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SEC Enforcement in the PIPE Market: Actions and Consequences

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Abstract

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Abstract

The SEC launched in 2002 enforcement actions against investors involved in PIPE (Private Investments in Public Equity) transactions. We describe the legal ramifications of this enforcement initiative, and document dramatic contemporaneous market-wide changes in the contractual structure of PIPEs. PIPEs in the post-action period included fewer aggressive repricing rights and more trading restrictions. However, PIPEs in the post-action period also included more investor protections and fewer issuer rights. These results suggest that the SEC's enforcement enticed investors to substitute non-SEC-targeted contractual features for targeted ones. Our paper sheds new light on the role of legal enforcement on financial contract design.

Introduction

The government plays a central role in capital markets through its regulation, oversight, and enforcement of security issuances. Whether such involvement enhances or diminishes the ability of companies to raise new capital remains an open—and often hotly debated—question.¹ In this paper, we shed new light on this topic by examining a series of enforcement actions taken by the Securities and Exchange Commission (SEC) in relation to regulations that the SEC sought to apply to the market for Private Investments in Public Equity (PIPE). Our main finding is that the SEC's enforcement actions were associated with major market-wide changes in the contractual structure of PIPE transactions. These changes occurred in the wake of the SEC's enforcement initiative even though, of the six cases brought to trial in which judgments were or are expected to be handed down, four resulted in full dismissals of all charges while two remain pending. Yet it appears that the SEC's actions provided, to a considerable extent, the results it sought with respect to targeted contract terms. However, there were also changes to contract terms that were not targeted by the SEC.

The PIPE market grew considerably during the 1990s; by the end of that decade PIPEs outnumbered Seasoned Equity Offerings (SEOs).² The PIPE market became popular because it solved an important matching problem: small, badly performing companies in dire need of external financing used PIPEs to create a match with hedge funds, private equity funds, or other investor types wanting to invest in publicly traded securities (Brophy, Ouimet and Sialm, 2009). Among the advantages of a PIPE is that such an offering can be completed even before a resale registration statement is filed with the SEC, thereby giving issuers faster access to the cash they so badly need. Another advantage is that the financial contracting template used in a PIPE allows for several state-contingent terms, which can be finely tailored to match the particular needs of a given investment (Chaplinsky and Haushalter, 2010; Bengtsson and Dai, 2011).

The rapid growth of the PIPE market gave rise to concerns that the structure of PIPEs was suboptimal, or even damaging, for the issuing companies. It was argued, for example, that PIPE contracts often included too many investor-friendly cash flow and control rights, while issuers received too few issuer-friendly rights. It was also argued that such an onerous contract

¹ A recent example is the debate surrounding the Dodd-Frank Wall Street Reform and Consumer Protection Act, which includes a section (Title IX, subtitle B) on government enforcement of securities regulation.

² In the period 2000–2002, there were 3,000 PIPEs versus 1,110 SEOs. The SEO market exceeded the PIPE market in dollar volume (\$214 billion versus \$51 billion) because the average SEO has larger issuance proceeds. Statistics are from Chen, Dai and Schatzberg (2010).

design could allow investors, in particular hedge funds, to exploit issuers by pushing stock prices down (by shorting) and then receiving additional shares as contractual compensation for such price decreases (Hillion and Vermaelen, 2004). Indeed, there have been several reported instances of such predatory behavior in which PIPE issuers experienced large negative stock returns and ultimately went bankrupt.

Towards the end of 2002, the SEC launched a crackdown on the PIPE market by initiating formal investigations of several hedge fund investors involved in PIPE transactions. In the first high-profile case, settled in 2003, the SEC accused the hedge fund Rhino Advisors of stock manipulation in a PIPE transaction in which the investor received convertible debentures and warrants with repricing rights. Once rumors and news about these investigations emerged, investors and issuers began paying close attention to the SEC's arguments regarding PIPEs. Their concerns were well founded—as the enforcement initiative unfolded, the SEC issued multiple subpoenas and later filed legal cases against investors after investigating their involvement in PIPEs.³

The intent behind the SEC's enforcement actions was to reduce opportunities for investors to manipulate stock prices, a strategy that seemed especially attractive in light of financial contracts that gave investors aggressive repricing rights (i.e., structured PIPEs). However, believing that it would be difficult to prove intent to manipulate prices in court, the SEC instead chose to crack down on a specific mechanism—short selling—that could be used for price manipulation. The SEC argued that in some cases such PIPE-related trading violated the Securities Exchange Acts of 1933 and 1934, specifically the regulations pertaining to insider trading and the sale of unregistered securities. The SEC also argued that short selling could be outright fraudulent due if a contract involved express or implied promises to take a long position on a given stock.

The goal of this paper is to document in detail, and explain changes in the PIPE market that occurred in the wake of the SEC's actions. We begin by describing the legal ramifications of the SEC's decision to target the PIPE market, listing the relevant enforcement cases resulting from this decision. We then document empirically that the structure of PIPEs in the post-action (2003–2006) period differed markedly from the pre-action (1999–2002) structure. We base our empirical analysis on a sample of 2,323 PIPEs, using detailed data on investor and issuer

³ We describe the SEC's enforcement actions in detail in Section II.

characteristics, various contract terms, deal pricing, involvement of issuer advisors, and stock returns before and after PIPE announcements. We present three empirical results indicating that the structure of PIPEs changed between the pre-action and post-action periods. We interpret these results as evidence that the SEC’s enforcement actions had measurable effects on PIPE contracts.⁴

First, we show that SEC enforcement was associated with evident changes in the structure of PIPEs. We find a strong shift from structured PIPEs—featuring investor-friendly terms that grant investors conversion rights that adjust in investor-friendly ways—to traditional PIPEs that have less-onerous conversion rights. We also observe a marked increase in terms restricting investors from trading in a company’s stock during the critical stages of a PIPE offering. Because removing aggressive repricing rights and regulating trading activities was the putative rationale for the SEC’s actions, this observation may indicate that the enforcement campaign had the desired outcome. Such a conclusion would however be incomplete, because we also find that, simultaneously, the inclusion of investor protections *increased* while that of issuer rights *decreased*. A plausible interpretation of this finding is that, in response to the SEC’s actions, PIPE investors began to avoid risk mitigation through aggressive repricing rights and short selling (which were targeted by the SEC) while pursuing such risk mitigation through other (non-targeted) contractual rights. The acceptance of such a substitution of one set of rights for another on the part of issuers appears to have been an acknowledgment that their companies presented PIPE investors with considerable risks that warranted some investor-friendly contractual rights.

We conduct a subsample analysis in which we test the hypothesis that changes in PIPE contract design following the SEC’s enforcement initiative was more pronounced for hedge fund investors, who were targeted conspicuously by the SEC (i.e., we conduct a “diff-in-diff” analysis). We find no significant difference in trading restrictions and investor protections, but we do find issuer rights to be included more often in PIPEs involving hedge funds in the post-action period. We also present a more detailed analysis of which types of investors contributed to the observed changes in the structure of PIPE contracts. We find that such changes were made in part because continuing investors altered their use of contractual terms and in part because new

⁴ This interpretation relies on the identifying assumption that other temporal changes in the determinants of PIPE contracts, if they exist, are subsumed by our battery of control variables.

investors were entering the market under terms that differed from those agreed to by investors who left it.

Second, we show that the SEC's actions were associated with changes in equity prices involved in PIPE transactions. The pricing of a PIPE is measured as the "net discount" between the common equity share price and the PIPE-issued equity price.⁵ Following Chaplinsky and Haushalter (2010), we adjust this discount to include interest/dividends and the pricing effects of warrants that are also given to PIPE investors. We find that, in contrast to other investors, hedge funds received steeper discounts (i.e., lower pricing) in the post-action period. Following the above mentioned logic, a plausible interpretation of this finding is that hedge funds substituted both new contractual terms and more attractive pricing for their pre-action short selling. Because other investor types typically did not engage in short selling, they agreed to trading restrictions without demanding additional pricing compensation.

Third, we show that issuers were more likely to seek advice from placement agents in the wake of the SEC's enforcement initiative, particularly when they were marketing PIPEs to hedge funds. One explanation of this result is that the initiative persuaded issuers that they needed expert advice to guide them through PIPE contract negotiations. Another explanation is that the need for expert advice emanated indirectly from the initiative's effects on contract terms; as new terms became more prevalent, issuers may have sought expert advisors to explain such changes.

Our collective evidence indicates that the SEC's actions were associated with market-wide changes along several dimensions of PIPE structure. A takeaway from this analysis is that while government intervention in capital markets can lead to a desired outcome (in this case, less aggressive repricing rights and more restrictions on trading) it can also have unanticipated and even undesirable indirect effects (i.e., new investor-friendly contractual terms and more favorable pricing).

A natural follow-up question to ask is, then, whether the observed changes in contractual structures were associated with overall positive or negative consequences for the marketplace targeted by the SEC's actions. In the last part of our analysis, we answer this question by reference to several dimensions. We first test whether issuers benefited from the changes in the structure of PIPEs. From a theoretical perspective, there are several possibilities: The changes might have created (destroyed) surplus value through a more (less) value-enhancing contract

⁵ The difference between the common equity price and the PIPE price is most often (but not always) negative, hence the use of the word "discount."

design, and they might have transferred more (less) surplus value from the investor to the issuer. To study such possible benefits, we analyze how the stock market reacts to PIPE announcements. We document a favorable reaction to PIPEs that include trading restrictions and we find no significant difference in this respect between the pre- and post-action periods. However, we also find a negative market reaction to contracts that include investor protections, which becomes less negative in the post-action period. Taken together, these results make it difficult to avoid the conclusion that the value impact of the SEC's actions on PIPE issuers is ambiguous at best.

We then test whether the SEC's actions are associated with changes in the types of issuers participating in the PIPE market. We analyze a range of issuer characteristics and find that, in the post-action period, issuers typically were smaller, experienced reduced analyst coverage, realized lower pre-offering stock returns, owned more intangible assets, and had lower enterprise valuation. We infer from these patterns that the SEC's actions were associated with greater participation on the part of "weak" issuers in the PIPE market. Given that the PIPE market is an important funding source for small, struggling companies, this result suggests that any adverse overall effects from the SEC's actions were at most relatively small.

Finally, we test whether the SEC's actions had any effects on the involvement of hedge funds in the PIPE market. From a conceptual standpoint, it is not obvious what the expected consequences should be. On the one hand, the SEC's enforcement initiative could have made PIPEs less attractive to hedge funds by favoring traditional PIPEs and restricting trading. On the other hand, the actions could have made PIPEs more attractive by removing the legal uncertainty that often accompanies these complex issuances. By attempting to apply regulatory pressure on some aspects of PIPE structure, the SEC may have implicitly approved other aspects. As such, the SEC's actions might have increased hedge funds' appetite for these transactions while reducing issuers' suspicion of PIPEs initiated by hedge funds.

We find two pieces of evidence consistent with the latter possibility. First, a PIPE transaction was more likely to have a hedge fund investor in the post-action period. Second, hedge funds in the post-action period generally did not match with issuing companies that had stronger characteristics in the post-action period. We note that these findings should be interpreted with caution, since there are other possible explanations (e.g., a badly identified counterfactual) as to why hedge funds increased their presence in the PIPE market. For example, hedge funds may have invested in PIPEs to a greater extent because of the robust asset growth they experienced during the time window we study.

Our paper adds to the literature on the SEC's involvement in capital market misconduct (Cox, Thomas and Kiku, 2003; Karpoff, Lee and Martin, 2008a, b; Choi, Pritchard and Wiechman, 2011). We also add to the small but growing number of papers that study PIPEs (Hillion and Vermaelen, 2004; Brophy, Ouimet and Sialm, 2009; Chaplinsky and Haushalter, 2010; Dai, 2011). Finally, we add new insights to existing work on the real-world determinants of financial contracts (see Kaplan and Stromberg, 2003; Roberts and Sufi, 2009 for excellent reviews of this literature).

The paper proceeds as follows. In Section II, we provide background information on PIPEs and discuss the SEC's actions. We describe the data in Section III, and present empirical results in Section IV. We conclude in Section V with a brief summary and discussion.

II. Background on the SEC Enforcement

Regulatory Status of PIPEs

To understand how the activity of the SEC can influence investor behavior in the PIPE market, we begin with some background on securities regulation in the United States, which is administered under the auspices of the Securities Act of 1933 for primary markets and the Securities Exchange Act of 1934 for secondary markets. The SEC issues regulations pursuant to its authority under those acts. While securities usually have to be registered with the SEC prior to sale, Section 4(2) of the Securities Act provides an exemption for private placements of securities. In an effort to provide a safe harbor for those seeking this exemption, the SEC promulgated Regulation D. PIPE securities are typically issued under this safe harbor regulation, which allows public companies to issue stock shares privately to accredited investors without the need for public registration so long as the seller follows a set of listed requirements.⁶ Following the closing of a PIPE transaction, the issuer prepares and files with the SEC a resale registration statement. In contrast to a traditional private placement, such a closing does not depend upon the SEC review process. This feature makes PIPE issuance a time-efficient mechanism by which

⁶ Regulation D Rule (501) defines investors from the following categories as accredited investors: banks, brokers or dealers, insurance companies, registered investment companies or business development companies, small business investment companies, pension funds, directors, executive officers, or general partners of the issuer, corporations, limited liability companies, trusts or partnerships with total assets in excess of \$5 million not formed for the specific purpose of acquiring the securities offered, any natural person whose individual net worth, or joint net worth with that person's spouse, at the time of the purchase exceeds \$1 million, or income or joint income exceeds \$200,000 or \$300,000, respectively, in each of the two most recent years, and any entity with respect to which all equity owners are accredited investors.

small companies that would have difficulty paying for SEC registration can raise capital. However, investors cannot resell or short purchased securities until the SEC declares that the registration statement is effective. To compensate investors for this temporary illiquidity, PIPE issuers often offer securities at a discount relative to the market price.

Major investors in the PIPE market include hedge funds, venture capital funds, and private equity funds. Such investors often seek equity investments that provide substantial risk premia; after all, many PIPE issuers are in distress. Some PIPE transactions are negotiated directly between issuers and investors. Nevertheless, many PIPEs are placed with the help of a placement agent or a group of placement agents. In either case, issuers and investors negotiate complex term sheets that define tailored allocations of cash flow rights and control rights. Anderson and Dai (2011) and Bengtsson and Dai (2011) show that PIPE structure varies substantially across investor types, agent reputations, and issuer characteristics. These studies also show that PIPEs have important implications for issuers' stock performance. The question now is, given the nature of the PIPE market, what outcomes would the SEC prefer to see for PIPE issuers and investors?

SEC's Entry into PIPE Regulation

Responding to concerns about the propriety of so-called death-spiral PIPE transactions entered into by hedge funds (Hillion and Vermaelen, 2004), the SEC initiated in 2002 a series of enforcement actions (Sjostrom 2007), which began with its investigation of Rhino Advisors, a hedge fund, and its President Thomas Badian, in June 2002 (*Sedona Corp. v. Ladenburg Thalmann & Co., et. al*, 2003; *SEC v. Rhino Advisors*, 2003). In November 2000, Amro (a Rhino Advisors hedge fund participating in the PIPE transaction at issue) and Sedona entered into an agreement granting Amro debentures and warrants with conversion rights tied to the volume-weighted average price of Sedona stock in the five days prior to conversion in exchange for, but explicitly prohibiting the short selling of, Sedona shares. From March to April 2001, Badian allegedly shorted Sedona stock to benefit Amro in violation of the PIPE agreement, driving the price of Sedona stock from \$1.43 per share on March 1 to less than \$0.76 per share by April 5—a “death spiral” (Meisner & Goshko 2004). As a result, Rhino and Badian consented to an injunction for violations of the anti-fraud provisions of federal securities laws and a \$1 million civil penalty (SEC, 2003). This SEC complaint was an apparent issue of first impression, meaning that no court had addressed similar claims in the past, and the investigation and

resulting litigation brought calls in the business media for increased SEC enforcement efforts regarding PIPE transactions. By early 2003 the SEC had publicly heeded these calls (Klein, 2003; Labate, 2003). Civil litigation surrounding the underlying transaction (conducted by the SEC and private parties) remains unresolved (see, e.g., *Amro International, S.A. v. Sedona Corp.*, 2010; and *SEC v. Badian*, 2010).

SEC Legal Claims

The *Rhino Advisors* case initiated a flurry of investigations into short sales surrounding PIPE offerings, resulting in civil suits filed by the SEC. These investigations began in 2002 and continued over the next several years. Appendix A details these cases (which we gather from extensive Lexis-Nexis searches). Rather than alleging price manipulation, which requires proof of intent to commit misconduct, the SEC simply cracked down on the act of shorting securities obtained in a PIPE offering, which is much easier to prove. Moreover, the SEC could plausibly argue that no formal agreement *not* to short a security was required. Thus, the SEC typically raised claims in at least one of two broad categories:⁷ (1) sale of an unregistered security, or (2) insider trading. The desired remedies almost universally include disgorgement of ill-gotten gains, an injunction against continued violations of the relevant laws and regulations, and (where applicable) civil penalties.

The first category of claims by the SEC pertains to the sale of an unregistered security under Section 5 of the Securities Act. Section 5 requires that every offer and sale of a security be registered with the SEC, subject to a number of exemptions (Securities Exchange Act., 1934, § 77e). Because PIPEs are not offered to the public, they are, as mentioned, generally issued under Regulation D, which exempts non-public offerings from registration. Because they are unregistered offerings, however, the securities received by PIPE investors are restricted. Prior to the trading of restricted shares, a PIPE issuer must file a resale registration statement—a process that can take up to six months to complete.

Because this potentially long-term lock-up of capital in the securities of a small, financially distressed company may prove problematic, PIPE investors frequently seek to hedge such investments by shorting the securities prior to the effective date of the resale registration

⁷ The SEC also frequently alleges outright fraud, but in most cases in the sample such an allegation was bootstrapped to another alleged violation of securities law (i.e., the “material misrepresentation” was that the defendant was otherwise adhering to legal requirements).

statement. The concern that investment funds were either profiting without exposure to market risk or were actually driving down the stock price of firms seeking PIPE financing (fueling a death spiral) caused the SEC to investigate the practice of hedging through the shorting of PIPE issuers' securities by the funds investing in PIPEs. In the United States, shorting a security is not illegal, but shares of the underlying security must be purchased to cover the short sale. If the investor purchased sufficient value in shares of the underlying security on the open market to cover the short, this would meet the law's requirements. What some investors sought to do was cover such short sales with shares received through a PIPE offering. The SEC argues that "An investor violates Section 5 of the Securities Act . . . when it covers its pre-effective date short position with the actual shares received in the PIPE. This is because shares used to cover a short sale are deemed to have been sold when the short sale was made (*In re Spinner Asset Management, LLC*, 2006)," This interpretation prevents funds from hedging their investments without purchasing shares in the open market.

During its PIPE-related enforcement campaign, the SEC alleged sales of unregistered securities in several court filings. One example of this litigation strategy that underscores efforts to circumvent the SEC's interpretation is the case of *In re Spinner Asset Management, LLC* (2006). Spinner Asset Management (SAM) and the Spinner Global Technology Fund (SGTF) used a Canadian broker (naked short selling is legal in Canada) to short sell a PIPE issuer's shares. Seeking to unwind its short position in the Canadian account with shares acquired in the PIPE transaction, SGTF arranged with a Canadian broker-dealer to enter buy orders at the same time as its domestic account issued a sell order. This action ensured that SGTF would operate from both sides of the transaction, effectively covering the Canadian short position with domestic PIPE shares. The SEC maintained that this amounted to selling an unregistered security, and failing to cover the short position with shares purchased on the open market. In the ensuing settlement agreement, SAM paid a \$60,000 civil penalty while SGTF disgorged over \$435,000 in profits and prejudgment interest.

Other enforcement actions based on this cause of action arose out of CompuDyne's PIPE financing and subsequent collapse. In *In re Dreyer* (2006), the SEC alleged that Dreyer (a sales representative) sold CompuDyne stock short prior to the effective date of a resale registration statement for PIPE shares, then covered the short sale with shares purchased from his customers who acquired shares in the PIPE offering. The SEC's position was that this amounted to an effective sale of customer stock prior to registration. *SEC v. Shane* (2005) alleged nearly

identical facts, and Shane settled out of court, paying a \$1 million civil penalty and consenting to a permanent bar from working with any broker-dealer (*in re Shane*, 2005). In addition, CompuDyne filed a civil suit against Shane (*Compudyne Corp. v. Shane*, 2007).

Litigants who have contested the SEC's position rather than settling out of court have, however, typically succeeded. Similar allegations were made in *SEC v. Mangan*, another case arising out of the CompuDyne PIPE offering. In Mangan's case, however, the District Court granted a Motion to Dismiss on grounds that the alleged misstatement was immaterial, while noting that the charge dealing with the sale of unregistered securities had already been dismissed (*SEC v. Mangan*, 2008). The court had previously characterized the SEC's position as a "*post hoc ergo propter hoc* argument by the government," but the case of *SEC v. Lyon* (2008) provides better insight into the reasons for the SEC's lack of success in pursuing these cases. In *Lyon*, the Southern District of New York (the appropriate jurisdiction for many securities cases) addressed both covered and naked short sales of securities. In both cases, the court held that "a short sale of a security constitutes a sale of that security. How an investor subsequently chooses to satisfy the corresponding deficit in his trading account does not alter the nature of that sale." In other words, investors are free to purchase shares on the open market, exercise conversion options on preferred stock, or (after the new securities are registered) deliver newly registered PIPE shares to fulfill the obligation. The SEC, then, is zero-for-two in efforts to gain a judgment based on violations of Section 5.

The second category of claims brought by the SEC is associated with the use of material non-public information, commonly known as "insider trading." Section 10(b) of the Securities Exchange Act provides that it is unlawful for any person "to use or employ, in connection with the purchase or sale of any security . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the [Securities and Exchange] Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors." The SEC has promulgated regulations pursuant to its mandate under this law—none more famous than Rule 10b5. This Rule provides that:

It shall be unlawful for any person [engaged in interstate commerce] (a) To employ any device, scheme, or artifice to defraud, (b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security. (Employment of Manipulative and Deceptive Devices, 1957).

This regulation is facially not much narrower than the law itself, which was intended to be a broad provision encompassing a wide range of conduct. Because of this, additional rules have been promulgated to prohibit specific forms of conduct.

One example of this is Rule 10b5-1, which prohibits “the purchase or sale of a security of any issuer, on the basis of material nonpublic information about that security or issuer, in breach of a duty of trust or confidence (id.)” This is the rule that prohibits insider trading—something that, interestingly, has never been prohibited explicitly by statute. The SEC’s concern is the potential that shareholders who gain knowledge of an imminent PIPE transaction can avoid the likely downturn or death spiral in price by either selling or shorting their shares. The important legal questions that arise when the SEC raises such a claim concern: (1) whether the information was material, and (2) whether the person who traded on the information had some duty not to do so.

Materiality is common to many issues in securities law. Information is material if it is something a reasonably prudent investor would take into account when determining whether or not to invest in a security. Whether or not such information is something that a reasonably prudent investor would take into account depends on whether its revelation significantly affects stock prices (Kaufman & Wunderlich, 2009). For example, in *SEC v. Mangan*, the District Court ruled that, because the intra-day drop in stock price after the PIPE was announced did not exceed 2%—contrasting with the extreme volatility that the price exhibited in the period leading up to the announcement—the information signaling the pending PIPE transaction was non-material (*SEC v. Mangan*, 2008). Since PIPE transactions typically cause a drop in stock price, however, there is rarely much dispute over the materiality of knowledge of such a transaction.

A more common dispute concerns whether such a trade was made “in breach of a duty of trust or confidence.” Liability for insider trading may arise under either the “classical theory” or the “misappropriation theory” of liability. The difference has been explained thusly:

Classical theory establishes liability when a corporate insider secretly trades on material, non-public information that he obtained from his perch inside the corporation. In this context, liability is imposed because the insider owes a fiduciary duty to his company’s shareholders, and he deceives them by trading secretly on the inside information. Misappropriation theory expands liability to situations when a corporate outsider, in violation of a duty owed to the source of material, nonpublic information, misappropriates the information and trades on it. (Feffara et. al., 2011)

Thus, under the classical theory of insider trading, corporate insiders (e.g., officers, directors, or major shareholders) have a general duty to refrain from trading on inside information. Unless an investment fund is such a substantial investor that it has a representative seated on the board of directors, however, this theory would not reach those funds, and classical insider trading rarely arises. The more prevalent form of liability for insider trading in the context of a PIPE offering is identified by the misappropriation theory. Rule 10b5-2 clarifies that a duty of trust or confidence exists: (1) by agreement or (2) where the communicating parties have a practice of sharing confidential information such that the recipient of the information should know that confidentiality was expected. The misappropriation theory would apply to any situation in which a fiduciary duty to keep information confidential exists,⁸ such as an attorney-client relationship (*SEC v. Zehil*, 2007). Thus, much of the litigation was focused on establishing whether or not an agreement or practice of confidentiality existed as well as whether a mere duty to keep information confidential also entailed a duty not to trade (*SEC v. Cuban*). Although no decisions have been handed down that foreclose the possibility that a duty of confidentiality entails a duty not to trade in the context of PIPEs—in which case it would be considered an issue of material fact to be decided by a jury—the SEC has yet to obtain a favorable judgment on this theory.

The case of *SEC v. Lyon* (2009) represents a typical example of the SEC’s efforts in this regard. In *Lyon*, the SEC alleged that, in a series of transactions surrounding thirty-six PIPE offerings, the defendants engaged in insider trading because they had a duty not to trade on the basis of the information they received in connection with the PIPE offering, which rested on a confidentiality agreement that did not specifically prohibit trading. One offer required defendants to indicate that they understood that “the federal securities laws impose restrictions on trading based on information regarding this offering.” In another, an e-mail from a placement agent required that the defendant “acknowledge that [he] may be receiving material nonpublic information concerning the Company and [is] aware that the United States securities laws restrict the purchase and sale of securities by persons who possess certain nonpublic information relating to issuers of securities.” In *SEC v. Deephaven Capital Management* (2006), the SEC took its enforcement efforts a step further by attempting to establish a duty not to trade even absent an express confidentiality agreement, relying instead on a “pattern or practice” to establish a duty of

⁸ Zehil, an attorney representing seven public companies in PIPE transactions, allegedly personally invested in PIPE transactions—and sold issuer securities short—through two investment entities he controlled. The problem with his doing this was that he owed a fiduciary duty as an attorney not to act against his clients’ interest. This duty is not applicable where parties engage in arm’s-length negotiations exclusively for the purpose of arranging an investment.

trust and confidence to refrain from trading on material nonpublic information provided to them by the placement agent for the issuers.

The SEC's Exit from the Enforcement Campaign

After a flurry of investigations and settlements that took place from 2002–2006—primarily concerning transactions that had occurred from 2000–2003—the SEC’s enforcement has slowed dramatically, with only one or two cases filed per year from 2008–2011. This slowdown may be due to an inability to receive quick or favorable judgments in cases brought to trial, but it might also reflect changes in the practices of PIPE issuers and investors. The SEC has brought only six civil enforcement actions resulting in any opinion—published or unpublished—by a federal District Court: *SEC v. Lyon* (2008-2009), *SEC v. Mangan* (2008), *SEC v. Cuban* (2009 - 2011), *SEC v. Berlacher* (2009), *SEC v. Obus* (2010), and *SEC v. Mannion* (2011). *SEC v. Lyon* and *SEC v. Mangan* resulted in the full dismissal of charges, while *SEC v. Cuban*⁹ and *SEC v. Mannion* are still in litigation.

The SEC’s only “successful” prosecution of a case arose from the claims put forth in *SEC v. Berlacher* (2010). The court found that Berlacher and co-defendants had committed fraud, but only with respect to instances in which they represented themselves as having held no short position in the PIPE issuers’ securities while they did in fact hold such a position. The SEC failed to establish that there had been an agreement with respect to confidentiality or restraints on the trading of securities, and thus found for the defendants on insider trading claims and the associated (shoehorned) fraud claims. The court also found for the defendants on the issue of materiality. In short, there was fraud only insofar as the defendants actually lied to PIPE issuers regarding the existence of a short position in their portfolios, in which case it seems likely that the issuers may well have refused to sell—hardly a resounding victory based on the theories of liability put forth. Moreover, the court declined to grant injunctive relief or prejudgment interest, and allowed the costs associated with the transactions to be deducted from the amount that had to be disgorged (i.e., using net profit rather than gross revenue from fraudulent transactions to determine disgorgement—a matter within the court’s discretion).

⁹ In *SEC v. Cuban*, the issue is whether Mark Cuban, owner of the Dallas Mavericks basketball team, engaged in insider trading by selling shares of Mamma.com once he had been told of plans to secure PIPE financing.

Summary

The SEC's aggressive investigation of the PIPE market began in the latter half of 2002, and by early 2003 had resulted in widespread media attention and enforcement actions resulting in civil penalties. These were quickly noted by market participants.¹⁰ It is important to note that the SEC did not launch its actions to shut down the PIPE market as a whole, but rather because it wanted to reduce the use of investor-friendly repricing rights and lack of trading restrictions in PIPE transactions. While the SEC was successful in obtaining consent orders to pay fines and penalties, courts ultimately rejected the SEC's arguments. The courts found, in other words, that covering short sales with shares issued in a PIPE transaction did *not* amount to the sale of an unregistered security and that arm's-length investors in a PIPE transaction incurred no duty to refrain from trading without an explicit agreement to refrain from such trading. In the next section, we analyze whether the actions nonetheless had the intended effects of reducing investor-friendly repricing rights and increasing trade restrictions. We also determine whether *unintended* effects can be identified.

III. Data

Overview of Sample

We obtain data on U.S. PIPE transactions that closed between 1999 and 2006 from Sagient Research, Inc.'s *Placementtracker* database.¹¹ The sample period is chosen to include four years for the pre-action period (1999–2002) and four years for the post-action period (2003–2006). We exclude structured equity lines, common stock reset PIPEs (following Chaplinsky and Haushalter, 2010), and PIPEs with issuers not covered by Compustat and CRSP. Table 1 describes the sample. Panel A reports that our sample includes 2,323 PIPEs, with about \$55 billion in aggregate issuance volume. We note that the number of PIPEs is approximately equal in the pre- and post-action periods.

Panel B reports summary statistics for the sample. Variables are described in Appendix A. The average offer size is \$24 million, with a median of \$10 million. The average “Fraction Placed Ratio,” defined as the ratio of gross proceeds to the issuer's market capitalization after issuance, is 23% in our sample. About half (55%) of our sample comprises PIPEs with hedge

¹⁰ Anecdotal evidence and our interviews with PIPE investors support this viewpoint.

¹¹ The *Placementtracker* database lists more PIPE offerings and provides more detailed coverage of contract terms than the *Security Data Corporation's New Issues* database does.

funds as the largest investors. Other common PIPE investors are corporations (11%) and PE/VC firms (11%). In two-thirds of PIPEs (68%), the issuer employs a placement agent as an advisor.

Panel B also reports characteristics of the PIPE issuers, including market capitalization prior to closing date, analyst coverage, volatility, and cumulative abnormal return CAR (-12, -1). We also report debt, enterprise value, R&D, intangible assets, EBITDA, and cash, all of which are scaled by the issuer's assets. These variables are used as controls throughout our empirical tests. Consistent with earlier findings from the PIPE literature, our data demonstrate that PIPE issuers typically are small companies with poor operating performance. Issuer market capitalization measured on the day prior to a PIPE transaction is \$280 million on average, with a median of \$93 million. Consistent with Brophy, Outmet, and Sialm (2009) and Chaplinsky and Haushalter (2010), we document a positive average CAR for PIPE issuers before an offering (with a mean of 20%). Furthermore, PIPE issuers often exhibit high EV/Assets ratios (with a mean of 4.4), high R&D/Assets ratios (with mean of 25%), and negative profits (the mean EBITDA/Assets ratio is -36%).

PIPE Structure

Panel C of table 1 reports summary statistics on various dimensions of PIPE structure. A PIPE can be categorized into one of two types, traditional or structured, depending on the included conversion feature. Securities issued as traditional PIPEs are common stocks or convertibles with a fixed conversion price. By contrast, securities issued as structured PIPEs are convertibles that are adjusted downward if the issuer's stock price declines below a specified threshold (precipitating the aforementioned death spiral that incentivized short selling). Hillion and Vermaelen (2004) argue that structured PIPEs are subject to faulty contract design, especially if restrictions on investors' trading around PIPE offerings are not explicitly included. We note that structured PIPEs comprise about 13% of our sample while traditional PIPEs comprise the remaining 87%.

In addition to their basic convertible structure, PIPE contracts include 14 distinct financial contracting terms, which can be grouped into three categories. Appendix B provides details and summary statistics for each term. See Bengtsson and Dai (2011) for an in-depth discussion of how each term can mitigate agency and information problems in a PIPE transaction.

The first category, trading restrictions, includes four terms that determine how investors can trade underlying stocks in conjunction with a PIPE offering: a shorting/hedging restriction, a restriction on offsetting the long position, a restriction on trading prior to a public offering, and a lockup provision. Trading restriction terms favor issuers at the expense of investors. The average number of trading restrictions is 0.12, and the median is 0 (thus, most contracts include no trading restriction). The second category of contract terms, investor protections, includes five terms that attach various protections to PIPE investors' equity: a registration right, anti-dilution protection, a first refusal right, an investor call option, and an investor redemption right. The terms in this category are favorable to investors at the expense of issuers. The average number of investor protections is 1.31, and the median is 1. The third category, issuer rights, contains three terms that grant to issuers the right to force investors to take certain actions: forced conversion, an issuer put option, and an issuer redemption right. The terms in this category favor issuers at the expense of investors. The average number of issuer rights is 0.78, and the median is 1.

Another key dimension of PIPEs is the pricing discount, as measured by the percentage by which a PIPE price is below (or, in rare cases, above) the traded equity price. For common stock PIPEs, we calculate discounts as the percentage difference between the closing price one day before the closing date and the offer price. For PIPEs with fixed-price convertibles, discounts are measured as the percentage difference between the closing price one day before the closing date and the conversion price. For PIPEs with floating-rate convertibles, we calculate discounts as the difference between the closing price one day before the closing date and the specified floor price.¹² Importantly, we adjust the calculation of the discount by adjusting for the cash flow implications of interest, dividends, and warrants following the methodology used in Chaplinsky and Haushalter (2010). The mean and median pricing discounts are 39% and 27%, respectively.

IV. Empirical Results

Overview of Testing

Our empirical testing involves several steps. First, we compare the structure of PIPEs between the pre- and post-action periods. First, we investigate the PIPE convertible type (i.e., structured

¹² The purchase price of a floating convertible PIPE is conditional on the trading prices of the PIPE issuer's stocks during a specified period, typically 10–30 days prior to conversion. The floor price is the lowest purchase price or conversion price if the stock performance of the issuer deteriorates badly. Thus, the discount based on the floor price for such a PIPE represents the maximum discount the investor can receive.

versus traditional), the contract design (whether it includes trading restrictions, investor protections, issuer rights, etc.), and the magnitude of the pricing discount. Second, we investigate whether issuers in the post-action period were more likely to employ placement agents. Third, we compare the stock market's reaction to a PIPE announcement in the pre-action period with its reaction in the post-action period. In these analyses, we control for various issuer characteristics to rule out the possibility that the observed patterns merely reflect changes in the types of issuers participating in the PIPE market. We also test whether the difference was more pronounced for hedge funds, which is the investor group specifically targeted by the SEC's actions. Thus, by comparing results across both time and investor group, we use a "diff-in-diff" identification strategy. Fourth and finally, we investigate whether the SEC's actions were related to changes in issuer characteristics, the involvement of hedge funds, and issuer-investor matching.

Changes in PIPE Structure

Empirical Strategy

We run a series of regressions that compare pre-action PIPEs with post-action PIPEs. Each regression includes a dimension of the PIPE as the dependent variable, and the *Post Action* dummy, which is 1 if the PIPE was completed in 2003–2006 and 0 otherwise, as the focal independent variable. We cluster regression residuals on PIPE issuer to correct for possible cross-correlation patterns within an issuer. Our multivariate regressions also include industry fixed effects (based on 2-digit SIC codes) and a battery of issuer characteristics that may correlate with a PIPE's structure: $\ln(\text{Proceeds})$, $\ln(\text{MV})$, *Analyst Coverage*, $\ln(\text{Volatility})$, $\text{CAR}(-12, -1)$, *Intangible/Assets*, *EV/Assets*, *Debt/Assets*, *EBITDA/Assets* and *Cash/Assets*. We also include the *HF* dummy, which is equal to 1 if the lead investor is a hedge fund, where the lead investor is the investor who invested the largest amount of capital in a specific PIPE transaction. Finally, we control for whether the issuer consulted with a placement agent.¹³ By including these extensive controls, we mitigate the econometric problem that any temporal difference in PIPE structures is explained by differences in observable issuer, investor, or agent characteristics.

¹³ This is obviously excluded from our tests where we study whether placement agents were more prevalent in the post-action period.

PIPE Type: Traditional vs. Structured

Figure 1 illustrates the time-series changes in the use of PIPE types, and Table 2 presents our empirical analysis. The specifications are probit regressions in which the dependent variable is 1 if the PIPE is structured and 0 if it is traditional. We find that, in both the univariate test (specification 1) and the multivariate test (specification 2), structured PIPEs are significantly less common for the post-action period. In specification 3, we include interaction between the *HF* and *Post Action* dummies. The coefficient on this interaction variable is negative but not statistically significant, indicating that, although the volume of structured PIPEs has declined in the post-action period, hedge funds' predominant role in structured PIPEs remains.

Among the control variables, we find that firms with less analyst coverage, poorer operating performance, and less cash are more likely to choose structured PIPEs, consistent with the finding in Brophy, Ouimet, and Sialm (2009) that structured PIPEs are often chosen by the most distressed firms. In unreported regressions, we also include interaction terms between issuer characteristics and the *Post Action* dummy. We find that, in the post-action period, issuers of structured PIPEs appear to be even more distressed than they were in the pre-action period.

Contract Terms

Figures 2–4 show the time-series changes in the use of contract terms. Panel A of Table 3 presents results from Poisson regressions in which various categories of contract terms are the dependent variables. In specifications 1–3, where the dependent variable is the number of trading restrictions, we find that PIPEs include more such restrictions in the post-action period. This finding is consistent with the SEC's actions having the effect of curtailing shorting and trading by PIPE investors. When analyzed in isolation, the switch to traditional PIPEs and the increase in the use of trading restrictions would seem to suggest that the SEC's actions—in spite of almost never resulting in favorable judgments—changed PIPEs to become generally more favorable to issuers. In contrast to this conclusion, however, we find that PIPEs in the post-action period included *more* investor protections (specifications 4–6) and *fewer* issuer rights (specifications 7–9), outcomes that are more favorable to investors. Hence, the SEC's actions were related to changes in the structure of PIPE contracts that appear to have run opposite to the intended effects.

One interpretation of the patterns we document is that all types of PIPE investors responded to the SEC's actions by disregarding contractual rights that were under scrutiny in

favor of contractual rights that were not. Although substituting one set of rights for another may have left the aggregate level of investor-friendliness in PIPE structures unchanged, it was associated with marked modifications in the precise allocation of contractual rights. In particular, following the SEC's actions, investors were able to mitigate investment risks through the repricing implied by a structured PIPE or by shorting/trading the issuer's stock less often than they were prior to the SEC initiative. Instead, investors in the post-action period could more often mitigate investment risks by exercising various investor-friendly contingent cash flow rights, without giving away similar rights to issuers.

In specifications 3, 6, and 9, we interact the post-action dummy with the hedge fund investor dummy. By using this "diff-in-diff approach," we are able to identify whether the post-action contractual changes are conditional on investor identity. We find no significant coefficient on the interaction variable for trading restrictions and investor protections, respectively. However, we find a significantly positive coefficient on *Issuer Rights* (specification 9), but note that the magnitude of this interaction effect is about a third of that of the coefficient on the post-action dummy. Hence, issuers negotiating with hedge funds received fewer issuer rights following the SEC's action but this decrease was less pronounced for them than it was for issuers negotiating with other investor types.

Panel B of Table 3 provides further evidence pertaining to the relationship between the SEC's actions and changes in contract terms. In specifications 1–3, we restrict the sample to investors who invested in both the pre- and post-action periods. In specifications 4–6, we restrict the sample to investors who invested in either the pre-action period *or* the post-action period (but not both). The idea behind this sample split is to investigate the extent to which the observed changes in PIPE contract terms is explained by the behavior of continuing investors versus the replacement of old investors by new ones.¹⁴ Our findings show that the changes are due to both effects: For both subsamples, we show that the coefficient on the *Post Action* dummy is significantly positive for trading rights and investor protections, and significantly negative for issuer rights. Hence, PIPE contracts changed partly because continuing investors changed their contracts and partly because new investors used contracts that differed from the old ones they replaced.

¹⁴ Of the 637 investors who were active in the pre-action period, 127 continue to invest in the PIPE market in the post-action period. A total of 387 new investors started their participation in the PIPE market during the post-action period.

Pricing Discount

We next compare the pricing discount of PIPEs in the pre- and post-action periods, the results of which are presented in Table 4. The specifications are OLS regressions with the same control variables as in Table 3. The dependent variable is the percentage pricing discount. In both the univariate test (specification 1) and the multivariate test (specification 2), we find no difference in the pricing discount across the pre- and post-action periods. In specification 3, we interact the *Post Action* dummy with the *HF* dummy, and show that hedge funds demanded more favorable pricing than other investor types did in the post-action period. This finding is consistent with the argument that changes in PIPE contract design associated with the SEC's actions were more costly for hedge funds, who asked for more attractive pricing as compensation.

Robustness

Huson, Malatesta, and Parrino (2011) show that certain macro-level variables can explain the volume and pricing of PIPE transactions. We conduct robustness checks by including a battery of macro variables, such as equal-weighted market returns, the volume of IPOs, the magnitude of PIPE underpricing, the 10-year Treasury Bonds yield, and the percentage of loan officers that tighten credit. Our purpose is to see whether the observed structural changes in PIPEs are driven by the shift of macroeconomic conditions. We find that the IPO market condition (both volume and underpricing) affects the inclusion of investor protection and issuer right terms to some extent. However, this relationship does not change our main conclusions.

In unreported regressions, we include a trend variable that increments annually in the abovementioned specifications to account for the general changes (not subject to the SEC's enforcement efforts) in the structure of PIPEs over the sample period. We continue to find similar results.

In other unreported regressions, we conduct additional robustness checks using the matching method, the algorithm developed in Abadie and Imbens (2002). The purpose of these checks is to rule out the possibility that post-action structural changes in PIPEs are driven by the systematic difference in participants in this market. In particular, we match post-action PIPE transactions with pre-action PIPEs, controlling for various covariates, including issuer characteristics, investor type, and whether an agent is employed. Our main conclusions continue to hold.

Changes in the Involvement of Placement Agents

We next test whether issuers were more likely to employ placement agents as advisors on PIPE transactions in the post-action period. Table 5 presents the results. The specifications are probit regressions, with the same control variables as in Table 3, excluding the *with agent* independent variable. Residuals are clustered by issuer. The dependent variable is equal to 1 if the issuer employed a placement agent and 0 otherwise.

We find in specifications 1 and 2 that placement agents were more common in the post-action period. However, when we interact the post-action period dummy with the hedge fund dummy in specification 3, we find that (1) this interaction is significantly positive, and (2) there is no significant coefficient on the *Post Action* dummy. Thus, the SEC's actions were associated with more frequent involvement on the part of placement agents only for PIPEs involving hedge funds. We also note that such PIPEs more often had a placement agent even in the pre-action period—the coefficient on the hedge fund dummy is significant in specification 3. On the whole, these findings suggest that PIPE issuers realize that they face possible problems when negotiating contracts with “savvy” hedge funds. Bengtsson and Dai (2011) describe how placement agents can help issuers in a PIPE transaction by providing them with information about the implications of various contract terms.

Changes in Announcement Returns

We next analyze how the stock market perceived PIPE transactions in the pre- and post-action periods. We follow the standard event study methodology and calculate CARs for a five-day window after the announcement of a PIPE. Table 6 presents the results of OLS regressions with $CAR(0,5)$ as the dependent variable. In untabulated robustness tests, we redo our analyses with $CAR(0,1)$ and $CAR(0,3)$ and find qualitatively similar results.

Specification 1 includes the *Post Action* dummy and the *HF* dummy. We find an insignificant coefficient for the *Post Action* dummy, indicating that there is no significant change in announcement returns on PIPEs after the SEC's actions. We find a significantly negative coefficient for the *HF* dummy, which is consistent with other findings in the literature (e.g., Dai, 2007; Brophy, Ouimet, and Sialm, 2009) that the market perception of PIPEs with hedge funds was more negative. In specification 2, we validate that these results hold after adding interaction between the *Post Action* and *HF* dummies, our full battery of controls, and industry fixed effects. We note that the coefficient on the interaction variable is negative but not statistically significant.

We next explore whether the SEC's actions influenced the announcement returns by changing the structure of PIPEs. Concretely, we test whether announcement returns are related to the use of structured (versus traditional) PIPEs, the inclusion of trading restrictions, investor protections and issuer rights, and the pricing discount. Specification 3 includes these variables, our full battery of controls, and industry fixed effects. We find that announcement returns are lower for structured PIPEs, PIPEs with fewer trading restrictions, and PIPEs with more investor protections. In light of our findings that the SEC's actions are associated with reduced prevalence of structured PIPEs and more frequent inclusion of trading restrictions, this suggests that the market appreciated the SEC's actions.

In specification 4, we include interactions between the variables capturing the structure of PIPEs with the *Post Action* dummy. We find that the coefficient on interaction between investor protections and the *Post Action* dummy is significantly positive and its magnitude (+0.0289) such that it partially offsets the coefficient on the investor protection variable (-0.0350). Hence, there is a negative relation between announcement returns and investor protections in both the pre- and post-action periods, although it is less negative in the post-action period.

Changes in Involvement of Market Participants

We next analyze whether the SEC's actions were associated with contemporaneous changes in the types of investors—in particular hedge funds—and issuers who participate in the PIPE market as well as with how these participants match with each other.

Investor Type

We first investigate whether hedge funds were less active in the PIPE market in the post-action period. Table 7 report the results of probit regressions in which the dependent variable is 1 if the lead investor was a hedge fund and 0 if it was any other investor type. We find that, in both the univariate test (specification 1) and the multivariate test (specification 2), there were more hedge funds in the post-action period. Hence, even though most of the SEC's action formally targeted hedge funds or individuals affiliated with hedge funds, this enforcement did not deter this investor type from subsequently participating in the PIPE market.

Issuer Characteristics

We then investigate whether companies with weak characteristics were less involved in the PIPE market in the post-action period. Table 8 presents the results of OLS regressions in which the dependent variable captures a range of issuer characteristics. The odd-numbered specifications include only the post-action dummy as an independent variable. We find that, in the post-action period, issuers are smaller (specification 1), have less analyst coverage (specification 3), lower pre-announcement CARs (specification 5), more intangible assets (specification 7), and lower valuations (specification 9).¹⁵ This pattern indicates that issuers had overall weaker characteristics in the post-action period as compared with the pre-action period. Given that PIPEs are an important financing tool for small, struggling, cash-starved companies, this change indicates that the SEC's action had no major adverse effects for issuer participation in the PIPE market.

Issuer-Investor Matching

We finally investigate whether the matching between investor and issuer differed between the pre-action and post-action periods. The even-numbered specifications of Table 8 add the *HF* dummy and its interaction with the *Post Action* dummy as independent variables. Studying the coefficient on the *HF* dummy, we find that, in the pre-action period, hedge funds matched with smaller issuers (specification 2), issuers with less analyst coverage (specification 4), and issuers with higher CARs (specification 6). Studying the coefficient on the interaction between the *HF* and *Post Action* dummies, we find one significant difference for matching in the pre- and post-action periods: Hedge funds matched with *even smaller* issuers in the post-action period. This result supports the argument that the SEC's action may have had no major adverse effects on investor and issuer participation in the PIPE market.

V. Summary and Discussion

This paper documents the SEC's enforcement of regulations pertaining to the PIPE market, which began in 2002, and shows that it was associated with contemporaneous changes in the contractual structure of PIPEs, the involvement of placement agents and investor and issuer participation in this marketplace.

¹⁵ In untabulated tests, we show that there was no difference between the pre- and post-action periods for issuer characteristics such as volatility, debt/assets, R&D/assets, EBITDA/Assets, and Cash/Assets.

We analyze 2,323 PIPEs and show that, in the post-action period, these investments were less likely to include the aggressive repricing rights that are typical of a structured PIPE and were more likely to include contract terms that restrict investors from trading the issuer's stock. These findings suggest—when analyzed in isolation—that the enforcement initiative may have had the desired effect even though the SEC's litigation efforts ultimately fell short in terms of favorable judgments. However, we also show that PIPEs in the post-action period included more investor protections and fewer issuer rights. A plausible interpretation of these findings is that the SEC's actions led PIPE investors to substitute non-targeted contractual features for targeted features. Issuers accepted such substitutions, realizing that the inherently risky nature of a PIPE requires the optimal financial contract to allocate some protections to investors.

We also show that PIPEs with hedge fund investors exhibited changed to a greater extent following the SEC's actions as compared with other PIPEs insofar as, following the SEC's enforcement initiative, these PIPEs included stronger issuer rights and a pricing structure that was friendlier to investors (i.e., featuring greater discounts). Moreover, we show that issuers negotiating PIPEs with hedge fund investors were more likely to employ placement agents, particularly so in the wake of the SEC's actions. This is consistent with the expected behavior of a larger investment fund in an environment of regulatory or litigation-based uncertainty, in which such funds prefer higher transaction costs to the costs of defending themselves against litigation or, in the worst case, the effects of adverse judgments. This also indicates that the SEC's actions may have driven smaller investment firms out of the market, restricting the supply and thus increasing the price of PIPE capital. The restricted supply may explain why larger market participants are able to demand a premium by explicitly including stronger investor protections and weaker issuer rights in exchange for foregoing the dubious legality of implicit features that few investors utilized.

To arrive at these findings, we study stock returns before and after the announcement of a PIPE and confirm that there is no significant difference in market perceptions of PIPE transactions following the SEC's actions. We show that the market appreciates the inclusion of trading restrictions, but reacts negatively to investor protections and structured PIPEs in general.

Finally, we present evidence that is consistent with the view that the SEC's actions did not deter hedge funds from participating in the PIPE market. Hence, this investor group continued in the post-action period to play an important role by providing “financing of last resort” to distressed firms. Moreover, PIPE issuers in the post-action period actually appear to be

more distressed, indicating that the structural changes in the PIPE market since the SEC's action may have helped attract more firms that are barred from traditional financing vehicles.

References

- Abadie, A. and G. Imbens. 2002. Simple and bias-corrected matching estimators. Technical report, Department of Economics, University of California, Berkeley.
<http://emlab.berkeley.edu/users/imbens/>
- Agrawal, A., Chadha, S., 2005. Corporate governance and accounting scandals. *Journal of Law and Economics* 48, 371–406.
- Agrawal, A., Cooper, T., 2006. Insider trading before accounting scandals. Working Paper, University of Alabama.
- Amro Intern., S.A. v. Sedona Corp. Slip Copy, 2010 WL 2813452 (S.D.N.Y., 2010)
- Anderson, C.W., and N. Dai, 2010. Investor objective and financial contracting: Evidence from the PIPE market. Working Paper, University of Kansas and University at Albany (SUNY)
- Bhattacharya, U., and H. Daouk, 2002. The world price of insider trading. *Journal of Finance* 57, 75–108.
- Bengtsson, O., and N. Dai, 2010. Financial contracts in PIPE offerings: The role of expert placement agents. Working Paper, University of Illinois and University at Albany (SUNY).
- Benry, L., 2005. Do insider trading laws matter? Some preliminary comparative evidence. *American Law and Economics Review* 7, 144-183.
- Brophy, D. J., P. P. Ouimet, and C. Sialm, 2009. Hedge funds as investors of last resort. *Review of Financial Studies* 22, 541-574.
- Chaplinsky, S., and D. Haushalter, 2010. Financing under extreme uncertainty: Contract terms and returns to private investments in public equity. *Review of Financial Studies*, Forthcoming.
- Chen, Hsuan-Chi, Na Dai, John D. Schatzberg, 2010. The choice of equity selling mechanisms: PIPEs versus SEOs. *Journal of Corporate Finance* 16, 104-119.
- Choi, S., A. C. Pritchard, and A. C. Wiechman, 2011. Scandal enforcement at the SEC: Salience and the arc of the option backdating investigations. Working Paper. New York University and University of Michigan.
- Cox, J.D., R. S. Thomas, and D. Kiku, 2003. SEC enforcement heuristics: An empirical inquiry. *Duke Law Journal* 53, 737-779.
- Dai, N., 2007. Does investor identity matter? An empirical examination of investments by venture capital funds and hedge funds in PIPEs. *Journal of Corporate Finance* 13, 538-563.
- Dai, N., H. Jo, and J. D. Schatzberg, 2010. The quality and price of investment banks' service: evidence from the PIPE market. *Financial Management* 39, 585-612.

Dechow, P. M., R. G. Sloan, and A. P. Sweeney, 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13, 1-36.

In re Dreyer, SEC Order, Securities Act Release No. 8761, Exchange Act Release No. 54972 (Dec. 20, 2006).

Eleswarapu, V., Venkataraman, K., 2006. The impact of legal and political institutions on equity trading costs: a cross-country analysis. *Review of Financial Studies* 19, 1081–1111.

Employment of Manipulative and Deceptive Devices, 17 C.F.R. § 240.10b-5 (1951).

Ferrara, R., S. Puente, and A. Mebrahtu, 2011. Insider trading redux: trust and confidence versus trust or confidence – which is fraud? *Securities Regulation & Law Report* 43, 1032 – 1038.

Hail, L., Leuz, C., 2006. International differences in the cost of equity capital: do legal institutions and securities regulation matter? *Journal of Accounting Research* 44, 485–531.

Hillion, P., and T. Vermaelen, 2004, Death spiral convertibles. *Journal of Financial Economics* 71, 381-415.

Huson, M., P. Malatesta, and R. Parrino, 2010a. Capital market conditions and the pricing of private equity sales by public firms. Working Paper, University of Texas at Austin.

Huson, M., P. Malatesta, and R. Parrino, 2010b. The decline in the cost of private placements. Working Paper, University of Texas at Austin.

Jackson, H. E., and M. J. Roe, 2009. Public and private enforcement of securities laws: Resource-based evidence. *Journal of Financial Economics* 93, 207-238.

Jackson, H., 2008. The impact of enforcement: ~~effect~~ *University of Pennsylvania Law Review* Pennumbra 156, 400–411.

Kane, E., 2003. Short leash. *The Daily Deal*. May 23, 2003.

Karpoff, J. M., D.S. Lee, and G. S. Martin, 2008a. The cost to firms of cooking the books. *Journal of Financial and Quantitative Analysis* 43, 581-612.

Karpoff, J. M., D.S. Lee, and G. S. Martin, 2008b. The consequences to managers for financial misrepresentation. *Journal of Financial Economics* 88, 193-215.

Kaufman, M.J. and J.M. Wunderlich, Regressing: the Troubling Dispositive Role of Event Studies in Securities Fraud Litigation, *Stanford Journal of Law, Business & Finance* 15, 183-259 (2009).

Kedia, S., and S. Rajgopal, 2011. Do the SEC's enforcement preferences affect corporate misconduct? *Journal of Accounting and Economics* 51, 259-278.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2006. What works in securities laws? *Journal of Finance* 61, 1–32.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1998. Law and finance. *Journal of Political Economy* 106, 1113–1155.

Labate, J., 2003. SEC widens probe into ‘death spiral’ PIPE schemes, *Financial Times*, May 9.

Meisner, D.M. and M.P. Goshko, *K&L Alert: Securities Enforcement Commentary*. 1-3 (2004).

Petersen, M.A., 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies* 22, 435-480.

Romano, R., 2005. The Sarbanes–Oxley Act and the making of quack corporate governance. *Yale Law Journal* 114, 1521–1611.

SEC, *Press release, SEC Settles with Rhino Advisors, Thomas Badian*, <http://www.sec.gov/news/press/2003-26.htm> (2003) (last accessed November 18, 2011).

SEC v. Berlacher, 2010 WL 3566790 (E.D.Pa. 2010).

SEC v. Badian, 2010 WL 1028256 (S.D.N.Y., 2010)

SEC v. Cuban, 634 F. Supp. 2d 713, (N.D. Tex., 2009)

SEC v. Cuban, 798 F. Supp. 2d 783 (N.D. Tex., 2011)

SEC v. Deephaven Capital Management, LLC, Complaint, Civ. Action No. 1:06CV00805 (D.D.C. filed May 2, 2006).

SEC v. Friedman, Complaint, Civ. Action No. 06-cv-02160 (D.D.C. filed Dec. 20, 2003)

SEC v. Lyon, 529 F.Supp.2d 444, 455 (S.D.N.Y., 2008)

SEC v. Lyon, 605 F.Supp.2d 531 (S.D.N.Y. 2009)

SEC v. Mangan, 598 F.Supp.2d 731 (W.D.N.C.,2008)

SEC v. Obus, 2010 WL 3703846 (S.D.N.Y. Sept. 20, 2010)

SEC v. Rhino Advisors, Inc. and Thomas Badian, Civ. Action No. 03 civ 1310 (RO) (S.D.N.Y. 2003)

SEC v. Shane, Complaint, Civ. Action No. 05-CV-4772 (S.D.N.Y. filed May 18, 2005)

SEC v. Zehil, Complaint, Civ. Action No. 07cv1439 (S.D.N.Y. Filed Feb. 28, 2007)

Securities Exchange Act of 1933, 15 U.S.C. § 78j(b) (1933)

Sedona Corp. v. Ladenburg Thalmann & Co., et. al., Complaint, Civ. Action No. 03-civ-3120
(S.D.N.Y. filed May 5, 2003)

In re Shane, Administrative Proceeding File No. 3-11951, 2005 SEC LEXIS 1390 (June 14, 2005)

Sjostrom, W.K. Jr., 2007. PIPEs, *Entrepreneurial Business Law Journal* 2, 381-413.

In re Spinner Asset Management, LLC, SEC Order, Securities Act Release No. 8763, Investment
Advisers Act Release No. 2573 (Dec. 20, 2006).

Table 1 - Sample Characteristics of PIPEs from 1999 to 2006

Our sample consists of 2,323 PIPEs that closed between 1999 and 2006 with available data required for this study. The sample period is chosen to include 4 years for the pre-action period (1999-2002) and 4 years for the post-action period (2003-2006). Panel A summarizes the distributions of volume and dollar amounts by year. Panel B reports the characteristics of PIPE issuers. Panel C reports summary statistics on various dimensions of each PIPE's structure.

Panel A: Sample distribution across years

Year	Full Sample	
	N	Amount (\$B)
1999	229	5
2000	338	9.4
2001	342	7
2002	277	7.4
2003	366	7.2
2004	317	5.3
2005	242	6.5
2006	212	7.3
Before Action: 1999-2002	1186	28.8
After Action: 2003-2006	1137	26.3
Full Sample Period: 1999-2006	2323	55.1

Panel B: Characteristics of PIPE Transactions and Issuers

Variable	Mean	Median
Offer Size (\$M)	23.7	10
Fraction Placed	23.44%	13.53%
Percentage invested by HF	55.49%	1
Percentage invested by VC/PE	10.93%	0
Percentage invested by Corporation	11.15%	0
Percentage with Issuer Agents	68.19%	1
Market Cap (\$M)	279	92.7
Analyst Coverage	2.18	1
Volatility	20.34%	9.55%
CAR (-12,-1)	20.34%	9.55%
Debt/Assets	15.97%	4.06%
EV/Assets	4.42	2.23
R&D/Assets	24.60%	11.70%
Intangible/Assets	12.07%	1.52%
EBITDA/Assets	-36.14%	-21.56%
Cash/Assets	32.29%	23.22%

Panel C: Structure of PIPE

Variable	Mean	Median
Structured PIPE	13.09%	1
Number of Trading Restrictions	0.12	0
Number of Investor Protections	1.31	1
Number of Issuer Rights	0.78	1
Net Discounts	38.84%	26.77%

Table 2 - The Choice of PIPE Type: Traditional vs. Structured

This table presents results pertaining to temporal changes to PIPEs by type. We run probit regressions in which the dependent variable is 1 if the PIPE is structured and 0 if it is traditional. Specification 1 includes only the *Post Action* dummy, which is equal to 1 if the PIPE was transacted in the post-action period (2003-2006), and 0 otherwise. Specifications 2 & 3 both control for investor type and issuer characteristics, including the *HF* dummy, *Ln (MV)*, *Analyst Coverage*, *Ln (Volatility)*, *CAR (-12, -1)*, *RD/Assets*, *Intangible/Assets*, *EV/Assets*, *DEBT/Assets*, *EBITDA/Assets*, *Cash/Assets* and industry dummies. In specification 3, we include an interaction term between the *Post Action* dummy and the *HF* dummy. The definitions of these variables are available in the Appendix. All specifications also include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Dependent Var:	(1) Structured	(2) Structured	(3) Structured
Post Action	-0.5341*** (0.0794)	-0.8041*** (0.0910)	-0.5201*** (0.1863)
HF		1.0907*** (0.0977)	1.1625*** (0.1099)
HF*Post Action			-0.3374 (0.2086)
Ln (MV)		-0.0355 (0.0456)	-0.0357 (0.0455)
Analyst Coverage		-0.1912*** (0.0603)	-0.1885*** (0.0604)
Ln (Volatility)		0.7532 (1.7269)	0.8550 (1.7144)
CAR (-12,-1)		0.0030 (0.0270)	0.0017 (0.0271)
RD/Assets		-0.4044** (0.1760)	-0.4064** (0.1786)
Intangible/Assets		-0.2201 (0.2439)	-0.2160 (0.2428)
EV/Assets		0.0042 (0.0046)	0.0043 (0.0046)
DEBT/Assets		0.0764 (0.1040)	0.0453 (0.1051)
EBITDA/Assets		-0.2997*** (0.1073)	-0.2965*** (0.1079)
Cash/Assets		-0.6772*** (0.1989)	-0.6769*** (0.1992)
Constant	-0.9009*** (0.0508)	-1.0193*** (0.2672)	-1.0626*** (0.2683)
Industry Fixed Effect	No	Yes	Yes
Observations	2,323	2,323	2,323
Pseudo R-Square (%)	3.42	19.81	19.95

Table 3 - The Choice of Contract Terms

Table 3 presents results of Poisson regressions in which separate categories of contract terms are the dependent variables. In Panel A, the full sample is used. In specifications 1-3, the dependent variable is the number of trading restrictions. In specifications 4-6, the dependent variable is the number of investor protections. In specifications 7-9, the dependent variable is the number of issuer rights. Specifications 1, 4, and 7 include only the *Post Action* dummy, which is equal to 1 if the PIPE was transacted in the post-action period (2003-2006) and 0 otherwise. All other specifications control for investor type and deal and issuer characteristics, including the *HF* dummy, the *Structured* dummy, the *With Agent* dummy, *Ln (Proceeds)*, *Ln (MV)*, *Analyst Coverage*, *Ln (Volatility)*, *CAR (-12, -1)*, *RD/Assets*, *Intangible/Assets*, *EV/Assets*, *DEBT/Assets*, *EBITDA/Assets*, *Cash/Assets* and industry dummies. In specifications 3, 6, and 9, we further include an interaction term between the *Post Action* dummy and the *HF* dummy. The definitions of these variables are available in the Appendix. In specifications 1-3 of Panel B, we restrict the sample to investors who invested both the pre- and post-action periods. In specifications 4-6, we restrict the sample to investors who invested either in the pre-action period or the post-action period (but not both). All specifications include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Panel A:

Dependent Var:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Trading Restrictions			Investor Protections			Issuer Rights		
Post Action	2.2112*** (0.2396)	2.2180*** (0.2543)	2.2245*** (0.3948)	1.4061*** (0.0524)	1.3684*** (0.0530)	1.2838*** (0.0820)	-0.6060*** (0.0459)	-0.6009*** (0.0448)	-0.7449*** (0.0740)
HF		0.2254 (0.1446)	0.2359 (0.4766)		0.4288*** (0.0458)	0.3256*** (0.0895)		0.0293 (0.0306)	-0.0489** (0.0215)
HF * Post Action			-0.0119 (0.4954)			0.1382 (0.1011)			0.2379*** (0.0909)
Structured		0.6032*** (0.1662)	0.6026*** (0.1665)		0.6306*** (0.0448)	0.6405*** (0.0448)		0.2157*** (0.0394)	0.2369*** (0.0387)
With Agent		-0.3405** (0.1378)	-0.3404** (0.1385)		0.0017 (0.0449)	0.0000 (0.0449)		-0.0423 (0.0294)	-0.0464 (0.0291)
Ln (Proceeds)		0.1799** (0.0730)	0.1800** (0.0721)		0.1528*** (0.0244)	0.1505*** (0.0243)		0.0040 (0.0146)	-0.0000 (0.0145)
Ln (MV)		-0.0566 (0.0814)	-0.0568 (0.0813)		-0.1624*** (0.0285)	-0.1598*** (0.0284)		-0.0421** (0.0176)	-0.0378** (0.0174)
Analyst Coverage		-0.2485** (0.1111)	-0.2486** (0.1106)		-0.0338 (0.0317)	-0.0333 (0.0318)		0.0067 (0.0193)	0.0075 (0.0192)
Ln (Volatility)		-3.0043 (3.5621)	-3.0026 (3.5609)		-0.7382 (0.9397)	-0.7665 (0.9418)		-0.3471 (0.5922)	-0.4655 (0.5891)
CAR (-12,-1)		-0.0478 (0.0434)	-0.0478 (0.0433)		-0.0061 (0.0140)	-0.0050 (0.0141)		-0.0140* (0.0072)	-0.0124* (0.0070)
RD/Assets		0.0779 (0.3072)	0.0778 (0.3086)		-0.2688*** (0.0891)	-0.2674*** (0.0893)		0.0336 (0.0491)	0.0350 (0.0503)
Intangible/Assets		-0.3264 (0.4321)	-0.3264 (0.4321)		0.0153 (0.1096)	0.0133 (0.1091)		-0.0103 (0.0914)	-0.0155 (0.0890)
EV/Assets		0.0128 (0.0087)	0.0128 (0.0088)		0.0021 (0.0028)	0.0019 (0.0028)		-0.0006 (0.0020)	-0.0010 (0.0020)
DEBT/Assets		-0.7483** (0.3585)	-0.7484** (0.3588)		-0.1717 (0.1047)	-0.1685 (0.1047)		0.0540 (0.0414)	0.0672 (0.0447)
EBITDA/Assets		0.2943 (0.2219)	0.2944 (0.2209)		-0.0794 (0.0573)	-0.0798 (0.0573)		0.0299 (0.0384)	0.0270 (0.0389)
Cash/Assets		-0.3112 (0.3336)	-0.3112 (0.3335)		-0.2331*** (0.0824)	-0.2332*** (0.0822)		-0.0776 (0.0662)	-0.0764 (0.0657)
Constant	-3.7461*** (0.2390)	-5.8115*** (1.1188)	-5.8182*** (1.1128)	-0.6486*** (0.0476)	-2.5078*** (0.3427)	-2.4252*** (0.3467)	0.0092* (0.0051)	0.1446 (0.2124)	0.2235 (0.2137)
Industry Fixed Effect	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	2,323	2,323	2,323	2,323	2,323	2,323	2,323	2,323	2,323
Log pseudolikelihood	-765.03	-735.86	-735.86	-3171.97	-2911.32	-2910.30	-2287.10	-2273.43	-2270.98
Wald chi2	85.2	226.82	227.29	719.42	1465.02	1514.13	174.65	346.33	340.13
Prob > chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel B:

Dependent Var:	Investors that Invested both before and after			New Investors vs. Old Investors that Discontinue		
	(1) Trading Restriction	(2) Investor Protection	(3) Issuer Right	(4) Trading Restriction	(5) Investor Protection	(6) Issuer Right
Post Action	2.2031*** (0.3836)	1.2690*** (0.0862)	-0.4834*** (0.0652)	2.2207*** (0.3222)	1.5488*** (0.0634)	-0.6841*** (0.0608)
Structured	0.8089*** (0.1882)	0.6600*** (0.0706)	0.2539*** (0.0692)	0.3074 (0.3010)	0.7527*** (0.0533)	0.1975*** (0.0429)
With Agent	-0.2999 (0.1939)	0.0119 (0.0667)	-0.2065*** (0.0536)	-0.1514 (0.2010)	0.1734*** (0.0612)	0.0584* (0.0329)
Ln (Proceeds)	0.0885 (0.1099)	0.0641* (0.0382)	0.0118 (0.0457)	0.2433*** (0.0939)	0.1424*** (0.0288)	0.0060 (0.0121)
Ln (MV)	-0.0980 (0.1224)	-0.1017** (0.0413)	-0.0909*** (0.0351)	-0.0100 (0.1030)	-0.1885*** (0.0340)	-0.0159 (0.0201)
Analyst Coverage	-0.5238*** (0.1485)	-0.1310*** (0.0485)	-0.0132 (0.0357)	-0.1418 (0.1502)	0.0056 (0.0393)	0.0087 (0.0218)
Ln (Volatility)	-7.8694 (5.0929)	-2.9775** (1.3117)	-0.5878 (1.4081)	0.2050 (3.9210)	1.2091 (1.0193)	-0.2936 (0.6442)
CAR (-12,-1)	-0.0407 (0.0657)	0.0008 (0.0214)	-0.0082 (0.0180)	-0.0232 (0.0604)	-0.0049 (0.0188)	-0.0115 (0.0075)
RD/Assets	0.1964 (0.3518)	-0.0982 (0.1405)	0.0017 (0.1294)	-0.0195 (0.4638)	-0.3933*** (0.1299)	0.0176 (0.0493)
Intangible/Assets	-0.9353* (0.5462)	-0.0717 (0.1729)	-0.0612 (0.1654)	0.0067 (0.5863)	-0.0128 (0.1437)	-0.0470 (0.0980)
EV/Assets	-0.0002 (0.0191)	-0.0011 (0.0063)	0.0028 (0.0033)	0.0090 (0.0093)	0.0017 (0.0034)	-0.0027 (0.0023)
DEBT/Assets	-0.5885 (0.5323)	-0.3360*** (0.1066)	-0.0966 (0.1071)	-0.9943** (0.4674)	-0.2062 (0.1320)	0.0950* (0.0495)
EBITDA/Assets	0.6007** (0.2899)	-0.0526 (0.0802)	0.0369 (0.0750)	0.0977 (0.2879)	-0.1121 (0.0803)	-0.0040 (0.0379)
Cash/Assets	-0.8684* (0.4614)	-0.4281*** (0.1343)	-0.2354* (0.1366)	0.1276 (0.4338)	-0.1783 (0.1116)	-0.0009 (0.0752)
Constant	-3.3183* (1.7457)	-0.6606 (0.5435)	0.4044 (0.6529)	-7.4219*** (1.4044)	-2.3854*** (0.4013)	-0.0499 (0.1794)
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	828	828	828	1,495	1,495	1,495
Log pseudolikelihood	-298.94	-1165.63	-829.29	-418.25	-1759.88	-1432.35
Wald chi2	1125.58	480.73	153.03	150.89	1133.19	255.54
Prob > chi2	0.000	0.000	0.000	0.000	0.000	0.000

Table 4 - Changes in PIPE Pricing

Table 4 compares the pricing discount on PIPEs for the pre- and post-action periods. The dependent variable is all-in-net-discounts, which is calculated following the method developed in Chaplinsky and Haushalter (2010). This discount includes not only the percentage difference between offer price and closing price, but also interest/dividend, value of warrant, and other embedded options. Specification 1 includes only the *Post Action* dummy, which is equal to 1 if the PIPE was transacted in the post-action period (2003-2006) and 0 otherwise. Specifications 2 & 3 both control for investor type and deal and issuer characteristics, including the *HF* dummy, the *Structured* dummy, the *With Agent* dummy, *Ln (Proceeds)*, *Ln (MV)*, *Analyst Coverage*, *Ln (Volatility)*, *CAR (-12, -1)*, *RD/Assets*, *Intangible/Assets*, *EV/Assets*, *DEBT/Assets*, *EBITDA/Assets*, *Cash/Assets* and industry dummies. In specification 3, we also include an interaction term between the *Post Action* dummy and the *HF* dummy. The definitions of these variables are available in the Appendix. All specifications also include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Dependent Var:	(1) All in Net Discounts	(2) All in Net Discounts	(3) All in Net Discounts
Post Action	-0.0109 (0.0192)	-0.0256 (0.0203)	-0.0922*** (0.0327)
HF		0.1022*** (0.0205)	0.0439 (0.0293)
HF * Post Action			0.1218*** (0.0392)
Structured		0.2334*** (0.0259)	0.2479*** (0.0258)
With Agent		0.0027 (0.0209)	-0.0002 (0.0209)
Ln (Proceeds)		0.0447** (0.0182)	0.0423** (0.0179)
Ln (MV)		-0.0744*** (0.0175)	-0.0718*** (0.0173)
Analyst Coverage		-0.0009 (0.0164)	-0.0003 (0.0165)
Ln (Volatility)		-0.2040 (0.3601)	-0.2759 (0.3548)
CAR (-12,-1)		-0.0005 (0.0067)	0.0004 (0.0067)
RD/Assets		-0.0909** (0.0405)	-0.0893** (0.0402)
Intangible/Assets		0.0154 (0.0595)	0.0126 (0.0584)
EV/Assets		0.0007 (0.0013)	0.0005 (0.0013)
DEBT/Assets		0.0081 (0.0407)	0.0138 (0.0397)
EBITDA/Assets		-0.0549** (0.0274)	-0.0563** (0.0273)
Cash/Assets		-0.1155*** (0.0422)	-0.1153*** (0.0421)
Constant	0.3938*** (0.0155)	0.0068 (0.2475)	0.0594 (0.2446)
Industry Fixed Effect	No	Yes	Yes
Observations	2,323	2,323	2,323
Adjusted R-squared (%)	-0.03	12.19	12.61

Table 5 - The Involvement of Placement Agents

In Table 5, we examine whether issuers were more likely to employ a placement advisor for PIPE transactions in the post-action period. The specifications are probit regressions in which the dependent variable is the *With Agent* dummy. Specification 1 includes only the *Post Action* dummy, which is equal to 1 if the PIPE was transacted in the post-action period (2003-2006) and 0 otherwise. Specifications 2 & 3 both control for investor type and deal and issuer characteristics, including the *HF* dummy, the *Structured* dummy, *Ln (Proceeds)*, *Ln (MV)*, *Analyst Coverage*, *Ln (Volatility)*, *CAR (-12, -1)*, *RD/Assets*, *Intangible/Assets*, *EV/Assets*, *DEBT/Assets*, *EBITDA/Assets*, *Cash/Assets* and industry dummies. In specification 3, we also include an interaction term between the *Post Action* dummy and the *HF* dummy. The definitions of these variables are available in the Appendix. All specifications also include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Dependent Var:	(1) With Agent	(2) With Agent	(3) With Agent
Post Action	0.2608*** (0.0630)	0.1735** (0.0726)	0.0347 (0.0916)
HF		0.6639*** (0.0705)	0.5313*** (0.0913)
HF*Post Action			0.2760** (0.1218)
Structured		0.0497 (0.0996)	0.0830 (0.1009)
Ln (Proceeds)		0.2460*** (0.0529)	0.2394*** (0.0528)
Ln (MV)		-0.1396*** (0.0474)	-0.1330*** (0.0470)
Analyst Coverage		-0.0113 (0.0449)	-0.0097 (0.0448)
Ln (Volatility)		0.7912 (1.4013)	0.6032 (1.3954)
CAR (-12,-1)		0.0163 (0.0216)	0.0184 (0.0216)
RD/Assets		0.1449 (0.1229)	0.1476 (0.1222)
Intangible/Assets		-0.5091*** (0.1818)	-0.5135*** (0.1815)
EV/Assets		0.0266*** (0.0078)	0.0260*** (0.0078)
Debt/Assets		-0.0744 (0.1986)	-0.0608 (0.1997)
EBITDA/Assets		0.1168 (0.0983)	0.1121 (0.0980)
Cash/Assets		-0.1256 (0.1499)	-0.1223 (0.1501)
Constant	0.3494*** (0.0428)	-3.3151*** (0.7371)	-3.1864*** (0.7394)
Industry Fixed Effect	No	Yes	Yes
Observations	2323	2323	2323
Pseudo R-Square (%)	0.79	8.64	8.83

Table 6 - Changes in Announcement Returns

In Table 6, we analyze how the stock market perceived PIPE transactions in the pre- and post-action period. The specifications are OLS regressions of cumulative abnormal returns (CARs) for a five-day window after the announcement of a PIPE. Specification 1 includes only the *Post Action* dummy and the *HF* dummy. In specification 2, we also include the interaction term of the *Post Action* dummy and the *HF* dummy and control for issuer characteristics. Specification 3 also controls for the five PIPE contract characteristics, including *Structured* dummy, *Trading Restriction*, *Investor Protection*, *Issuer Right*, and *Net Discounts*. In specification 4, we add the interaction terms between the *Post Action* dummy and the five PIPE contract characteristics. The definitions of these variables are available in the Appendix. All specifications also include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Dependent Var:	(1) CAR (0,5)	(2) CAR (0,5)	(3) CAR (0,5)	(4) CAR (0,5)
Post Action	-0.0056 (0.0076)	-0.0061 (0.0123)	0.0024 (0.0140)	0.0519 (0.0382)
HF	-0.0653*** (0.0076)	-0.0439*** (0.0117)	-0.0313*** (0.0119)	-0.0268** (0.0123)
HF*Post Action		-0.0138 (0.0151)	-0.0129 (0.0153)	-0.0192 (0.0162)
Structured			-0.0346*** (0.0122)	-0.0440*** (0.0162)
Trading Restriction			0.0331*** (0.0118)	0.0410 (0.0324)
Investor Protection			-0.0129*** (0.0042)	-0.0350*** (0.0112)
Issuer Right			0.0039 (0.0073)	0.0521 (0.0384)
Net Discounts			-0.0018 (0.0184)	0.0283 (0.0248)
Structured * Post Action				0.0355 (0.0250)
Trading Restrictions * Post Action				-0.0104 (0.0349)
Investor Protections * Post Action				0.0289** (0.0123)
Issuer Right * Post Action				-0.0493 (0.0393)
Net Discounts * Post Action				-0.0664* (0.0362)
With Agent		-0.0358*** (0.0083)	-0.0340*** (0.0083)	-0.0354*** (0.0082)
Ln (Proceeds)		0.0214*** (0.0048)	0.0228*** (0.0048)	0.0231*** (0.0047)
Ln (MV)		-0.0435*** (0.0055)	-0.0458*** (0.0054)	-0.0453*** (0.0054)
Analyst Coverage		0.0204*** (0.0057)	0.0195*** (0.0056)	0.0188*** (0.0056)
Ln (Volatility)		-0.2108 (0.1694)	-0.2136 (0.1653)	-0.1923 (0.1672)
CAR (-12,-1)		-0.0077** (0.0030)	-0.0077** (0.0030)	-0.0074** (0.0030)

RD/Assets		0.0143	0.0064	0.0094
		(0.0207)	(0.0208)	(0.0209)
Intangible/Assets		-0.0340	-0.0342	-0.0349
		(0.0220)	(0.0216)	(0.0216)
EV/Assets		-0.0003	-0.0002	-0.0004
		(0.0006)	(0.0006)	(0.0006)
Debt/Assets		0.0072	0.0058	0.0066
		(0.0102)	(0.0098)	(0.0098)
EBITDA/Assets		-0.0015	-0.0062	-0.0053
		(0.0167)	(0.0165)	(0.0165)
Cash/Assets		0.0195	0.0117	0.0099
		(0.0193)	(0.0193)	(0.0195)
Constant	0.0508***	-0.0788	-0.0818	-0.1384*
	(0.0062)	(0.0663)	(0.0674)	(0.0735)
Industry Fixed Effect	No	Yes	Yes	Yes
Observations	2,323	2,323	2,323	2,323
Adjusted R-squared (%)	3.26	9.17	10.41	10.89

Table 7 - Changes in Investor Type

Table 7 report results of probit regressions in which the dependent variable is 1 if the investor was a hedge fund and 0 if it was any other investor type. Specification 1 includes only the *Post Action* dummy, which is equal to 1 if the PIPE was done in the post-action period (2003-2006) and 0 otherwise. Specification 2 controls for issuer characteristics, including *Ln (MV)*, *Analyst Coverage*, *Ln (Volatility)*, *CAR (-12, -1)*, *RD/Assets*, *Intangible/Assets*, *EV/Assets*, *DEBT/Assets*, *EBITDA/Assets*, *Cash/Assets* and industry dummies. The definitions of these variables are available in the Appendix. All specifications also include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Dependent Var:	(1) HF	(2) HF
Post Action	0.5621*** (0.0652)	0.6070*** (0.0690)
Ln (MV)		-0.0886** (0.0359)
Analyst Coverage		-0.1477*** (0.0456)
Ln (Volatility)		3.1196** (1.4540)
CAR (-12,-1)		0.0173 (0.0214)
RD/Assets		0.0295 (0.1377)
Intangible/Assets		0.0816 (0.1896)
EV/Assets		0.0076 (0.0052)
Debt/Assets		-0.6191*** (0.1092)
EBITDA/Assets		-0.0728 (0.0965)
Cash/Assets		-0.3569** (0.1485)
Constant	-0.1314*** (0.0464)	0.3082 (0.2089)
Industry Fixed Effect	No	Yes
Observations	2,323	2,323
Pseudo R-Squared (%)	3.56	9.59

Table 8 - Changes in PIPE Issuers

Table 8 presents results of an OLS regression in which the dependent variable captures a range of issuer characteristics. The odd-numbered specifications include only the post-action dummy as an independent variable. The even-numbered specifications add the hedge fund dummy and its interaction with the Post Action Dummy as independent variables. All specifications also include an intercept. Standard errors are clustered by issuer. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

VARIABLES	(1) Ln (MV)	(2)	(3) Analyst Coverage	(4)	(5) CAR (-12,-1)	(6)	(7) Intangible/Assets	(8)	(9)	(10) EV/Assets
Post Action	-0.2161*** (0.0516)	0.0386 (0.0790)	-0.1374*** (0.0348)	-0.0041 (0.0532)	-0.2140*** (0.0655)	-0.1353 (0.1018)	0.0392*** (0.0077)	0.0346*** (0.0120)	-0.9868*** (0.3100)	-1.3001*** (0.4821)
HF		-0.3147*** (0.0714)		-0.2620*** (0.0481)		0.2597*** (0.0921)		0.0098 (0.0108)		0.0272 (0.4362)
HF * Post Action		-0.2788*** (0.1050)		-0.1138 (0.0707)		-0.2034 (0.1354)		0.0037 (0.0159)		0.4609 (0.6411)
Constant	4.7181*** (0.0361)	4.8590*** (0.0478)	0.8211*** (0.0243)	0.9385*** (0.0322)	0.3081*** (0.0459)	0.1919*** (0.0616)	0.1015*** (0.0054)	0.0971*** (0.0072)	4.9057*** (0.2169)	4.8935*** (0.2919)
Observations	2,323	2,323	2,323	2,323	2,323	2,323	2,323	2,323	2,323	2,323
Adjusted R-squared (%)	0.71	3.89	0.62	3.95	0.41	0.68	1.07	1.07	0.39	0.35

Appendix A - Variable Definitions

<u>Variables</u>	<u>Definitions</u>
Post Action	A dummy variable which is equal to 1 if the PIPE took place in the 2003-2006 period, and 0 otherwise
HF	A dummy variable which is equal to 1 if the lead investor is a hedge fund, and 0 otherwise
HF*Post Action	An interaction term of the HF and Post Action dummies
Ln (MV)	The natural logarithm of the issuer's market capitalization in millions one day prior to the closing date
Analyst Coverage	The natural logarithm of the maximum number of analysts following the PIPE issuer over the 12 months prior to the PIPE
Ln (Volatility)	The natural logarithm of the volatility, which is measured as the standard deviation of the daily returns over the 12 months prior to the PIPE
CAR (-12,-1)	Equal-weighted market adjusted cumulative abnormal returns 12 months prior to the PIPE
RD/Assets	The ratio of the R&D expense to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE
Intangible/Assets	The ratio of intangible assets to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE
EV/Assets	The ratio of enterprise value, which is the sum of market capitalization and debt minus cash, to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE
DEBT/Assets	The ratio of long term debt to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE
EBITDA/Assets	The ratio of EBITDA to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE
Cash/Assets	The ratio of total cash to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE
Structured	A dummy variable that is equal to 1 if the PIPE include repricing rights such as floating price convertibles or convertible resets and 0 otherwise

Trading Restriction	The number of trading restrictions, with a maximum value of 4 and a minimum value of 0
Investor Protection	The number of investor protections, with a maximum value of 5 and a minimum value of 0
Issuer Right	The number of issuer rights, with a maximum value of 3 and a minimum value of 0
Discounts	Following Chaplinsky and Haushalter (2010), discounts include the difference in offer price and closing price, interest or dividends, and the value of warrants if granted
With Agent	A dummy variable that is equal to 1 if a placement agent is employed and 0 otherwise
Ln(Proceeds)	The natural logarithm of the gross proceeds raised in a PIPE
CAR (0, 5)	The equal-weighted market adjusted cumulative abnormal returns 5 days subsequent to the PIPE.

Appendix B - Contract Term Definitions

Term	Definition
<u>Investor Protections</u>	
Registration Right	Investors request that a company file a registration statement covering the resale of common stocks (underlying the issued securities) no later than a certain number of days after the closing and make it effective within a certain time window.
Anti-Dilution	Anti-dilution provisions protect investors against future financing at a lower valuation than the valuation of the current (protected) offering. In the extreme case, a company is not allowed to issue or sell any equity securities or securities convertible into equity during a certain period after closing
First Refusal Right	This provision gives investors the right to purchase additional shares of a company's security with specified terms during a certain period before issuers sell shares to third parties.
Investor Call Option	Investors have the right to purchase additional shares with specified terms prior to the expiration date of an option.
Redemption Right	A redemption right gives investors the right to demand that firms redeem investors' claims upon the occurrence of certain events, such as a change of control, typically at face value or at a certain percentage of face value plus accrued and unpaid interest.
<u>Trading Restrictions</u>	
No shorting/hedging	Such a provision asks investors not to engage in any short transactions or hedging of a company's common stock prior to the effectiveness of the Registration Statement.
Offsetting long position	Such a provision asks investors not to engage in any short transactions or hedging of a company's common stock in excess of the amount of shares owned (an offsetting long position) prior to the effectiveness of the Registration Statement.
Public offering	If a company is planning a public offering shortly after a PIPE issuance, the company will ask investors not to make any sales to the public of shares in the company for a certain period of days following the effectiveness of the Registration Statement to avoid price pressure from investors' resale of shares to the public.
Lock up	With this provision, investors may not sell any shares of a company's common stock purchased or received through the exercise of warrants for the duration of a few months following the closing.

Issuer Rights

Company Forced
Conversion

Securities held by PIPE investors will automatically convert or be forced to be converted into common stock under certain conditions. These conditions often relate to company stock performance measures, such as, for example, if the stock price or the weighted average stock price during a period exceeds a certain benchmark, or the daily trading volume exceeds a certain level for some consecutive trading days.

Company Put Option

A company put option gives a company the right to request that PIPE investors purchase additional securities at a specified price in the future.

Company Optional
Redemption

This provision gives a company the right to force PIPE investors to exercise redemption rights after a certain date or upon the occurrence of certain events.