative abnormal returns during the various event windows surrounding the announcements.

In addition to the event study, a couple of other tests are used to more closely examine the stock price reactions of rival firms to the announcements of the private placements. First, we examine the cumulative abnormal return around announcement dates for portfolios of industry

⁷ Due to nonsynchronous trading problems, the coefficient associated with the market return, β might not be the asymptotically efficient estimator of a security's systematic risk. Thus, in an earlier version of this study, adjustments similar to those used by Dimson (1979), Fowler and Rorke (1983), and Scholes and Williams (1977) were employed to estimate β . The results found with the adjustments were nearly identical to those without the adjustments, so the more parsimonious standard event study methodology was employed in this study.

It has also been suggested that standard event study methodologies, such as the widely adopted Brown and Warner (1985) and Collins and Dent (1984) tests of mean effect changes in return distributions, are subject to potential misspecifications (Sanders and Robins, 1991). If such misspecification exists, it results from clustering (e.g., significant number of firms from the same industry, many observations at the same time period, and so on). The recommended modifications were made to determine whether the results changed significantly. The results were identical using standard event study methodology and the modified methodology, so the conventional approach was used here.

rivals based on potentially influential factors associated with private placements--i.e., market value of the issuers, insider ownership of the issuers, and measures of issue size, including dollar value, number of shares, and fraction of shares. Similar factors were then regressed against the industry cumulative abnormal return around announcement dates to examine cross-sectional differences in the industry response to private issues.

III. Results

The market reaction to announcements of private placements of equity is addressed in Table 4, Panel A. Specifically, the average abnormal returns for the 126 private equity issuers and their industry-matched rivals are shown from the 10 days preceding the equity announcement to the 10 days following the announcement. First, the issuing firms experience significant positive abnormal returns of approximately 1.52 percent on the announcement day (day 0) and the following day (day 1). This return is slightly lower but consistent with prior studies of stock price reactions to announcements of private placements of common equity. Also, an examination of the days leading up to the announcement indicates that the market does not seem to anticipate the upcoming private placement announcement, as seen in the mostly insignificant mixed abnormal returns during the 10-day period prior to the issue announcement.

For the 409 industry-matched firms with complete return data on CRSP, the cumulative abnormal return on day 0 and day 1 is -1.06 percent, with highly significant t-statistics on both days ($t = -2.70$ on day 0 and $t = -2.29$ on day 1). This response by industry-matched firms indicates that private equity announcements have negative implications for investors in industry-related firms. Apparently, what is good news for one company is bad news for other firms in the

same industry--a true competitive-based reaction. Perhaps rival firms perceive that the private placement of equity reflects the announcing firm's positive expectations for its long-term future performance, which could lead to an enhanced competitive standing for the issuing firm in the industry. In addition, the choice to issue a private placement of equity, as opposed to a public equity offering, could suggest that the private issuer has valuable proprietary information that it wishes to keep out of the public domain where industry competitors could gain access.

Furthermore, the willingness of the buyer to purchase the private issue might send a positive signal about the value of the firm's shares placed with the buyer. This positive information about the value of the issuer's shares would, in turn, have negative implications for industry rivals. Next we attempt to distinguish between these two signals in a more detailed subsample analysis of the industry reaction.

Panel B in Table 4 shows the cumulative abnormal returns (CARs) for event windows that are comparable to those used in previous studies of private placements of common equity. For the four-day event window from three days prior to the announcement to the announcement of the private equity placement, (-3, 0), we found a CAR equal to 3.42 percent. This is less than the CAR of 4.41 percent reported by Wruck (1989) for the same event window, but it is greater than the CARs reported by Goh, Gombola, Lee, and Liu (1999), Hertz and Rees (1998), and Hertz and Smith (1993), which were 2.39 percent, 2.00 percent, and 1.72 percent, respectively. For the three-day event window (-1, 1), we computed a CAR equal to 2.25 percent, which is greater than the CAR of 1.74 percent reported by Goh, et al. for the same event window. And, we found a CAR equal to 2.04 percent for the two-day event window (-1, 0), which is greater than the CARs reported by Goh, et al. (1.22 percent) and Wruck (1.89 percent) for the same event window. In

general, then, the stock price reactions of the firms that issue private placements of common equity that are included in our study are generally consistent with those reported in previous studies.

The two-day cumulative abnormal returns are shown for portfolios of industry rivals in Table 5. As shown in Panel A, the mean CAR for the industry portfolios is -1.01 percent, which is significant at the 1 percent level. To provide additional information on the signaling effects of private equity placements, the industry abnormal returns are divided into subsamples in Panel B. First, we examine whether the size of the issuer influences the size of the industry response. If smaller firms have a harder time accessing capital and are more likely to turn to private equity issues, then the competitive reaction of industry rivals might be less distinct. In other words, the competitive implications associated with a smaller firm's private placement might be less threatening because the private equity choice could simply reflect the smaller firm's difficulty in obtaining alternative sources of capital. The findings show, however, no distinct differences between the industry response to private issues announced by relatively small issuers (i.e., with market values less than the median market value for the sample) versus relatively large issuers. Thus, this result suggests that the choice of smaller firms to issue private equity does not necessarily reflect their lack of available financing options.

Next we examine whether the industry reaction to private placements is related to the monitoring effects that might be associated with private issues. Specifically, the issuance of private equity to a particular buyer creates a blockholder that could potentially serve to alleviate agency problems within the issuing firm. The need for monitoring managerial actions would be greater in firms where agency problems are more prevalent. In particular, as noted in prior studies, firms with relatively low levels of insider ownership might be at higher risk of agency

problems.⁸ Thus, we examine the industry CAR's based on whether the issuer's insider ownership is relatively low (smaller than the median insider ownership) or relatively high. Because issuers with relatively low managerial ownership would benefit more from the monitoring effects associated with the private issue, we would expect a more distinct competitive (i.e., negative) reaction from their industry rivals. This breakdown, however, reveals no significant differences between these two groups. Thus, this finding suggests that the possible monitoring effects associated with private equity issues do not play a noteworthy role in influencing the reaction of industry competitors. This result is consistent with Morck, Shleifer, and Vishny (1988), who find that private equity issues do not have strong monitoring implications for the issuer.

We also assess whether the strength of the industry signal is associated with the size of the private placement issue. The issue size is measured in terms of the dollar value of the equity placement as well as the number of shares placed. An examination of the differences between relatively large versus small issues shows that bigger issues do not evoke stronger industry reactions than smaller issues. In addition, subsamples of industry CARs are formed on the basis of the relative issue size, or the number of shares placed relative to the total number of firm shares after the issue. This measure provides an indication of the size of the blockholder created when the shares are issued. If the monitoring effects of private equity issues are prevalent, then we would expect to find stronger (negative) industry signals in cases where larger blockholders are created. However, consistent with earlier findings, there are no significant differences in the

⁸ See Fama and Jensen (1985), Jensen and Meckling (1976), and Morck, Shleifer and Vishny (1988).

industry responses based on blockholder size, which again lends little or no support for the possible monitoring effects associated with private equity issues.

Finally, factors explaining the cross-sectional differences in the industry response to private placements of equity are examined in Table 6. We focus on basic issuer characteristics that might affect the strength of the signal sent to industry-related firms. First, consistent with the univariate findings in Table 5, the size of the issuer appears to have no notable impact on the industry reaction to the issue announcement, as shown by the insignificant coefficient for MV. In addition, the degree of surprise, proxied by the issuer's two-day cumulative abnormal return, does not influence the size of the response from industry rival firms. In particular, while the sign of ACAR is negative, the p-value is insignificant. We also control for the relative size of the issue, using PROP, which is positive and significant at the 10 percent level. This finding indicates that the negative industry response to private placements actually is less pronounced when larger blocks of the firm are issued, which again would not support the effectiveness of private equity issues as mechanisms for enhanced monitoring. The negative sign for the time period indicator variable (TIME) shows that, in the 1990s, the negative industry reaction to private placements has grown stronger. Finally, whether the issuer trades on the NYSE/AMEX or NASDAQ also plays a role in influencing the reaction of industry competitors. Specifically, as compared to the more widely followed NYSE/AMEX issuers, NASDAQ issuers tend to evoke larger competitive reactions from industry rivals. Thus, the greater degree of information asymmetry often associated with NASDAQ firms appears to amplify the significance of new financing information that is released.⁹

⁹We also tested the influence of other factors on the industry reaction to private placement announcements. For example, ownership structure variables such as the percentage of insider ownership, institutional

IV. Conclusion

This study examines the stock price reactions of both issuing firms and rivals to announcements of private placements of common stock. The results show that the stock prices of issuing firms exhibit significant positive reactions, while the stock prices of rival firms exhibit significant negative reactions to such announcements. These findings suggest that issuing common stock privately signals positive information concerning issuing firms' future prospects, which contradicts the premise that leverage decreasing activities reduce the value of the firm. The principal support for this contention, however, comes from studies of firms that issued equity publicly, not privately. One possible explanation to the apparent contradictions between private and public equity placements can be found in Bhattacharya and Chiesa (1995) and Yosha (1995). Their models posit that because private equity placements involve a relatively small number of investors and are exempt from SEC registration requirements, it is easier to keep valuable confidential knowledge proprietary in a private equity placement than in a public equity placement. Information, such as technological and strategic marketing information, is worth protecting because its value to the firm might diminish once it is disclosed.

In general, the private placement market has experienced rapid development, and has become an important source of funds for corporations. However, it has received relatively little attention in the academic research. This study supports the findings of earlier research showing

ownership, and blockholder ownership of the issuing firm were examined, but the results did not show a significant relationship with the response of industry rivals. Performance-related characteristics for issuers, such as the q ratio, return on equity, book-to-market, and free cash flow measures, also were not useful in explaining the abnormal returns for the industry portfolios. Finally, industry factors, including the Herfindahl Index, the industry debt-to-asset ratio, and industry book-to-market measure, were examined, but had no significant influence on the size of the industry reaction.

that the stock prices of issuing firms react positively to the announcement of a private placement of common stock. In addition, by highlighting the negative stock price reaction of rival firms, the results of this study provide new evidence on the competitive implications of private equity issues and the strength of the information content associated with this type of announcement.

REFERENCES

- Alli, K. L. and D. J. Thompson II, 1993. The wealth effects of private stock placements under Regulation D. *The Financial Review* 28, 329-350.
- Asquith, P., and D. W. Mullins, 1986. Equity issues and offering dilution, *Journal of Financial Economics* 15, 61-89.
- Baginski, S. P., 1987. Intraindustry information transfers associated with management forecast of earnings. *Journal of Accounting Research* 25, 196-216.
- Bayless, M., and S. Chaplinsky, 1996. Is there a window of opportunity for seasoned equity issuance?. *Journal of Finance* 51, 253-278.
- Bhattacharya, S. and G. Chiesa, 1995. Proprietary information, financial intermediation, and research incentives. *Journal of Financial Intermediation* 4, 328-357.
- Brown, S. J. and J. B. Warner, 1985. Using daily stock returns: The case of event studies. *Journal of Financial Economics* 14, 3-31.
- Carey, M., S. Prowse, J. Rea, and G. Udell, 1993. The economics of the private placement market: A new look. *Federal Markets, Institutions and Instruments* 2(3), 1-67
- Collins, D. W., and W. T. Dent, 1984. A comparison of alternative testing methodologies used in capital market research. *Journal of Accounting Research* 22, 48-84.
- Darrough, M. N. and N. M. Stoughton, 1990. Financial disclosure in an entry game. *The Journal of Accounting and Economics* 12, 219-243.
- Diamond, D. W., 1984. Financial intermediation and delegated monitoring. *Review of Economic Studies* 51, 393-414.
- Dimson, E., 1979. 1983. Risk measurement when shares are subject to infrequent trading. *Journal of Financial Economics* 7(2), 197-226.
- Fama, E. F. and M. Jensen, 1985. Organizational forms and investment decisions. *Journal of Financial Economics* 14(1), 101-118.
- Firth, M.A., 1996. Dividend changes, abnormal returns, and intra-industry firm valuations. *Journal of Financial and Quantitative Analysis* 31, 189-211.
- Foster, G., 1981. Intra-industry information transfer associated with earnings releases. *Journal of Accounting and Economics*, December, 201-232.
- Fowler, D. J., and C. H. Rorke, 1983. Risk measurement when shares are subject to infrequent trading: Comment. *Journal of Financial Economics* 12(2), 279-283.

- Goh, J, M. J. Gombola, H. W. Lee, and F. Liu, 1999. Private placement of common equity and earnings expectations. *Financial Review*, 34, 19-32.
- Hertzel, M., and L. Rees, 1998. Earnings and risk changes around private placements of equity. *Journal of Accounting, Auditing & Finance* Winter, 21-35.
- Hertzel, M., and R. L. Smith, 1993. Market discounts and shareholder gains for placing equity privately. *The Journal of Finance* 48, 459-485.
- James, C., 1987. Some evidence of the uniqueness of bank loans. *Journal of Financial Economics* 19, 217-235.
- Jensen M. C. and W. H. Meckling, 1976. Theory of the firm: Management behavior, agency costs, and ownership structure. *Journal of Financial Economics* 8, 305-360.
- Leland, H., and D. Pyle, 1977. Information asymmetries, financial structure, and financial intermediation. *Journal of Finance* 32, 371-388.
- Loughran, T. and J. R. Ritter, 1995. The new issues puzzle. *Journal of Finance* 50, 23-51.
- Lummer, S. L. and J. L. McConnell, 1989. Further evidence on the bank lending process and the capital market response to bank loan agreements. *Journal of Financial Economics* 25, 99-122.
- Masulis, R. W., and A. N. Korwar, 1986. Seasoned equity offerings: An empirical investigation. *Journal of Financial Economics* 15, 91-118.
- Mikkelson, W., and M. Partch, 1986. Valuation effects of security offerings and the issuance process. *Journal of Financial Economics* 15, 31-60.
- Miller, M. H. and K. Rock, 1985. Dividend policy under asymmetric information. *The Journal of Finance* 40, 1031-1051.
- Modigliani, F., and M. H. Miller, 1958. The cost of capital, corporation finance, and the theory of investment. *American Economic Review* 48, 261-297.
- Morck, R., A. Shleifer, and R. W. Vishny, 1988. Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics* 20, 293-315.
- Myers, S. C., and N. S. Majluf, 1984. Corporate financing and investment decisions when the firm has information that investors do not have. *Journal of Financial Economics* 13, 187-221.
- Sanders, R. W., Jr. and R. P. Robins, 1991. Discriminating between wealth and information effects in event studies in accounting and finance research, *Review of Quantitative Finance and Accounting* 1, 307-329.
- Scholes, M. and J. T. Williams, 1977. Estimating betas from nonsynchronous data. *Journal of Financial Economics* 5(3), 309-327.

- Shleifer, A. and R. W. Vishny, 1986. Large shareholders and corporate control. *Journal of Political Economy* 94, 461-488.
- Smith, C. W., Jr., 1986. Investment banking and the capital acquisition process. *Journal of Financial Economics* 15, 3-29.
- Speiss, D. K. and J. Affleck-Graves, 1995. Underperformance in long-run returns following seasoned equity offerings. *Journal of Financial Economics* 38, 243-267.
- Stulz, R. M., 1988. Managerial control for voting rights: financing policies and the market for corporate control. *Journal of Financial Economics* 20, 25-54.
- Szewczyk, S. H., 1992. The intra-industry information transfer of information inferred from announcements of corporate security offerings. *The Journal of Finance* 47, 1935-1945.
- Wruck, K. H., 1989. Equity ownership concentration and firm value: Evidence from private equity financings. *Journal of Financial Economics* 23, 3-28.
- Yosha, O., 1995. Information disclosure costs and the choice of financing source. *Journal of Financial Intermediation* 4, 3-20.

Table 1

Distribution by Year of Placement

The number of sample firms issuing private placements of equity in a particular year over the time frame from 1985 through 1997 is shown below.

Year	Frequency	Percent	Cumulative Frequency	Cumulative Percent
85	5	4	5	4.0
86	2	1.6	7	5.6
87	8	6.5	15	12.1
88	6	4.8	21	16.9
89	10	8.1	31	25.0
90	11	8.9	42	33.9
91	10	8.1	52	41.9
92	30	24.2	82	66.1
93	23	18.5	105	84.7
94	1	0.8	106	85.5
95	3	2.4	109	87.9
96	4	3.2	113	91.1
97	11	8.9	124	100.0

Table 2**Industries Represented in Private Equity Issue Sample**

Agricultural Products	Managed Care Info Sys Software
Animal Health Care	Measuring And Controlling Devices
Biochemical-Biocatalytic Products	Measuring-Detection Instruments
Biological Products-Research & Dev.	Mechanical Heart Valve Research & Dev.
Biomedical & Emerging Technology	Medical Devices
Biomedical Agents	Medical Equip-Sales & Leasing
Biopesticide Research & Dev.	Medical Laboratories
Biopharmaceutic Testing	Medical Products
Blood Services & Products	Medicinal Chemicals-Other
Cameras & Photographic Products	Mining
Catheters & Electrical Medical Instruments	Multimedia Products-Services
Chemical Packaging	Music Enhancement Software
Chemical Recovery Machine	Oil & Gas-Onshore
Communication Services	Oil And Gas Field Services
Comp Software & Cardiograph	On-Line Products & Consulting
Compound Encapsulation Products	Optical Components & Systems
Computer Integrated Systems Design	Petroleum
Computer Peripherals	Pharmaceutical Products
Computer Programming Services	Pharmaceuticals Research & Dev.
Computer Software Programs	Polymer Delivery Systems
Cosmetics	Precision Systems
Crt Displays & Monitors	Printing Press Equipment
Crude Petroleum & Natural Gas	Radio Frequency ID Systems
Data Communication Modems	Recycling & Resource Recovery
Desktop Graphics Products	Restaurants
Diagnostic Prods-Research & Dev.	Safety Injection Devices
Drugs	Satellite Products
Fast Food Restaurants	Search, Detection, & Navigation Equip.
Female Specific Pharmaceuticals	Semiconductor Devices
Fiber Optics	Single-Wafer Plasma Etch-Sys
Gold Ores	Solid State Lasers
Health Care Facilities	Sports Products & Apparel
Human & Veterinary Products	Switching-Networking Systems
Infrared Devices Research & Dev.	Telemetry Systems
Instrumentation & Other	Therapeutics Research & Dev.
Interactive TV-Liquidating	Thin Films
Kaolin	Training Simulators
Laser Systems-Ophthalmic	Vascular Delivery Systems
Laser Vision Correction	Videoconferencing Products
Liposome Encapsulation	Wireless Communications
Living Cell Tissue Research & Dev.	Wound Care

Table 3**Descriptive Statistics of Private Issue Sample**

The descriptive statistics below are shown for firms issuing private placements of equity. The market values of the private issuers and their rivals, shown in millions of dollars, are measured 11 days prior to the announcement. The fraction of shares placed is equal to the number of shares issued divided by the total number of shares after the issue. Similarly, the fraction of firm value placed is (the number of shares issued times the offer price) divided by the total market value of the firm after the issue.

Key Variables:	Mean:	Median:	Number Reporting:
Market value (in millions)	\$95.573	\$41.442	124
Industry rival market value (in millions)	\$1,447.770	\$188.964	107
Dollar size of issue (in millions)	\$7.974	\$4.124	117
Number of shares issued (in millions)	1.158	0.745	112
Fraction of shares placed (%)	15.073%	11.126%	109
Fraction of firm value placed (%)	20.030%	13.278%	111
Offer price to market price	1.043	0.886	108
Insider ownership (%)	22.014%	15.685%	86
Institutional ownership (%)	12.569%	7.305%	86
Blockholder ownership (%)	34.850%	30.530%	86
Number of firms in high tech industries	88 (71% of sample)		124

Table 4**Average Abnormal Returns for Firms Issuing Private Placements of Equity
and for Their Industry Rivals**

Average abnormal returns and their corresponding t-statistics are provided for each day in a 21-day event period for firms announcing private placements of equity and their industry rivals. Day 0 is the day on which the private placement is announced. The significance levels are based on two-sided t-tests.

Panel A:

Day Relative to Announcement Day 0:	Private Issue Firms: (n = 126)		Industry Rivals: (n = 409)	
	Abnormal Return % (AR):	Standardized Abnormal Return (SAR):	Abnormal Return % (AR):	Standardized Abnormal Return (SAR):
-10	-0.068	-0.060	-0.236	-1.453
-9	0.574	0.935	-0.179	-1.471
-8	0.474	1.248	-0.138	-0.545
-7	-0.473	-1.454	0.312	1.159
-6	0.615	2.060**	0.073	0.436
-5	0.052	0.818	-0.073	-0.157
-4	-0.927	-2.165**	-0.208	-0.704
-3	0.904	2.288**	0.183	1.027
-2	0.482	0.711	-0.327	-1.151
-1	0.738	1.549	-0.016	-1.031
0	1.301	3.370***	-0.524	-2.703***
1	0.215	1.059	-0.538	-2.288**
2	0.366	0.610	-0.016	-1.277
3	-0.484	-1.669*	-0.06	-0.306
4	-0.102	-0.026	0.345	1.210
5	-1.037	-1.861*	0.656	3.416***
6	0.716	1.658*	-0.172	-0.576
7	-0.114	-0.315	-0.183	-0.392
8	0.135	0.280	0.321	0.961
9	-0.642	-1.736*	-0.013	-0.273
10	-0.117	-0.002	-0.531	-5.183***

Panel B:

	<u>CAR</u>	<u>t-stat.</u>	<u>CAR</u>	<u>t-stat.</u>
(-3,0):	3.424	2.95***	-0.684	1.93*
(-1,0):	2.038	2.39**	-0.538	2.04**
(-1,1):	2.253	2.06**	-1.046	3.53***

*** Significant at the 1% level; ** Significant at the 5% level; * Significant at the 10% level.

Table 5**Industry Response to Private Placements of Equity: Further Analysis**

The average two-day cumulative abnormal returns for portfolios of firms in the same industry as firms issuing private equity are shown. In Panel B, subsamples of industry CARs are shown based on different size- and ownership-related factors.

Panel A: Cumulative Abnormal Returns to Issuers of Private Equity and their Industry Rival Firms' Portfolios
Private Issuer 2-day CAR:

Mean CAR = 1.516% (.0836)

Industry Rival Portfolio 2-day CAR:

Mean CAR = -1.008% (0.0011)

Panel B: Industry Abnormal Returns in Private Equity Placements: Subsample Analysis
Market Value of Private Placement Issuer:

Issuer market value < Median market value:

Issuer market value > Median market value

Test for significant differences (p-value):

Mean Industry CAR:

-1.062%

-0.948%

0.8511

Insider Ownership of Issuer:

Insider ownership < Median ownership:

Insider ownership > Median ownership:

Test for significant differences (p-value):

-0.850%

-1.333%

0.3968

Dollar Value of Equity Placement:

Value of issue < Median issue value:

Value of issue > Median issue value

Test for significant differences (p-value):

-1.279%

-0.710%

0.3452

Size of Issue (by no. of shares issued):

Issue Size < Median Size:

Issue Size > Median Size

Test for significant differences (p-value):

-1.009%

-1.005%

0.9948

Fraction of Shares Placed:

Relative size of issue < Median relative size:

Relative size of issue > Median relative size:

Test for significant differences (p-value):

-0.998%

-1.020%

0.9712

Table 6**Factors Explaining the Industry Response to Private Placements of Equity**

The regression model below is utilized to test factors that influence the industry response to private placements of equity. The dependent variable is the two-day CAR for the industry-matched portfolio of rival firms for the private issue Firm j 's industry. The coefficients of the independent variables are presented along with the p-statistics, which have been corrected for heteroskedasticity using White's consistent estimates of the standard errors for the coefficients.

$$ICAR_j = \alpha_0 + \beta_1 MV_j + \beta_2 ACAR_j + \beta_3 PROP_j + \beta_4 TIME_j + \beta_5 TECH_j + \beta_6 EXCH_j + \varepsilon_j$$

Regressor:	Coefficient:	P-value:
Intercept	-0.0781	0.1222
MV—the Market value of private issuer j	0.0037	0.1891
ACAR—the issuing firm's 2-day CAR	-0.0075	0.8423
PROP—the fraction of the firm placed	0.0521	0.0702*
TIME—1 if the issue took place in the 90s; 0 otherwise	-0.0176	0.0117**
TECH—1 if the issuer is a high tech firm; 0 otherwise	0.0076	0.2494
EXCH—1 if the issuer trades on NYSE/AMEX; 0 otherwise	0.0152	0.0527*
Adjusted R ² :	10.09%	
P-value:	0.0174	

*** Significant at the 1% level; ** Significant at the 5% level; * Significant at the 10% level.