Do Lawyers Matter in Initial Public Offerings?

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Abstract

Fixed effects for issuers' and underwriters' legal counsel explain a significant portion of the variation in IPO underpricing, each comparable to the variation explained by underwriter fixed effects. We confirm that there is significant persistence in underpricing for law firms across IPOs and predict a link between legal adviser selection and underpricing through the litigation environment. Issuer law firms are more important in describing variation in litigation and litigation-related prospectus disclosures than underwriters, even after controlling for deal characteristics, year, and industry. Lower average underpricing for law firms is correlated with higher legal fees, consistent with issuers paying for legal counsel that reduces issuing costs. Despite receiving little attention in the underpricing literature, we document that law firms play a significant role in the market for new issues.

I. Introduction

The initial issuance of equity to public markets places issuers into one of the most complex legal environments for growing firms. Issuers retain outside legal counsel in almost every IPO (99%) to advise on securities regulations. These law firms play a central role in ensuring that issuers comply with disclosure requirements and limiting their clients' exposure to liability from shareholder suits and regulators. For example, in Alibaba's $25 billion IPO, Simpson Thather's securities litigation and corporate lawyers worked to "minimize future litigation exposure" and later, fend off litigation in which the court (Southern District of New York) found disclosure to be "unusually comprehensive".[1] Despite their ostensible importance and ubiquity, there is little research on the role of legal advisers, the primary intermediaries between issuers and the threat of litigation.

Rather, prior literature on IPO advisers focuses almost entirely on the role of the underwriters and auditors. There is substantial evidence of a first-order effect of underwriters on IPO underpricing. (Beatty and Ritter, 1986; Bhattacharya, Borisov, and Yu, 2015; Carter and Manaster, 1990; Corwin and Schultz, 2005; Fernando, Gatchev, and Spindt, 2005; Hoberg, 2007; John, Knyazeva, Knyazeva, 2018; Yasuda, 2005).[2] The relative dearth of evidence on the role of legal advisers is surprising, as a related literature suggests the risk of IPO-related litigation influences the level of underpricing. In fact, Lowry and Shu (2002) describe litigation risk as one of the "three main theories" of IPO underpricing. Hanley and Hoberg (2012) find that issuers use underpricing and disclosure to reduce litigation risk. The primary contribution of this paper is to ask if law firms, who

[1] Quoted from an interview from Simpson Thacher's lawyers. New York Law Journal, October 2017 at https://www.stblaw.com/docs/default-source/related-link-pdfs/simpson-thacher-ldoy.pdf and Christine Asia Co., Ltd. v. Alibaba Group Holding Limited, 192 F.Supp.3d 456 (S.D.N.Y. 2016). Despite the favourable outcome at the district court, plaintiffs' appeals successfully vacated and remanded the case.

[2] There is also significant evidence on the importance of auditors in IPOs. See Balvers, McDonald, and Miller (1988), Beatty (1989), Copley and Douthett (2002), Li, McNichols, and Raghunandan (2018), Menon and Williams (1991), Michaely and Shaw (1995), Weber and Willenborg (2003).

are the agents best positioned to mitigate litigation risk, matter for IPOs outcomes, including litigation, disclosure, and underpricing.

To answer this question, we must identify a source of variation in the market for legal counsel. Research on legal advisers in the "law & economics" literature focuses on the reputation of law firms (Krishnan and Masulis, 2013; Krishnan, Solomon, and Thomas, 2016). However, proxies of law firm reputation show either weak (Beatty and Welch, 1996) or counterintuitive, positive correlations (Barondes, Nyce, and Sanger, 2007) with underpricing for issuer law firms. We remain agnostic as to which law firm attributes drive variation in issuer outcomes and adopt a fixed effect specification. The primary benefit of this approach is that it allows identification of the importance and magnitude of the variation in underpricing attributable to law firms without having to narrow our analysis to characteristics that do not capture the full (time-invariant) effect of law firms.

Our evidence reveals that issuer law firm fixed effects describe a significant percentage of the variation in IPO outcomes. Across models of underpricing, litigation, and disclosure outcomes, we find law firm fixed effects increase adjusted R-squareds by around 1% to 3%. For comparison, we compare the independent variation described by underwriter and law firm fixed effects. Legal advisers for issuers and, separately, advisers for underwriters describe around 71% and 90% as much variation in underpricing as underwriters, even after controlling for deal characteristics. Given that determining price is one of the underwriter's primary responsibilities, this result suggests a greater role for law firms and litigation risk than previously documented.

We validate the existence of an issuer law firm fixed effect by checking that statistical significance is not generated if we randomly assign law firms to IPOs.[3] For each IPO in our sample,

[3] While we expect underwriters' law firms contribute to deal outcomes, we focus primarily on the issuers' law firms. The issuer faces greater potential liability than underwriters, and issuers' lawyers are primarily responsible for drafting disclosure documents, suggesting a relatively larger role in terms of deal outcomes.

we randomly assign issuer law firms to deals, and each law firm receives the same number of mandates as the original sample. We then perform an F-test of the joint significance of the law firm effects. After repeating this process 1,000 times, we find that the F-statistics generated are not more likely to be statistically significant than random. That is, the fixed effect attributable to issuer law firms appears genuine under this falsification test.

We next confirm that the fixed effect results from persistence in IPO performance for individual issuer law firms by studying the correlation between past and future IPO performance. We document that past underpricing has a strong and significant positive correlation with future underpricing for the same legal adviser across issuers. Similarly, Bao and Edmans (2011) find past returns predict future returns for investment banks advising acquirers in acquisitions. It is perhaps more surprising to see persistence in returns in the market for legal advice. The market for law firms is much less concentrated than the market for investment banks, and competition is more likely to drive out any low-quality legal advisers.

Given the large and significant relation between law firms and underpricing, we ask what drives the correlations. Due to the nature of the legal services provided, we expect the link between law firms and first day returns stems from the litigation risk and complexity in drafting legal disclosures. Litigation risk in the IPO market largely arises from disclosures in the registration statement and prospectus filed by the issuer and provided to initial investors. Any material misstatements or misleading omissions in the disclosures can result in class action litigation under section 11 and rule 10b-5. Prior research posits that expected litigation following an IPO induces

issuers to provide greater underpricing as a form of insurance.[4] That is, issuers can protect themselves against price drops and resulting litigation if they offer shares at lower prices.

In multivariate regressions of the likelihood of litigation under either section 11 or 10b-5, we again document the relative importance of law firm choice. Indicators for issuer law firms contribute more to explaining variation in litigation than any other deal characteristic of fixed effect, improving the pseudo R-squared 21.2% (from 0.170 to 0.206). Pseudo R-squared continues to increase with the addition of underwriters' law firms, suggesting both law firms describe variation in litigation.

We also study the IPO prospectus, the main disclosure document provided to investors in an IPO. This document provides issuers the opportunity to reveal background details and material risks to the issuer. Any false or misleading statements could result in litigation against the issuer. We search for "legal" language as a proxy for the disclosure of legal risks in a deal (see Loughran and McDonald, 2011), and we regress the percentage of such language in the prospectus on deal characteristics and law firm fixed effects.[5] Law firm choice describes more of the variation in legal disclosures than any other characteristics except the issuer's industry. While this demonstrates the importance of law firms as it relates to the legal environment, we cannot determine if the law firms directly influence disclosures or if law firms are selected based on issuers' particular disclosure needs.

The link between law firm choice, litigation risk, and underpricing could stem from two non-exclusive mechanisms. First, lawyer quality could vary across firms. In their fixed effect analysis, Golubov, Yawson, and Zhang (2015) find evidence of "extraordinary acquirers", as bidder fixed effects explain more variation in acquisition announcement returns than any other deal characteristic. Similarly, if superior drafting, counselling, or certification of the issue reduce risks,

[4] See Hanley and Hoberg (2012), Hughes and Thakor (1992), Lowry and Shu (2002), and Tinic (1988)
[5] Data and dictionaries come from Bill McDonald's database. https://sraf.nd.edu/

issuers have less need to underprice as insurance against disclosure-related litigation. Under this law firm quality hypothesis, law firms' skill and reputation drive the variation in underpricing.

Second, issuers with particular disclosure needs could hire law firms with relevant expertise. Many law firms specialize in representing particular types of issuers. For example, Cooley is known to represent high-tech, Silicon Valley issuers. If issuers with similar types select the same law firms, then the persistence in underpricing will reflect unobserved issuer characteristics related to deal risk and underpricing. Under this selection hypothesis, persistence survives because of the (unobserved) similarity across issuers that tend to retain similar legal counsel.

We also study the fees paid to issuers' legal counsel and find significant, persistent variation by law firm. Whether this is due to a skill hypothesis or selection based on law firm expertise, large variation in legal fees suggests that issuers pay differential rates based on their needs. In legal fee regressions, we largely hold constant the amount of legal work required by controlling for deal size. Law firm fixed effects are statistically significant with p-values less than .01 in F-tests of joint significance. The result is robust to using the dollar size of fees or fees scaled by deal size. That is, individual law firms seem to persistently capture rents in initial public offerings.

Finally, we regress the underpricing fixed effect coefficients on time-invariant law firm characteristics, including fixed effect estimates from litigation, disclosure, and fee regressions. These correlations provide evidence on the mechanisms behind the persistent underpricing for law firms. For example, under a law firm skill hypothesis, law firms that reduce underpricing due to their greater skill or certification, in equilibrium, will charge higher fees to issuers to capture a portion of the value that accrues to the issuer. If underpricing fixed effects result from unobserved issuer risk characteristics that drive law firm selection, greater risks lead to greater underpricing, and law firms should charge incrementally more for the additional work related to mitigating these risks. We find

that law firms with lower average underpricing charge higher legal fees, consistent with firms charging more for reducing underpricing. However, more specialized (in terms of industry concentration) law firms are associated with greater underpricing, consistent with issuers selecting law firms based on issuer type. That is, we find evidence for both law firm skill and selection effects.

We primarily contribute to literature on the importance of the regulatory environment and litigation risk in IPOs. Hughes and Thakor (1992) present a model in which firms trade-off lower underpricing for lower litigation risk, but Alexander (1993) questions if the frequency and magnitude of disclosure litigation are large enough to influence underpricing. Drake and Vetsuypens (1993) provide some empirical support that underpricing is an ineffective means of preventing litigation, citing a low litigation rate. However, Lowry and Shu (2002) suggest that lawsuits are infrequent *because* issuers underprice to prevent litigation. Hanley and Hoberg (2012) find evidence that issuers use underpricing and disclosures strategically to reduce litigation risk.

While there is substantial literature on litigation in IPOs, there is little on the role of lawyers and IPO outcomes. The dearth of research is especially surprising given the potential for lawyers to serve as "transaction cost engineers", reducing costs to issuers and investors (Gilson, 1998). Beatty and Welch (1996) study law firm reputation, with a market share proxy, and find little evidence of a relation between reputation and underpricing. Barondes, Nyce, and Sanger (2007) study underwriters' law firms influence on underpricing. However, these studies do not attempt to capture the magnitude of the effect of law firms on underpricing beyond the effect of reputation.[6]

We also contribute to a broader "fixed effect" literature on the importance of time-invariant, unobserved firm characteristics in corporate finance. Lemmon, Roberts, and Zender (2008) show that firms' capital structures are largely unexplained by cross-sectional determinants but are stable

[6] McClane (2015, 2016) takes a novel approach and studies the effect of "teams", that is the interaction of law firm and underwriter.

over time. Bao and Edmans (2011) find that investment bank advisers have a persistent effect on the returns of bidders that they advise. Golubov, Yawson, and Zhang (2015) examine the fixed effects of bidders, which describe more in bidders' stock returns than all other observable characteristics combined. Hoberg (2007) finds significant underwriter fixed effects in IPOs and attributes this to information asymmetry among underwriters. We contribute to this literature by highlighting the importance of the legal adviser, and the importance of law-firm specific effects in corporate finance.

The remainder of the paper proceeds as follows. Section 2 describes the regulatory and litigation environment in IPOs. Section 3 presents a review of related literature. Section 4 describes the data. Section 5 presents the results of underpricing regressions with fixed effects and evidence on the mechanisms that provide variation in legal adviser fixed effects. Section 6, concludes.

II. Background on Legal Advisers in IPOs

The role of the lawyer in IPOs primarily focuses on the disclosure requirements of securities laws. The most relevant laws for registered securities offerings on public exchanges are section 11 of the Securities Act of 1933 and section 10(b) of the Securities Exchange Act of 1934, with the accompanying rule 10b-5. These regulations prohibit untrue statements and the omission of material facts that mislead investors. Hence, the preparation of the prospectus and registration statement, the primary disclosure documents for issuers, places substantial demands on an issuer's counsel.

Under section 11, liability for misstatements attaches to any party that signs the registration statement (e.g., directors and managers), issuers, underwriters, auditors, and other "experts" who prepare any part of the document. In addition to action by the SEC, such parties can be liable to investors via a private right of action. Investors can claim damages for misstatement under section 11 for the decline in price between the time of purchase and filing of the suit or the price sold before judgement. Similarly, under 10b-5 there are several methods for calculating damages, which

rely on calculating the value effects of the inflation in price and resulting harm from the misstatement. Under either law, the lower the issuer sets the issuance price, the more difficult it will be for plaintiffs to establish damages and sue under federal securities laws. These requirements for establishing damages give rise to the notion that underpricing insures against litigation.

As liability potentially extends to both issuer and underwriter, each will retain outside legal counsel in almost every IPO. Issuers face the most potential liability for misstatements, and the issuer's law firm is the party that primarily drafts the IPO prospectus, with input from the issuer (managers and directors), underwriter, and underwriter's counsel. Due to the large role of the issuer's law firm in drafting the disclosures, we expect they have the largest influence on the final document. By increasing and tailoring disclosure, law firms can reduce the probability of a material misstatement or omission that could implicate their client, either issuer or underwriter.

Aside from aiding with disclosure, law firms limit their clients' liabilities by establishing defences. Underwriters, directors, and officers that prepare the registration statement are potentially liable for the disclosures, but they can establish a "due diligence" defence. The due diligence defence applies after reasonable investigation into the accuracy of the disclosures. Specifically, if a party to the transaction can establish that they acted under the standard of a "prudent man in the management of his own property", then they become insulated from liability. The factors considered in determination of this standard of care for the party using the defence include the level of involvement in the IPO, the position and expertise of the individual, issuer type, the availability of information, and type of security, among other factors. As issuers face strict liability for their

disclosures, a due diligence defence is not available to the firm.[7] Hence, issuers face the greatest incentive to provide accurate disclosures.

III. Literature Review and Hypotheses

Several papers highlight the importance of shareholder litigation in corporate finance. Lawsuits can provide incentives to managers and directors to fulfil their obligations to shareholders in a diligent manner, as they act to limit liability from making value-destructive decisions. In this sense, litigation is a type of corporate governance mechanism. Prior work (e.g., Appel, 2016; Brochet and Srinivasan, 2014; Cheng, Huang, Li, and Lobo, 2010, and Humphery-Jenner, 2012) find that shareholder suits result in governance improvements, such as increases in board independence, removal of targeted directors, or disciplinary takeovers. However, litigation need not enhance firm value, if the lawsuit is not founded in legitimate claims but which have settlement value ("strike" suits), or if suits result from incentive problems between shareholders and their lawyers (Romano, 1991). The costs of such suits extend beyond direct litigation costs, into corporate policy. For example, Arena and Julio (2015) show that firms increase precautionary cash and decrease investment in expectation of shareholder litigation. Lin, Liu, and Manso (2016) find causal evidence that shareholder litigation has a chilling effect on corporate innovation.

Within the context of IPOs, the motivation behind the statutory ability of shareholders (and regulators) to sue issuers is to promote greater and more accurate disclosure. While regulation aligns managers and shareholders incentives with respect to inaccuracies and fraudulent statements, providing information comes with significant costs. There are direct (legal/audit) costs and

[7] For a summary of lawyers' role in the IPO, see Westlaw's Liability Provisions: Securities Offerings, Practical Law Practice Note 6-381-1466 (2018)

opportunity (managerial time) costs of ensuring disclosures are accurate. In addition, firm value can suffer if firms disclosue information that competitors use to their advantage. Boone, Floros, and Johnson (2016) show that issuers redact information from their public filings to protect proprietary information. Hence, full disclosure does not likely optimize firm value, leaving residual litigation risk.

Hughes and Thakor (1992) and Tinic (1988) suggest that issuers and their underwriters underprice shares to reduce litigation risk. This is consistent with the limitations on claiming damages in securities law. If shares are priced lower, there is a lower probability of a price drop, making it difficult to claim damages and bring litigation. In their literature survey, Ritter and Welch (2002) question the "insurance" hypothesis of underpricing. They cite Drake and Vetsuypens (1993) who find little effect of litigation on issuers and Keloharju (1993) who finds evidence of underpricing in jurisdictions without as litigious of an environment for IPOs. However, Hanley and Hoberg (2012) and Lowry and Shu (2002) find evidence supportive of an insurance hypothesis and show that firms trade-off litigation risk with underpricing and greater disclosure.

Given the prior literature on litigation risk, disclosure, and underpricing, there is little evidence on the role of the law firm, who is largely responsible for crafting disclosure and limiting issuers' and underwriters' exposure to litigation. Extant research focuses on law firm reputation (market share) as a source of variation. For example, Beatty and Welch (1996) find little evidence of a correlation between law firm reputation and underpricing or disclosures. Barondes, Nyce, and Sanger (2007) find that issuer law firm reputation is positively correlated with underpricing, although their study focuses on identifying the effect of underwriters' law firms. A positive correlation is counterintuitive, as we might expect reputation to decrease uncertainty about an issue. However, Krishnan and Masulis (2013) find that reputable law firms are associated with inferior acquisition outcomes (higher premiums), consistent with an agency problem between lawyers and bidders.

Aside from IPO outcomes, several papers study the influence of law firms on governance design during an IPO. These papers show that the choice of legal adviser influences the legal environment of the issuer, including antitakeover devices (Coates, 2001), state of incorporation (Daines, 2002), and choice of forum clauses in corporate charters (Romano and Sangha, 2017). In terms of forum selection, Romano and Sangha (2017) show that after a law firm begins to incorporate such clauses into their clients' charters, the law firm is much more likely to use the clause for later clients, consistent with a law firm specific effect.

The presence of a law firm-specific effect motivates our use of fixed effect methods for studying the influence of law firms on underpricing and litigation outcomes. In addition to not having to narrow our statistical analysis to particular law firm attributes, prior literature in corporate finance show that fixed effect techniques can effectively reveal economically important, time-invariant attributes. Lemmon, Roberts, and Zender (2008) reveal how little is known about firms' capital structures, as the majority of the variation in firms' capital structure results from time-invariant, unexplained components. Golubov, Yawson, and Zhang (2014) show that bidder fixed effects explain more in bidder returns than all other commonly used determinants combined. Graham, Li and Qiu (2011) show that manager fixed effects dominate firm fixed effects in explaining a number of corporate policies.

There is also evidence that advisers to firms have persistent effects on corporate outcomes. For example, Bao and Edmans (2011) find that bidder returns are largely explained by investment bank adviser fixed effects, and that there is persistence in bidder performance across deals for a given investment bank. The most closely related study to our paper is Hoberg (2007), who examines underwriter fixed effects in a model of underpricing and documents persistence in IPO returns for

underwriters. He attributes the persistence to some underwriters being consistently more informed about the value of issues than other underwriters.

How do law firms affect IPO outcomes? What mechanisms drive the relation between law firm choice and underpricing? We propose two non-mutually exclusive hypotheses. First, we posit that heterogeneity across law firms affects the (expected) underpricing demanded by investors. This could arise through multiple channels. A skilled law firm could influence the information environment through due diligence efforts and disclosures. If these efforts reduce litigation risk, there is less need for underpricing to hedge against this risk.

In addition, law firms can have deal-invariant effects on underpricing through certification. Prior literature on underwriters (Carter and Manaster, 1990; Bhattacharya, Borisov, and Yu, 2015), venture capitalists (Megginson and Weiss, 1991; Krishnan, Ivanov, Masulis, and Singh, 2009), auditors (Beatty, 1989), and issuing managers (Chemmanur and Paeglis, 2005) suggests that the reputation of the parties involved in an IPO provides assurance to investors about the quality of a deal, reducing underpricing. Due to their confidentiality requirements, fiduciary duties, and the unique role of attorneys with respect to their clients, professional reputation is paramount among law firms. Any injury to a law firm's reputation could dramatically reduce the firm's ability to attract and retain clients. For example, Vinson & Elkins lost 9.5% of its clients in the wake of the Enron scandal.[8] If a law firm risks significant, valuable reputation by associating itself with an issuer, investors receive a positive signal of the quality of the issuer, providing a certification effect.

The second, non-exclusive hypothesis suggests there are law firm fixed effects resulting from a selection process, rather than law firms' skill or reputation. Law firms frequently advertise their expertise in various industries, sectors, or fields of law. Particular types of issuers could be drawn to

[8] https://www.chron.com/business/enron/article/Enron-loss-major-blow-to-V-E-law-firm-2092214.php

legal advisers for their relevant expertise. For example, the two largest Chinese firm IPOs in the US, NIO Inc. and iQiyi, retained Skadden as their counsel The choice of Skadden, who has partners located in Hong Kong and familiar with Chinese markets, could reflect their expertise with such firms. Higher underpricing could reflect risk associated with Chinese deals and Skaden's expertise.

Prior literature provides an analogy in terms of managerial fixed effects. Bertrand and Schoar (2003) find that manager fixed effects have a large influence on corporate policies. However, Fee, Hadlock, and Pierce (2013) present evidence questioning if manager-fixed effects are driven by manager-specific style. Rather, their evidence suggests that changes in corporate policies relate to management hiring and retention decisions. Under our selection hypothesis, issuers with similar risk profiles tend to choose the same law firms, and variation in risk is priced into issues. Any observed law firm fixed effect results from similarity in law firms' clients, not law firms' effect on the information environment ("style") through skill or signalling of client quality.

IV. Data Sources

We use the Thomson Financial Securities Data Company (SDC) new issues database to identify U.S. IPOs over the period of 1986-2016. The sample starts from 1986, when SDC starts to provide information on IPO legal advisers. We exclude issues by closed-end funds, real estate investment trusts (REITs), American depository receipts (ADRs), unit offers, limited partnerships, and issues below $5. We also require that IPO companies have daily returns data from Center for Research in Security Prices (CRSP) and financial statement data available from Compustat. The final sample consists of 7,554 IPOs. Definitions of variables are in the Variable Appendix.

We identify law firm fixed effects using the names of legal advisers provided in SDC.[9] We limit the analysis to the lead legal adviser and underwriter, if the issuer retains several law firms or underwriters on a deal. We focus on the lead advisers, as they play the largest role and are likely to have the largest influence on deals, and we use (lead) underwriter fixed effects as a benchmark, as prior literature has identified the importance of underwriters in underpricing (Hoberg, 2007). Fixed effects are at the level of acquired/subsidiary for the underwriters and law firms. Ie, subsidiaries of parents have individual fixed effects, and post-merger combined banks are independent of the pre-merger constituent firms if the combined bank does not have the same name as the acquirer.

Table 1 presents basic summary statistics for our sample of IPOs. Panel A presents statistics on market share for the top 10 underwriters, issuer law firms, and underwriter law firms by year. For underwriters, the top 10 hold a very large percentage of the dollar volume of deals, frequently over 80% of the market. For law firms, the top 10 carry significantly less market share each year than the top 10 underwriters. In particular, the top 10 issuer law firms may only have half of the volume that the volume of the largest underwriters in a given year. In Panel B, we present full sample statistics. Mean underpricing is 17.7% with a median of 7.1%, which is higher than some prior studies but still consistent with historical variation in U.S. underpricing (Ljungqvist, 2007). The rate of litigation for our sample IPOs is larger than documented in Lowry and Shu (2002), but is similar to that found in Hanley and Hoberg (2012) This suggests that litigation is more prevalent in recent years.

V. Issuer Law Firms and Deal Outcomes

i. Individual Law Firms and Underpricing

[9] Many law firms and underwriters are associated with one IPO. We inspect the names manually. There are underwriters and law firms that are associated with only one sample deal, but others could be typos or misspellings of names. We do not attribute potential misspellings to any sample banks or law firms.

In Table 2, we estimate law firm specific heterogeneity in underpricing with fixed effects. In Panel A, we regress the first day returns for IPOs on controls for deal characteristics that prior literature has shown to influence underpricing. We include IPO proceeds (Habib and Ljungqvist, 1998), overhang (Bradley and Jordan, 2002), the presence of a venture capitalist (Megginson and Weiss, 1991), and an indicator for the sale of secondary shares.[10] We also include industry and year indicators to capture industry-specific factors and hot markets in the following model:

$$\text{Underpricing}_i = \alpha + \beta X_i + \lambda_1 \text{Issuer Law Firm FE} + \lambda_2 \text{Underwriter Law Firm FE} + \lambda_3 \text{Underwriter FE} + \lambda_4 \text{Industry FE} + \lambda_5 \text{Year FE} + \varepsilon$$

where X_i represents deal characteristics for an IPO, β is a vector of coefficients for deal characteristics, and λ_i represent vectors of coefficients on indicators for issuer law firm, underwriter, underwriter law firm, industry, and year of IPO.[11]

We use columns 1 and 2 as baseline regressions with only deal characteristics and, in column 2, indicators to capture underwriter fixed effects. The adjusted R-squared increases from 29.3% (column 1) to 31.0% (column 3) with the addition of issuer law firm fixed effects, for a relative increase of 5.8%. Similarly, the adjusted R-squared increases from 29.3% (column 1) to 32.9% (column 4) with the addition of underwriter law firm fixed effects, for a relative increase of 12.3%. For comparison, underwriter fixed effects (column 2) increase the adjusted R-squared to 32.5% form the baseline (column 1), a relative increase of 10.9%. While the underwriter's law firm seems to have more explanatory power than the underwriters, some of the variation in the underwriter's law firm is attributable to the underwriter, so we must consider both advisers together.

[10] In alternative specifications, we include an indicator for high reputation underwriters. As reputation is relatively stable over time, we do not include it in our estimation of fixed effects, but results on law firm effects are substantially unchanged.

[11] We create indicators only for law firms and underwriters with at least 10 observations in the sample, as there is limited power to estimate the effects of advisers with fewer observations. Advisers with fewer than 10 observations are captured in the intercept.

In columns 5 to 8, we stagger in the fixed effects of the issuer law firm, underwriter law firm, and underwriter to compare the incremental effect of each adviser to the model. With each additional set of fixed effects from each of the three advisers, we see the explanatory power of the model increase. In column 8, we include all three advisers' fixed effects. The R-squared continues to increase, up to 35.5%, suggesting each adviser contributes independent explanatory power.

In Panel B of Table 2, we study the independent contribution of each advisers' fixed effects to the explanatory power of the model with a decomposition (ANCOVA) of variance of underpricing. For each variable/fixed effect, we calculate the partial sum of squares from the last model in Panel A (column 8). We then scale each partial sum of squares for each variable/fixed effect by the sum of all partial sum of squares, so the values in Panel B sum to one. This breakdown allows comparison of the independent contribution of each characteristic to the model.

Other than the market value of the issue, deal-specific characteristics contribute little to explaining the variation in underpricing, despite statistically significant coefficients. Overhang, venture capital backing, and the presence of secondary shares only contribute around 4% of the total explained (independent) variation. Indicators for year of issuance are particularly pronounced, contributing 19.6% of the explained variation. This is consistent with prior literature on underpricing in "hot" markets (e.g., Derrien, 2005; Ljungqvist, Nanda, and Singh, 2006). Underwriter effects contribute about 14.0% to explaining the variation in underpricing, consistent with Hoberg (2007). Indicators for issuers' legal advisers contribute around 9.9%, which is around 71% the size of the underwriter effect, and underwriters add about 12.6% to the explained variation, or of the variation, or 90% of that explained by underwriters. Each legal adviser explains a similar

amount of underpricing as underwriters, for a combined effect of law firms having greater influence on underpricing, in terms of explained variation.[12]

An F-test of the joint significance of issuer legal adviser fixed effects rejects the null (no fixed effect) at the 1% level, with similar results for underwriters' legal advisers. However, prior literature shows that such tests of fixed effects can reject the null, even when observations are randomized due to the structure of the data (Fee, Hadlock, and Pierce, 2013). To check for a spurious significant correlation of law firm fixed effects with underpricing, we provide a falsification test. We randomize the sample law firms with respect to the IPOs. For each deal we randomly assign a sample law firm, holding constant the number of deals each law firm advises. An F-test should not detect any fixed effect in this simulated pairing. We iterate this procedure 1,000 times to produce 1,000 F-statistics and associated p-values. We plot the histogram of these p-values in Figure 1. Casual inspection reveals that F-statistics do not appear to be more significant than a random draw, suggesting that the law firm fixed effect is not driven by an artefact of the data.

We take the fixed effects estimated in Table 2 and present a histogram of their distribution in Figure 2.[13] The distribution reveals significant dispersion. The interquartile range is over 8%. This is compared with a median level of underpricing of about 7% for the full sample. There are few legal advisers with extreme underpricing, possibly due to price support, at least in the lower tail of the distribution. Since there is no upper bound on the first day returns to issuers, it is somewhat surprising to see few law firms with persistently higher returns, which might be expected if law firms pressure issuers to underprice to avoid potential litigation.

[12] In appendix Table B1 we also examine price adjustments, as a percentage of the median offer range, and law firm fixed effects. Law firms for the issuer and underwriter contribute 11.1% and 11.9% to the explained independent variation in adjustment models.

[13] The full set of coefficient estimates is presented in Appendix Table A1.

In Table 3, we test for persistence in underpricing for legal advisers. Under a skill/certification hypothesis, issuers have incentive to retain skilled lawyers, and the lawyers have incentive to develop reputation. In order to take advantage, issuers must be able to identify skilled law firms, by looking at underpricing over a recent window.Similar to Bao and Edmans (2011), we sort law firms into quintiles by their IPO performance over the past year (or two or three years) and follow their performance in terms of underpricing over the following year (or two or three years). We focus on the highest and lowest quintiles of past performance to test for persistent in those law firms associated with the higher and lowest initial returns. If fixed effect estimates are driven by large outliers, we expect the highest and lowest quintiles to show the least persistence. The results of differences between the two quintiles are in the last column.

We find that comparisons are similar irrespective of how far back or forward we look. In general, those law firms associated with the greatest underpricing in the past (1, 2, or 3 years) continue to have more underpricing, relative to those law firms that exhibited lower underpricing in the past. The highest quintile law firms have around 7.0% to 14.8% greater underpricing on average in future IPOs. For example, law firms in the largest underpricing quintile in the past year will experience underpricing of around 19.1% in the following year, whereas those in the lowest quintile are associated with average underpricing of 12.1%. The differences increase the further forward we look. The law firms with the largest underpricing in the past three years continue to have large underpricing of around 27.5% in the following three years. Those with the lowest first day returns in the past three years continue to have lower underpricing of 12.8%. The difference between these two quintiles is about 14.8%, which is significant at the 1% level in T-tests, revealing substantial persistence. In unreported robustness analysis, we control for deal characteristics, and use the residual of underpricing to study persistence. We continue to find statistically significant evidence that past underpricing is positively correlated with future underpricing.

Thus far, our evidence is consistent with a large, significant law-firm specific effect on underpricing and a strong persistence of the law firm effect across time periods. However, fixed effect models do not suggest why there is a time-invariant component of underpricing associated with legal advisers. In the next sections, we provide evidence on role of lawyers and the mechanisms generating the law firm fixed effects in underpricing.

ii. The Link between Law Firms and the Legal Environment of the IPO

In this section, we provide additional analysis on the legal environment for IPOs. We first ask whether litigation risk can explain the law-firm specific component of initial returns in public offerings. The primary responsibilities of legal advisers in IPOs include advising clients on liability under securities regulations, which include disclosure-related liabilities from rule 10b-5 and section 11. Damages are typically calculated from the drop in price relative to the offering price. Ex ante, issuers facing greater litigation risk can lower the offer price to avoid or reduce expected damages. Consistent with this, Lowry and Shu (2002) and Hanley and Hoberg (2012) present evidence that issuers underprice to hedge against future litigation.

If issuers select law firms due to their expertise managing certain risks or other issuer characteristics that could lead to legal liability and those risks induce issuers to underprice to a different degree, then the legal-adviser fixed effects could result from unobserved risk factors associated with new issues. Legal advisers and issuers could match with each other based on (unobserved) issue or firm characteristics that could drive underpricing. For example, an issuer may work with a law firm that they have worked with in the past, because the law firm has specialized knowledge of firm characteristics, and these characteristics could related to underpricing. Similarly, Yasuda (2005) studies underwriter selection for debt offerings. She finds bank relationships are a

significant determinant of underwriter choice, even beyond any effect of the relationship on fees charged to the issuer.

Law firms may also have a more direct effect on underpricing. If they have knowledge and expertise that can reduce risk for issuers, to varying degrees, then any reduced risk would allow issuers to reduce underpricing, as less underpricing would be necessary to insure against litigation. The degree of underpricing and risk reduction would vary with a law firm's quality or reputation. For example, a law firm's reputation could certify the value of a deal to investors, or a skilled firm could enhance disclosure, which can hedge against litigation risk (Hanley and Hoberg, 2012). In short, we expect underpricing varies with deal characteristics related to law firm choice, the quality of the law firm, or both.

First, we study IPO-related litigation. Whether law firms affect initial returns through reducing litigation risk or they are selected based on such risk, issuers' law firms are tied to the propensity of litigation post-IPO via the litigation and regulatory environment. We run probit regressions in which the dependent variable equals one if the issuer is subject to securities class actions resulting from disclosure claims, section 10(b) or section 11 claims. Data on litigation come from Stanford's class action database.

Table 4 presents the results. We utilize similar control variables as in previous regressions. Column 1 models the probability of litigation as a function of deal characteristics, year fixed effects, and industry fixed effects. We exclude law firm and underwriter fixed effects from this model, so it serves as a baseline for comparison. In column 2, we include underwriter fixed effects. We see the pseudo R-squared increases from 0.170 to 0.191, suggesting underwriters provide significant explanatory power in models of litigation. This is consistent with prior literature (Hughes and Thakor, 1992) that suggests underwriters influence IPO litigation.

In column 3 we include issuer law firm fixed effects without underwriter fixed effects. The pseudo R-squared increases from 0.170 to 0.206 relative to the baseline regression in column 1. That is, the explanatory power of the model increases to a greater extent when adding law firm effects than to underwriter effects. In column 4, we include fixed effects for the underwriter's legal adviser, which produces a pseudo R-squared of 0.184, suggesting that underwriters' lawyers have less explanatory power on litigation than underwriters or issuers' law firms.

In columns 5 to 8, we combine indicators for issuer law firm, underwriter law firm, and underwriter, with all 3 types of adviser included in column 8. With the addition of each advisers' fixed effects, the pseudo R-squared increases. Each adviser adds independent explanatory power to the model, suggesting they all have could influence potential litigation.

To provide a relative comparison of the influence of the different advisers, we again provide a decomposition. In these probit models, we use the increases in pseudo-R-squares to estimate the relative increase in explanatory power provided by each deal characteristic and fixed effect in Panel B of Table 4. Perhaps unsurprisingly, issuer law firm indicators provide more explanatory power than any other characteristic or fixed effect. Issuers are strictly liable for material misstatements, providing issuers and their law firms the greatest incentive to mitigate disclosure litigation. Issuer law firm fixed effects provide about 24.4% of the independent explanatory power of the model. Unerwriters and their law firms contribute around 16.3% and 12.2% respectively. In terms of the decomposition, issuer law firms are the most significant adviser in determining securities litigation.

In Table 5, we study the relation between law firms and the language in the IPO prospectus, the main disclosure document to shareholders. As the primary disclosure document, the prospectus is the focus of plaintiffs' lawyers, who will look for misstatements or misleading omissions to sue the issuer and recover damages for their clients. For example, in litigation against Snap, Inc. (parent of

Snapchat), the shareholder plaintiffs alleged that Snap did not "acknowledge the negative effects Instagram" on Snapchat's growth opportunities.[14] Since the prospectus is a source of litigation, it is prepared by the issuer, underwriter, and their legal counsel. It acts as both a means of reducing information asymmetry and potentially preventing litigation risk.

The dependent variable in Table 5 is the percentage of "legal" terminology in the prospectus, relative to the document size. We use dictionaries from prior literature (Loughran and McDonald, 2011) to identify the legal words, which are made available for public use by the authors.[15] Table 5, Panel A presents the results of disclosure regressions in a similar format to underpricing regressions. Compared to the baseline regression in column 1, column 2 shows the increase in adjusted-R-squared from the addition of underwriter fixed effects. The increase is from 28.0% to 29.3%. Notably, the addition of issuer (underwriter) law firm effects increases the explanatory power of the model to 33.8% (33.6%). Panel B provides the decomposition of variance to see the relative contribution to the explained variation of the independent variables in the model. The adjusted R-squared continues to increase with the addition of each fixed effect, indicating that each adviser adds explanatory power to the model.

The decomposition of the effects reveals that issuer (underwriter) law firm fixed effects explain around 21.6% (15.4%) of the variation in legal language, whereas underwriter fixed effects only provide 9.7% of the explained variation. The only variables that provide greater influence in the model are industry indicators. These results again suggest that there is a significant link between law firm selection and the legal environment that the issuer faces. However, the results still represent basic correlations, and we cannot distinguish if lawyers directly influence issuers' disclosures, if high risk/high disclosure deals are associated with law firm selection, or a combination of both.

[14] In Re Snap Inc. Securities Litigation, 17-cv-03679 (C.D. Cal. 2018).
[15] In addition to studying "legal" terminology, we also find fixed effects for law firms if we use "opaque" language or the length of the prospectus as a proxy for disclosure (results available upon request).

iii. What Drives the Law Firm Effect?

We look for evidence on how legal advisers are related to IPO outcomes. Our main hypotheses posit that law firms have a direct effect on outcomes through variation in their skill and reputation, or a selection effect in which certain types of deals (e.g., risky deals) relate to law firm choice and deal outcomes, such as greater underpricing.

If legal advisers vary in their skill or ability to influence IPO outcomes, such as underpricing, issuers should value such skill. Lower underpricing implies that issuers do not leave as much money on the table when offering their shares, increasing the proceeds raised. If law firms can help save issuers money in terms of less underpricing from lower risk, they could capture some of the value savings in terms of rents.

We look at the legal fees provided to issuer law firms in IPOs in Table 6. In Panel A, the dependent variable is the log of legal fees paid to the issuer law firm. We control for deal and market characteristics. Column 1 again provides a baseline regression in which we exclude law firm and underwriter fixed effects. In columns 2, 3, and 4, we separately add the advisers' fixed effects to study the marginal contribution to the adjusted R-squared from each adviser. Adding the underwriter, issuer law firm, and underwriter law firm effects increases the adjusted R-squared to 61.0%, 62.9%, and 60.7% from the baseline of 58.5%. It is not surprising that issuer law firms provide more explanatory power in models of their legal fees relative to other advisers, but the existence of such variation implies some pricing power in the market for legal advice.

In Panel B, we again use a decomposition to study the relative importance of the determinants of legal fees. Issuer size is a significant determinant legal fees. The log of the market value, in 2016 dollars, of the issuer explains 14.8% of the (independent) explained variation in the model of fees, relative to the sum of the contribution of all other independent variables. We expect

firm size to play a significant role in determining legal fees. Lawyers are paid based off of their hourly contribution (billable hours), and larger deals tend to be more complex, requiring greater time investment from the lawyers working on the offerings. Other deal characteristics, such as venture capitalist backing and secondary shares, add little to explain legal fees.

However, indicators for year are the largest determinant of legal fees. Prior literature reveals "hot" markets for IPOs, in which investors are ambitious about equity issuances and many deals come to market (e.g., Ritter, 1984). In unreported analysis, we find that legal fees are *lower* in hot markets. This surprising result suggests that increased demand for legal services does not drive up the price of such service. Rather, this is consistent with greater competition in hot markets and perhaps greater efficiencies when law firms face high volume. Additionally, having fewer mandates in slower markets could increase the incentive to "pad" hours when there is idle labor within law firms, or to shift workload to more expensive partners instead of junior lawyers.

After the year of issue, the most significant fixed effect is the issuer's law firm. These firms explain 22.2% of the variation in legal fees. It is not surprising that some lawyers make more than others. For instance, the Am Law 100 reports significant variation in revenue per lawyer across the top 100 law firms.[16] However, this variation could be driven by charging higher fees or booking more billable hours. Because we control for quantity of work with deal size, the issuer law firm fixed effect suggests there is a large pricing differential across law firms, which explains more in fee revenue than the size of the deal. This is consistent with variation in law firm skill (or their ability to certify deals) being priced into their compensation.[17]

[16] "Revenue Per Lawyer", The American Lawyer (online), April 26, 2017.

[17] In additional analysis, we use fees scaled by issuer size as the dependent variable. We continue to find a significant issuer law firm fixed effect.

While our evidence supports the idea that law firms vary in quality and can charge for their differential effect on deal outcomes, an alternative explanation for our results is that law firms are selected based on unobservable deal risk. This risk may require more or less work for which the law firms must get compensated to a greater or lesser degree, even though the additional work may not directly influence underpricing. We provide additional analysis to examine whether the observed correlations between deal outcomes and law firm selection derive from a hypothesis of law firm skill, or selection effects, or both. We look for evidence on selection and skill effects in time-invariant attributes of law firms.

Table 7 presents univariate regressions of the point estimates of issuer law firm fixed effects from the underpricing regressions on other time-invariant law firm characteristics.[18] We have 148 observations, one for each issuer law firm for which we can estimate an underpricing fixed effect. Our law firm characteristics include the fixed effects estimated from model of litigation, prospectus disclosure, and legal fees. We also include law firm characteristics, such as reputation and specialization. While reputation can vary over time, its persistence is fairly stable, making within firm variation in reputation difficult to study. Hence, we treat it as time-invariant.

In column 1 of Table 7, we regress the underpricing fixed effect estimates on the estimates of the litigation fixed effects for issuer law firms.[19] There is a significant positive correlation, with a 0.03 p-value. Law firms that are associated with greater litigation rates are associated with higher underpricing. Although only a suggestive, this correlation is more consistent with a selection hypothesis. Issuers facing unobserved (litigation) risks are more likely to retain particular legal adviser and also underprice to mitigate potential liability. The positive correlation is also consistent with a skill hypothesis, in which law firms with greater ability reduce litigation, allowing issuers to

[18] The coefficient estimates come from the full model of underpricing, column 8 of Table 2.
[19] Univariate statistics of the time-invariant characteristics are available in Appendix Table B2.

underprice less. This evidence provides further support for a link between law firm choice, litigation, and underpricing, but the mechanisms behind such relation remain elusive.

In column 2, we find a statistically significant and negative correlation between law firms' time-invariant effect on disclosure (percentage of legal terminology) and underpricing. In as much as greater use of legal language proxies for proficiency in disclosure, this negative correlation supports a skill hypothesis. Law firms that are superior at disclosure reduce issuers' need to underprice. This correlation is not expected under a selection mechanism. Issuers with greater risks, all else equal, will have greater disclosure needs, leading to greater disclosure of legal issues. Greater risks would also be associated with more underpricing to hedge against the risks leading to litigation. Taken together, more disclosure should be positively correlated with underpricing in the selection hypothesis.

Column 3 provides perhaps the clearest means for distinguishing between a skill and selection effect by studying law firm (dollar value) fee fixed effects. Law firms with greater skill or ability to certify a transaction should reduce underpricing due to their influence on litigation risk. At the same time, these law firms should be able to charge a premium for their superior service. Under a selection hypothesis, issuers with greater risk retain law firms that specialize in the particular risk that the issuer faces. The demands on the lawyers would be greater, as the law firms invest more effort to manage the risk, leading to greater pay. Since the issuers underprice to reduce litigation associated with the risk, we expect legal fees are positively related to underpricing.

The coefficient in column 3 is negative and significant, consistent with skilled law firms charging a premium for their talents. For robustness, we also estimate issuer law firm fixed effects in regressions of issuer legal fees scaled by the size of the issue. We regress the underpricing fixed effect estimates on the law firm fixed effect estimates from the scaled fee regressions and present

the result in column 4. Law firms that charge more *per dollar* of the issue are associated with less underpricing, again supporting the notion that skill is priced in the market for law firms.

We next examine the link between law firm reputation and underpricing. Our proxy of reputation is motivated by prior studies that use market-share based measures of law firm reputation, such as a "top 10" indicator (Barondes, Nyce, and Sanger, 2007; Krishnan and Masuls, 2013; McClane, 2015). The papers provide significant insights into the importance of law firms. However, we suggest their focus on market-share proxies does not capture much of the influence of law firms on deal outcomes. Such proxies are motivated by the literature on investment banks and auditors. In these markets there is a fairly substantial break between the "bulge bracket" (banks) or the "Big-N" (auditors) and smaller competitors. While there are larger and smaller law firms, there is less of a natural break between the most reputable law firms and smaller competitors. This lack of distinction creates difficulty in defining an appropriate cut-off for reputation, and the proxy risks being over- or under-inclusive.

In column 5, we create a market-share based proxy for reputation. For each year, we rank law firms by their IPO market share. If a law firm is in the top 10 in more than 50% of year in which it appears in the sample, the indicator equals one, zero otherwise. We hence treat reputation as time-invariant. Because the structure of the legal market leaves a lack of clear delineation between larger, more-reputable law firms and smaller law firms, using a time-invariant approach is more likely to correlate with a latent measure of reputation than yearly changes in IPO volume for individual firms. The sign of the correlation is negative, but we find no statistical significance. Reputation, at least by the common proxy in the literature, does not seem to be a strong determinant of the importance of

law firms with respect to underpricing. Hence, prior literature, with its focus on market-share based reputation proxies, could miss the mechanisms through which law firms influence deals.

The next characteristic we study focuses on within-firm industry share, rather total market share. Under our selection hypothesis, individual law firms pair with different types of issuers. Since issuers with similar characteristics choose similar law firms, the correlation between law firms and underpricing could stem from unobserved client (issuer) characteristics. We look for evidence of issuers selecting certain law firms based on unobserved similarities by testing for selection on observable characteristics.

For each law firm, we look at the percentage of deals done in each industry over the sample period. We define industry using Fama-French 48 industry classifications. We square each percentage and sum the squares to provide a measure of the industry specialization of each law firm. In column 6 of Table 7, we regress issuer law firms' underpricing fixed effects on the measure of specialization. There is a positive, significant correlation between the measures. This result suggests that law firms that specialize in "unique" or particular types of clients can attract deals with greater risks and need for underpricing.

VI. Conclusion

We study the importance of legal advisers in IPOs. We show that the magnitude of law firms' effect on variation in underpricing is economically significant. The importance of underwriters is documented in numerous studies (e.g., Beatty and Ritter, 1986; Bhattacharya, Borisov, and Yu, 2015; Carter and Manaster, 1990; Chen and Ritter, 2000; Corwin and Schultz, 2005).Since law firms provide similar explanatory power in underpricing regressions as underwriters, the paucity of

literature on the role of legal advisers in IPOs demonstrates a large gap in the literature and our understanding about the mechanisms that contribute to first day returns in equity issuance.

We also find an intuitive link between law firms and the litigation environment, as law firms exhibit significant fixed effects in terms of litigation and disclosure outcomes. We posit two non-exclusive mechanisms that connect legal advisers to underpricing. First, issuers could select legal advisers based on (unobservable) deal characteristics that relate to deal risk, specifically litigation risk. Under an insurance hypothesis, issuers facing greater risk underprice to limit damages and the probability that litigation materializes. While the law firm is not directly responsible for influencing the level of underpricing in this scenario, the selection process implies that law firms are chosen by issuers based off of economically relevant risks, underlining the importance of legal counsel.

Second, law firms could directly reduce risk. More skilled lawyers could craft disclosures that reduce the risk of potential litigation, or reputable law firms could provide a certification effect to the market, which could chill the threat of shareholders challenging the disclosures in the prospectus. Consistent with variation in the ability of law firms, we find that law firm fixed effects describe a large portion of legal fees, which is suggestive of rents in the pricing of legal services.

We also study time-invariant characteristics of law firms and provide evidence on the skill and selection hypotheses. We find evidence consistent with the existence of both mechanisms. The law-firm specific component of legal fees has a negative correlation with law firms' influence on underpricing, consistent with skilled law firms charging a premium for reducing litigation risk and underpricing. However, we also find the more specialized law firms are associated with greater underpricing. Under a selection hypothesis, legal advisers that cater to clients with unique, significant risks will be persistently associated with greater underpricing, as such clients lower the price of the issue to initial investors to hedge against price declines and future litigation.

Overall, we present evidence consistent with both mechanisms. Fixed effect analysis doesn't allow us to identify the relative magnitude of each mechanism. However, the primary contribution of this paper is to document the relatively large magnitude of the variation in outcomes across law firms. The interquartile range (8%) in law firm fixed effects for underpricing is greater than the median (7%) level of sample underpricing. The legal adviser in an IPO, and more generally the litigation environment, plays a much larger role than previously documented in prior literature.

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Table 1: Summary Statistics

Panel A: Law firm and underwriter market concentration by year.

		Underwriters			Issuer Law Firms			Underwriter Law Firms		
Year	Total Deals	Und. Count	Top 10 Deals	Top 10 Market Share	Law Firms Count	Top 10 Deals	Top 10 Market Share	Law Firms Count	Top 10 Deals	Top 10 Market Share
1986	340	45	120	69.23	66	41	39.31	64	115	65.47
1987	245	45	93	68.69	53	32	33.8	52	68	57
1988	102	28	40	63.13	33	21	48.75	33	29	62.97
1989	115	30	60	73.61	41	26	57.75	39	31	62.05
1990	110	30	66	78.2	43	19	36.09	40	46	63.48
1991	287	54	136	77.71	78	51	41.43	66	90	65.03
1992	413	62	191	72.97	91	59	31.41	74	122	58.56
1993	526	76	185	65.88	98	91	28.81	75	136	50.6
1994	436	72	122	57.69	98	47	35.32	77	86	45.87
1995	480	69	230	71.35	96	85	34.23	71	149	53.97
1996	730	76	301	67.36	119	98	29.76	84	228	51.06
1997	504	78	156	56.1	106	74	32.07	79	125	43.01
1998	310	53	136	76.94	82	50	39.64	62	77	62.3
1999	470	44	307	84.48	85	141	42.62	69	200	54.5
2000	372	39	246	80.26	79	110	40.17	56	177	63.13
2001	85	23	61	90.9	40	20	63.13	35	40	83.93
2002	77	24	49	79.33	44	18	55.5	27	41	74.94
2003	72	24	45	75.25	37	23	57.14	31	36	72.24
2004	190	34	128	88.17	62	51	47.42	44	81	65.09
2005	179	30	113	86.42	55	46	48.22	45	80	65.26
2006	178	31	131	89.13	60	41	40.73	39	76	61.16
2007	189	30	133	84.03	53	60	44.47	44	97	63.03
2008	27	9	23	97.57	15	13	80.94	16	18	93.41
2009	55	16	42	94.81	24	20	64.73	23	32	73.98
2010	141	22	105	89.46	44	47	37.42	36	68	61.02
2011	104	22	77	91.97	40	34	41.56	31	52	66.75
2012	116	21	86	84.71	48	40	57.03	32	56	67.84
2013	190	30	128	87.72	54	58	49.31	39	96	70.06
2014	266	35	162	82.91	56	94	48.93	39	133	63.69
2015	157	32	95	80.18	40	67	54.52	32	93	77.13
2016	88	28	49	82.16	35	34	61.00	24	57	77.8
Full Sample	7554	134	3816	79.82	149	1611	43.92	113	2735	62.56

Table 1 (continued):

Panel B: Deal Characteristics

	N	Mean	St. Dev.	p25	p50	p75
Underpricing	7554	17.744	33.733	0.000	7.143	22.500
MV	7554	584.876	1093.617	97.078	223.820	559.066
Overhang	7554	2.898	2.520	1.415	2.352	3.650
VC Backed	7554	0.377	0.485	0.000	0.000	1.000
Secondary	7554	0.371	0.483	0.000	0.000	1.000
Litigation	3989	0.169	0.375	0.000	0.000	0.000
Litigious (%)	3408	0.858	0.260	0.668	0.810	1.006
Legal Expenses (%)	5915	1.235	1.006	0.559	0.938	1.605
Legal Expenses	5915	0.896	0.872	0.345	0.572	1.160
IPO Size	7356	124.519	201.855	33.613	63.572	117.303
Adjustment	7356	-0.192	21.046	-11.765	0.000	9.091

The sample consists of 7,554 IPOs during the period 1986 to 2016. Panel A presents the sample summary by the year of IPO. The underwriter, issuer law firm, or underwriter law firm count is the total number of underwriters, issuer law firms, or underwriter law firms associated with an IPO each year. Top 10 underwriters, issuer law firms, or underwriter law firms are defined based on the market shares in terms of proceeds. Top 10 deals are the number of IPOs associated with Top 10 underwriters, issuer law firms, or underwriter law firms. Underwriter, issuer law firm, or underwriter law firm Top 10 market shares are the market shares of Top 10 in terms of proceeds. Panel B presents descriptive statistics of variables used in our empirical analyses of IPO characteristics. Variable definitions are in Appendix C.

Table 2: Underpricing and Legal Advisers

Panel A: Regression Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log(MV)	8.036***	10.89***	9.202***	10.68***	11.68***	11.85***	11.32***	12.44***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Overhang	0.0915	-0.362	-0.272	-0.491**	-0.667***	-0.679***	-0.719***	-0.894***
	(0.668)	(0.102)	(0.212)	(0.023)	(0.003)	(0.002)	(0.001)	(0.000)
VC Backed	8.093***	9.779***	5.183***	7.170***	6.810***	8.295***	5.102***	6.205***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Secondary	-3.726***	-2.664***	-3.976***	-3.475***	-2.804***	-2.908***	-3.584***	-2.969***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-151.4***	-196.8***	-170.1***	-192.3***	-209.6***	-211.1***	-202.9***	-220.9***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underwriter Ind.	No	Yes	No	No	Yes	Yes	No	Yes
Issuer Legal Adviser Ind.	No	No	Yes	No	Yes	No	Yes	Yes
Und. Legal Adviser Ind.	No	No	No	Yes	No	Yes	Yes	Yes
N	7554	7554	7554	7554	7554	7554	7554	7554
R-squared	0.301	0.345	0.331	0.346	0.370	0.375	0.367	0.395
Adj. R-squared	0.293	0.325	0.310	0.329	0.338	0.347	0.337	0.355

Panel B: Variance Decomposition

Variables	Percentage of Explained Variation
Log(MV)	0.322
Overhang	0.012
VC Backed	0.023
Secondary	0.008
Year Ind.	0.196
Industry Ind.	0.074
Underwriter Ind.	0.140
Issuer Legal Adviser Ind.	0.099
Und. Legal Adviser Ind.	0.126

This table presents analyses on the relation between underpricing and legal advisers. The sample IPOs occurs between 1986 and 2016. Panel A reports regression results of ordinary least squared (OLS) models. The dependent variable is underpricing (first-day returns). Variable definitions are in the Variable Appendix. Continuous variables are winsorized at the 1 percent and 99 percent tails. Robust standard errors are estimated, and associated p-values are reported in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the variance decomposition based on the regression model in Column 8 in Panel A. For each variable/fixed effect, we calculate the partial sum of squares, normalized by the sum of all partial sums of squares.

Table 3: Persistence in an Legal Adviser's underpricing

Underpricing		Q1		Q5		Comparison	
Past	Future	Count	Mean	Count	Mean	Q1-Q5	T-test
1 Year	1 Year	279	12.098	352	19.077	-6.979	-3.315***
	2 Years	213	12.747	277	21.861	-9.114	-4.412***
	3 Years	166	12.522	239	23.064	-10.542	-5.018***
2 Years	1 Year	208	13.428	264	22.091	-8.664	-3.603***
	2 Years	177	12.594	231	23.999	-11.404	-5.066***
	3 Years	153	13.646	213	25.866	-12.220	-5.514***
3 Years	1 Year	197	11.131	232	22.671	-11.540	-4.870***
	2 Years	184	12.318	207	25.181	-12.863	-5.816***
	3 Years	159	12.763	199	27.528	-14.765	-6.490***

This table reports differences in future underpricing for law firms after sorting on past underpricing for the law firms. Law firms are sorted into quintiles, based on the performance of the IPOs on which they advised over the past 1, 2, or 3 years. For law firms in the top (Q5) or bottom (Q1) quintile, the average underpricing is reported for future issues on which the law firm advises over the future 1, 2, or 3 years. The difference across the quintiles is reported in the last two columns with T-statistics from T-tests of the difference in means. The sample IPOs occur between 1986 and 2016. *, **, and *** represent statistical significance at the ten, five, and one percent levels, respectively.

Table 4: The Probability of a Lawsuit and Legal Advisers

Panel A: Probit Regression Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log(MV)	0.281***	0.302***	0.329***	0.291***	0.348***	0.309***	0.335***	0.353***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Overhang	-0.00955	-0.0156	-0.0214*	-0.0160	-0.0260*	-0.0228*	-0.0267**	-0.0316**
	(0.400)	(0.196)	(0.090)	(0.175)	(0.052)	(0.066)	(0.039)	(0.019)
VC Backed	0.334***	0.383***	0.274***	0.297***	0.330***	0.354***	0.264***	0.315***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Secondary	-0.0789	-0.0901	-0.0879	-0.0867	-0.101	-0.100	-0.103	-0.117*
	(0.190)	(0.143)	(0.166)	(0.154)	(0.121)	(0.111)	(0.110)	(0.075)
Constant	-6.945***	-7.350***	-7.709***	-6.959***	-8.049***	-7.338***	-7.744***	-8.062***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underwriter Ind.	No	Yes	No	No	Yes	Yes	No	Yes
Issuer Legal Adviser Ind.	No	No	Yes	No	Yes	No	Yes	Yes
Und. Legal Adviser Ind.	No	No	No	Yes	No	Yes	Yes	Yes
N	3940	3723	3737	3795	3543	3595	3612	3429
Pseudo R-squared	0.170	0.191	0.206	0.184	0.230	0.209	0.223	0.251

Panel B: Variance Decomposition

Variables	Percentage of Explained Variation
Log(MV)	0.140
Overhang	0.012
VC Backed	0.029
Secondary	0.006
Year Ind.	0.122
Industry Ind.	0.163
Underwriter Ind.	0.163
Issuer Legal Adviser Ind.	0.244
Und. Legal Adviser Ind.	0.122

This table presents analyses on the relation between the probability of a lawsuit and legal advisers. The sample IPOs occurs between 1996 and 2013. Panel A reports regression results of Probit models. The dependent variable is an indicator that is equal to one if a class action lawsuit is filed against the issuer within three years after the IPO. Variable definitions are in the Variable Appendix. Continuous variables are winsorized at the 1 percent and 99 percent tails. Robust standard errors are estimated, and associated p-values are reported in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the variance decompositions based on the regression model in Column 8 in Panel A. For each variable/fixed effect, we calculate the partial log likelihood, normalized by the sum of all partial log likelihood.

Table 5: Legal Terminology in the Prospectus

Panel A: Regression Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log(MV)	-0.00521	-0.00702	-0.00461	0.00277	-0.00746	0.00155	0.000712	-0.00192
	(0.226)	(0.204)	(0.314)	(0.553)	(0.183)	(0.779)	(0.883)	(0.732)
Overhang	-0.00177	-0.00106	-0.0000422	0.0000581	0.000639	0.000574	0.000762	0.00135
	(0.344)	(0.596)	(0.982)	(0.975)	(0.747)	(0.773)	(0.690)	(0.503)
VC Backed	-0.0416***	-0.0433***	-0.0239**	-0.0412***	-0.0277***	-0.0437***	-0.0296***	-0.0329***
	(0.000)	(0.000)	(0.014)	(0.000)	(0.007)	(0.000)	(0.003)	(0.001)
Secondary	0.0105	0.0114	0.00660	0.00877	0.00688	0.0101	0.00618	0.00696
	(0.275)	(0.243)	(0.487)	(0.349)	(0.472)	(0.294)	(0.510)	(0.465)
Constant	1.151***	1.186***	1.097***	0.919***	1.155***	0.959***	0.952***	1.012***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underwriter Ind.	No	Yes	No	No	Yes	Yes	No	Yes
Issuer Legal Adviser Ind.	No	No	Yes	No	Yes	No	Yes	Yes
Und. Legal Adviser Ind.	No	No	No	Yes	No	Yes	Yes	Yes
N	3408	3408	3408	3408	3408	3408	3408	3408
R-squared	0.295	0.331	0.380	0.370	0.411	0.395	0.426	0.451
Adj. R-squared	0.280	0.293	0.338	0.336	0.349	0.339	0.367	0.372

Panel B: Variance Decomposition

Variables	Percentage of Explained Variation
Log(MV)	0.140
Overhang	0.012
VC Backed	0.029
Secondary	0.006
Year Ind.	0.122
Industry Ind.	0.163
Underwriter Ind.	0.163
Issuer Legal Adviser Ind.	0.244
Und. Legal Adviser Ind.	0.122

This table presents analyses on the relation between litigious words and legal advisers. The sample IPOs occurs between 1997 and 2016. Panel A reports regression results of ordinary least squared (OLS) models. The dependent variable is the percentage of litigious words in the IPO prospectus. Variable definitions are in the Variable Appendix. Continuous variables are winsorized at the 1 percent and 99 percent tails. Robust standard errors are estimated, and associated p-values are reported in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the variance decompositions based on the regression model in Column 8 in Panel A. For each variable/fixed effect, we calculate the partial sum of squares, normalized by the sum of all partial sums of squares.

Table 6: Legal Fees and Legal Adviser

Panel A: Regression Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log(MV)	0.344***	0.248***	0.284***	0.285***	0.214***	0.232***	0.245***	0.202***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Overhang	-0.077***	-0.061***	-0.063***	-0.064***	-0.051***	-0.055***	-0.054***	-0.047***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
VC Backed	-0.023	-0.070***	-0.0040	-0.040**	-0.041**	-0.070***	-0.019	-0.045**
	(0.146)	(0.000)	(0.810)	(0.015)	(0.016)	(0.000)	(0.270)	(0.010)
Secondary	-0.054***	-0.058***	-0.048***	-0.054***	-0.054***	-0.056***	-0.051***	-0.053***
	(0.001)	(0.000)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	7.451***	8.943***	8.450***	8.340***	9.496***	9.122***	8.995***	9.610***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underwriter Ind.	No	Yes	No	No	Yes	Yes	No	Yes
Issuer Legal Adviser Ind.	No	No	Yes	No	Yes	No	Yes	Yes
Und. Legal Adviser Ind.	No	No	No	Yes	No	Yes	Yes	Yes
N	5915	5915	5915	5915	5915	5915	5915	5915
R-squared	0.590	0.623	0.643	0.620	0.667	0.640	0.661	0.678
Adj. R-squared	0.585	0.610	0.629	0.607	0.645	0.620	0.641	0.651

Panel B: Variance Decomposition

Variables	Percentage of Explained Variation
Log(MV)	0.148
Overhang	0.054
VC Backed	0.002
Secondary	0.004
Year Ind.	0.370
Industry Ind.	0.034
Underwriter Ind.	0.099
Issuer Legal Adviser Ind.	0.222
Und. Legal Adviser Ind.	0.067

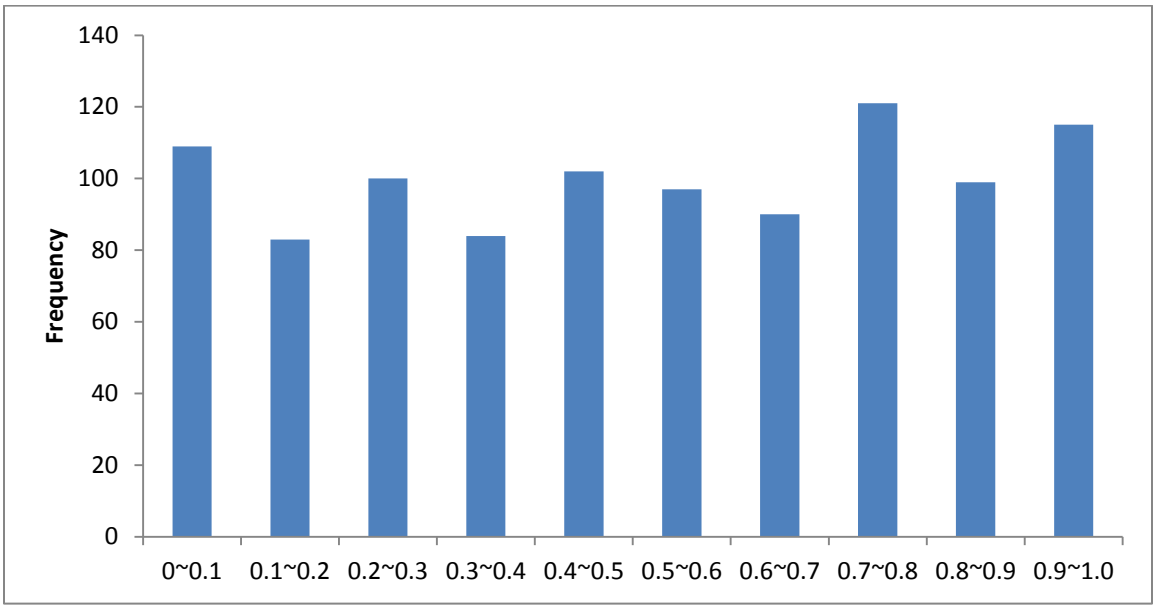
This table presents analyses on the relation between legal fees and legal advisers. Panel A reports regression results of ordinary least squared (OLS) models. The sample IPOs occurs between 1997 and 2016. The dependent variable is legal expenses to issuer law firms in 2016 dollars. Variable definitions are in the Variable Appendix. Continuous variables are winsorized at the 1 percent and 99 percent tails. Robust standard errors are estimated, and associated p-values are reported in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the variance decompositions based on the regression model in Column 8 in Panel A. For each variable/fixed effect, we calculate the partial sum of squares, normalized by the sum of all partial sums of squares.

Table 7: Fixed Effect Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Litigation FE	2.558**					
	(0.025)					
Terminology FE		-7.591**				
		(0.032)				
Legal expenses ($) FE			-5.818***			
			(0.004)			
Legal expenses (%) FE				-4.663**		
				(0.015)		
Top 10 Issuer Law Firm					-3.038	
					(0.173)	
Specialization						9.310**
						(0.032)
Constant	-2.387***	-2.077***	-1.351**	-1.557***	-1.782***	-3.533***
	(0.000)	(0.000)	(0.017)	(0.005)	(0.001)	(0.000)
N	110	143	148	148	148	148
R-squared	0.0458	0.0323	0.0544	0.0397	0.0127	0.0310
Adj. R-squared	0.0370	0.0254	0.0480	0.0332	0.00595	0.0244

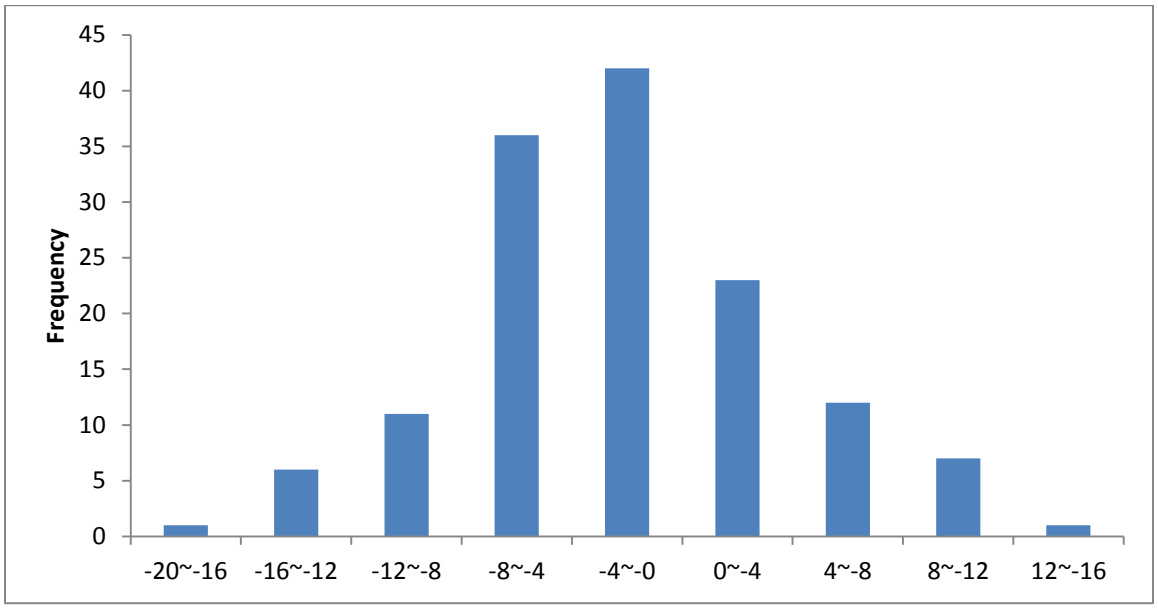
This table reports regression results of ordinary least squared (OLS) models on the underpricing fixed effect. Variable definitions are in the Variable Appendix. Robust standard errors are estimated, and associated p-values are reported in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively.

Figure 1 – P-values from F-tests of Legal Adviser Fixed Effect



This figure plots a histogram of p-values from F-tests for 1,000 simulations. For each simulation, we randomize the assignment of legal advisers to IPOs and perform an F-test of the joint significance of the legal advisers in a model of IPOs, including control variables used in Panel A of Table 2.

Figure 2: Distribution of Legal Adviser Fixed Effects from a Model of Underpricing



This figure plots a histogram of underpricing fixed effects for issuer law firms, which are based on the regression model in Column 8 in Table 2.

Appendix A: Law Firms Fixed Effect Estimates

Table A1: Underpricing Coefficients for Issuer Law Firms

Name	Underpricing	IPO Count
Debevoise & Plimpton	-19.02	39
Wachtell Lipton Rosen & Katz	-15.71	31
Simpson Thacher & Bartlett	-15.53	79
Sullivan & Cromwell	-15.28	46
Baer Marks & Upham Inc	-12.83	12
Maples & Calder	-12.57	11
Katten Muchin & Zavis	-12.25	15
Han Kun Law Offices	-12.24	10
Pepper Hamilton LLP	-11.78	10
King & Spalding	-11.25	23
Shearman & Sterling	-10.76	49
Godfrey & Kahn	-10.52	10
Seward & Kissel (NY)	-10.51	12
Dewey, Ballantine, Bushby, Palmer & Wood	-10.01	10
Bracewell & Patterson	-9.54	18
Kirkpatrick & Lockhart LLP	-9.511	14
Davis Polk & Wardwell	-9.225	70
Choate, Hall & Stewart LLP	-8.521	15
Baker & Botts	-8.263	33
Greenberg Traurig	-8.065	23
Akerman, Senterfitt & Edison	-7.925	13
Schulte Roth & Zabel LLP	-7.767	13
Ropes & Gray	-7.686	61
Snell & Wilmer	-7.63	12
Kaye, Scholer, Fierman, Hays & Handler	-7.524	15
Appleby Spurling & Kempe	-7.385	12
Irell & Manella	-7.261	15
Squire Sanders & Dempsey (US) LLP	-7.236	10
McGuire Woods Battle & Boothe	-7.202	10
White & Case LLP	-6.923	21
Goodwin Procter & Hoar	-6.903	40
Dorsey & Whitney LLP	-6.89	43
Hunton & Williams	-6.508	20
LeBoeuf Lamb Greene & MacRae	-6.485	10
Weil Gotshal & Manges	-6.334	71
Cravath, Swaine & Moore	-6.273	37
Fried Frank Harris Shriver & Jacobson	-6.223	51
Reboul MacMurray Hewitt Maynard & Kristol	-6.177	11
Jones Day Reavis & Pogue	-6.154	36
Dechert Price & Rhoads	-6.09	14
Mayer Brown & Platt	-6.06	24
Hughes & Luce LLP	-5.908	12
Willkie Farr & Gallagher	-5.899	47
Drinker Biddle & Reath LLP	-5.505	13
Jones Day	-5.305	11
Bass Berry & Sims PLC	-5.01	18
Skadden, Arps, Slate, Meagher & Flom	-4.892	141
Andrews Kurth LLP	-4.81	39
Vinson & Elkins LLP	-4.732	71
Akin, Gump, Strauss, Hauer & Feld	-4.728	36
General Counsel	-4.698	51

Table A1 (continued):

Name	Underpricing	IPO Count
Sidley & Austin	-4.621	24
Cleary Gottlieb Steen & Hamilton	-4.54	36
Bryan Cave LLP	-4.449	19
Winston & Strawn	-4.43	21
Shereff Friedman Hoffman & Goodman	-4.323	11
Stradling Yocca Carlson & Rauth	-4.303	28
Ater, Wynne, Hewitt, Dodson & Skerritt (OR)	-3.983	12
Coudert Brothers	-3.943	13
Cahill Gordon & Reindel	-3.942	25
Kirkland & Ellis	-3.884	110
O Sullivan Graer & Karabell LLP	-3.798	11
Hogan & Hartson	-3.796	44
Hutchins Wheeler & Dittmar	-3.701	11
Baker & Hostetler LLP	-3.21	12
Gardere & Wynne	-3.176	11
Morris Manning & Martin LLP	-3.162	11
Alston & Bird	-2.849	23
Morgan Lewis & Bockius	-2.527	83
Jenkens & Gilchrist	-2.492	10
Proskauer Rose Goetz & Mendelson	-2.38	21
Conyers Dill & Pearman	-2.259	86
Paul, Weiss	-2.231	42
Honigman Miller Schwartz And Cohn	-2.157	11
Lindquist & Vennum	-2.057	14
Kelley Drye & Warren	-2.027	15
Greenberg Traurig Hoffman Lipoff Rosen & Quentel	-1.834	36
Cooley Godward Castro Huddleson & Tatum	-1.662	86
Bingham McCutchen LLP	-1.646	14
DLA Piper LLP	-1.576	29
Paul, Hastings, Janofsky & Walker	-1.532	17
Fredrikson & Byron	-1.51	14
Brobeck Phleger & Hantson (CA)	-1.466	23
Thompson & Knight PC	-1.436	15
Buchanan Ingersoll Professional Corp	-1.421	14
Haynes & Boone	-1.19	11
Gibson Dunn & Crutcher	-1.099	78
Baker Botts LLP	-1.093	12
Mintz Levin Cohn Ferris Glovsky & Popeo	-1.085	35
Powell Goldstein Frazer & Murphy	-0.912	20
Holme Roberts & Owen	-0.902	13
Holland & Knight LLP	-0.858	11
Perkins Coie	-0.739	42
Wilmer Cutler & Pickering	-0.657	26
Bingham Dana & Gould	-0.629	20
Ware & Freidenrich	-0.6	19
Foley & Lardner	-0.59	35
Blank, Rome, Comisky & Mccauley	-0.564	11
Pillsbury Winthrop Shaw Pitt LLP	-0.523	19
Wolf Block Schorr & Solis-Cohen LLP	-0.507	13
Riordan & McKinzie	0.0217	21
O'Melveny & Myers	0.0567	39
Parker Chapin Flattau & Klimpl	0.0695	23
Cooley LLP	0.249	59

Table A1 (continued):

Name	Underpricing	IPO Count
Fulbright & Jaworski	0.271	59
Davis, Graham & Stubbs	0.51	14
Waller Lansden Dortch & Davis	0.519	16
WilmerHale	1.027	27
Piper & Marbury	1.441	20
Hale & Dorr LLP	1.501	105
Arnold & Porter	1.659	12
Pillsbury Madison & Sutro	2.07	42
Cooley Godward LLP	2.213	109
Brown Rudnick Freed & Gesmer	2.223	12
Baker & McKenzie	2.393	31
Goodwin Procter LLP	2.406	60
Testa Hurwitz & Thibeault	2.44	63
Latham & Watkins	2.721	185
Milbank Tweed Hadley & McCloy	2.882	19
Olshan Grundman Frome & Rosenzweig	2.891	13
Bachner, Tally, Polevoy & Misher	3.106	29
Gardner Carton & Douglas	3.12	10
Ballard Spahr Andrews & Ingersoll	3.232	18
Graham & James	3.603	10
Dechert	4.275	14
Heller Ehrman White & McAuliffe	4.649	27
Gray Cary Ware & Freidenrich	4.683	50
Stroock & Stroock & Lavan	4.696	19
Hutchins & Wheeler	4.835	10
Jones Walker Waechter Poitevent Carrere & Denegre	4.845	12
Pepper Hamilton & Scheetz	5.104	15
Brobeck Phleger & Harrison LLP	5.361	129
Palmer & Dodge	6.166	14
Wyrick, Robbins, Yates & Ponton	6.671	10
Foley Hoag & Eliot LLP	6.933	28
Wilson Sonsini Goodrich & Rosati	7.064	408
Orrick Herrington & Sutcliffe LLP	7.581	21
Fenwick & West LLP	9.744	91
Venture Law Group	9.756	53
Morrison & Foerster	10.09	66
Luse Lehman Gorman Pomerenk & Schick	10.46	21
Rogers & Wells	10.48	10
Commerce & Finance Law Offices	10.87	20
Maslon Edelman Borman & Brand	11.79	10
Troy & Gould Professional Corp.	11.82	12
Proskauer Rose LLP	13.61	13
Faegre & Benson	15.9	14
Gunderson Dettmer Stough Villeneuve Franklin&Hachi	18.67	56

This table provides a list of law firms that advise on ten or more IPOs during our sample period. Underpricing is the fixed effect coefficient based on the regression model in Column 8 in Table 2. IPO count is the number of IPOs advised by individual legal advisers.

Appendix B: Additional Analysis

Appendix Table B1: Price Adjustment and Law Firms

Panel A: Regression Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Market Return	0.774***	0.777***	0.782***	0.796***	0.784***	0.791***	0.807***	0.800***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Log(IPO Size)	0.108	-1.989***	-0.163	0.282	-1.916***	-1.516***	0.122	-1.484***
	(0.680)	(0.000)	(0.585)	(0.395)	(0.000)	(0.000)	(0.730)	(0.000)
Overhang	1.026***	0.625***	0.922***	0.970***	0.562***	0.618***	0.900***	0.573***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
VC Backed	3.120***	2.091***	1.634***	2.285***	1.002*	1.602***	1.265**	0.822
	(0.000)	(0.000)	(0.006)	(0.000)	(0.092)	(0.007)	(0.038)	(0.176)
Secondary	3.482***	3.613***	3.378***	3.281***	3.559***	3.441***	3.270***	3.414***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-17.63***	17.76**	-13.63**	-19.51***	16.29**	10.84	-17.35**	10.11
	(0.002)	(0.019)	(0.026)	(0.003)	(0.038)	(0.167)	(0.012)	(0.212)
Year Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Ind.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Underwriter Ind.	No	Yes	No	No	Yes	Yes	No	Yes
Issuer Legal Adviser Ind.	No	No	Yes	No	Yes	No	Yes	Yes
Und. Legal Adviser Ind.	No	No	No	Yes	No	Yes	Yes	Yes
N	7356	7356	7356	7356	7356	7356	7356	7356
R-squared	0.154	0.219	0.181	0.186	0.241	0.239	0.209	0.259
Adj. R-squared	0.145	0.195	0.154	0.164	0.201	0.204	0.170	0.207

Panel B: Variance Decomposition

Variables	Percentage of Explained Variation
Market Return	0.197
Log(IPO Size)	0.011
Overhang	0.019
VC Backed	0.001
Secondary	0.028
Year Ind.	0.161
Industry Ind.	0.155
Underwriter Ind.	0.307
Issuer Legal Adviser Ind.	0.119
Und. Legal Adviser Ind.	0.111

This table presents analyses on the relation between underpricing price adjustment and legal advisers. The sample IPOs occurs between 1997 and 2016. Panel A reports regression results of ordinary least squared (OLS) models. Variable definitions are in the Variable Appendix. Continuous variables are winsorized at the 1 percent and 99 percent tails. Robust standard errors are estimated, and associated p-values are reported in parentheses. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively. Panel B reports the variance decompositions based on the regression model in Column 8 in Panel A. For each variable/fixed effect, we calculate the partial sum of squares, normalized by the sum of all partial sums of squares.

Appendix Table B2: Summary Statistics of Time-Invariant Law Firm Attributes

	Count	Mean	Std. Dev.	p25	p50	p75
Underpricing FE	148	-1.967	6.463	-6.200	-2.107	1.864
Litigation FE	110	0.038	0.559	-0.344	-0.050	0.340
Terminology FE	143	-0.006	0.155	-0.087	-0.015	0.051
Legal expenses (%) FE	148	0.088	0.276	-0.082	0.067	0.264
Legal expenses ($) FE	148	0.106	0.259	-0.042	0.103	0.257
Top 10 Issuer Law Firm	148	0.061	0.240	0.000	0.000	0.000
Specialization	148	0.168	0.122	0.106	0.138	0.188

This presents descriptive statistics of variables of time-invariant law firm attributes. Variable definitions are in the Variable Appendix.

Variable Appendix: Variable Definitions

Variable	Definition
Adjustment	Percent change from the midpoint of the file range to offer price.
Adjustment premium	Average adjustment premium of all IPOs advised by a law firm. An IPO's adjustment premium is equal to its adjustment minus the mean adjustment in the calendar month.
IPO Size	The midpoint of the file range times shares offered during the IPO, converted to 2016 dollars.
Litigation FE	Coefficients of issuer legal adviser indicators from the regression of a Probit model, in which the dependent variable is an indicator variable that is equal to one if a class action lawsuit is filed against an issuer within three years after the IPO, while independent variables include all IPO deal variables and indicators of year, industry, underwriter, issuer legal advisers, and underwriter legal advisors.
Legal expenses ($) FE	Coefficients of issuer legal adviser indicators from the regression of an OLS model, in which the dependent variable is legal expenses in a percentage of proceeds, while independent variables include all IPO deal variables and indicators of year, industry, underwriter, issuer legal advisers, and underwriter legal advisors.
Legal expenses ($) FE	Coefficients of issuer legal adviser indicators from the regression of an OLS model, in which the dependent variable is legal expenses in 2016 dollars, while independent variables include all IPO deal variables and indicators of year, industry, underwriter, issuer legal advisers, and underwriter legal advisors.
MV	Market value, which is the first-day closing price times the number of shares outstanding, converted to 2016 dollars.
Overhang	The ratio of retained shares to the shares issued.
Secondary	An indicator variable that is equal to one if the IPO includes secondary shares.
Terminology FE	Coefficients of issuer legal adviser indicators from the regression of an OLS model, in which the dependent variable is litigious words, while independent variables include all IPO deal variables and indicators of year, industry, underwriter, issuer legal advisers, and underwriter legal advisors.
Top 10 Issuer Law Firm	An indicator variable that is equal to one if the ratio of the number of years when an issuer law firm is one of Top 10 issuer law firms to the number of years when this law firm advises IPOs is over 0.5.
Underpricing	The percent change from the offer price to the first-day closing price.
Underpricing FE	Coefficients of issuer legal adviser indicators from the regression of an OLS model, in which the dependent variable is underpricing, while independent variables include all IPO deal variables and indicators of year, industry, underwriter, issuer legal advisers, and underwriter legal advisors.
VC Backed	An indicator variable that is equal to one if the IPO is venture capital backed.