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

by

Ola Bengtsson* and Na Dai**

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I. Introduction

Private Investments in Public Equity (PIPEs) have emerged in the last decade as an important source of financing, particular for badly performing or weak companies (Brophy, Outmet and Sialm, 2009). From 1999–2007, there were more than 12,000 U.S. PIPE offerings which, combined, raised about $250 billion.[1] A key feature of these offerings is the use of complicated contract terms which allocate contingent cash flow rights between investors and issuers (Hillion and Vermaelen, 2004; Chaplinsky and Haushalter, 2010). For example, investors may have the right to reprice or redeem their existing shares, receive dividends, or acquire new shares. Some commentators view the prevalence of PIPE contract terms as a strategy by which sophisticated investors exploit the urgent financing needs of struggling companies.[2] 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, more favorable, view sees such a contract design as a value-enhancing solution to the severe financing problems (moral hazard, adverse selection, etc.) that particularly challenge the type of companies issuing PIPEs.

In this paper, we undertake the first comprehensive investigation of 14 key contract terms in PIPE offerings.[3] We document the frequency of each such contingent cash flow right, describe how it protects the investor at the expense of the issuer, and discuss the rationale for this allocation. Our main contributions are to show that the inclusion of these terms in PIPE contracts relates to the ranking of an issuer's placement agent, and that there are associated effects on pricing and post-issue stock returns.

Our main result is that issuers with high-ranked agents agree to *more* investor-friendly terms. Importantly, this finding is difficult to reconcile with matching or certification explanations, according to which expert agents select—or are selected by—certain types of issuer. Our analysis demonstrates that high-ranked agents match with larger and higher-quality issuers (Dai, Jo and Schatzberg, 2010), perhaps because such issuers wish to certify to PIPE investors that they have less pronounced investment risks. These favorable issuer characteristics are associated 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. An explanation based on agent certification does not work for the same reason – if expert agents were to certify their clients to investors, then they should be

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[1] PIPE statistics are reported by Sagient Research (www.sagientresearch.com/pt).

[2] See for example "A Troubling Finance Tool for Companies in Trouble," *New York Times* (March 15th, 2006).

[3] In our definition, a contract term is anything that gives the PIPE investor a cash flow right (or obligation, which we code inversely) that differs from those of the company's common shareholders.

associated with fewer investor-friendly terms. This suggests a connection between agent expertise and contract terms based on a different theoretical argument.

We present such an argument. Our motivation is that the complexity of the typical PIPE contract can make it hard for a boundedly rational contracting party to compute the precise payoff consequences of a proposed set of terms (Tirole, 2009). In practice, there is often substantial information imbalance between PIPE contracting parties in this regard. PIPE investors—hedge funds, private equity funds, and venture capital funds—are well versed in financial contracting, so they can compute these consequences 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 each term. Because of the computational difficulties that surround complicated PIPE contracts, issuers can themselves easily form biased assessments of every term under negotiation. In particular, this may involve either underestimating or overestimating how much expected surplus would be transferred to investors. These biases affect issuers' willingness to include such terms in PIPE contracts, or, more specifically, how much pricing compensation issuers want from investors in order to accept such terms. If issuers "optimistically" underestimate the payoff consequences of investor-friendly terms, they will likely demand pricing compensation that is lower than the expected transfers of surplus from issuers to investors based on those terms. Conversely, if issuers "pessimistically" overestimate the payoff consequences, they will likely demand pricing compensation that is higher than the actual transfers of surplus. PIPE issuers are susceptible to both types of estimation biases, but their bad pre-issue performances likely make them more prone to overestimate the payoff consequences of investor-friendly terms that would bite if post-issue performances are weak.

Issuers' biases affect how PIPE contracts are structured and negotiated, because informed PIPE investors can strategically use their informational advantage. Specifically, investors' optimal negotiation strategy is to propose investor-friendly terms for which issuers underestimate the payoff consequences. Further, investors will deliberately avoid negotiating investor-friendly terms for which issuers, due to overestimated payoff consequences, demand compensation that is too high. Certain such non-negotiated terms would 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). The bottom line is that contract design and pricing, as well as post-issue surplus creation through value-enhancing contract terms, can depend on how well issuers understand the payoff consequences of negotiable terms.

We expand on this conclusion and show that placement agents play a role in the PIPE market by helping their issuer-clients better understand the payoff consequences of contract terms, in particularly those that imply contingent cash flow rights. Placement agents take a leading role in PIPE offering: They spend considerable time briefing their clients on the meaning and importance of the various terms, and they also actively participate during contract negotiations.[4] There is substantial heterogeneity of agent expertise on contracts in the PIPE market—high-ranking agents are better able than their low-ranking counterparts are to help their issuer-clients better understand the payoff consequences of contract terms. One reason for this difference is that high-ranking agents have more experience negotiating the types of terms that are typical of PIPE contracts. Another possible reason is that high-ranking agents are more likely to serve the interests of issuers than to serve those of investors.

To formally test how expert placement agents influence PIPE contracts, we analyze a sample of 1,811 intermediated U.S. PIPE offerings that were completed between 1999 and 2007. We identify 14 functionally distinct contingent cash flow rights, which we aggregate into an Investor-Friendly Index (IFI). Our IFI captures how many investor-friendly terms are included in PIPE contracts and how many issuer-friendly terms are excluded.[5] In our baseline tests, we calculate IFI by adding the individual contract term dummies together. This aggregation method, which is similar to the method Gompers, Ishii, and Metrick (2003) use to aggregate corporate governance provisions, has the advantage of being simple and thereby transparent. However, one obvious problem with equal-weighted addition is that it implicitly assumes that all contract terms are equally complex and equally important. To address this problem, we conduct several robustness tests in which we calculate IFI in different ways. We find that qualitatively very similar results for 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 high-ranking "expert" agents have higher IFI scores than do companies advised by their low-ranking "non-expert" counterparts. To illustrate the economic importance of this result, we find that the difference in the IFI across high-ranking and low-ranking agents is about as great across quartiles formed on company size, which is another key determinant of PIPE contract terms. We validate this finding in multivariate tests in which we control for several company and investor characteristics, as well as the choice between

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[4] This contrasts a traditional private placement, in which the lead investor or a group of lead investors dominate and shape the offering process.

[5] 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.

a traditional versus a structured PIPE offering (Brody, Ouimet and Sialm, 2009). As additional evidence that this result can be explained by expert agents giving their issuer-clients advice about contract terms, we find that this result is stronger if the issuer is a first-time PIPE issuer. Repeat issuers have negotiated PIPE contracts before and observed the consequences of the terms. As such, they understand the payoff consequences of different contract structures regardless of whether their placement agent has lower or higher expertise.

In isolation, the positive correlation between agent rank and the IFI seems to suggest that expert advisors may give bad advice to their clients by luring them to agree to more investor-friendly terms. This conclusion is, however, incorrect because issuers who agree to investor-friendly terms can be compensated with a higher price for the issued equity. We investigate this possibility by analyzing how the IFI varies with the pricing discount, which is defined as the difference between the PIPE offer price and the traded common equity price. We find 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 high-ranking 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 high-ranking agents provide good advice that helps their issuer-clients extract higher pricing compensation in exchange for investor-friendly terms.

We then analyze the long-run stock returns to PIPE issuers to further test whether high-ranking 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 high-ranking agents than for companies with low-ranking agents. This finding runs against the expectation that high-ranking 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 high-ranking agents offer good advice.

Our tests reveal another advantage of high-ranking agents: They are less susceptible to the agency problem that can arise when an agent and an investor interact frequently with each other. If such interactions lead to relationships in which favors are traded, agents could lure issuer-clients to accept contracts that are favorable to investors.[6] Confirming that this agency problem applies to PIPE offerings involving low-ranking agents, we find that contracts include

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[6] For a discussion of a recent case, see www.sharesleuth.com/investigations/2010/03/the-connections-between-vicis/

more investor-friendly terms when agents and investors have stronger relationships. However, we show that this association is weaker for PIPE offerings involving high-ranking agents—in fact, their contracts include similar investor-friendly terms regardless of an agent's relationship with an investor. This result indicates strongly that differences in credibility across placement agents is another reason that only high-ranking agents are able to help their issuer-clients understand the consequences of contract terms.

In summary, our empirical results show that the expertise of issuers' placement agents relates to the structure, pricing, 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 a high-ranking 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 high-ranking 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 high-ranking agents are associated with higher long-run returns. Moreover, high-ranking agents prevent investors from under-compensating issuers for some investor-friendly terms. This explains our finding that high-ranking agents are associated with greater reduction in pricing discounts in exchange for negotiated terms.

The information that placement agents provide to PIPE issuers about contract terms has several benefits. First, the involvement of high-ranking 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 address the severe financing problems that challenge companies that issue PIPEs. Second, the involvement of high-ranking agents can mitigate the various forms of underinvestment that arise because issuers do not understand 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 high-ranking 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.

We contribute 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, Outmet and Sialm, 2009; Champlinsky 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, but 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, 2010; Bengtsson, 2010).

The remainder of the paper is organized as follows. Section II introduces our data and describes how we identify high-ranking placement agents. Section III discusses the terms included in PIPE contracts that we study, and explains how we code them. In Section IV, we describe our empirical strategy, and in Section V we present the empirical results. Section VI concludes.

II. Data

Sample

We obtain data on 9,961 U.S. PIPEs that closed between 1999 and 2007 from Sagient Research, Inc.'s *Placementtracker* database.[7] Following Chaplinsky and Haushalter (2010), we exclude structured equity lines (703 observations) and common stock reset PIPEs (76 observations). We also exclude issuers not covered by Compustat and CRSP, because we need data on company characteristics and stock returns for our analysis. This restriction eliminates 5,521 observations, which signifies that many PIPE issuers are small and thinly traded companies. We further exclude PIPEs that have no disclosed agents or investor information (431 observations). Of the remaining 3,230 observations with complete data, we exclude 1,419 "direct" PIPES, which are offerings with no issuer-placement agent, from our main sample. We focus our attention on "intermediated" PIPEs, which are offerings with issuer 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 1,811 unique intermediated PIPE offerings, 861 unique issuers, and 357 unique agents. Panels A and B of Table 1 describe the year and industry distribution of the sample.

[Insert Table 1 about here.]

PIPE Offering Characteristics

In Panel C, we summarize variables that capture characteristics of the PIPE offering. The average offer size is $29.5 million, with the median at $10 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.[8] For common stock PIPEs, we 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

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[7] 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.

[8] 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.

one day before the closing date and the specified floor price.[9] The mean and median discounts are 4.4% and 8.8%, respectively. The average "Fraction Placed Ratio," which is defined as the ratio of gross proceeds to market capitalization immediately after issuance, is 26.9% in our sample.

About 87% of our sample represents traditional PIPEs, in which investors hold common stocks or fixed-price convertibles. The remaining 13% 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. About two thirds of all PIPE investors are hedge funds. The average investor has issued 2.0 within-sample PIPEs before. Similarly, the average issuer has issued 2.1 within-sample PIPEs before. About one in three issuers are issuing a PIPE for the first time.

PIPE Issuers Characteristics

Panel D of Table 1 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, EBITDA/Assets, and Cash/Assets. 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 $227 million and a median of $93 million. Not surprisingly, given their size, they are often not followed by analysts, with more than 50% of our sample lacking such coverage. Consistent with Brophy, Outmet and Sialm (2009) and Chaplinsky and Haushalter (2010), we document a positive average CAR for PIPE issuers before the offering.[10] Furthermore, these firms often exhibit high EV/Assets ratios, with a mean of 5.0 and a median of 2.4, and R&D/Assets ratios, with a mean of 25.4% and a median of 12.3%. Most firms are not profitable prior to offering a PIPE. The average EBITDA/Assets ratio is -28.5%, with a median at -24.5%.

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

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[9] 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.

[10] In our sample, the median CAR (-12,-1) is 5%. Chaplinsky and Haushalter (2010), who study PIPE offerings between 1995 and 2000, find a negative median CAR (-12,-1).

on improving his weak operating performance, and therefore cannot afford to devote much attention to understanding the intricacies or terms of PIPE contracts.

III. 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 2 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, 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, lists terms that determine how investors can trade underlying stocks after offerings. The third category, issuer rights, 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 2 about here.]

Investor Protections

Dividend, Interest and Warrants

Dividends, interest, and warrants are key deal features in PIPE offerings. About 29% 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.

Chaplinsky and Haushalter (2010) study the pricing of PIPE offerings and treat dividends, interest, and warrants as pricing factors in their estimation of the "All-in-Net-Discount." In this paper, we choose to treat these deal features as contract terms rather than as pricing factors because including such terms in PIPE contracts not only increases investors'

expected cash flows, they also tie actual increases to the state of the world. For example, an investor exercises warrants if the stock price rises above the exercise value. 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).[11] 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. Hence, while one can think of many good reasons that warrants should be included in a financial contract, simply lowering the transaction price is unlikely the primary one. Indeed, our data supports our choice of treating warrants as contract terms. 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.

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. 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 54% 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.

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[11] 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).

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. About 37% 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 19% of our sample includes a right of first refusal. Investor call options are included in 6% of our contracts.

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 11.4% 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.

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 10% of our sample explicitly forbids short selling before a certain date and 3.5% 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 2.4% of our sample.

Finally, in very rare cases (0.3% 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.

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 11% 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, 2010, for a discussion).

About 11% 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.

Overall Structure of PIPE Contracts

We offer four general observations concerning contract terms in PIPE offerings. First, there is substantial variation in how terms are included in PIPE contracts. In fact, our sample of 1,811 PIPE contracts involves 357 unique contract designs. 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).

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.

IV.   Empirical Strategy

Identification

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.

Investor-Friendly 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 1, the mean of the IFI is 8.27, with a standard deviation of 1.78. 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.

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 357 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 (Market Share)," takes the value 1 only if the agent was one of the 15 largest agents based on market share. [12] 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. We view this dummy as our main proxy for agent rank, because it captures the agent's reputation and experience in the PIPE market. As reported in Panel C of Table 1, 17.2% of the PIPEs in our sample have a high-ranking agent. In unreported tests, we also try alternative definitions of "High-ranking Agent (Market Share)": the top 10 placement agents in every three-year period, the top agents based on the number of PIPE

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[12] 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).

transactions they place instead of the total amount of capital they help raise, and so on. We find qualitatively similar results with such alternative measures of agent rank.

The second 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.[13] We use this variable for robustness purposes, because it captures an agent's broader reputation for and experience with equity offerings. As reported in Panel C of Table 1, 5.5% of the PIPEs in our sample have a high-ranking agent. In unreported tests, we use C&M rankings of 6 and 8, respectively, to define a high-ranking agent. We find qualitatively similar results.

Appendix A lists the top 15 agents based on aggregate market share. The total amount of capital raised through these agents accounts for 40.2% of intermediated PIPE volume in our sample. We observe that the top seven agents based on PIPE market share are established investment banks that have also had experience with IPOs (C&M rankings of 8 or 9). We also note, however, that other agents with high PIPE market share (e.g., Roth Capital Partners, Shoreline Pacific, etc.) have low C&M ranking, indicating limited experience with IPOs. This indicates strongly that our proxies capture two related but distinct dimensions pertaining to how well agents are able to give advice on PIPE contracts.[14]

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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[13] Our C&M ranking is obtained from Jay Ritter's Website. He provides the C&M ranking for IPO underwriters in several subperiods, 1980–1984, 1985–1991, 1992–2000, 2001–2004, and 2005–2007. We search for the PIPE placement agent's name in the C&M ranking list during the period when a specific PIPE was issued.
[14] The correlation between the two proxies is 0.301.

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 agent. 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 3 about here.]

Panel A of Table 3 presents evidence that there is positive assortive matching in the PIPE market, based on observable issuer characteristics. We report summary statistics separately for the 311 PIPE offerings associated with high-ranking agents, based on the dummy "High-ranking Agent (Market Share)", and the remaining 1,500 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, in terms of market capitalization prior to offering, than are their counterparts. In particular, the mean capitalization is $438 million (median is $159 million) for issuers with high-ranking agents, while it is only $183 million (median is $84 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 better operating performance, i.e., less negative EBITDA/Assets, although this difference is not statistically significant. This pattern, which is broadly consistent with expert agents matching with better company-issuers, mimics the findings of Dai, Jo, and Schatzberg (2010).[15]

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 diligence, which is valuable because many PIPE issuers are small, struggling companies with limited coverage from analysts and the media. When a high-ranking agent signals (or directly transmits)

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[15] In an unreported probit regression on matching, we find results consistent with the univariate analysis.

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.

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 one third of the PIPE offerings in our sample are completed by first-time issuers.

A first-time PIPE issuer is likely to develop a biased assessment—either an underestimation or an overestimation—of how much surplus each investor-friendly term transfers to an investor. Although we have no direct evidence pertaining to which type of issuer bias is more prevalent, a plausible conjecture is that PIPE issuers are more likely to overestimate rather than to underestimate the adverse consequences. The rationale for this conjecture is that most investor-friendly terms bite in bad states of the world, that is, in situations that the issuer has recently experienced or is currently experiencing. Concretely, an issuer may have an overly negative attitude towards anti-dilution, a term that gives the investor the right to re-price shares only if stock returns decline, because the associated stock returns have recently dropped sharply.

As presented in Panel B of Table 3, 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, 2010). 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, which is consistent with our results.

V. Empirical Results

Investor-friendly Contract Terms

Agent Rank

We first analyze how an agent's rank relates to the IFI, which are presented in Table 5. 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).[16] 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 4 about here.]

Our main variable is *High-ranking Agent,* which is takes the value 1 if the issuer is associated with a high-ranking agent, and 0 otherwise. In Models (1) through (3), we use historical PIPE market shares to identify high-ranking agents. For robustness, we also use the C&M ranking to identify high-ranking agents, with the results presented in Models (4) through (6). 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(Analyst)*, *CAR (-12,-1), Debt/Assets, EV/Assets*, *RD/Assets*, *Intangible/Assets*, *EBITDA/Assets*, and *Cash/Assets*. The detailed definitions of these variables are provided in Appendix B. In Models (1) and (4), 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 type of PIPEs. To rule this out, in Models (2) and (5) we restrict the sample to traditional PIPEs. Further, in Models (3) and (6) we repeat our analysis for hedge funds invested PIPEs. In all specifications, we also include investor-type fixed effects, industry fixed effects, and year fixed effects.

We find in Table 4 that high-ranking agents are significantly and positively associated with the IFI. This finding holds across all regression models regardless of which proxy for high-ranking agents we use. Examine the coefficients on the control variables, we find that the IFI is

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[16] 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.

significantly higher for issuers with lower market capitalization and higher EV/Assets ratios. This observation supports 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.

The positive relation is between agent ranking and IFI is also robust to expanding the sample to include 1,419 direct PIPEs as shown in Robustness Table 1, i.e., 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 also inexpert agents issuers can provide some help to their issuer-clients pertaining to contract terms.

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. Results are presented in Robustness Table 2. 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. In untabulated tests, we 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 not due to the equal-weighting scheme that we employ in our baseline tests.

Finally, we explore the possibility that expert agents focus on the more complex deals, whereas inexpert 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).[17] 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, as expected, critical for our result.

First-Time vs. Repeated Issuers

We next examine whether the relation between high-ranking agents and investor-friendly terms is stronger for first-time issuers than for repeated issuers. Our argument is that expert agents can

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[17] We thank our discussant Alex Borisov for this suggestion.

help issuers understand the payoff consequences of contract terms. Such help should be more important for issuers who undertake a PIPE offering for the first time, because they have had no prior exposure to the myriad of negotiable terms. Repeated PIPE issuers may themselves understand negotiable terms, so they negotiate similar contracts regardless of the expertise of their placement agents.

[Insert Table 5 about here.]

Table 5 presents the results of multivariate Poisson models similar to those in Table 4 with identical control variables (which are unreported for brevity).[18] In Models (1) and (4) we interact *High-ranking Agent* with the dummy *First-time Issuer*. We find a positive and significant coefficient on this interaction variable regardless of which proxy we use to identify a high-ranking agent. This confirms our expectation that agents expertise is more important for issuers who undertake a PIPE offering for the first time.

Agent-Investor Relationship

Many placement agents are repeat players in the PIPE market, and thereby have long-standing relationships with the private equity funds, hedge funds and others who invest in PIPE offerings. Such relationships could give rise to a conflict of interest in some situations where placement agents, although formally employed by the issuer, decide to help the investor during the contract negotiation.

We test this possibility by constructing the variable *Agent-Investor Relation* in models (2), (3), (5) and (6) in Table 5. This variable is measured as the natural logarithm of the number of PIPE transactions an investor has previously carried out with a specific placement agent. In Models (2) and (5) we include *Agent-Investor Relation* and find a significantly positive coefficient. However, the strength of this relation varies with agent rank. In Models (3) and (6) we also include an interaction between *High-ranking Agent* and *Agent-Investor Relation*, and obtain a negative coefficient (more significant for our first proxy for high-ranking agent). Thus, a low-ranking agent is more likely than a high-ranking agent to include more investor-friendly terms if that agent is in a strong existing relationship with an investor. In untabulated tests, we split the sample into PIPEs associated with high-ranking and low-ranking agents, respectively. We find that the IFI has no significant relation with *Agent-Investor Relation* for PIPEs associated with high-ranking agents, and is significantly positive for PIPEs associated with low-ranking

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[18] For briefness, we only report the coefficients of our key interest.

agents. As reported in Robustness Table 1, the coefficients remain qualitatively similar and significant if we include direct PIPEs.

This pattern suggests that high-ranking PIPE agents are less susceptible to the agency problem that can arise when the agents and investors interact frequently with each other. If issuers realize that this difference exists, then they would not view the advice from low-ranking agents as trustworthy. Such difference in credibility across agents could be another rationale, in addition to the difference in knowledge about PIPEs, for why high-ranking agents can better help their issuer-clients understand the payoff consequences of contract terms.

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. Table 6 presents the results of OLS regressions in which the PIPE pricing discount is the dependent variable. As shown in Chaplinsky and Haushalter (2010), PIPE discounts could be very complicated to calculate if we incorporate warrants and contingency features of the transaction. A lot of assumptions are to be made for such calculation. In this study, we treat warrants and other contingency features as contract terms and examine their impact on discounts, more precisely, cash discounts, given the reasons that we illustrated in section III. We measure pricing discount as the percentage difference between the closing price one day prior to the closing date and the offer price.[19] In all regression models we include IFI and the same control variables as in Tables 4 and 5. In Models (2) – (5), we also include *High-Ranking Agent*. Models (2) and (3) use market share to define *High-ranking Agent* and Models (4) and (5) use the C&M rankings. The robust standard errors, which account for clustering at the company level, are reported in parentheses.

[Insert Table 6 about here.]

In Models (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 -0.02, which means that each added investor-friendly term is associated with an approximately 2% reduction in the pricing discount. For a PIPE transaction of median size ($10 million in our sample), this corresponds to an increase

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[19] As discussed in Section II, we treat dividends/interest and warrants as contractual terms instead of as pricing terms. For robustness purposes we also calculate the All-in-Net-Discounts following Chaplinsky and Haushalter (2010), which factors in the pricing effect of these two terms, and re-construct the IFI by excluding these two terms. We find similar results with this methodology.

of about \$200,000 in net proceeds, a cash amount that is nontrivial for the small struggling companies that issuer PIPEs.

<u>Agent Expertise and the Pricing-Term Tradeoff</u>

In Models (2) and (4) of Table 6 we further include our proxies for agent expertise, and find that this is negatively related to the pricing discount. This relation is only significant when *High-ranking Agent* is defined using the C&M ranking. In Models (3) and (5), we include an interaction variable between *High-ranking Agent* and *IFI*. We find a significantly negative coefficient on this interaction variable, regardless of how we identify high-ranking agents. 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.

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.[20] 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.

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[20] We perform event studies on announcement returns and find no significant differences across groups of interest.

We study returns for a horizon up to 3 years. The sample includes 1,700 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 that used high-ranking agents and those that used 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.[21] 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 7. Consistent with findings in extant studies of PIPEs, we find that PIPE issuers experience negative long-run performance regardless of agent ranking. We show, however, that PIPEs associated with high-ranking agents exhibit significantly less negative CARs than their counterparts do.

[Insert Table 7 about here.]

In Panel B of Table 7, 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.

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 8. 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 based on previous market share in specifications (1)–(3) and determined by the C&M ranking in specifications (4)–(6). 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.

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[21] 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.

[Insert Table 8 about here.]

We show that PIPE issuers associated with high-ranking agents perform significantly better than those with low-ranking agents do when reputation is measured based on market share in the PIPE market. *High-ranking Agent* is significant only for CAR 36 months following issuance when we use the C&M ranking. That agent ranking or experience in the PIPE market matters more than their ranking in the IPO and SEO markets suggests that agents' knowledge in this special market segment is more valuable to PIPE issuers than is their general experience in equity issuance markets. Furthermore, 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 4.5-4.8%, increases CAR (1, 24) by 7.5-7.9%, and increases CAR (1, 36) by 12.3-12.7%. Thus, the effect of the IFI is both statistically and economically significant.

VI.   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. This relation is particularly strong for first-time issuers. 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. In addition, our analysis also reveals that high-ranking PIPE agents appear less susceptible to the agency problem that can arise when agents and investors interact frequently with each other.

The empirical patterns we document are difficult to reconcile with explanations based on matching or certification. Our results hold after including a battery of control variables that capture important observable dimensions of matching. As for unobservable dimensions, we show that the issuer-agent matching in the PIPE setting is such that, similar to the IPO setting, expert agents generally match with better-performing issuers. Because investors demand fewer contractual protections when they invest in better-performing companies, the matching and

certification explanations predict that we should find the opposite relation between investor-friendly terms and agent expertise. This means that our estimated results could be biased downwards if these explanations were also determinants of PIPE contract designs.

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 contract to include more contingent cash flow contingencies, features that are viewed as optimal in many contract-theoretical models. Our findings show that agents' ability or incentive 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 15 largest PIPE placement agents, sorted by the sum of gross proceeds.

Agent Name	Nr of PIPEs	Sum of Gross Proceeds ($M)	C&M Ranking
Citigroup Global Markets, Inc.	27	5370	9
Goldman, Sachs & Co.	3	4125	9
Banc of America Securities LLC	49	2400	8
Lehman Brothers, Inc.	21	1467	9
Credit Suisse Securities (USA) LLC	14	723	9
J.P. Morgan Chase & Co.	19	684	9
Bear, Stearns & Co. Inc.	7	646	8
Roth Capital Partners, LLC	32	517	4
Pacific Growth Equities, Inc.	10	468	1
Shoreline Pacific, LLC	12	444	0
CIBC World Markets	13	364	8
Rodman & Renshaw, LLC	23	307	6
RBC Capital Markets, Inc.	7	269	7
Investor-Friendly Index (i.e., IFI)	3	229	5
Houlihan, Lokey, Howard, & Zukin Capital	8	223	0

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 (Market Share)	A dummy variable which is equal to 1 if the placement agent belongs to the group of the 15 most reputable agents, based on its share of the PIPE market (in dollars) in the previous three years, and 0 otherwise. Our findings are robust to other cutoffs.
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.
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.
Fraction Placed	The ratio of offer size to the market capitalization after the PIPE offering.
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-Friendly Index (i.e., IFI)	A dummy variable which is equal to 1 if the PIPE investor is a hedge fund, and 0 otherwise.
Investor Experience	The within-sample number of PIPE transactions that an investor has previously participated.
Agent-Investor Relation	The within-sample number of PIPE transactions led by a specific agent that an investor has previously participated.
Nr of PIPEs Issued Before	The within-sample number of PIPE transactions that an issuer has previously completed.

Variables	Definitions
First-Time Issuer	A dummy variable which is equal to 1 if the issuer has not beforecompleted a within-sample PIPE, and 0 otherwise.
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. 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.
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. 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.
EBITDA/Assets	The ratio of EBITDA to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE.
Cash/Assets	The ratio of total cash to total assets. Both numbers are from the financial statement of the nearest fiscal year prior to the PIPE.

Table 1 - Summary Statistics

Sample is 1811 intermediated PIPEs (i.e., offerings where the issuer employs a placement agent.) that closed between 1999 and 2007. 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

	1999	2000	2001	2002	2003	2004	2005	2006	2007
	126	237	213	168	265	254	204	176	168
	(7%)	*(13%)*	*(12%)*	*(9%)*	*(15%)*	*(14%)*	*(11%)*	*(10%)*	*(9%)*

Panel B: Industry Group of Issuer

Pharmaceuticals: SIC 283	Computer & Software: SIC 737	Medical Equipment: SIC 384	Semiconductor & Electronic: SIC 367	Other Industries
405	239	115	81	971
(22%)	*(13%)*	*(6%)*	*(4%)*	*(54%)*

Panel C: Characteristics of Offering

	Mean	Median	25%	75%	Stdev
Offer Size ($M)	29.5	10.3	5.0	24.9	108.0
Discount	4.4%	8.8%	-1.3%	17.2%	33.7%
Fraction Placed	26.9%	16.0%	9.0%	24.3%	26.9%
Traditional PIPE	87.4%				
Structured PIPE	12.6%				
Hedge Funds Investor	65.4%				
Investor Experience	2.0	2.0	0.0	3.0	2.1
Agent-Investor Relation	0.5	0.0	0.0	1.0	0.9
Nr of PIPEs Issued Before	2.1	0.0	0.0	3.0	2.7
First-Time Issuer	34.9%				
Investor-Friendly Index (i.e., IFI)	8.3	8.0	7.0	10.0	1.8
High-ranking Agent (Market Share)	17.2%				
High-ranking Agent (C&M Ranking)	5.5%				

Panel D: Characteristics of Issuers

	Mean	Median	25%	75%	Stdev
Market Value ($M)	227.0	93.3	45.3	198.0	614.0
Analyst Coverage	1.8	0.0	0.0	3.0	1.8
CAR (-12,-1)	27.1%	10.1%	-54.1%	91.3%	27.1%
Debt/Assets	13.2%	2.9%	0.0%	18.2%	13.2%
EV/Assets	5.0	2.4	1.1	5.3	5.0
R&D/Assets	25.4%	12.3%	0.0%	33.1%	25.4%
Intangible/Assets	11.5%	1.3%	0.0%	17.6%	11.5%
EBITDA/Assets	-28.5%	-24.5%	-56.1%	2.1%	-38.5%
Cash/Assets	33.0%	23.8%	7.1%	58.0%	34.3%

Table 2 - Overview of PIPE Contract Terms

Sample is 1811 intermediated PIPEs. See Table 1 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)

Term	Definition	Frequency
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.	*28.80%*
Warrants	Investors are granted a certain number of warrants with specified exercise price and expiration dates.	*48.60%*
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.	*54.10%*
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	*37.10%*
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.	*18.60%*
Investor Call Option	Investors have the right to purchase additional shares with specified terms prior to the expiration date of an option.	*5.50%*
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.	*11.40%*

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

Term	Definition	*Frequency*
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.	*9.60%*
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.	*3.50%*
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.	*0.30%*
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.	*2.40%*

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

Term	Definition	*Frequency*
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.	*10.70%*
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.	*3.20%*
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.	*10.70%*

Table 3 - Matching Between PIPE Issuers and Placement Agents

Sample is 1811 intermediated PIPEs. See Table 1 for sample overview. Panel A lists sample means for key company characteristics for issuers with high-ranking agents and low-ranking agents, respectively. Significance (from t-test) is marked with * at 10%, ** at 5%, and *** at 1%. Panel B tabulates the number of PIPEs issued before for issuers high-ranking agents and low-ranking agents, respectively.

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

	High-ranking Agents	Low-ranking Agents	Difference
Market Value ($M)	438	183	255 ***
Analyst Coverage	2.7	1.6	1.1 ***
CAR (-12,-1)	25.9%	27.3%	-1.4%
Debt/Assets	18.0%	12.2%	5.8% ***
EV/Assets	4.8	5.1	-0.3
R&D/Assets	25.8%	25.4%	0.4%
Intangible/Assets	12.0%	11.4%	0.6%
EBITDA/Assets	-32.9%	-39.6%	6.7%
Cash/Assets	36.2%	32.7%	3.5%
Nr of Obs	311	1500	

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	124 *(40%)*	508 *(34%)*
1	70 *(23%)*	303 *(20%)*
2	48 *(15%)*	195 *(13%)*
3	26 *(8%)*	156 *(10%)*
4	13 *(4%)*	98 *(7%)*
5	9 *(3%)*	72 *(5%)*
>5	21 *(7%)*	168 *(11%)*

Table 4 - Relation between Investor-Friendly Index and High-Ranking Agents

Sample is 1811 intermediated PIPEs. See Table 1 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). High-ranking agents are those that are ranked in the top 15 agents based on market share over the previous three years in specifications (1)–(3), and those with Carter and Manaster ranking equal to or higher than 7 over the previous three years in specifications (4)–(6). The definitions of other variables are provided in Appendix B. Standard errors are clustered by company. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Definition High-Ranking Agent:	Market Share Based Ranking			Carter and Manaster Ranking		
	Full Sample	Traditional	Hedge Fund	Full Sample	Traditional	Hedge Fund
Specification	(1)	(2)	(3)	(4)	(5)	(6)
High-ranking Agent	0.027**	0.033***	0.043***	0.030**	0.039***	0.041**
	(0.011)	(0.011)	(0.014)	(0.013)	(0.015)	(0.018)
Ln(Investor Experience)	0.015**	0.016**	0.022**	0.015**	0.016**	0.023***
	(0.007)	(0.007)	(0.009)	(0.007)	(0.007)	(0.009)
Ln(MV)	-0.026***	-0.031***	-0.027***	-0.026***	-0.031***	-0.026***
	(0.005)	(0.006)	(0.007)	(0.005)	(0.006)	(0.007)
Ln(Analyst)	-0.007	-0.002	-0.010	-0.007	-0.002	-0.011
	(0.007)	(0.007)	(0.009)	(0.007)	(0.007)	(0.009)
CAR (-12, -1)	0.001	0.001	0.002	0.001	0.001	0.002
	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)
Debt/Assets	-0.013	0.002	-0.056*	-0.011	0.003	-0.051*
	(0.020)	(0.021)	(0.029)	(0.021)	(0.021)	(0.030)
EV/Assets	0.001***	0.001*	0.002***	0.001***	0.002**	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
RD/Assets	0.008	0.010	0.014	0.009	0.012	0.016
	(0.013)	(0.014)	(0.014)	(0.013)	(0.014)	(0.014)
Intangible/Assets	0.010	0.003	0.006	0.011	0.004	0.006
	(0.031)	(0.037)	(0.038)	(0.031)	(0.037)	(0.038)
EBITDA/Assets	0.007	0.013	0.013	0.009	0.014	0.014
	(0.012)	(0.013)	(0.014)	(0.012)	(0.013)	(0.014)
Cash/Assets	-0.030	-0.035*	-0.039*	-0.029	-0.034	-0.038*
	(0.019)	(0.021)	(0.022)	(0.019)	(0.021)	(0.023)
Traditional PIPE	-0.133***		-0.136***	-0.132***		-0.133***
	(0.014)		(0.015)	(0.014)		(0.016)
Intercept	2.116***	2.017***	2.145***	2.126***	2.030***	2.141***
	(0.046)	(0.045)	(0.033)	(0.040)	(0.039)	(0.033)
Investor Type Fixed Effect	Yes	Yes	No	Yes	Yes	No
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Nr of Obs	1811	1583	1184	1811	1583	1184
Adj R-Square (%)	4.81	4.64	4.06	4.80	4.64	4.04

Table 5 - Relation between Investor-Friendly Index and High-Ranking Agents, Interactions

Sample is 1811 intermediated PIPEs. See Table 1 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). High-ranking agents are those that are ranked in the top 15 agents based on market share over the previous three years in specifications (1)–(3), and those with Carter and Manaster ranking equal to or higher than 7 over the previous three years in specifications (4)–(6). Agent-Investor Relation is the the within-sample number of PIPE transactions led by a specific agent that an investor has previously participated. First-time issuer is a dummy variable which is equal to 1 if the issuer has not beforecompleted a within-sample PIPE, and 0 otherwise. All specifications control for Ln(Investor Experience), Ln(MV), Ln(Analyst), CAR (-12, -1), Debt/Assets, EV/Assets, RD/Assets, Intangible/Assets, EBITDA/Assets, Cash/Assets, and Traditional PIPE. The definitions of these variables are provided in Appendix B. All specifications also include an intercept. Standard errors are clustered by company. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Definition High-Ranking Agent:	Market Share Based Ranking			Carter and Manaster Ranking		
Specification	(1)	(2)	(3)	(4)	(5)	(6)
High-ranking Agent	0.011	0.023**	0.042***	0.013	0.031**	0.046***
	(0.012)	(0.011)	(0.013)	(0.015)	(0.014)	(0.015)
First-time Issuer	-0.001			0.004		
	(0.010)			(0.010)		
High-ranking Agent	0.046**			0.047*		
* First-time Issuer	(0.021)			(0.027)		
Agent-Investor Relation		0.022**	0.031***		0.025**	0.029***
		(0.010)	(0.012)		(0.010)	(0.010)
High-ranking Agent			-0.045**			-0.059*
* Agent-Investor Relation			(0.019)			(0.032)
Company Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
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
Nr of Obs	1811	1811	1811	1811	1811	1811
Adj R-Square (%)	4.82	4.82	4.84	4.81	4.82	4.83

Table 6 - Relation between Discounts (PIPE Pricing), IFI and High-Ranking Agents

Sample is 1811 intermediated PIPEs. See Table 1 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). High-ranking agents are those that are ranked in the top 15 agents based on market share over the previous three years in specifications (1)–(3), and those with Carter and Manaster ranking equal to or higher than 7 over the previous three years in specifications (4)–(6). The definitions of other variables are provided in Appendix B. All specifications also include an intercept. Standard errors are clustered by company. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Definition High-Ranking Agent:		Market Share Based Ranking		Carter and Manaster Ranking	
Specification	(1)	(2)	(3)	(4)	(5)
IFI	-0.023***	-0.023***	-0.020***	-0.022***	-0.020***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
High-ranking Agent		-0.029	-0.010	-0.084**	-0.063
		(0.027)	(0.027)	(0.042)	(0.039)
IFI*High-ranking Agent			-0.023**		-0.037**
			(0.011)		(0.018)
Agent-Investor Relation	0.014	0.018	0.017	0.011	0.011
	(0.019)	(0.020)	(0.020)	(0.019)	(0.019)
Ln(Investor Experience)	0.006	0.006	0.006	0.006	0.007
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Ln(MV)	0.000	0.002	0.003	0.004	0.005
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Ln(Analyst)	-0.014	-0.013	-0.014	-0.011	-0.012
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
CAR (-12,-1)	0.017***	0.017***	0.016***	0.016***	0.016***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
Debt/Assets	-0.054*	-0.052	-0.047	-0.053	-0.055*
	(0.033)	(0.032)	(0.032)	(0.033)	(0.033)
EV/Assets	0.001	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
RD/Assets	0.010	0.011	0.013	0.008	0.009
	(0.042)	(0.043)	(0.044)	(0.042)	(0.042)

Table 6 continued

Intangible/Assets	-0.049	-0.049	-0.053	-0.052	-0.051
	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)
EBITDA/Assets	-0.042*	-0.041	-0.04	-0.045*	-0.044*
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
Cash/Assets	-0.069*	-0.067*	-0.068*	-0.067*	-0.067*
	(0.038)	(0.037)	(0.038)	(0.038)	(0.038)
Traditional PIPE	0.166***	0.167***	0.170***	0.165***	0.168***
	(0.046)	(0.046)	(0.046)	(0.046)	(0.046)
Intercept	-0.140	-0.142	-0.169	-0.171	-0.193
	(0.149)	(0.152)	(0.152)	(0.141)	(0.139)
Other Control Variables	Yes	Yes	Yes	Yes	Yes
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes
Nr of Obs	1811	1811	1811	1811	1811
Pseudo R-Squared (%)	7.86	7.95	8.10	8.31	8.51

Table 7 - Relation between Long-Run Stock Returns, High-Ranking Agents and IFI

Sample is 1700 intermediated PIPEs. See Table 1 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	-12.37%	-7.98%	-15.82%	-14.48%	-21.89%	-28.34%
Low-ranking Agents	-27.86%	-49.64%	-66.24%	-24.12%	-42.50%	-56.13%
Difference	15.49%	41.66%	50.42%	9.64%	20.61%	27.79%
P-value on differences	0.038**	0.000***	0.001***	0.026**	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	-14.57%	-24.41%	-28.93%	-14.73%	-26.10%	-36.16%
IFI below Median	-35.40%	-59.92%	-85.11%	-27.97%	-48.13%	-62.22%
Difference	20.83%	35.51%	56.18%	13.24%	22.03%	26.06%
P-value on differences	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***

Table 8 - Relation between Long-Run Stock Returns, High-Ranking Agents and IFI

Sample is 1700 intermediated PIPEs. See Table 1 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). High-ranking agents are those that are ranked in the top 15 agents based on market share over the previous three years in specifications (1)–(3), and those with Carter and Manaster ranking equal to or higher than 7 over the previous three years in specifications (4)–(6). The definitions of other variables are provided in Appendix B. Standard errors are clustered by company. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Definition High-Ranking Agent:	Market Share Based Ranking			Carter and Manaster Ranking		
Dependent Variable:	CAR (1,12)	CAR (1,24)	CAR(1,36)	CAR (1,12)	CAR (1,24)	CAR(1,36)
Specification	(1)	(2)	(3)	(4)	(5)	(6)
IFI	0.046**	0.075**	0.123***	0.048**	0.079***	0.127***
	(0.021)	(0.029)	(0.041)	(0.022)	(0.029)	(0.041)
High-ranking Agent	0.128**	0.263**	0.330**	0.066	0.179	0.417**
	(0.065)	(0.104)	(0.144)	(0.084)	(0.135)	(0.205)
Discounts	-0.062	-0.166	-0.200	-0.062	-0.163	-0.184
	(0.092)	(0.115)	(0.134)	(0.091)	(0.114)	(0.135)
Ln(MV)	-0.147***	-0.245***	-0.309***	-0.140***	-0.234***	-0.304***
	(0.033)	(0.047)	(0.065)	(0.032)	(0.046)	(0.064)
Ln(Analyst)	0.094**	0.188***	0.260***	0.096**	0.191***	0.257***
	(0.043)	(0.062)	(0.086)	(0.043)	(0.062)	(0.086)
CAR(-12,-1)	0.122***	0.177***	0.239***	0.123***	0.178***	0.241***
	(0.028)	(0.037)	(0.046)	(0.029)	(0.037)	(0.046)
Debt/Assets	0.085	0.350*	0.452*	0.094	0.368*	0.471*
	(0.122)	(0.192)	(0.241)	(0.122)	(0.193)	(0.242)
EV/Assets	-0.008*	-0.018**	-0.026*	-0.008*	-0.018**	-0.025*
	(0.004)	(0.008)	(0.014)	(0.004)	(0.009)	(0.014)
RD/Assets	0.140*	0.320*	0.309	0.145*	0.331**	0.328
	(0.083)	(0.166)	(0.202)	(0.084)	(0.169)	(0.203)
Intangible/Assets	-0.045	-0.152	-0.187	-0.038	-0.135	-0.161
	(0.231)	(0.324)	(0.458)	(0.230)	(0.323)	(0.455)
EBITDA/Assets	-0.076	-0.044	-0.129	-0.074	-0.037	-0.109
	(0.074)	(0.122)	(0.168)	(0.074)	(0.124)	(0.169)
Cash/Assets	-0.160	-0.318	-0.356	-0.153	-0.304	-0.343
	(0.117)	(0.193)	(0.257)	(0.118)	(0.195)	(0.258)
Traditional PIPE	0.148	0.241	0.279	0.155	0.254	0.294
	(0.098)	(0.156)	(0.187)	(0.097)	(0.155)	(0.186)
Intercept	0.011	-0.160	0.029	0.010	-0.147	0.106
	(0.287)	(0.439)	(0.506)	(0.303)	(0.479)	(0.513)
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Investor Type Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Nr of Obs	1700	1700	1700	1700	1700	1700
Pseudo R-Squared (%)	7.83	9.86	9.76	7.73	9.67	9.82

Robustness Table 1 - Relation between Investor-Friendly Index and High-Ranking Agents, Including Direct PIPEs (i.e., Issuers without an Agent)

Sample is 3230 intermediated and direct PIPEs. See Table 1 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). High-ranking agents are those that are ranked in the top 15 agents based on market share over the previous three years in specifications. Low-ranking agents are other agents. No agent is the omitted category. Agent-Investor Relation is the the within-sample number of PIPE transactions led by a specific agent that an investor has previously participated. First-time issuer is a dummy variable which is equal to 1 if the issuer has not beforecompleted a within-sample PIPE, and 0 otherwise. All specifications control for Ln(Investor Experience), Ln(MV), Ln(Analyst), CAR (-12, -1), Debt/Assets, EV/Assets, RD/Assets, Intangible/Assets, EBITDA/Assets, Cash/Assets, and Traditional PIPE. The definitions of these variables are provided in Appendix B. All specifications also include an intercept. Standard errors are clustered by company. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Definition High-Ranking Agent:	Market Share Based Ranking					
Specification	(1)	(2)	(3)	(4)	(5)	(6)
High-ranking Agent	0.040***	0.057***	0.028**	0.043***	0.051***	0.060***
	(0.010)	(0.011)	(0.011)	(0.012)	(0.013)	(0.013)
Low-Ranking Agent		0.031***		0.023***		0.020**
		(0.007)		(0.008)		(0.008)
Agent-Investor Relation			0.042***	0.034***	0.054***	0.044***
			(0.010)	(0.010)	(0.011)	(0.011)
High-ranking Agent * Agent-Investor Relation					-0.058***	-0.048**
					(0.019)	(0.020)
Other Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
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
N	3230	3230	3230	3230	3230	3230
Pseudo R-Square (%)	4.29	4.32	4.33	4.35	4.34	4.36

Robustness Table 2 - Relation between Investor-Friendly Index and High-Ranking Agents

Sample is 1811 intermediated PIPEs. See Table 1 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). High-ranking agents are those that are ranked in the top 15 agents based on market share over the previous three years in specifications (1)–(3). All specifications control for Ln(Investor Experience), Ln(MV), Ln(Analyst), CAR (-12, -1), Debt/Assets, EV/Assets, RD/Assets, Intangible/Assets, EBITDA/Assets, Cash/Assets, and Traditional PIPE. All specifications also include investor type fixed effects, industry fixed effects, and year fixed effects. The definitions of these variables are provided in Appendix B. All specifications also include an intercept. Standard errors are clustered by company. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Dependent Variable:	IFI without Dividend and Interest	IFI without Warrant	IFI without Investor Call Option	IFI without Registration Right	IFI without Redemption Right
Specification	(1)	(2)	(3)	(4)	(5)
High-ranking Agent	0.025***	0.024**	0.026**	0.027***	0.026***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Controls and Fixed Effects	Yes	Yes	Yes	Yes	Yes
Nr of Obs	1811	1811	1811	1811	1811
Adj R-Square (%)	2.85	2.50	2.86	2.48	2.47

Dependent Variable:	IFI without First Refusal Right	IFI without Anti-Dilution Provision	IFI without No Shorting/Hedging	IFI without Offset Long Position	IFI without Public Offering
Specification	(6)	(7)	(8)	(9)	(10)
High-ranking Agent	0.024**	0.021**	0.017**	0.028***	0.025***
	(0.010)	(0.009)	(0.008)	(0.009)	(0.007)
Controls and Fixed Effects	Yes	Yes	Yes	Yes	Yes
Nr of Obs	1811	1811	1811	1811	1811
Adj R-Square (%)	2.57	2.74	1.47	1.78	1.95

Dependent Variable:	IFI Without Lock Up	IFI without Company Forced Conversion	Company Put Option	Company Optional Redemption
Specification	(11)	(12)	(13)	(14)
High-ranking Agent	0.030***	0.024**	0.021**	0.019**
	(0.010)	(0.009)	(0.009)	(0.009)
Controls and Fixed Effects	Yes	Yes	Yes	Yes
Nr of Obs	1811	1811	1811	1811
Adj R-Square (%)	1.37	2.33	1.81	2.15