

# **Financial Contracts in PIPE Offerings: The Role of Expert Placement Agents**

by

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## **Abstract**

Though PIPEs are an important source of financing for many companies, they are controversial due to their harsh contractual structures. We document how PIPE contracts allocate contingent cash flow rights between investor and issuer and the role of placement agents in PIPE contract designs. Issuers advised by high-ranking “expert” agents agree to *more* investor-friendly contract terms than issuers advised by low-ranking “non-expert” agents. This result cannot be explained by endogenous matching because expert agents match with larger and higher quality issuers, which have less investor-friendly contract terms. Instead, expert agents appear to help their issuer-clients understand the payoff consequences of negotiable terms. Issuers who share the same placement agent use similar levels of investor-friendly terms. Moreover, expert agents allow issuers to negotiate more attractive pricing when they agree to investor-friendly terms. Issuers earn higher post-offering stock returns when they use expert agents or agree to more investor-friendly terms. Overall, these results suggest that the involvement of expert placement agents is beneficial to PIPE issuers.

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Private Investments in Public Equity (PIPEs) have emerged in the last decade as an important source of financing, in particular for poorly performing companies (Brophy, Ouimet and Sialm, 2009). From 1999–2012, there were about 15,000 U.S. PIPE offerings which, combined, raised over \$500 billion.<sup>1</sup> Yet, as compared to many other types of equity issuances that have been studied extensively by researchers, we know relatively little about the inner workings of PIPEs.

A key feature of PIPEs is the use of complicated contract terms which allocate contingent cash flow and control rights between investors and issuers (Hillion and Vermaelen, 2004; Chaplinsky and Haushalter, 2010). One view on PIPE contract terms is that sophisticated investors include them to exploit the urgent financing needs of struggling companies. According to this view, the typical PIPE contract design is harmful to the issuer because it gives the investor too many protections and too few restrictions. An alternative view—emphasized by financial contracting theory—is that such a contract design is the value-enhancing solution to the severe frictions (moral hazard, adverse selection, etc.) that characterize the PIPE market. According to this view, state-contingent cash flow and control rights are able to lower transaction costs below what can be achieved by only adjusting the offer price.

In this paper, we undertake a comprehensive investigation of 14 key contract terms in PIPE offerings. We document the frequency of each such term and describe how it protects the investor at the expense of the issuer. We explain how investor-friendly terms can minimize financing frictions and thereby allow investors to offer more issuer-friendly pricing. Building on this insight, we analyze how the inclusion of investor-friendly terms in PIPE contracts relates to the expertise of the placement agent who advises the issuer during the offering process. Our main finding is that issuers with high-ranked agents agree to *more* investor-friendly terms.

One candidate explanation for why the contract design and the agent’s expertise are related is that there could be endogenous matching in the PIPE market. Our analysis demonstrates that such matching exists: We document that high-ranked agents generally match with larger and higher-quality issuers, perhaps because such issuers wish to certify to PIPE investors that they have less pronounced investment risks (Dai, Jo, and Schatzberg,

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<sup>1</sup> PIPE statistics are reported by Sagient Research ([www.sagientresearch.com/pt](http://www.sagientresearch.com/pt)).

2010). Certification from expert agents lowers the risks that investors face, and thereby decreases the need for investor-friendly terms that protect against such risks. However, as shown by Chaplinsky and Haushalter (2010) and our own analysis, lower risks and other favorable issuer characteristics are associated with PIPE contracts with *fewer* investor-friendly terms. As a result, the matching explanation predicts a correlation between agent expertise and investor-friendly terms that is precisely the opposite from what we observe in the data. Hence, even though there is endogenous matching and certification in the PIPE market, the pattern of matching cannot explain why issuers with high-ranked agents agree to more investor-friendly terms.

To reconcile our findings, we present an argument that builds on Tirole's (2009) argument that a contracting party may find it difficult to compute the payoff consequences of complex state-contingent contract terms. Such difficulty is particularly acute in situations such as a PIPE offering where financial contracts include a myriad of complicated cash flow and control right terms. PIPE investors—hedge funds, private equity funds, and venture capital funds—are well versed in financial contracting, so they can compute the payoff consequences of negotiable terms with relatively high accuracy. By contrast, PIPE issuers have limited experience with negotiating complicated financial contracts, and their urgent need for capital gives them little time to decipher the exact payoff consequences of terms. Consequently, issuers may form biased assessments of each negotiable term, by which they either “optimistically” underestimate or “pessimistically” overestimate how much expected surplus the term will transfer to investors. Although PIPE issuers may be susceptible to both types of biases, their bad pre-issue performances make them more prone to overestimating the consequences of investor-friendly terms that would bite if post-issue performances are weak.

Issuers' biases can affect how PIPE contracts are structured and negotiated. Concretely, the investor would have to refrain from including any investor-friendly term for which the issuer, due to her overestimation bias, demands a pricing compensation that is above the term's correct payoff consequences. Certain such excluded terms could have increased the overall surplus of PIPE offerings by signaling pre-investment issuer quality (i.e., overcoming adverse selection) or providing issuers with favorable post-investment incentives (i.e., overcoming moral hazard). Consequently, both contract design and the post-

issue surplus can be vastly different between an uninformed issuer who is susceptible to biases and an informed issuer who understands the payoff consequences of terms.

We expand on this insight and show that placement agents play a critical role in the PIPE market by helping their issuer-clients understand the payoff consequences of contract terms. Placement agents take leading roles in PIPE offering. They spend considerable time briefing their clients on the meaning and importance of the various terms. They also actively participate in contract negotiations. There is substantial heterogeneity of agent expertise on contracts in the PIPE market—high-ranking agents are more capable than their low-ranking counterparts of helping their issuer-clients better understand the payoff consequences of contract terms. One reason for this difference is that expert agents have more experiences in negotiating the types of terms that are typical of PIPE contracts. Our empirical evidence shows that agents with greater market share do provide better service in contract negotiation.

Our empirical evidence comes from a sample of 2,414 intermediated U.S. PIPE offerings that were completed between 1999 and 2012. We aggregate 14 functionally distinct contingent cash flow rights into an Investor-Friendly Index (IFI). As in Chaplinsky and Haushalter (2010), we treat warrants as a contract term rather than as a pricing adjustment.<sup>2</sup> This approach is consistent with the contract-theoretical argument that contingent cash flow rights are used as a contractual solution to financing problems rather than simply as a price adjustment (even though their inclusion also affects how much investors pay for a security).

Our IFI captures how many investor-friendly terms are included in PIPE contracts and how many issuer-friendly terms are excluded.<sup>3</sup> In our baseline tests, we calculate IFI by adding the individual contract term dummies together. This aggregation method, which is similar to the method used by Gompers, Ishii, and Metrick (2003) to aggregate corporate governance provisions, has the advantage of being simple and transparent. However, one obvious problem with such an equal-weighted addition is that it implicitly assumes that all contract terms have the equal complexity and importance. To address this problem, we conduct several robustness tests in which we calculate IFI in different ways, including

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<sup>2</sup> Our data supports this viewpoint: The use of warrants is positively correlated with the use of other contract terms. If warrants were used as a pricing adjustment then one would expect a negative correlation.

<sup>3</sup> For convenience, we discuss PIPE terms as being only investor-friendly (which are the most prevalent in practice). This practice also captures issuer-friendly terms, because including an issuer-friendly term is functionally the same as excluding an investor-friendly term that is inversely defined. In our coding scheme, we deduct issuer-friendly terms from the IFI.

specifications where we do not treat warrants as a contract term. We find qualitatively very similar results from our baseline and robustness tests, signifying that our main findings are not simply due to the aggregation method we use.

Our first result is that issuers advised by expert agents have higher IFI scores than do companies advised by their low-ranking “non-expert” counterparts. We validate this finding in multivariate tests in which we control for several company and investor characteristics, as well as the choice between a traditional versus a structured PIPE offering (Brody, Ouimet and Sialm, 2009).

We next investigate how agents influence the relation between the use of investor-friendly terms and the offering price. More precisely, we test how the IFI varies with the pricing discount, defined as the difference between the PIPE offer price and the traded common equity price. We thereby analyze a “raw” pricing discount that does not account for pricing effects of warrants and other contingent cash flow rights (because otherwise we would include these terms on both sides of the regression). We show that companies that agree to more investor-friendly terms are compensated with lower PIPE discounts, demonstrating a tradeoff between terms and price. Moreover, we find that this tradeoff varies with the expertise of the placement agent—issuers advised by expert agents receive discount compensation for investor-friendly terms that is about three times greater than that received for issuers advised by low-ranking advisors. This result indicates that expert agents give their issuer-clients advice that allows them to extract higher pricing compensation in exchange for investor-friendly terms.

Finally, we analyze the long-run stock returns to PIPE issuers to further test whether expert agents provide good or bad advice. We find that stock returns at 12, 24, and 36 months after a PIPE offering date are significantly greater for companies with expert agents than for companies with low-ranking agents. This finding runs against the expectation that expert advisors recommend contract designs that allow investors to expropriate issuers. As additional direct evidence that investor-friendly terms in PIPE contracts are generally not linked to such expropriation, we find that long-run stock returns are significantly greater for companies that have contracts with more investor-friendly terms. These findings suggest that expert agents offer advice that is beneficial to their issuer-clients.

In summary, our empirical results show that the expertise of issuers' placement agents relates to the structuring and performance of PIPE offerings. These patterns are consistent with the agent role that we propose: Agents reduce imbalance in contracting parties' assessments of contracts. An issuer advised by an expert agent comes to share the investor's understanding of the consequences of the negotiable terms. The parties thereby agree on how large a reduction in the pricing discount is appropriate for each investor-friendly term. As a result, such a negotiated contract will include all investor-friendly terms that mitigate moral hazard, adverse selection, and other financing problems. This explains our findings that expert agents are associated with more investor-friendly terms. The greater overall surplus (from mitigated problems) associated with such a contract design explains our finding that expert agents are associated with higher long-run returns. Moreover, expert agents prevent investors from under-compensating issuers for terms that have greater payoff consequences than anticipated by biased issuers. This explains our finding that expert agents are associated with greater reduction in pricing discounts in exchange for negotiated terms.

From a conceptual perspective, the information that placement agents provide to PIPE issuers about contract terms could have several possible benefits. First, the involvement of expert agents causes investor-friendly terms to be included if and only if these contingent cash flow rights increase the overall surplus. This allows the negotiated contract to address the severe financing problems that challenge PIPE issuers. Second, the involvement of expert agents can mitigate the various forms of underinvestment that arise from issuers' lack of understanding of the consequences of contract terms. One form of underinvestment occurs when an uninformed issuer demands overly steep compensation for terms that the investor sets as a necessary financing condition. Another form of underinvestment occurs when an uninformed issuer refuses to conduct a PIPE to avoid expropriation at the hands of an informed investor. Third, the involvement of expert agents can simply lower "haggling costs" during contract negotiations, allowing offerings to be completed more swiftly. This benefit is important because most PIPE issuers urgently need capital.

Our paper contributes to the large body of studies that investigate the role of placement agents and financial advisors in equity issuances. Unlike existing research on IPOs, SEOs, debt issuances, and private placements that focus on the association between an agent's rank and offer price (see, e.g., Carter and Manaster, 1990, 1998; Beatty and Welch,

1996; Datta, Iskandar-Datta, and Patel, 1997; Livingston and Miller, 2000; Cooney et al., 2001; Logue et al., 2002; Ljungqvist and Wilhelm, 2002; Loughran and Ritter, 2004; Fang, 2005; among many others), we present novel evidence pertaining to the association between agent rank and contract design, as well as the associated effect on pricing and returns.

It is important to emphasize that the placement agent role we discuss is conceptually distinct from the certification role that has been examined extensively in the IPO and SEO literatures. Certification reduces imbalance in contracting parties' assessments of the object of contracting (e.g., asset valuation, growth opportunities, and risks). The role that we propose reduces imbalance in the parties' assessments of contracts themselves.

We also contribute to the growing literature on PIPEs (Hillion and Vermaelen, 2004; Dai, 2007; Brophy, Ouimet and Sialm, 2009; Chaplinsky and Haushalter, 2010; Chen, Dai and Schatzberg, 2010). By relating the inclusion of contract terms to the agent's rank, our analysis extends the work of Dai, Jo, and Schatzberg (2010), who show that high-ranking PIPE agents are associated with lower pricing discounts. We validate their result and further show that this difference can be explained in part by high-ranking agents providing their issuer-clients with information about the consequences of contract terms. We also extend their analysis by relating long-run stock returns to the ranking of PIPE agents and the inclusion of contract terms, respectively.

Finally, we contribute to the literature that examines the real-world structure of sophisticated financial contracts. Our analysis shows that PIPE contracts often include many of the same protections that are found in contracts between venture capitalists and private entrepreneurial companies: special dividend rights, anti-dilution rights, first refusal rights, and redemption rights (Kaplan and Stromberg, 2003). The prevalence of such investor-friendly terms in PIPE contracts lends support to the argument of Chaplinsky and Haushalter (2010) that PIPE offerings are surrounded with particularly large information and agency problems. We find, similar to studies of venture capital contracts, that PIPE contracts include more investor-friendly terms when such financing problems are more pronounced (Gompers, 1998; Kaplan and Stromberg, 2004; Bengtsson and Sensoy, 2011; Bengtsson, 2011).

The remainder of the paper is organized as follows. Section 1 describes the institutional setting in which PIPE agents operate, and contrasts the role of PIPE agents with IPO underwriters. Section 2 introduces our data and describes how we identify high-ranking

placement agents. Section 3 discusses the terms included in PIPE contracts that we study, and explains how we code them. In Section 4, we describe our empirical strategy. In Section 5 we present the empirical results. Section 6 concludes.

## **1. Institutional Background on PIPE Agents<sup>4</sup>**

Unlike the relatively concentrated market for IPO underwriting, the market for advice on PIPEs is quite fragmented. There exist a large number of placement agents (368 in our sample) who compete against each other for advising companies that seek to issue a PIPE. The group of agents includes large investment banks, specialized corporate finance advisory firms, as well as “boutique” advisors who specialize in PIPEs and other types of private placements. Not surprisingly, the large degree of fragmentation means that many aspects of the relationship between issuers and agents are non-standardized. Concretely, there is large variation in what are included in the legal contracts that issuers and agents sign, how agents are being compensated, and what work tasks agents fulfill.

The relationship between the issuer and the agent begins with informal discussions that quickly evolve into a formalized relationship. The milestone for this formalization is when the parties sign a Private Placement Agreement (sometimes also called an Engagement Letter), which is the legal document specifying the responsibilities of each party. Under such agreement, the issuer authorizes the agent to be the exclusive advisor for the offering, except in deals where more than one advisor is engaged. The issuer also promises to give the agent access to the company’s detailed financial reports, management team, auditor, legal advisor, consultant, etc. This allows the agent to prepare the material that is needed for pitching the deal to potential investors. To safeguard that this information does not spread, the agent agrees to owe duty of confidence to the issuer.

The agent takes a leading role in initiating, progressing, and closing the PIPE deal. The agent controls the interactions between issuer, investor, law firm, auditor and other parties. This role differs from what advisors do in, for example private equity, where the lead investor is more in charge of the transaction.

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<sup>4</sup> This section is to a large extent based on information from the book “The Issuer's Guide to PIPEs: New Markets, Deal Structures, and Global Opportunities for Private Investments in Public Equity“ as well as from memos prepared by law firms. The information about the structure of private placement agreements comes from a sample of SEC filings that we have analyzed. Finally, we have interviewed Brett Goetschius, who is CEO of MarketNexus Media and an expert on PIPEs.

The first task of the agent is to conduct its business and financial due diligence on the issuer. In some instances, the agent draws on this information to prepare a formal Private Placement Memorandum that will be circulated to interested investors. In other cases, the agent only prepares an informal “teaser” where the main items of the company are summarized. Importantly, these documents do not reveal the identity of the issuer. This anonymity is a safeguard against any investor trying to exploit the information about the PIPE offering in order to trade in the issuer’s stock.

The second task for the agent is to identify a group of investors interested in the deal. Here the agent faces a delicate tradeoff. If it were to solicit the deal to too few investors then the offering could fail. If, by contrast, it were to solicit the deal to too many investors then the SEC could view the PIPE as being a general solicitation of the sale of securities, which is illegal.<sup>5</sup>

The third task, often viewed as the hardest one for the agent, is to “bring the deal over the wall”, which is industry jargon for the point in time when the investor expresses its serious interest in the PIPE offering. Once the deal is over the wall, the agent will reveal the identity of the issuer and give the investor more detailed financial and operational information. Before this disclosure, the agent must secure a promise that the investor will not further disclose the information and refrain from trading the issuer’s shares. These promises could be made orally, or in a Non-Disclosure Agreement and a Non-Trading Agreement.<sup>6</sup>

The fourth task of the agent is to advise the issuer on how to price the PIPE offering and which contract terms to use. Our empirical evidence demonstrates that agents fulfill this task in a way that benefits the issuer. The agent provides advice to the issuer both prior and during the negotiation of deal structure that takes place with the investors. One part of such advice is to explain the meaning of the typical PIPE contract terms. Because many of the terms are esoteric in the sense that they are used primarily in PIPE offerings, the issuer may not understand what it gives up by agreeing to a particular term. Another part of the advice is to demonstrate the payoff consequences of each negotiable term. Calculating such payoff consequences can be very complicated. Each term has consequences that depends on which

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<sup>5</sup> This illegality follows from the fact that the SEC requires much more extensive reporting requirements and scrutiny for a deal with general solicitation (e.g., Seasoned Equity Offerings).

<sup>6</sup> In a recent legal case (SEC vs. Cuban), the court ruled that the mere sharing of information about an upcoming PIPE offer is not sufficient to preclude an investor from trading in the issuer’s stock. Hence, the court stated that a more explicit Non-Trading Agreement is required.

state-of-the-world is realized, the investor's choice to use the right implied by the term, and which other terms are included in the contract. In practice, even expert agents may not be able to perfectly calculate payoff implications, but their experience with the contract terms means that they can do so better than their issuer-clients.

Finally, the agent assists with closing, by collecting comfort letters from auditors and legal opinions from the advising law firms.

The role of placement agents in PIPE offerings is in some ways similar to the role of underwriters in IPOs. Both types of advisors interact with issuers, investors, lawyers and auditors. Both types of advisors receive compensation of similar magnitude, which is paid upon consummation of the deal. Both types of advisors are also informational intermediaries, who help issuers find interested investors and compile information that these investors want.

However, PIPE agents play an intermediary role that is not shared with IPO underwriters: expert advisors can provide information about the payoff consequences of negotiable contract terms. There are three reasons why this role is unique. Firstly, PIPE contracts include more complex terms than IPO contracts, which are fairly standardized. Secondly, PIPE issuers—often struggling companies—may have less time to digest the details of the offering. An IPO is a big event in a company's history, and considerable time is spent on understanding its implications. Thirdly, the market for advice is more fragmented in the PIPE market. The IPO market is concentrated to a small number of underwriters who arguably all understand how a typical IPO is structured. By contrast, there are many inexperienced advisors in the PIPE market who lack such understanding. This means that there is more variation in the PIPE market with respect to how much information about contract terms expert advisors can give their clients about payoff consequences.

Another key difference is that PIPE advisors, in a typical deal, do not put any capital at risk in underwriting and after-market support. Hence, unlike IPO underwriters, PIPE advisors do not buy any shares during or after the offering. One implication of this difference is that PIPE agents can operate at much smaller scale than IPO underwriters, which must have large pools of capital (in practice: be large investment banks). This is a plausible reason why the market for PIPE advice is so fragmented. Another implication is that PIPE advisors subsume much less of the investment risk. As a result, PIPE advisors may provide less certification of their clients, as compared with than IPO underwriters. This means that other

advisory roles, including the one we emphasize in this paper—to provide information about contract terms—are important in the PIPE market.

## 2. Data

### 2.1 SAMPLE

We obtain data on 14,881 U.S. PIPEs that closed between 1999 and 2012 from Sagient Research, Inc.’s *Placementtracker* database.<sup>7</sup> Following Chaplinsky and Haushalter (2010), we exclude structured equity lines (1,309 observations) and common stock reset PIPEs (77 observations). We also exclude PIPEs that have no disclosed agent information (2,288 observations). We further exclude issuers not covered by Compustat and CRSP, because we need data on company characteristics and stock returns for our analysis. This restriction eliminates 6,986 observations, signifying that many PIPE issuers are small and thinly traded companies. Of the remaining 4,221 observations with complete data, we exclude 1,807 “direct” PIPEs, which are offerings without placement agent, from our main sample. We focus our attention on “intermediated” PIPEs, which are offerings with agents, because of the potential concern that the choice of employing an agent may be correlated with discounts or contract terms. In robustness tests, we study both direct and intermediated PIPEs, and obtain qualitatively similar results. Our final sample covers 2,414 unique intermediated PIPE offerings, 1,181 unique issuers, and 368 unique agents. Panels A and B of Table I describe the year and industry distribution of the sample.

[Insert Table I about here.]

### 2.2 PIPE OFFERING CHARACTERISTICS

In Panel C, we summarize variables that capture characteristics of the PIPE offering. The average offer size is \$51.3 million, with the median at \$11.1 million. For each PIPE we calculate the pricing discount, which captures the percentage by which the PIPE price is below (or, in rare cases, above) the traded equity price.<sup>8</sup> For common stock PIPEs, we

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<sup>7</sup> As pointed out in Chaplinsky and Haushalter (2010), relative to the private placements available in *Security Data Corporation’s New Issues* database, the *Placementtracker* database lists more PIPE offerings and provides more detailed coverage of contract terms.

<sup>8</sup> Unlike the all-in-net-discounts calculated in Chaplinsky and Haushalter (2010), in this paper, we treat the option feature of PIPE securities (such as warrants) as contractual terms and study how they are correlated with discounts.

calculate discounts as the percentage difference between 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.<sup>9</sup> The mean and median discounts are 9.5% and 8.6%, respectively.

About 90% of our sample represents traditional PIPEs, in which investors hold common stocks or fixed-price convertibles. The remaining 10% are structured PIPEs, in which investors hold securities with repricing rights such as floating price convertibles or convertible resets. We control for PIPE type in our empirical tests. More than half of all PIPE investors are hedge funds. The average investor has issued 6.6 within-sample PIPEs before.

### 2.3 PIPE ISSUERS CHARACTERISTICS

Panel D of Table I examines the characteristics of our sample PIPE issuers, including market capitalization prior to closing date, Analyst coverage, CAR (-12, -1), Debt/Assets, EV/Assets, R&D/Assets, Intangible/Assets, Cash Burn and the Altman's Z-score. Detailed definitions of these variables are provided in Appendix B. Consistent with earlier findings from the PIPE literature, our data demonstrate that PIPE issuers typically exhibit weak operating performance and display other characteristics consistent with a high degree of information asymmetry and agency cost. These issuers are small, with mean market capitalization measured on the day prior to the PIPE transaction of \$271 million and a median of \$91 million. Not surprisingly, given their size, they are often not followed by many (or any) analysts, with a mean analyst coverage equal to 2.2 and median of 1.0. Consistent with Brophy, Outmet and Sialm (2009) and Chaplinsky and Haushalter (2010), we document a positive average CAR for PIPE issuers before the offering. Furthermore, these firms often exhibit high EV/Assets ratios, with a mean of 4.1 and a median of 2.0, and R&D/Assets ratios, with a mean of 29.2% and a median of 12.0%. About 33% of the issuers are financially distressed or with a Z-score below 1.8.

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<sup>9</sup> 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 a discount based on the floor price for such a PIPE represents the maximum discount the investor can receive.

That the typical PIPE issuer is a small, badly performing company means that the role of placement agents that we propose—providing information about contract terms—is relevant in practice. A struggling issuer that is desperately in need of new capital to survive is forced to focus on improving his weak operating performance, and therefore cannot afford to devote much attention to understanding the intricacies or terms of PIPE contracts.

### **3. PIPE Contract Terms**

We now discuss the types of contract terms that are commonly used in U.S. PIPE offerings. Our goal is to introduce the contract terms that are the focal point of our tests, present their sample frequencies, and discuss how we choose to aggregate them for our empirical analysis. We further describe how these terms translate into contingent cash flow rights between issuers and investors. Such allocation leads to a transfer of surplus between the contracting parties, and potentially affects the overall surpluses associated with PIPE offerings. Finally, we illustrate our contention that contractual arrangements characteristic of PIPE offerings are so complicated that a boundedly rational issuer may find it prohibitively difficult to compute the precise consequences of each term.

Table II describes the 14 contract terms that we later empirically analyze. For ease of presentation, we group these terms into three categories. The first category, investor protections (terms 1-7), lists terms that attach various protections to PIPE investors' stocks. The terms in this category are favorable to investors at the expense of issuers. The second category, trading restrictions (terms 8-11), lists terms that determine how investors can trade underlying stocks after offerings. The third category, issuer rights (terms 12-14), contains terms that grant to issuers the right to force investors to take certain actions. The terms in these latter categories favor issuers at the expense of investors.

[Insert Table II about here.]

#### **3.1 INVESTOR PROTECTIONS**

##### *Dividend, Interest and Warrants*

Dividends, interest, and warrants are key deal features in PIPE offerings. About 26% of our sample contracts include provisions that entitle investors to fixed payments at pre-specified dividend or interest rates. These dividends are sometimes cumulative, which means that an

investor does not receive regular dividends but rather a lump sum at a later time. About half of our sample contracts include warrants, which allow investors to purchase in the future predetermined numbers of certain securities at specified prices.

Because warrants have cash flow consequences only in certain states of the world, their inclusion introduces a state-contingent payoff curve. Almost all contract-theoretical work takes as its point of departure the proposition that a contingency-based payoff curve is not used to adjust pricing but rather to provide an optimal solution to a variety of contracting frictions (e.g., agency or information problems).<sup>10</sup> Instead of including warrants, which are relatively complicated to price, the PIPE contracting parties can adjust the negotiated pricing discount—such an adjustment is both easier to carry out and has more obvious payoff consequences than including warrants. In other words, while there are many contract-theoretical reasons why warrants are included in a financial contract, simply lowering the transaction price is unlikely the primary reason.

Chaplinsky and Haushalter (2010) analyze the use of warrants in PIPE offerings and find that, consistent with contract theory, this term is more common when the issuer presents higher risks to the investor. Our data further supports the notion that warrants are used as a contract term rather than a simple price adjustment. We find that the inclusion of warrants is positively correlated with the inclusion of other investor-friendly PIPE terms. This correlation should be negative if warrants were used only as pricing compensation for harsher terms (because more terms imply lower pricing, i.e., no use of warrants).

A similar line of reasoning can motivate our choice of treating interest and dividends as contract terms rather than as pricing factors. As derived in several theoretical models, the promise of regular payments to investors can remove suboptimal overinvestment decisions and induce managerial effort. Hence, these deal features are in place to overcome agency and information problems, rather than only to provide investors with greater expected cash flows.

### Investor Registration Rights

The key feature of PIPE offerings is that firms can close such offerings before filing registration statements with the SEC, which makes such PIPE offerings time-efficient.

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<sup>10</sup> Extant work on warrants describes how this deal feature can reduce informational frictions in IPOs and SEOs (Schultz, 1993; Chemmanur and Fulghieri, 1997; Jain, 1994; How and Howe, 2001; Byoun and Moore, 2003; Garner and Marshall, 2005).

However, this solution means that investors must assume the risk of illiquidity, because they are not allowed to resell the acquired securities before the Registration Statement becomes effective. To mitigate this risk, PIPE contracts can force issuers to file Registration Statements within a short time period after offer closings. Such protection is included in about 65% of the PIPEs in our sample. In some cases, such a contract places a cap on the amount of capital that an issuer can draw down before the Registration Statement takes effect. Some contracts include penalty terms if registration fails, such as cancellation of the financing.

#### Anti-Dilution Protection

Anti-dilution provisions protect PIPE investors against future financing at lower valuations than those of current offerings. In its harshest form, anti-dilution prohibits an issuer from issuing or selling any equity securities (or securities convertible into equity) during a certain period after a PIPE offering. A typical period is 90 trading days following the effectiveness of the Registration Statement. Such a contract could also prohibit an issuer from issuing or selling such securities at a price below what the PIPE investor paid, or below a specified benchmark price.

In a less harsh form, anti-dilution terms protect investors from future price decreases by reducing offer prices (or, alternatively, conversion prices) to equal the lowest prices paid for any equity securities in future financing. In such a case an investor could also have the right to receive cash or additional common shares without additional consideration.<sup>11</sup> About 43% of our sample provides investors with some form of anti-dilution protection.

#### Right of First Refusal and Investor Call Options

Investor call options and investor right of first refusal give investors the right to purchase additional shares of a company's security during a certain period in the future. Like warrants and anti-dilution, these contract terms are in place to protect investors against future dilution from price decreases or equity offerings at below-market prices. About 20% of our sample includes a right of first refusal. Investor call options are included in 5% of our contracts.

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<sup>11</sup> PIPE contracts use the full-ratchet anti-dilution provision, which give existing investors the right to receive additional shares at the price of a new financing round at lower valuation. This contrasts Venture Capital contract, for which full-ratchet is a relatively uncommon version of anti-dilution provisions.

### Redemption Rights

Investor optional redemption is sometimes used to strengthen the liquidation rights of an investor's investment. This protection gives an investor the right to demand that a firm redeem the investors' claim upon a change of control. Such conversion is typically priced at face value or at a certain percentage above face value (often higher than 100%, occasionally, higher than 200%) plus the value of any accrued unpaid interest. About 12% of our sample includes an investor redemption option. Redemption rights matter because PIPE contracts often do not specify any contracted payments on which the issuer can default. Redemption rights may thereby offer an investor the only available means by which to force an issuer to repay an investment.

### 3.2 TRADING RESTRICTIONS

Many PIPE offerings include provisions restricting how an investor can trade the underlying stock for a certain period after offer closing. These restrictions, which are much less prevalent investor protections than those we have discussed above, favor issuers at the expense of investors.

The most common trading restriction prohibits investors from engaging in short transactions or hedging a company's common stock or taking a position that is in excess of the value of shares owned (i.e., an offsetting long position) prior to the effectiveness of the Registration Statement. Sometimes, a contract also requires an investor not to engage in shorting or hedging for a longer period than the SEC's requirement, sometimes as long as the purchased PIPE security remains outstanding. About 8% of our sample explicitly forbids short selling before a certain date and 3% of the sample does not allow investors to hedge a company's common stock in excess of the value of shares owned before a certain date.

An additional trading restriction applies a so-called lock-up period to a PIPE transaction. Such a provision prohibits an investor from selling any shares of an issuer's common stocks purchased or received through the exercise of warrants for a duration typically lasting a few months following the closing. We find lock-up provisions in 3% of our sample.

Finally, in very rare cases (0.1% of our sample), PIPE contracts prohibit investors from affecting any sales to the public of a company's shares for a certain number of days

after the Registration Statement takes effect. This restriction is useful if a company plans a public offering (i.e., an SEO) shortly after the closing of the PIPE offering because it avoids price pressure from investors' resale of shares to the public.

### 3.3 ISSUER RIGHTS

#### Company-Forced Conversion

PIPE contracts sometimes include company-forced conversion options, according to which shares held by investors will automatically convert into common stock under certain conditions, typically related to issuers' stock performance during a given period following a PIPE offering. For instance, investors may have to convert their shares if stocks price or weighted average stock prices exceed certain benchmark numbers. In an alternative formulation, issuers may have to convert their shares if daily trading volumes exceed certain levels for a specified number of consecutive trading days. In some extreme cases—such as a company's taking a 10,000-to-1 reverse stock split—investors will also be forced to convert. About 14% of the contracts in our sample include company forced conversion options.

The effect of such company forced conversion provisions is to require investors to give up their contractual protections when companies attain a desired level of performance. In particular, if a company performs well, an investor will retain only the same rights as common shareholders, but if such a company performs poorly, an investor will retain superior cash flow rights. The usefulness of such provision has been demonstrated in extant theoretical work (see Bengtsson and Sensoy, 2011, for a discussion).

#### Company Put Option and Optional Redemption

About 12% of our sample PIPEs include company optional redemption provisions, which provide issuers with the right to force PIPE investors to exercise redemption rights after a certain date or upon a certain events. About 3% of the PIPEs in our sample include company put options, according to which a company has the right to force an investor to purchase additional shares at a specified price. The effect of put options and optional redemption is that an investor would receive less favorable cash flow rights if a company were to achieve a strong performance.

### 3.4 OVERALL STRUCTURE OF PIPE CONTRACTS

We make five general observations concerning contract terms in PIPE offerings. First, there is substantial variation in how terms are included in PIPE contracts.<sup>12</sup> Second, the overall structure of PIPE contracts is such that investors obtain superior rights if a company performs poorly. As company performance improves, an investor must relinquish such superior rights. Third, many contract terms appear to be designed to overcome agency and information problems. This is not surprising given that these problems are particularly severe for the types of companies that issue PIPEs. Fourth, many of the trading restrictions directly address incentives associated with hedge funds to undertake actions that can adversely affect a PIPE offering company (Hillion and Vermaelen, 2004). Fifth, we note that trading restrictions and issuer rights increase with investor protections.<sup>13</sup> Investors request more contractual protections when they are restricted in trading/shorting and give issuers more rights.

Given the complexity and intricacy of PIPE contracts, it is plausible that issuers—unless they are advised by an expert placement agent—face several hurdles when trying to understand the consequences of each negotiable term. First, a given term is described using intricate legal language that must be “translated” into a contingent cash flow right. Second, the contingent nature of the cash flow right makes it necessary to compute the term’s financial consequences in a range of future states of the world, and to estimate the probability distribution of such states. Third, the consequences of the term cannot be analyzed in isolation because its consequences depend on how other terms are included in the contract. For example, the value of an investor redemption right is lower if an investor also has an anti-dilution right (which allows share re-pricing following weak stock performance). Fourth, the term’s contractual consequences may be very different from its actual consequences due to renegotiations and hold-ups that occur when a contract is to be enforced.

## 4. Empirical Strategy

### 4.1 IDENTIFICATION

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<sup>12</sup> For instance, the number of terms varies from 0 to 11, with a standard deviation of 2.2. Furthermore, IFI ranges from 5 to 14, with a standard deviation of 1.7. We also analyze the variation in the number of terms and IFI by agent and find no evidence that agents simply utilize boiler plate contracts in different PIPE deals.

<sup>13</sup> The correlation coefficient between investor protection terms and trading restriction term is 0.144 (with p-value of 0.000). The correlation coefficient between investor protection and issuer right is 0.063 (with a p-value of 0.000).

Our goal is to demonstrate that the expertise of the issuer’s placement agent can affect the inclusion of investor-friendly terms in PIPE contracts. Our identification follows three steps. First, we aggregate the 14 individual contract terms, so we can study the aggregate investor-friendliness of the contract. Second, we develop proxies for how well placement agents help their issuer-clients understand the payoff consequences of negotiable terms. Third, we ensure that endogenous matching between issuers and agents or agent certification do not bias our results towards finding the empirical relationships that we present.

#### 4.2 INVESTOR-FRIDENDLY INDEX (IFI)

The first step of our identification strategy is to aggregate the 14 PIPE contracts terms to an index. We create an “Investor-Friendly Index” (IFI) that adds all contract terms favorable to investors (i.e., investor protections) and deducts all terms favorable to issuers (i.e., trading restrictions and issuer rights). We finally add 7 in order to ensure that all contracts have a positive IFI (in total, we have 7 possible deductions). In our baseline tests, we use simple addition where all terms have equal weights. As reported in Panel C of Table I, the mean of the IFI is 8.6, with a standard deviation of 1.7. The contract with the most investor-friendly contract terms has an IFI of 14, and the contract with the fewest has an IFI of 5.

In our baseline tests, we calculate the IFI in a way that builds on the implicit assumption that an included issuer-friendly term is the same as an excluded investor-friendly term. To illustrate this principle, about one in ten PIPE contracts in our sample includes a forced conversion term, which gives an issuer the right to force a conversion of the investor’s stock if certain conditions are met. The inclusion of such an issuer-friendly term is assumed to equate to the exclusion of a hypothetical, inversely defined, investor-friendly term that does *not* give the issuer this conversion right. This assumption may appear strange at first glance, but it fits well with our reasoning pertaining to a placement agent’s role in a PIPE offering. Uninformed issuers find it equally hard to understand the consequences of an inversely defined investor-friendly term and those of an actual issuer-friendly term, so these could be analyzed symmetrically.

Our method of calculating IFI also builds on the assumption that all contract terms are equally valuable and complex for all types of PIPE offerings. In practice, the payoff consequences of investor protections, trading restrictions, and issuer rights vary considerably

across PIPE offerings, depending on company and investor characteristics as well as on market-wide conditions. The problem is that it is prohibitively hard to come up with a model for estimating the relative importance of PIPE terms. Such a model would be very complex and based on many arbitrary assumptions to derive payoff consequences. Moreover, the model would also have to incorporate how difficult it would be for a boundedly rational PIPE issuer to estimate the payoff consequences. In light of these difficulties, our baseline method uses the simplest aggregation method—addition—which has the advantage of being the most transparent one. Our method reflects the spirit of Gompers, Ishii, and Metrick (2003), who like us use simple addition to aggregate corporate governance provisions.

In our robustness tests, we relax the above discussed assumptions and recalculate IFI in different ways. To ensure that our results are not driven by one individual contract term, we exclude each term once and calculate IFI by adding the other 13 terms together (i.e., we recalculate IFI in 14 different ways). We also run tests based on each individual term, and on simulated IFIs based on randomly assigned weights on each of the 14 contract terms. We find that our main results are qualitatively similar in the baseline and these robustness tests. This reinforces our conclusion that our findings are not driven by a certain aggregation method.

#### 4.3 EXPERTISE OF PLACEMENT AGENT

The second step of our identification strategy is to capture how well placement agents are able to credibly and accurately convey information about contract terms to their issuer-clients. Our sample covers 368 unique placement agents whose experience with PIPEs and other types of equity offerings varies. We base our identification on the assumption that placement agents with more experience are, on average, better able to convey information about contract terms. This assumption can be motivated either by agents' acquiring this ability through experience (i.e., "learning-by-doing") or by experienced agents' having been frequently chosen by issuers due to superior ability.

We create two dummy variables that classify a PIPE agent as high ranking or low ranking. The first dummy, "High-ranking Agent (C-M Ranking)," is based on the Carter-Manaster rankings. These rankings were introduced by Carter and Manaster (1990) and extended by Carter, Dark, and Singh (1998), and Loughran and Ritter (2004). Underwriters with the lowest reputation are given a ranking of 0 while the most reputable ones have a

ranking of 9. The dummy “High-ranking Agent (C-M Ranking)” takes the value 1 if the agent has a high (above seven) Carter-Manaster ranking, and 0 otherwise.<sup>14</sup> As reported in Panel C of Table I, 19.7% of the PIPEs in our sample have a high-ranking agent based on the C-M ranking.

A potential problem with the C-M ranking though is it captures an agent’s broader reputation for and experience with equity offerings but not necessarily its specific expertise in the PIPE market. Therefore as a robustness check we design a second reputation measure based on the agent’s market share in the PIPE market. The second dummy, “High-ranking Agent (Market Share),” is determined through the following two steps. First, we calculate agent market share by comparing an agent’s PIPE volume (in dollars) in the three preceding years to the total volume of intermediated PIPE offerings during the same period.<sup>15</sup> To give the reputation measure a sense of stability over time, we count the number of times the agent was on the top 15 lists over our sample period. The 10 agents that appear on the annual top 15 lists most often are designated as reputable agents. Appendix A lists the top 10 agents based on market share. Most of them have a C-M ranking of 8 or 9. As reported in Panel C of Table I, 15.0% of the PIPEs in our sample have a high-ranking agent based on market share.

#### 4.4 MATCHING AND CERTIFICATION

The third step in our identification strategy is to carefully consider how agent-issuer matching could bias our empirical results pertaining to contract term determinants. In an ideal experiment, we would eliminate such bias by identifying an exogenous instrument for how issuers and agents match. In practice, however, it is prohibitively difficult to find such an instrument—any observable company characteristic that explains how issuers choose their placement agents could also explain how investor-friendly terms are included in the PIPE contract. This identification problem is not unique to our study, but is a general issue in studies of underwriters and placement agents.

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<sup>14</sup> Our C&M ranking is obtained from Jay Ritter’s Website. He provides the C&M ranking for IPO underwriters in several subperiods. We search for the PIPE placement agent’s name in the C&M ranking list during the period when a specific PIPE was issued.

<sup>15</sup> Market share has been used frequently in the literature as an empirical proxy for reputation. See, for example, McDonald and Fisher (1972), Simon (1990), De Long (1991), Megginson and Weiss (1991), Beatty and Welch (1996), Fang (2005), and Dai et al (2010).

We tackle this concern in two ways. First, our empirical tests include a large battery of issuer (and investor) controls in our main specifications. We find that our results are statistically significant after including such controls. This rules out the influence of matching based on observable issuer characteristics. Second, we infer that the process of unobserved matching is likely such that there is positive assortive matching between issuers and agents. Researchers have observed there is positive assortive matching between IPO and SEO candidates and their underwriters (see Fernando, Gatchev, and Spindt, 2005, for evidence and a literature review). Positive assortive matching can have a variety of rationales: Better companies might want to employ high-ranking advisors in order to signal their superior quality (Titman and Trueman, 1986), or high-ranking advisors might prefer to advise better companies in order to maintain their strong reputations. Similar economics are likely at play in the PIPE market.

[Insert Table III about here.]

Panel A of Table III presents evidence that there is positive assortive matching in the PIPE market, based on observable issuer characteristics. We report summary statistics separately for the 475 PIPE offerings associated with high-ranking agents, based on the dummy “High-ranking Agent (C-M Ranking)”, and the remaining 1,939 offerings. We use this sample split to examine how PIPE issuers match up with their placement agents. We find that issuers with high-ranking agents are significantly larger than their counterparts in terms of market capitalization prior to offering. In particular, the mean capitalization is \$466 million (median is \$145 million) for issuers with high-ranking agents, while it is only \$223 million (median is \$80 million) for issuers with other agents. We also find that PIPE issuers advised by high-ranking agents exhibit better analyst coverage and greater financial leverage as measured by Debt/Asset. Furthermore, high-ranking agents appear to advise issuers with lower EV/Assets ratio, R&D/Assets ratio, and Intangible/Assets. This pattern, which is broadly consistent with expert agents matching with better company-issuers, mimics the findings of Dai, Jo, and Schatzberg (2010).<sup>16</sup>

With positive assortive matching, one possible role of placement agents is to certify the quality of their issuer-clients to investors. Agent certification might result because high-ranking agents have private information regarding the quality of the issuer through their due

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<sup>16</sup> In an unreported probit regression on matching, we find results consistent with the univariate analysis.

diligence, which is valuable because many PIPE issuers are small and struggling companies with limited coverage from analysts and the media. When a high-ranking agent signals (or directly transmits) private information about the high quality of the issuer to the investor, this reduces the investor's concern about agency and asymmetric information.

The problem with the matching and certification explanations is that they predict exactly the opposite empirical relationship between agent expertise and investor-friendly terms (and pricing) from what we observe in our data. As shown in numerous theoretical models, an investor responds to less severe financing problems associated with higher quality issuers by lowering her demand for investor-friendly terms. Such lower demand means that issuers with high-ranking agents are able to negotiate PIPE contracts with fewer terms but receive less pricing compensation for included terms. Thus, the matching and certification are difficult to reconcile with our findings. From an identification standpoint, this is an important conclusion. If matching and certification were to affect the inclusion of investor-friendly terms, then our results would be biased *against* finding the results we document. In other words, our findings would possibly be even stronger if we were able to control for how agents and issuers match with each other.

#### 4.5 MATCHING BASED ON ISSUER EXPERIENCE

We also examine how issuers and placement agents match up based on issuer experience with PIPE offerings. We note that 40% of the PIPE offerings in our sample are completed by first-time issuers.

As presented in Panel B of Table III, we find that the probability that an issuer matches up with a high-ranking agent falls with how many PIPEs the issuer has negotiated before. This finding adds additional evidence against the matching and certification explanations, because companies that repeatedly issue PIPEs have more pronounced agency problems (Floros and Sapp, 2012). Moreover, this finding supports our explanation that the role of expert agents is to help their issuer-clients better understand the payoff consequences of negotiable terms. Repeated issuers have—by definition—negotiated PIPE contracts before, so they have a better understanding of the complex terms than first-time issuer do. Repeated issuers thereby benefit less from matching with a high-ranking agent, consistent with our results.

## 5. Empirical Results

### 5.1 INVESTOR-FRIENDLY CONTRACT TERMS

#### Agent Rank

We first analyze how an agent's rank relates to the IFI. Because the dependent variable in Poisson regressions must be non-negative, we add a base value of 7 to our IFI index (because there are seven terms that are unfavorable to investors).<sup>17</sup> In unreported tests we also run negative binomial regressions and obtain very similar results. Robust standard errors, which account for clustering at the issuer level, are reported in parentheses. Our results are robust to clustering on the agent, the issuer industry, or the offering year.

[Insert Table IV about here.]

Our main variable is *High-ranking Agent*, which takes the value 1 if the issuer is associated with a high-ranking agent and 0 otherwise. In Panel A, we use C-M ranking to identify high-ranking agents. For robustness, we also use the market share to identify high-ranking agents, with the results presented in Panel B. As control variables in all regression models, we include various measures that capture issuers' level of information asymmetry and agency cost, as well as their historical performance. These variables include  $\ln(MV)$ ,  $\ln(\text{Analyst})$ ,  $CAR(-12,-1)$ ,  $Debt/Assets$ ,  $EV/Assets$ ,  $RD/Assets$ ,  $Intangible/Assets$ , *Cash Burn Dummy*, and *Distress Dummy*. The detailed definitions of these variables are provided in Appendix B. In Models (1) and (7), we use the full sample and include a dummy, *Traditional PIPE*, which takes the value 1 if common stocks or fixed price convertibles are offered, and 0 otherwise, to control for PIPE type. One potential concern is that the correlation between *High-ranking Agent* and the IFI does not apply to all types of PIPEs. To rule this out, in Models (2) and (8) we restrict the sample to traditional PIPEs, and in Models (3) and (9), we restrict the sample to common stock PIPEs. In all the above specifications, we also include investor-type fixed effect, industry fixed effect, and year fixed effect.

Our sample period includes the 2008 financial crisis period. To explore whether this period (which exhibits extreme liquidity constraint) affect PIPE contracting, we repeat our

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<sup>17</sup> This is mathematically equivalent to coding issuer-friendly rights as 1 if they are not included and 0 if they are included, and calculate IFI by summing all terms.

analysis in Models (4) to (6) and Models (10) to (12) by including a Crisis Dummy, which is equal to 1 if the PIPE deal was closed in 2008 and 2009, and 0 otherwise.

We find in Table IV that high-ranking agents are significantly and positively associated with the IFI in all specifications. Examining the coefficients on the control variables, we find that the IFI is significantly higher for issuers with lower market capitalization, less analyst coverage, and higher EV/Assets ratios. Also, distressed firms are associated with higher IFI. These findings support the argument that investors request and receive more contractual protections when issuers encounter greater moral hazard, adverse selection, or other financing problems. We also find that structured PIPEs, which are used by more distressed issuers (Brophy, Outmet and Sialm, 2009), also include more investor-friendly terms, further supporting this argument. Moreover, we show that more investor-friendly terms are included in PIPE contracts during the crisis period. This is consistent with the notion that investors demand more protections and have greater negotiation power in a tough environment for financing.

In unreported robustness checks, we repeat the above analysis for PIPEs invested by hedge funds separately and find consistent results.

The positive relation between agent ranking and IFI is also robust to expanding the sample to include 1,807 direct PIPEs offerings where the issuer does not have a placement agent. We define direct PIPEs as a separate omitted category, and show that such offerings have fewer investor-friendly terms than PIPEs with a low-ranking agent. This result suggests that inexperienced agents can also provide some help to their issuer-clients pertaining to contract terms.

A potential concern is that high quality issuers may signal their quality by utilizing high-ranking agents and agreeing to more investor-friendly terms. Our findings above that high quality firms are often associated with higher IFI indicate that this is unlikely the case. To have a clearer look at the relation between firm quality and IFI without the influence of agent, we conduct robustness check using the sample of direct PIPEs. Consistent with the agency story, we find higher quality firms (larger, more analyst coverage, less distressed) are associated with lower IFI.

Another potential concern is that the correlation between *High-ranking Agent* and the IFI is specific to the way we aggregate individual contract terms. To address this concern, we

relax the above discussed assumptions and recalculate IFI in different ways. We construct IFI by omitting any of the 14 contract terms and reexamine the relation between IFI and high-ranking agent. We find consistently positive coefficients on *High-ranking Agent*, all significant at least 5% confidence level. We also calculate a simulated IFI based on randomly assigned weights to the 14 contract terms. Across 10, 000 simulated regressions, we find that the relation between high-ranking agent and IFI is always positive (and significant in the majority of all specifications). This test rules out the possibility that the result is due to the equal-weighting scheme that we employ in our baseline tests.

An additional concern is that in our design of IFI, if warrant is attached, we add 1. One could argue that the nature of warrant is much more complicate as it varies in terms of coverage ratio, term, and exercise price discount, etc. In order to show whether our simplification biases our results, in unreported regressions we examine warrant coverage, which is measured as the ratio of proceeds from exercising warrants over the proceeds from the current offering, term of warrants, and discount of warrant, which is measured as the percentage difference between warrant exercise price and the closing price. We find agent reputation does affect warrant coverage but this result is not significant. We find that more reputable agents are associated with significantly longer warrant term and higher warrant discounts. These results support our inference based on IFI (Table IV) that more reputable agents are associated with more investor friendly contractual protections.

Finally, we explore the possibility that expert agents focus on the more complex deals, whereas inexperienced agents focus on simpler deals with fewer specific contract terms. If this were the case, the higher value of IFI might merely reflect the complexity of the PIPE contract, and not its degree of investor-friendliness. To rule out this possibility, we construct a contract complexity index that adds all contract terms regardless of whether they are investor-friendly or issuer-friendly (i.e., we add issuer right terms and trading restrictions to investor right terms). We then relate this new index to the agent's expertise, but find no significant correlation. Thus, the fact that the terms coded as investor-friendly is critical for our result.<sup>18</sup>

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<sup>18</sup> All the unreported robustness checks are available upon request.

## 5.2 AGENT RANK, INVESTOR-FRIENDLY CONTRACT TERMS, AND PRICING DISCOUNT

### Pricing-Term Tradeoff

We now turn to the pricing effects of investor-friendly terms in PIPE contracts and the role of agents in this process. We analyze a “raw” pricing discount that is defined as the percentage difference between the closing price one day prior to the closing date and the offer price. By using this definition, we do not account for pricing effects of warrants and other contingent cash flow rights. This approach is consistent with the contract-theoretical argument that contingent cash flow rights are used as a contract solution to financing problems rather than simply as a price adjustment. Accordingly, our goal is not to study how expert agents relate to the total pricing of PIPEs (which would account for pricing effects of all state-contingent cash flow rights), but to investigate how expert agents relate to the tradeoff between contract terms and the “raw” pricing dimension of PIPEs. In other words, we would like to know whether issuers with an expert agent are able to receive higher pricing in the form of “raw” discount as compensation for agreeing to lower pricing implied by included state-contingent cash flow rights. Our evidence suggests that this is the case.

Table V presents the results of OLS regressions in which the PIPE pricing discount is the dependent variable. In all regression models we include IFI and the same control variables as in Table IV. In Models other than (1), (4) and (7), we also include *High-Ranking Agent*. In Panel A, we use the C&M ranking to identify high-ranking agents. For robustness, we also use historical PIPE market shares to identify high-ranking agents, with the results presented in Panel B. We start with the full sample of both structured PIPEs and traditional PIPEs. Then we repeat the analysis for traditional PIPEs and common stock PIPEs. The robust standard errors, which account for clustering at the company level, are reported in parentheses.

[Insert Table V about here.]

In Model (1), we find that the IFI is significantly and negatively associated with the pricing discount, which is evidence of a tradeoff between more investor-friendly contract terms and a higher offer price. The coefficient of the IFI is about -0.01, which means that each added investor-friendly term is associated with an approximately 1% reduction in the pricing discount. For a PIPE transaction of median size (\$10 million in our sample), such an

association corresponds to an increase of about \$100,000 in net proceeds, a cash amount that is nontrivial for the small struggling companies that issuer PIPEs. When we restrict the sample to traditional PIPEs (Model (4)) and common stock PIPEs (Model (7)), similarly, we find a negative coefficient. However, they are not statistically significant.

#### Agent Expertise and the Pricing-Term Tradeoff

In Models (2), (5) and (8) of Table V we further include our proxies for agent expertise, and find that this is negatively related to the pricing discount, but insignificant. When we repeat this analysis in Panel B using market share to define agent reputation, similarly we find a negative but insignificant coefficient on agent ranking for the sample of all PIPEs and traditional PIPEs. Interestingly, we find a significant and negative relation between agent expertise and discount for common stock PIPEs. In Models (3), (6) and (9), we include an interaction variable between *High-ranking Agent* and *IFI*. We find a significantly negative coefficient on this interaction variable, regardless of which sample we use. We find similar results in Panel B. The significance of the coefficient on *High-ranking Agent* (as shown in Model (14)) disappears when the interaction term is included. Thus, as compared with issuers advised by low-ranking agents, issuers advised by high-ranking agents receive greater compensation in the form of lower PIPE discounts when they agree to more investor-friendly terms. In untabulated tests, we split the sample into issuers with high-ranking and low-ranking agents. We find that the tradeoff between terms (i.e., *IFI*) and pricing (i.e., discount) is about three to seven times more pronounced for PIPEs involving high-ranking agents than it is for those involving low-ranking agents.

To summarize, our analysis of the pricing discounts demonstrates that issuers who agree to more investor-friendly terms are compensated by a lower pricing discount. This suggests that a contract with many investor-friendly terms may not be bad for the issuer as long as there is sufficient pricing compensation. We show that the pricing compensation is higher for issuers with high-ranked agents, which is consistent with our argument that expert agents help their clients understand, and thereby better negotiate, contracts with investor-friendly terms. Such contract design could be overall beneficial for the issuer, because investor-friendly terms have the potential to mitigate agency and information problems. We

next investigate whether we can find evidence of such benefits, by analyzing long-run stock returns after PIPE offerings.

### 5.3 PIPE ISSUERS' LONG RUN STOCK PERFORMANCE

Although the extant literature has established that PIPE issuers experience significantly negative long-run performance subsequent to PIPE issuance (Brophy, Outmet, and Sialm, 2009; Chaplinsky and Haushalter, 2010), this empirical pattern is yet to be explained. We contribute to this debate by investigating how PIPE issuers' long run performance relates to contract design and agent expertise. These tests are interesting in their own right, but also shed light on whether the inclusion of investor-friendly terms increases the overall surplus or merely transfers wealth between the contractual parties.

We study returns for a horizon up to 3 years. We analyze a relatively long time horizon rather than event window returns, because it is plausible to expect the gains from contract designs to materialize slowly.<sup>19</sup> The sample includes 2,163 PIPEs for which we have sufficient data to construct CARs for a period of up to 36 months. We start with a univariate comparison of long-run stock performance of PIPE issuers using high-ranking agents and those using low-ranking agents. We measure long-run stock performance by calculating equal-weighted market-adjusted cumulative abnormal returns (CARs) at 12, 24, and 36 months following PIPE issuance.<sup>20</sup> We also provide CARs based on the alphas from time-series regressions of PIPE issuers' monthly excess returns on the Fama-French Four-Factor model. These results are presented in Panel A of Table VI. We show that PIPEs associated with high-ranking agents exhibit significantly less negative CARs than their counterparts do.

[Insert Table VI about here.]

In Panel B of Table VI, we exhibit a similar comparison of long-run stock performance on the part of PIPE issuers with high (above median) IFI scores and those with low (below median) IFI scores. We show that a high IFI is associated with less negative long run performance than those with a low IFI. The differences are significant at the 1% confidence level across all time windows.

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<sup>19</sup> We also test for short-run announcement returns but find no significant results. This suggests that the market is not aware of the gains associated with an expert agent and PIPE contracts with higher IFI.

<sup>20</sup> We calculate value-weighted market-adjusted CARs as well and find similar results. As the majority of PIPE issuers are small firms, we view equal-weighted returns as a more appropriate metric.

Our cross-sectional regressions of PIPE issuers' long-run stock performance on agent reputation and the IFI confirm the above findings from the univariate test. The regression results are presented in Table VII. The dependent variables are the equal-weighted market-adjusted CARs at 12, 24, and 36 months (depending on the regression model) following PIPE issuance, respectively. The key independent variables of interest are *High-ranking Agent* and *IFI*. Agent reputation is determined by the C&M ranking in Panel A and based on previous market share in Panel B. In each Panel, we start with the full sample of both structured PIPEs and traditional PIPEs. Then we repeat the analysis for traditional PIPEs and common stock PIPEs. In addition, we control for PIPE type, industry fixed effects, various issuer characteristics, and PIPE transaction cost (discounts). We further include the investor-type fixed effect in all specifications, as previous studies show that investor identity is an important indicator of PIPE issuers' long-run stock performance. For instance, Dai (2007) finds that venture capitalists invested PIPEs perform better than their counterparts. Brophy, Outmet, and Sialm (2009) find that PIPEs associated with hedge funds exhibit particularly poor long-run stock performance.

[Insert Table VII about here.]

We observe a significantly positive correlation between the IFI and PIPE issuers' long-run stock performance across all specifications. The inclusion of an additional investor-friendly term increases CAR (1, 12) by 4.3-5.3%, increases CAR (1, 24) by 5.8-9.5%, and increases CAR (1, 36) by 10.6-16.9%. Thus, the effect of the IFI is both statistically and economically significant. We further show that PIPE issuers associated with high-ranking agents perform significantly better than those with low-ranking agents do when all PIPEs are included in regressions. When we restrict the sample to traditional PIPEs, we find that *High-ranking Agent* is significant for all three event windows when we use the market share based ranking, but significant only for CAR 36 months following issuance when we use the C&M ranking. When the sample is restricted to common stock PIPEs, we do not find agent ranking significantly affect issuers' long run stock performance.

## **6. Conclusion**

This paper presents detailed evidence on the design of financial contracts used in PIPE offerings. We document how PIPE contracts can include many possible combinations of

terms that allocate contingent cash flow rights. These terms are in place to address agency and information problems, which are particularly severe financing frictions for companies that typically issue PIPEs. We relate the inclusion of these terms, and the associated effects on pricing and returns, to the expertise of the issuer's placement agent.

Our findings can be summarized as follows. First, issuers advised by high-ranking agents provide investors with more contractual protections than do those advised by low-ranking agents. Second, high-ranking agents allow issuers to extract more compensation in exchange for investor-friendly contract terms. Third, both agent ranking and the *IFI* are associated with stronger (i.e., less negative) long-run stock performance following PIPE offerings.

Our findings are consistent with an explanation that builds on the idea that it is sometimes difficult to understand the payoff consequences of complex contract terms. We argue that the presence of high-ranking agents in PIPE offerings allows the contracting parties to agree on the consequences of investor-friendly terms. PIPE investors are familiar with complicated contract designs and can correctly understand the consequences of their typically esoteric terms. PIPE issuers, which are often small, distressed companies, suffer from bounded rationality with respect to their ability to decipher and evaluate contract terms. In such a contracting environment, placement agents play an important role by bridging the contract knowledge gap between these two parties' knowledge about contracts. This agent role allows contracts to include more contingent cash flow contingencies, features that are viewed as optimal in many contract-theoretical models. Our findings show that agents' abilities or incentives to fill this function varies with their experience and reputation. High-ranked agents provide higher quality services, because they can more credibly and accurately convey valuable information to their clients.

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## Appendix A – List of Expert Placement Agents

This table lists the 10 reputable PIPE placement agents based on market share.

Agent Name	Nr of PIPEs	Sum of Gross Proceeds (\$M)	C&M Ranking
Goldman, Sachs & Co.	17	23092	9
J.P. Morgan Chase & Co.	37	8175	9
Credit Suisse Securities (USA) LLC	27	5007	9
UBS Investment Bank	34	3801	8
Citigroup Global Markets, Inc.	17	3773	9
Rodman & Renshaw, LLC	183	2912	2
Lehman Brothers, Inc.	48	2670	8
Morgan Stanley	10	2314	9
Banc of America Securities LLC	50	1613	9
Bear, Stearns & Co. Inc.	12	809	9

## Appendix B - Definitions of Key Variables

Variables	Definitions
Investor-Friendly Index (i.e., IFI)	Index that captures the aggregate inclusion of investor-friendly contract terms. IFI is calculated by adding each investor protection term, deducting each investor trading restriction, deducting each issuer right and adding 7 (to make non-negative).
High-ranking Agent (C&M Ranking)	A dummy variable which is equal to 1 if the placement agent belongs to the group of the most reputable agents, based on its Carter & Manaster rankings, and 0 otherwise. The cutoff for high-ranking agents is a C&M ranking of 7. Our findings are robust to other cutoffs.
High-ranking Agent (Market Share)	First, we calculate agent market share by comparing an agent's PIPE volume (in dollars) in the three preceding years to the total volume of intermediated PIPE offerings during the same period. Then we count the number of times the agent was on the top 15 lists over our sample period. The 10 agents that appear on the annual top 15 lists most often are designated as reputable agents.
Offer Size	The amount of gross proceeds (i.e., capital raised in the PIPE offering)
Discount	For common stock PIPEs, the percentage difference between closing price one day before the closing date and the offer price. For PIPEs with fixed-price convertibles, the percentage difference between the closing price one day before the closing date and the conversion price. For PIPEs with floating-rate convertibles (i.e., structured PIPEs), the difference between the closing price one day before the closing date and the specified floor price.
Traditional PIPE	A dummy variable which is equal to 1 if the PIPE offers common stocks and fixed price convertibles to investors, and 0 otherwise.
Structured PIPEs	A dummy variable which is equal to 1 if the PIPE include repricing rights such as floating price convertibles or convertible resets, and 0 otherwise.
Investor Experience	The within-sample number of PIPE transactions that an investor has previously participated.
Nr of PIPEs Issued Before	The within-sample number of PIPE transactions that an issuer has previously completed.
Market Value (\$M)	The market capitalization in millions of the PIPE issuer one day prior to the closing date.
Analyst Coverage	The maximum number of analysts following the PIPE issuer over the 12 months prior to the PIPE.
CAR (-12, -1)	The equal-weighted market adjusted cumulative abnormal returns 12 months prior to the PIPE.

CAR (1,12)	The equal-weighted market adjusted cumulative abnormal returns from 1 month to 12 months after the PIPE.
CAR (1,24)	The equal-weighted market adjusted cumulative abnormal returns from 1 month to 24 months after the PIPE.
CAR (1,36)	The equal-weighted market adjusted cumulative abnormal returns from 1 month to 36 months after 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.
R&D/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.
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.
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.
Cash Burn	This measure is computed as cash flow from operations / cash and cash equivalents. For issuers with positive cash flow, this value is set equal to zero. More negative values indicate less time before running out of cash.
BURN dummy	This dummy is set equal to 1 if cash burn rate is above sample median and to 0 if it is below the median.  This measure is computed according to Altman's original formula: $Z = 1.2T1 + 1.4T2 + 3.3T3 + 0.6T4 + .999T5.$ Where T1 = Working Capital / Total Assets T2 = Retained Earnings / Total Assets T3 = Earnings Before Interest and Taxes / Total Assets T4 = Market Value of Equity / Total Liabilities T5 = Sales/ Total Assets
Distress dummy	This dummy is set equal to 1 if the z-score is below 1.8 and to 0 otherwise.
Crisis dummy	This dummy is set to equal to 1 if the PIPE deal was closed in 2008 and 2009, the financial crisis period, and 0 otherwise.

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## Table I. Summary Statistics

Sample is 2414 intermediated PIPEs (i.e., offerings where the issuer employs a placement agent.) that closed between 1999 and 2012. Data come from Sagient Research, Inc.'s Placementtracker. See Appendix B for variable definitions. In Panel D, variables reflect the financial statement of the nearest fiscal year prior to the offering.

### Panel A: Year of Offering

Year of Offering	N of Offerings	Percentage	Year of Offering	N of Offerings	Percentage
1999	120	(5%)	2006	162	(7%)
2000	210	(9%)	2007	155	(6%)
2001	190	(8%)	2008	126	(5%)
2002	159	(7%)	2009	196	(8%)
2003	253	(10%)	2010	203	(8%)
2004	219	(9%)	2011	123	(5%)
2005	170	(7%)	2012	128	(5%)

### Panel B: Industry Group of Issuer

Pharmaceuticals	Biotechnology	Healthcare Products	Internet	Telecommunications	Software	Others
359 (15%)	323 (13%)	207 (9%)	167 (7%)	163 (7%)	139 (6%)	1056 (44%)

### Panel C: Characteristics of Offering

	Mean	Median	25%	75%	Stdev
Offer Size (\$M)	51.3	11.1	5.0	26.1	320.0
Discount	9.5%	8.6%	-0.3%	17.5%	16.6%
Investor-Friendly Index (i.e., IFI)	8.6	9.0	7.0	10.0	1.7
Investor Experience	6.6	1.0	0.0	7.0	15.7
Traditional PIPE	90.3%				
Common Stock PIPE	62.3%				
Structured PIPE	9.7%				
Hedge Funds Investor	53.0%				
High-ranking Agent (C&M Ranking)	19.7%				
High-ranking Agent (Market Share)	14.8%				

### Panel D: Characteristics of Issuers

	Mean	Median	25%	75%	Stdev.
Market Value (\$M)	271.0	90.9	42.8	198.0	905.5
Analyst Coverage	2.2	1.0	0.0	3.0	3.6
CAR (-12,-1)	19.7%	2.4%	-58.5%	82.9%	141.4%

Debt/Assets	14.6%	3.5%	0.0%	19.5%	26.3%
EV/Assets	4.1	2.0	0.9	4.4	8.6
R&D/Assets	29.2%	12.0%	0.0%	38.0%	54.1%
Intangible/Assets	11.6%	1.7%	0.0%	17.6%	17.8%
Cash Burn	-6.58	-0.61	-1.66	0	178.5
Z-Score	-0.50	0.81	-4.71	4.24	28.68

## Table II. Overview of PIPE Contract Terms

Sample is 2414 intermediated PIPEs. See Table I for sample overview. Panel A lists contract terms that give the investor protections, Panel B lists terms that place limits on investor trading, and Panel C lists terms that give the issuer rights.

### *Panel A: Investor Protections (Favorable to Investor, Added to Investor-Friendly Index)*

ID	Term	Definition	Frequency
1	Interest Rate or Dividend	Issuers pay periodic interest or dividends to investors at the specified rate. They can be paid with cash, shares, or the same security as issued to investors.	26.4%
2	Warrants	Investors are granted a certain number of warrants with specified exercise price and expiration dates.	54.5%
3	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.	64.7%
4	Anti-Dilution	Anti-dilution provision protects 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	42.6%
5	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.	20.1%
6	Investor Call Option	Investors have the right to purchase additional shares with specified terms prior to the expiration date of an option.	5.3%
7	Redemption Right	Redemption right give 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 a certain percentage of face value plus accrued and unpaid interest.	12.2%

### *Panel B: Trading Restrictions (Unfavorable to Investor, Deducted from Investor-Friendly Index)*

8	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.	8.0%
9	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.	2.7%

10	Public offering	If a company is planning a public offering shortly following PIPE issuance, the company will ask investors not to affect any sales to the public of shares of 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.	0.1%
11	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.	2.9%

*Panel C: Issuer Rights (Unfavorable to Investor, Deducted from Investor-Friendly Index)*

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12	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, for instance, 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.	13.5%
13	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.	2.9%
14	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.	11.6%

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**Table III. Matching Between PIPE Issuers and Placement Agents**

Sample is 2414 intermediated PIPEs. See Table I for sample overview. Panel A lists sample means for key company characteristics for issuers with high-ranking agents and low-ranking agents, respectively. B tabulates the number of PIPEs issued before for high-ranking agents and low-ranking agents, respectively. Agent reputation is based the C&M ranking. Significance (from t-test) is marked with \* at 10%, \*\* at 5%, and \*\*\* at 1%.

*Panel A: Company Characteristics (Mean) for Issuers with High-ranking and Low-ranking Agents*

	High-ranking Agents	Low-ranking Agents	Difference	
Market Value (\$M)	466.2	223.2	243.0	***
Analyst Coverage	4.0	1.7	2.3	***
CAR (-12,-1)	1.6%	24.1%	-22.5%	***
Debt/Assets	16.8%	14.1%	2.7%	**
EV/Assets	2.3	4.6	-2.3	***
R&D/Assets	22.1%	31.0%	-8.9%	***
Intangible/Assets	8.7%	12.3%	-3.6%	***
Cash Burn	-1.28	-7.88	6.60	
Z-score	-1.84	-1.15	-0.69	
Nr of Obs	475	1939		

*Panel B: Nr of PIPES Issued Before By Issuer with High-ranking and Low-ranking Agents*

Nr of PIPES Issued Before	High-Ranking Agents	Low-Ranking Agents
0	232 (49%)	686 (35%)
1	84 (18%)	346 (18%)
2	46 (10%)	241 (12%)
3	39 (8%)	181 (9%)
4	19 (4%)	111 (6%)
5	15 (3%)	91 (5%)
>5	40 (8%)	283 (15%)

**Table IV. Relation between Investor-Friendly Index and High-Ranking Agents**

Sample is 2414 intermediated PIPEs. See Table I for sample overview. Poisson regressions. The dependent variable is Investor-Friendly Index, which is the sum of investor protection provisions (+), trading restriction provisions (-), and issuer right provisions (-), plus 7 (to make the dependent variable non-negative). Agent ranking is based on Carter and Manaster ranking in panel A, and based on market share in panel B. The definitions of other variables are provided in Appendix B. Standard errors are clustered by company and reported in the parentheses. Significance is marked with \* at 10%, \*\* at 5%, and \*\*\* at 1%.

*Panel A: Carter and Manaster Ranking*

Specification	All PIPEs	Traditional PIPEs	Common Stock PIPEs	All PIPEs	Traditional PIPEs	Common Stock PIPEs
	(1)	(2)	(3)	(4)	(5)	(6)
High-ranking Agent	0.0273*** (0.0099)	0.0237** (0.0099)	0.0172 (0.0111)	0.0392*** (0.0113)	0.0375*** (0.0112)	0.0259** (0.0128)
Crisis Dummy				0.0758*** (0.0141)	0.0736*** (0.0140)	0.0607*** (0.0162)
Ln(Investor Experience)	0.0098*** (0.0026)	0.0077*** (0.0025)	0.0060** (0.0028)	0.0233*** (0.0032)	0.0230*** (0.0031)	0.0246*** (0.0037)
Ln(MV)	-0.0199*** (0.0040)	-0.0189*** (0.0040)	-0.0209*** (0.0049)	-0.0269*** (0.0047)	-0.0240*** (0.0047)	-0.0239*** (0.0061)
Ln(Analyst)	-0.0115** (0.0055)	-0.0058 (0.0055)	-0.0064 (0.0062)	-0.0132** (0.0062)	-0.0092 (0.0063)	-0.0128* (0.0073)
CAR (-12, -1)	-0.0034 (0.0029)	-0.0011 (0.0033)	-0.0055 (0.0039)	-0.0075** (0.0035)	-0.0019 (0.0040)	-0.0062 (0.0046)
Debt/Assets	0.0017 (0.0155)	-0.0065 (0.0127)	-0.0169 (0.0128)	-0.0027 (0.0164)	-0.0059 (0.0144)	-0.0260 (0.0173)
EV/Assets	0.0011*** (0.0003)	0.0012** (0.0005)	0.0012** (0.0006)	0.0015* (0.0008)	0.0005 (0.0008)	0.0008 (0.0008)
RD/Assets	-0.0003 (0.0066)	0.0007 (0.0070)	-0.0046 (0.0101)	-0.0008 (0.0100)	0.0041 (0.0111)	0.0000 (0.0140)
Intangible/Assets	0.0381 (0.0244)	0.0291 (0.0258)	-0.0065 (0.0305)	0.1005*** (0.0290)	0.0895*** (0.0304)	0.0592* (0.0353)
Burn Dummy	0.0001 (0.0077)	0.0037 (0.0079)	-0.0011 (0.0091)	-0.0068 (0.0093)	-0.0023 (0.0096)	-0.0114 (0.0108)
Distress Dummy	0.0240*** (0.0087)	0.0221** (0.0090)	0.0257** (0.0107)	0.0346*** (0.0106)	0.0327*** (0.0107)	0.0390*** (0.0122)
Traditional PIPE	-0.0936*** (0.0141)			-0.0349** (0.0172)		
Common Stock PIPE		-0.0805*** (0.0090)			-0.0639*** (0.0107)	
Intercept	2.1717*** (0.0305)	2.1634*** (0.0292)	2.1092*** (0.0350)	2.1340*** (0.0361)	2.1356*** (0.0339)	2.0778*** (0.0422)
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	No	No	No
Observations	2,414	2,180	1,505	2,414	2,180	1,505
Pseudo R-squared (%)	6.73	6.90	7.22	1.51	1.63	1.68

*Panel B: Market Share Based Ranking*

Specification	All PIPEs	Traditional PIPEs	Common Stock PIPEs	All PIPEs	Traditional PIPEs	Common Stock PIPEs
	(7)	(8)	(9)	(10)	(11)	(12)
High-ranking Agent	0.0463*** (0.0099)	0.0440*** (0.0099)	0.0394*** (0.0105)	0.0512*** (0.0126)	0.0447*** (0.0130)	0.0353** (0.0149)
Crisis Dummy				0.0740*** (0.0141)	0.0692*** (0.0146)	0.0697*** (0.0158)
Ln(Investor Experience)	0.0088*** (0.0026)	0.0067*** (0.0025)	0.0055** (0.0028)	0.0231*** (0.0032)	0.0229*** (0.0031)	0.0247*** (0.0037)
Ln(MV)	-0.0220*** (0.0040)	-0.0211*** (0.0040)	-0.0223*** (0.0049)	-0.0255*** (0.0048)	-0.0224*** (0.0049)	-0.0228*** (0.0061)
Ln(Analyst)	-0.0093* (0.0055)	-0.0039 (0.0055)	-0.0056 (0.0062)	-0.0130** (0.0062)	-0.0098 (0.0062)	-0.0136* (0.0073)
CAR (-12, -1)	-0.0035 (0.0030)	-0.0010 (0.0034)	-0.0055 (0.0039)	-0.0080** (0.0035)	-0.0020 (0.0040)	-0.0061 (0.0046)
Debt/Assets	-0.0071 (0.0138)	-0.0150 (0.0119)	-0.0194 (0.0133)	-0.0095 (0.0154)	-0.0112 (0.0143)	-0.0279 (0.0178)
EV/Assets	0.0012*** (0.0004)	0.0012** (0.0005)	0.0012** (0.0006)	0.0013 (0.0008)	0.0001 (0.0008)	0.0007 (0.0008)
RD/Assets	-0.0047 (0.0059)	-0.0033 (0.0063)	-0.0083 (0.0088)	-0.0057 (0.0087)	-0.0001 (0.0100)	-0.0042 (0.0126)
Intangible/Assets	0.0328 (0.0242)	0.0242 (0.0257)	-0.0103 (0.0303)	0.0944*** (0.0292)	0.0839*** (0.0306)	0.0576 (0.0353)
Burn Dummy	0.0029 (0.0076)	0.0067 (0.0079)	0.0002 (0.0090)	-0.0013 (0.0092)	0.0033 (0.0095)	-0.0073 (0.0106)
Distress Dummy	0.0256*** (0.0087)	0.0233*** (0.0090)	0.0267** (0.0106)	0.0386*** (0.0106)	0.0363*** (0.0107)	0.0430*** (0.0121)
Traditional PIPE	-0.0942*** (0.0142)			-0.0351** (0.0169)		
Common Stock PIPE		-0.0789*** (0.0090)			-0.0627*** (0.0108)	
Intercept	2.1910*** (0.0301)	2.1810*** (0.0291)	2.1206*** (0.0346)	2.1414*** (0.0360)	2.1414*** (0.0339)	2.0777*** (0.0421)
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	No	No	No
Observations	2,414	2,180	1,505	2,414	2,180	1,505
Pseudo R-squared (%)	6.76	6.93	7.25	1.49	1.59	1.68

**Table V. Relation between Discounts (PIPE Pricing), IFI and High-Ranking Agents**

Sample is 2414 intermediated PIPEs. See Table I for sample overview. OLS regressions. The dependent variable is the discount, which for common stock PIPEs is the percentage difference between closing price one day before the closing date and the offer price, for PIPEs with fixed-price convertibles the percentage difference between the closing price one day before the closing date and the conversion price, and for PIPEs with floating-rate convertibles (i.e., structured PIPEs) the difference between the closing price one day before the closing date and the specified floor price. Investor-Friendly Index (IFI) is the sum of investor protection provisions (+), trading restriction provisions (-), and issuer right provisions (-), plus 7 (to make the dependent variable non-negative). Agent ranking is based on Carter and Manaster ranking in panel A, and based on market share in panel B. The definitions of other variables are provided in Appendix B. All specifications also include an intercept. Standard errors are clustered by company and reported in the parentheses. Significance is marked with \* at 10%, \*\* at 5%, and \*\*\* at 1%.

*Panel A: Carter and Manaster Ranking*

Specifications	All PIPEs			Traditional PIPEs			Common Stock PIPEs		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
IFI	-0.0101*** (0.0034)	-0.0100*** (0.0034)	-0.0076** (0.0034)	-0.0050 (0.0033)	-0.0049 (0.0033)	-0.0029 (0.0033)	-0.0018 (0.0041)	-0.0018 (0.0041)	0.0001 (0.0041)
High-ranking Agent		-0.0156 (0.0113)	0.1192* (0.0634)		-0.0090 (0.0108)	0.1075** (0.0523)		0.0045 (0.0113)	0.1217** (0.0567)
IFI*High-ranking Agent			-0.0157** (0.0072)			-0.0136** (0.0060)			-0.0141** (0.0069)
Ln(Investor Experience)	-0.0077 (0.0053)	-0.0082 (0.0053)	-0.0081 (0.0052)	-0.0087 (0.0055)	-0.0089 (0.0055)	-0.0089 (0.0054)	-0.0057 (0.0044)	-0.0055 (0.0045)	-0.0056 (0.0045)
Ln(MV)	-0.0066 (0.0044)	-0.0058 (0.0043)	-0.0058 (0.0043)	-0.0050 (0.0042)	-0.0046 (0.0042)	-0.0045 (0.0041)	-0.0017 (0.0043)	-0.0020 (0.0043)	-0.0019 (0.0042)
Ln(Analyst)	-0.0138** (0.0054)	-0.0132** (0.0055)	-0.0139** (0.0054)	-0.0186*** (0.0054)	-0.0183*** (0.0055)	-0.0188*** (0.0055)	-0.0108** (0.0051)	-0.0109** (0.0052)	-0.0114** (0.0051)
CAR (-12, -1)	0.0072** (0.0031)	0.0071** (0.0031)	0.0070** (0.0031)	0.0048* (0.0029)	0.0048 (0.0029)	0.0046 (0.0029)	0.0025 (0.0031)	0.0025 (0.0031)	0.0024 (0.0031)
Debt/Assets	-0.0135 (0.0136)	-0.0141 (0.0137)	-0.0166 (0.0140)	-0.0119 (0.0117)	-0.0122 (0.0118)	-0.0148 (0.0118)	-0.0076 (0.0130)	-0.0077 (0.0129)	-0.0090 (0.0130)
EV/Assets	0.0009** (0.0004)	0.0009** (0.0004)	0.0008** (0.0004)	0.0009 (0.0005)	0.0008 (0.0005)	0.0008 (0.0005)	0.0012** (0.0006)	0.0012** (0.0006)	0.0012** (0.0006)
RD/Assets	0.0152 (0.0118)	0.0147 (0.0120)	0.0140 (0.0120)	0.0149 (0.0121)	0.0146 (0.0122)	0.0140 (0.0123)	0.0013 (0.0084)	0.0015 (0.0084)	0.0007 (0.0083)
Intangible/Assets	-0.0214	-0.0241	-0.0253	0.0003	-0.0014	-0.0030	-0.0029	-0.0022	-0.0030

	(0.0222)	(0.0223)	(0.0222)	(0.0227)	(0.0228)	(0.0227)	(0.0244)	(0.0245)	(0.0244)
Burn Dummy	0.0261***	0.0270***	0.0265***	0.0325***	0.0330***	0.0327***	0.0302***	0.0300***	0.0297***
	(0.0080)	(0.0080)	(0.0080)	(0.0077)	(0.0077)	(0.0077)	(0.0075)	(0.0076)	(0.0076)
Distress Dummy	-0.0123	-0.0121	-0.0110	-0.0128	-0.0127	-0.0117	-0.0075	-0.0076	-0.0068
	(0.0096)	(0.0096)	(0.0095)	(0.0099)	(0.0099)	(0.0099)	(0.0097)	(0.0097)	(0.0096)
Traditional PIPE	-0.0901***	-0.0905***	-0.0879***						
	(0.0214)	(0.0214)	(0.0213)						
Common Stock PIPE				0.0610***	0.0609***	0.0599***			
				(0.0096)	(0.0096)	(0.0096)			
Intercept	0.3504***	0.3553***	0.3325***	0.1630**	0.1659***	0.1497**	0.1231**	0.1217**	0.1070*
	(0.0702)	(0.0700)	(0.0688)	(0.0634)	(0.0632)	(0.0617)	(0.0592)	(0.0596)	(0.0585)
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,414	2,414	2,414	2,180	2,180	2,180	1,505	1,505	1,505
Adjusted R-squared (%)	10.18	10.25	10.51	12.56	12.57	12.78	13.60	13.55	13.80

*Panel B: Market Share Based Ranking*

Specifications	All PIPEs		Traditional PIPEs		Common Stock PIPEs	
	(10)	(11)	(12)	(13)	(14)	(15)
IFI	-0.0096***	-0.0090***	-0.0045	-0.0037	-0.0010	-0.0000
	(0.0035)	(0.0035)	(0.0033)	(0.0034)	(0.0041)	(0.0041)
High-ranking Agent	-0.0172	0.0065	-0.0146	0.0123	-0.0305***	-0.0073
	(0.0109)	(0.0165)	(0.0110)	(0.0161)	(0.0098)	(0.0151)
IFI*High-ranking Agent		-0.0029*		-0.0033**		-0.0030*
		(0.0015)		(0.0015)		(0.0016)
Ln(Investor Experience)	-0.0076	-0.0074	-0.0085	-0.0083	-0.0057	-0.0055
	(0.0053)	(0.0053)	(0.0055)	(0.0055)	(0.0044)	(0.0044)
Ln(MV)	-0.0054	-0.0053	-0.0039	-0.0038	0.0001	0.0001
	(0.0045)	(0.0045)	(0.0044)	(0.0044)	(0.0044)	(0.0044)
Ln(Analyst)	-0.0141**	-0.0141**	-0.0189***	-0.0190***	-0.0109**	-0.0108**
	(0.0055)	(0.0055)	(0.0055)	(0.0055)	(0.0052)	(0.0052)

CAR (-12, -1)	0.0072** (0.0031)	0.0070** (0.0031)	0.0047 (0.0029)	0.0045 (0.0029)	0.0025 (0.0031)	0.0022 (0.0031)
Debt/Assets	-0.0108 (0.0137)	-0.0111 (0.0136)	-0.0096 (0.0119)	-0.0098 (0.0119)	-0.0054 (0.0126)	-0.0064 (0.0125)
EV/Assets	0.0009** (0.0004)	0.0008** (0.0004)	0.0008 (0.0005)	0.0008 (0.0006)	0.0012** (0.0006)	0.0012** (0.0006)
RD/Assets	0.0163 (0.0117)	0.0164 (0.0116)	0.0158 (0.0120)	0.0160 (0.0120)	0.0036 (0.0085)	0.0038 (0.0084)
Intangible/Assets	-0.0212 (0.0221)	-0.0205 (0.0221)	0.0004 (0.0227)	0.0014 (0.0228)	-0.0021 (0.0244)	-0.0015 (0.0244)
Burn Dummy	0.0256*** (0.0080)	0.0252*** (0.0079)	0.0319*** (0.0076)	0.0314*** (0.0076)	0.0295*** (0.0075)	0.0291*** (0.0074)
Distress Dummy	-0.0126 (0.0096)	-0.0130 (0.0096)	-0.0130 (0.0099)	-0.0136 (0.0098)	-0.0076 (0.0096)	-0.0079 (0.0095)
Traditional PIPE	-0.0894*** (0.0215)	-0.0877*** (0.0215)				
Common Stock PIPE			0.0606*** (0.0096)	0.0617*** (0.0097)		
Intercept	0.3402*** (0.0710)	0.3334*** (0.0712)	0.1551** (0.0640)	0.1476** (0.0643)	0.1100* (0.0592)	0.1037* (0.0592)
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,414	2,414	2,180	2,180	1,505	1,505
Adjusted R-squared (%)	10.26	10.36	12.62	12.81	14.07	14.27

**Table VI. Relation between Long-Run Stock Returns, High-Ranking Agents and IFI**

Sample is 2163 intermediated PIPEs (PIPEs in 2011 and 2012 are excluded for the long run performance analysis). See Table I for sample overview. This table reports PIPE issuers' long-run stock returns as market-adjusted equal-weighted cumulative abnormal returns (CARs) and Fama-French 4-factor model adjusted CARs over 12 months, 24 months, and 36 months following PIPE issuance, respectively. In Panel A, issuers' returns are shown for categories with high-ranking agents and with low-ranking agents, respectively. In Panel B, issuers' returns are shown for groups with above median IFI and below median IFI, respectively. Significance (from t-test) is marked with \* at 10%, \*\* at 5%, and \*\*\* at 1%.

*Panel A: CARs by Agent Reputation*

	Equal-Weighted Market Adjusted			Fama-French 4-Factor		
	CAR (1,12)	CAR (1,24)	CAR(1,36)	CAR (1,12)	CAR (1,24)	CAR(1,36)
High-ranking Agents	-5.84%	-1.79%	2.43%	1.56%	2.67%	9.50%
Low-ranking Agents	-17.20%	-33.29%	-46.75%	-13.50%	-29.41%	-41.12%
Difference	11.36%	31.50%	49.18%	15.06%	32.08%	50.62%
P-value on differences	0.062*	0.000***	0.000***	0.000***	0.000***	0.000***

*Panel B: CARs by Investor-friendly Index*

	Equal-Weighted Market Adjusted			Fama-French 4-Factor		
	CAR (1,12)	CAR (1,24)	CAR(1,36)	CAR (1,12)	CAR (1,24)	CAR(1,36)
IFI above Median	-3.42%	-9.98%	-13.06%	-0.73%	-9.45%	-16.41%
IFI below Median	-25.81%	-43.69%	-60.55%	-19.94%	-36.59%	-46.32%
Difference	22.39%	33.71%	47.49%	19.21%	27.14%	29.91%
P-value on differences	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***

**Table VII. Relation between Long-Run Stock Returns, High-Ranking Agents and IFI**

Sample is 2163 intermediated PIPEs (PIPEs in 2011 and 2012 are excluded for the long run performance analysis). See Table I for sample overview. OLS regressions. The dependent variable is the PIPE issuers' long-run stock returns as market-adjusted equal-weighted cumulative abnormal returns (CARs) over 12 months, 24 months, and 36 months following PIPE issuance, respectively. Investor-Friendly Index (IFI) is the sum of investor protection provisions (+), trading restriction provisions (-), and issuer right provisions (-), plus 7 (to make the dependent variable non-negative). Agent ranking is based on Carter and Manaster ranking in panel A, and based on market share in panel B. The definitions of other variables are provided in Appendix B. All specifications also include an intercept. Standard errors are clustered by company and reported in the parentheses. Significance is marked with \* at 10%, \*\* at 5%, and \*\*\* at 1%.

*Panel A: Carter and Manaster Ranking*

Dependent Variable	All PIPEs			Traditional PIPEs			Common Stock PIPEs		
	CAR (1, 12)	CAR (1, 24)	CAR (1, 36)	CAR (1, 12)	CAR (1, 24)	CAR (1, 36)	CAR (1, 12)	CAR (1, 24)	CAR (1, 36)
Specifications	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
IFI	0.0511*** (0.0194)	0.0768*** (0.0269)	0.1205*** (0.0362)	0.0463** (0.0209)	0.0606** (0.0284)	0.1071*** (0.0380)	0.0527** (0.0259)	0.0952*** (0.0343)	0.1692*** (0.0486)
High-ranking Agent	0.1166* (0.0680)	0.2505** (0.1050)	0.3989*** (0.1399)	0.0868 (0.0705)	0.1769 (0.1076)	0.2993** (0.1439)	0.0432 (0.0684)	0.1330 (0.1157)	0.2931* (0.1521)
Discounts	-0.0966 (0.1915)	-0.1969 (0.2569)	-0.1797 (0.3164)	-0.0814 (0.2108)	0.0586 (0.2716)	0.0610 (0.3398)	-0.0457 (0.2797)	0.0514 (0.3451)	0.0400 (0.4455)
Ln(MV)	-0.1523*** (0.0354)	-0.2291*** (0.0471)	-0.3051*** (0.0600)	-0.1520*** (0.0396)	-0.2240*** (0.0520)	-0.3027*** (0.0664)	-0.1308*** (0.0377)	-0.2488*** (0.0557)	-0.3252*** (0.0747)
Ln(Analyst)	0.0928** (0.0375)	0.1713*** (0.0543)	0.2698*** (0.0720)	0.0994** (0.0399)	0.1674*** (0.0571)	0.2567*** (0.0750)	0.1415*** (0.0468)	0.2201*** (0.0654)	0.2730*** (0.0895)
CAR (-12, -1)	0.1097*** (0.0288)	0.1850*** (0.0365)	0.2668*** (0.0484)	0.1105*** (0.0332)	0.2000*** (0.0426)	0.3095*** (0.0562)	0.1284*** (0.0367)	0.2331*** (0.0538)	0.3657*** (0.0737)
Debt/Assets	0.5658 (0.3593)	0.7908** (0.3769)	0.8541** (0.3800)	0.5564 (0.3724)	0.7611* (0.3908)	0.8211** (0.3908)	0.1012 (0.1185)	0.2986* (0.1729)	0.4006* (0.2220)
EV/Assets	-0.0027 (0.0048)	-0.0092 (0.0088)	-0.0122 (0.0128)	-0.0029 (0.0078)	-0.0156 (0.0132)	-0.0192 (0.0192)	-0.0001 (0.0087)	-0.0081 (0.0139)	-0.0090 (0.0198)
RD/Assets	0.2529** (0.1201)	0.3184** (0.1565)	0.3724** (0.1735)	0.2869** (0.1228)	0.3554** (0.1607)	0.3729** (0.1767)	0.0876 (0.0853)	0.1461 (0.1565)	0.1180 (0.1869)
Intangible/Assets	0.1883 (0.2514)	0.1487 (0.3105)	0.1520 (0.3876)	0.2364 (0.2697)	0.1875 (0.3327)	0.1848 (0.4083)	0.0273 (0.2683)	0.0581 (0.3494)	0.2023 (0.4731)

Burn Dummy	-0.0488 (0.0660)	0.0076 (0.0865)	0.0170 (0.1068)	-0.0670 (0.0738)	0.0034 (0.0942)	-0.0008 (0.1145)	-0.0389 (0.0681)	0.0358 (0.0969)	0.0267 (0.1287)
Distress Dummy	-0.0243 (0.0663)	0.0806 (0.1000)	0.1675 (0.1341)	-0.0433 (0.0675)	0.0773 (0.1013)	0.1761 (0.1333)	-0.0269 (0.0749)	0.0831 (0.1182)	0.1880 (0.1573)
Traditional PIPE	0.1992* (0.1031)	0.2477 (0.1550)	0.2905 (0.1919)						
Common Stock PIPE				-0.0316 (0.0669)	-0.0966 (0.0869)	-0.1067 (0.1087)			
Intercept	-0.3048 (0.2605)	-0.4545 (0.3665)	-0.8001* (0.4576)	-0.0016 (0.2530)	0.0518 (0.3476)	-0.2206 (0.4312)	-0.0747 (0.2697)	-0.1320 (0.4008)	-0.6658 (0.5237)
Investor Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,163	2,163	2,163	1,937	1,937	1,937	1,333	1,333	1,333
Adjusted R-squared (%)	9.88	11.80	12.60	9.83	12.03	13.29	7.69	11.26	13.04

*Panel B: Market Share Based Ranking*

Dependent Variable	All PIPEs			Traditional PIPEs			Common Stock PIPEs		
	CAR (1, 12)	CAR (1, 24)	CAR (1, 36)	CAR (1, 12)	CAR (1, 24)	CAR (1, 36)	CAR (1, 12)	CAR (1, 24)	CAR (1, 36)
Specifications	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
IFI	0.0475** (0.0192)	0.0749*** (0.0269)	0.1206*** (0.0364)	0.0425** (0.0207)	0.0577** (0.0283)	0.1060*** (0.0379)	0.0514** (0.0257)	0.0945*** (0.0344)	0.1694*** (0.0487)
High-ranking Agent	0.2341** (0.0966)	0.2562** (0.1219)	0.2723* (0.1562)	0.2313** (0.0985)	0.2639** (0.1238)	0.2756* (0.1571)	0.1230 (0.0872)	0.1463 (0.1354)	0.2102 (0.1853)
Discounts	-0.0864 (0.1901)	-0.1982 (0.2589)	-0.1945 (0.3211)	-0.0626 (0.2101)	0.0743 (0.2732)	0.0687 (0.3442)	-0.0170 (0.2808)	0.0807 (0.3457)	0.0762 (0.4472)
Ln(MV)	-0.1653*** (0.0391)	-0.2379*** (0.0503)	-0.3086*** (0.0634)	-0.1666*** (0.0435)	-0.2377*** (0.0555)	-0.3127*** (0.0701)	-0.1370*** (0.0388)	-0.2527*** (0.0578)	-0.3263*** (0.0775)
Ln(Analyst)	0.1040*** (0.0371)	0.1925*** (0.0544)	0.3019*** (0.0722)	0.1093*** (0.0396)	0.1842*** (0.0574)	0.2823*** (0.0753)	0.1454*** (0.0468)	0.2295*** (0.0660)	0.2925*** (0.0893)
CAR (-12, -1)	0.1104*** (0.0284)	0.1852*** (0.0364)	0.2664*** (0.0487)	0.1121*** (0.0328)	0.2020*** (0.0424)	0.3117*** (0.0562)	0.1289*** (0.0366)	0.2340*** (0.0537)	0.3672*** (0.0736)

Debt/Assets	0.5240 (0.3334)	0.7448** (0.3524)	0.8050** (0.3580)	0.5152 (0.3469)	0.7140* (0.3658)	0.7720** (0.3681)	0.0930 (0.1169)	0.2908* (0.1716)	0.3919* (0.2206)
EV/Assets	-0.0023 (0.0047)	-0.0092 (0.0089)	-0.0127 (0.0130)	-0.0025 (0.0078)	-0.0155 (0.0132)	-0.0198 (0.0193)	-0.0001 (0.0086)	-0.0084 (0.0139)	-0.0099 (0.0199)
RD/Assets	0.2457** (0.1162)	0.3112** (0.1536)	0.3654** (0.1730)	0.2792** (0.1188)	0.3468** (0.1576)	0.3641** (0.1753)	0.0901 (0.0858)	0.1504 (0.1577)	0.1260 (0.1899)
Intangible/Assets	0.1773 (0.2456)	0.1198 (0.3059)	0.1029 (0.3841)	0.2315 (0.2638)	0.1707 (0.3268)	0.1509 (0.4024)	0.0303 (0.2668)	0.0537 (0.3478)	0.1860 (0.4707)
Burn Dummy	-0.0362 (0.0637)	0.0292 (0.0855)	0.0482 (0.1065)	-0.0554 (0.0711)	0.0218 (0.0925)	0.0260 (0.1135)	-0.0374 (0.0677)	0.0407 (0.0966)	0.0377 (0.1283)
Distress Dummy	-0.0172 (0.0667)	0.0931 (0.1008)	0.1859 (0.1354)	-0.0375 (0.0677)	0.0869 (0.1019)	0.1906 (0.1343)	-0.0245 (0.0748)	0.0913 (0.1181)	0.2065 (0.1584)
Traditional PIPE	0.1903* (0.1025)	0.2384 (0.1553)	0.2813 (0.1927)						
Common Stock PIPE				-0.0270 (0.0646)	-0.0927 (0.0858)	-0.1047 (0.1087)			
Intercept	-0.2038 (0.2601)	-0.3455 (0.3706)	-0.6859 (0.4667)	0.0861 (0.2569)	0.1543 (0.3527)	-0.1099 (0.4392)	-0.0398 (0.2724)	-0.0921 (0.4104)	-0.6105 (0.5360)
Investor Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,163	2,163	2,163	1,937	1,937	1,937	1,333	1,333	1,333
Adjusted R-squared (%)	10.26	11.78	12.31	10.31	12.21	13.22	7.83	11.26	12.88