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Limited Liability in Investment Banking and Firms' Access to Capital

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August 2026

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Abstract

We study capital raising in the wake of U.S. investment banks transitioning from partnerships to limited-liability forms. Transitioning banks start taking more risk: they underwrite for more uncertain, growth-oriented equity issuers and lower-rated bond issuers. The transition is met with higher IPO underpricing, higher SEO discounts, and more negative SEO announcement returns. Incumbent clients react negatively to news of their bank's reorganization and reduce future capital expenditures, suggesting a devaluation of their underwriting relationships. While risk-taking increases, we find no evidence of weaker screening/due diligence efforts. We conclude that financial intermediary structures shape capital formation with real economic effects.

Keywords:

JEL Classification: G14; G24; G32; K22; L22

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Abstract

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Keywords: investment banking, capital raising, legal form, limited liability, risk-taking

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1. Introduction

For much of the twentieth century, U.S. investment banks operated as partnerships, a legal form that exposed bankers to unlimited personal liability. Beginning in the 1970s, investment banks transitioned to limited-liability forms, such as corporations and limited liability partnerships, in a structural shift that fundamentally reshaped Wall Street (Morrison and Wilhelm (2008)).[1] Anecdotal accounts suggest that this transformation was accompanied by notable changes in how these institutions conducted their business. For instance, at the time of Bear Stearns's initial public offering in 1985, an analyst remarked: "*I hate to see them go public. Partnerships are managed more prudently than public companies because they are putting their own money where their mouths are*".[2] Despite the historical significance of this transformation, there is virtually no research on its implications for the core function of investment banks as gatekeepers in capital markets: intermediating between investors and firms, screening issuers, and enabling access to capital for real economic activity. Our paper aims to fill this gap.

In underwriting markets, the risks taken by investment banks (and the associated rewards) are closely tied to the issuers they choose to serve. Underwriting arrangements such as firm-commitment initial public offerings (IPOs) and seasoned equity offerings (SEOs) require the underwriter to purchase securities from the issuer at a fixed price and subsequently resell them to investors. The greater the uncertainty surrounding the issuer's valuation, the greater the market and inventory risk borne by the underwriter – risk that is directly loaded onto the bank's balance sheet and, under a partnership structure, onto bankers' personal wealth. Additionally, underwriters face litigation risk *ex post*: if the issuer suffers a significant price decline after the offering,

[1] An important reason for this fact is that the New York Stock Exchange historically prohibited corporations from becoming member firms. These rules were first amended in 1953 to allow private corporations to join, and then further relaxed in 1970 by extending eligibility to public corporations.
[2] "Bear, Stearns Planning to Go Public". *The New York Times*, 15 August 1985 (Late City Final Edition).

investors may allege improper disclosure and file securities lawsuits against the underwriter as the signatory to the prospectus, potentially leading to financial losses for bankers.

A transition to limited liability has the effect of limiting investment bankers' downside risk, since any personal losses are then capped at their equity stake.[3] This reduction in downside-risk exposure implies not only a greater capacity but also potentially a greater willingness to take risk. Prior research documents that limited-liability structures increase risk-taking in commercial banking and other contexts (e.g., Esty (1998), Grossman (2001), Koskinen, Nguyen, and Pandes (2021), Koudijs, Salisbury, and Sran (2021)). Recent studies also show that reduced personal liability of decision-makers encourages firms to pursue profits more aggressively, sometimes at the expense of broader societal interests (e.g., Akey and Appel (2021), Bucourt (2024)). Drawing a parallel with these effects, we hypothesize that transitioning to limited-liability structures reduces investment bankers' downside risk, thereby motivating them to expand services to clients previously deemed too risky. We refer to this general possibility as the *risk-taking hypothesis*. The most direct empirical prediction of this risk-taking mechanism is that banks may begin underwriting equity issues for firms with more uncertain valuations or bond issues with higher credit risk.

Beyond risk-taking, transitioning away from the partnership structure may shape investment bankers' incentives by altering their decision-making horizon. The ability of an investment bank to certify issue quality depends on its reputational capital (Chemmanur and Fulghieri (1994)) – and reputation mechanisms rely critically on repeated interactions over the long run (e.g., Diamond,

[3] In a general partnership (GP), all partners bear unlimited liability for the partnership's financial obligations. In a limited partnership (LP), only limited partners – who do not participate in management – enjoy limited liability protection; the key decision-makers acting as general partners continue to bear unlimited liability. In contrast, corporations (public or private) and limited liability partnerships (LLP) offer full limited-liability protection to all members.

(1989), John and Nachman (1985)). However, because limited liability structures enhance the transferability and liquidity of ownership stakes (Alchian and Woodward (1987, 1988), Bargeron and Lehn (2017), Woodward (2004)), transitioning from unlimited to limited liability may shorten investment bankers' optimization horizon as their ownership stakes become more liquid. As a result, their incentive to protect the institution's long-run reputational capital may weaken. In underwriting markets, this would translate into weaker incentives to invest in costly due diligence and information production, thereby reducing the certification value provided by investment banks as intermediaries. We refer to this general possibility as the *horizon-shortening hypothesis*. If market participants perceive this shortening of bankers' horizon, offerings underwritten by banks after transitioning to limited liability should receive worse pricing and more negative market reactions due to the higher perceived adverse selection risk (Booth and Smith (1986), Chemmanur and Fulghieri (1994)).

Both the risk-taking and the horizon-shortening effects may have further implications for the value of existing underwriting relationships. Since underwriting clients derive value from their ongoing relationships with investment banks (Fernando, May, and Megginson (2012)), changes in investment bankers' incentives following banks' organizational shift may change the value of these relationships. Specifically, a decline in the certification value provided by incumbents' relationship banks – as per the horizon-shortening effect – could lower the value of future underwriting services and thereby raise financing barriers. In addition, if investment banks expand their underwriting clientele to riskier issuers after transitioning to limited liability, as per the risk-taking effect, incumbent clients may no longer receive the same degree of prioritized service as before, especially if underwriters are capacity-constrained. Taken together, these mechanisms suggest that

the transition to limited liability may reduce the value of underwriting relationships for incumbent clients, lowering their market values as a result.

While the above theoretical predictions are straightforward, whether the transition to limited liability actually changes underwriting behavior in practice is not obvious. For instance, on the risk-taking mechanism, the shift to limited liability changes bankers' downside risk *de jure*, but it does not necessarily imply such change *de facto*. This is because potential offsetting arrangements such as indemnification by issuers and auditors, personal banker insurance, and sufficient capitalization of the partnership may effectively insulate bankers from underwriting risks even under the partnership structure. Similarly, on the horizon-shortening mechanism, intra-partnership agreements may limit bankers' ability to transfer their stakes even after the transition to limited liability forms, effectively keeping bankers' planning horizons unchanged. Therefore, whether the shift in investment banks' organizational form truly affects capital markets is an empirical question.

To shed light on these issues, we examine changes in underwriting behavior by analyzing how the characteristics of IPOs, SEOs, and bond issues evolve when the associated underwriters transition from unlimited- to limited-liability organizational forms ("treated banks"). Using a stacked difference-in-differences (DiD) design, we compare the issue and issuer characteristics of deals underwritten by these banks before and after their transition with those of control banks whose organizational form remained unchanged. This approach allows us to isolate changes in underwriting behavior associated with the shift to limited liability while controlling for time-varying factors common to treated and control banks, as well as time-invariant differences across banks.[4] To better satisfy the parallel trends assumption, we match control banks to treated banks

[4] For example, time-varying factors common to treated banks and their peers can include market conditions, secular trends, and shocks from regulatory changes, while (near-term) time-invariant differences across banks can include scale, prestige, industry focus, and so on.

on their *ex ante* position in the underwriting market, measured by total deal number and total deal value.

Our DiD analysis reveals that the clientele of treated banks shifted toward riskier issuers following their transition to limited liability. In the IPO market, post-transition offerings are more likely to involve younger and technology-oriented firms, more frequent use of integer offer prices, and higher (post-offering) stock volatility. These patterns align with prior research linking firm age, industry affiliation, offer price precision, and volatility to valuation uncertainty (Ritter (1984), Ljungqvist and Wilhelm (2003), Bradley et al. (2004), Golubov and Konstantinidi (2026)). In the SEO market, we find similar evidence: after the transition, treated banks underwrite deals for issuers with higher stock volatility. Those issuers also exhibit lower profitability but higher market-to-book ratios, suggesting that treated banks pivot toward high-growth firms with greater valuation uncertainty. Evidence from bond underwriting clients further corroborates our findings from equity capital markets: bond offerings underwritten by treated banks exhibit greater risk, as the average issuer's credit rating declines by roughly one notch on the Moody's rating scale. Overall, the clientele shift we document is consistent with the *risk-taking hypothesis*.

Turning to capital market outcomes, our analysis also reveals an adverse pricing effect for the issues handled by treated banks following their transition to limited liability. Specifically, we find that IPOs underwritten by treated banks upon transition exhibit significantly higher underpricing, while SEOs exhibit higher discounts (though the latter effect is weak). We also show that SEOs underwritten by treated banks after the transition are associated with more negative announcement returns for the issuing firms. On the surface, these results are consistent with lower certification value predicted by the *horizon-shortening hypothesis*: if banks invest less in costly due diligence and information production, investors will perceive greater adverse selection risk

and discount the issues (and the issuers) more heavily. Note, however, that the same pricing and announcement effects can be a manifestation of the documented shift toward riskier issuers. This is because greater valuation uncertainty amplifies adverse selection risk holding the level of information asymmetry/information production constant (see, e.g., Bessembinder, Hao, and Zheng (2015)). We therefore devise tests to specifically tease out evidence of the horizon-shortening effect, if any, that we discuss further below.

Across all our DiD results, the differences between treated and control banks emerge only after the transition, with no evidence of differential pre-transition trends, offering comfort with the parallel-trends assumption. It is important to note, however, that our results do not necessarily establish a causal relationship between organizational form and underwriting behavior, as the transition events were not random and reflect conscious decisions by banks. Nevertheless, given that the primary motivation for investment banks' transitions was the growing capital needs of their trading operations (Morrison and Wilhelm (2008)) – considerations arguably unrelated to the underwriting business – we believe that the associations we document likely reflect changes in incentives stemming from organizational form.

Turning to impacts on incumbent clients of transitioning banks, we examine how the transition to limited liability affects the value of their investment banking relationships using a stock market event-study approach. We find that firms with prior equity or bond offerings underwritten by the treated banks experience, on average, a negative stock price reaction of –0.4% around their banks' transition announcements. This effect is concentrated – and amplified – within equity underwriting clients and smaller firms, which are the types of issuers that rely on investment banking relationships more heavily (Fernando, May, and Megginson (2012)). Overall, the event study evidence is consistent with a reduction in the value of underwriting relationships – whether

through diminished certification value in future issues (the horizon-shortening mechanism) or through rationing by capacity-constrained banks chasing more lucrative risky clients (the risk-taking mechanism). In addition, we find that the incumbent equity underwriting clients and smaller clients reduce their capital expenditures in subsequent years by about 12–14%, suggesting that the diminished value of underwriting relationships has real economic effects on investment.

In the remainder of the paper, we examine whether the adverse pricing/announcement effects for new issues and the diminished value of existing underwriting relationships associated with transitions to limited liability are driven by a reduction in the certification value or by a shift/expansion in treated banks' clientele. While disentangling these two mechanisms empirically is a challenge, we conduct several tests to seek further evidence of lower screening/due diligence effort predicted by the horizon-shortening effect. This mechanism is particularly interesting because it speaks to the implications of banks' organizational transitions for the efficiency of primary capital markets. In recognition of the limitations of our proxies, however, we view these tests as exploratory and interpret the results as suggestive evidence only.

First, we examine underwriting spreads. While the shift toward riskier clientele predicts higher spreads on average after the transition, lower screening and due diligence effort predicts the opposite, because lower certification value implies a lower quality service (Chemmanur and Fulghieri (1994)). We find no significant change in IPO spreads – perhaps a reflection of the well-documented rigidity of IPO spreads at around seven percent (Chen and Ritter (2000)). In contrast, SEO spreads *increase* significantly, which is consistent with the risk-taking mechanism and inconsistent with the horizon-shortening effect. Second, we examine the length of the IPO/SEO registration period. Due diligence and bookbuilding processes happening between the announcement and the offering dates are critical for underwriters' information production

(Benveniste and Spindt (1989)). If bankers reduce their information production effort, we should expect the average registration period to shorten for treated banks upon transition. If, however, bankers maintain their level of due diligence effort – or exert even greater effort due to working with more uncertain issuers – we should observe no significant change or even an increase in the average registration period. Examining both IPOs and SEOs, we find no significant change in the length of the registration period, which does not support the horizon-shortening effect along this channel. Third, if bankers of treated banks begin performing weaker due diligence when screening issuers, we might expect a larger fraction of their clients to turn out to be "lemons" *ex post* (i.e., exhibit poor long-run performance). However, we do not find an increase in the rate of long-run stock underperformance or performance-related delisting upon underwriter transitions, once again inconsistent with the horizon-shortening mechanism.

We end our empirical analysis with a placebo test using a group of investment banks that went public without changing their liability regime. This test serves two purposes. First, going public likely leads to a larger increase in bankers' ownership stake liquidity than a change in liability rules alone. If the horizon-shortening mechanism is at play, we should observe similar issue pricing and issuer announcement effects in the placebo test as in our main results. Second, because some of the transition events in our sample coincide with banks' IPOs, it is possible that our results are driven by the change in public status rather than by the shift in personal banker liability. Our placebo test does not yield the same patterns as our main findings, suggesting that our results are *not* driven by changes in public status – and offers further evidence against the horizon-shortening hypothesis. Overall, we conclude that investment banks take on greater underwriting risks upon transitioning to limited liability, but we find no evidence that the certification value they provide declines.

Our study contributes to three main strands of literature. First, we contribute to the literature on the role of organizational form in shaping financial institution behavior. Prior studies examine liability regimes (Esty (1998), Grossman (2001), Koskinen, Nguyen, and Pandes (2021), Koudijs, Salisbury, and Sran (2021)), public versus private status (Falato and Scharfstein (2025), Kedia, Rajgopal, and Zhou (2014)), and concurrent lending and underwriting (Kroszner and Rajan (1997), Puri (1996)). This literature has focused almost exclusively on commercial banks, and the organizational form of investment banks has received limited attention beyond the important work of Morrison and Wilhelm (2008). By providing novel evidence on how the transition to limited liability shapes investment banks' underwriting behavior, our study highlights the role of organizational form and the associated incentives in the investment banking industry.

Second, we contribute to the large literature on securities issuance and firms' access to capital. This literature examines various aspects of the issuance process, including IPO underpricing and long-run returns, market reactions to SEO announcements and subsequent performance, and underwriting spreads, among others (Eckbo, Masulis, and Norli (2007), Ljungqvist (2007), Lowry, Michaely, and Volkova (2017)). We add to this literature by showing that the organizational form of underwriters is an important determinant of primary capital market outcomes. Prior studies also document several secular trends in U.S. equity capital markets during the late twentieth century, including changes in issuer composition, deal pricing, and underwriting spreads (e.g., Bradley et al. (2004), Corwin (2003), Mola and Loughran (2004), Kim, Palia, and Saunders (2010)). Our findings suggests that the organizational shift of investment banks likely played an underlying role in these trends.

Third, our findings inform policy debates on governance reforms for investment banks. Over time, policymakers and pundits have proposed increasing personal liability as a means of curbing

excessive risk-taking at investment banks (e.g., Duncan (2012), Goodhart and Lastra (2020), Hill and Painter (2009), Hill and Painter (2020), Schwarcz (2015)). In this regard, our paper is related to Koudijs and Mulder (2026), who show that personal banker guarantees were associated with higher-quality security issues in the early 20th century Netherlands. We study a more recent episode, and our evidence would suggest that increasing banker liability could restrict access to capital for smaller, high-growth companies – the type of firm that is behind much of the innovation and job creation in the economy.

2. Literature Review

We draw on risk-taking incentives and the incentives to maintain long-run reputation for fair-dealing as the theoretical framework informing our analysis. A defining feature of partnerships (including general partnerships and limited partnerships) is the unlimited personal liability of managing partners for the firm's obligations, whereas limited-liability organizational forms, such as corporations and limited liability partnerships, shield managers and managing partners from personal financial exposure (Lamoreaux (1998)). Beyond reducing owners' downside risk, limited liability enhances the transferability and liquidity of ownership claims (Alchian and Woodward (1987, 1988), Woodward (1985)). For instance, exploiting California's unique liability rule from 1849 to 1931 as a natural experiment, Bargeron and Lehn (2017) provide empirical evidence that limited liability lowers transaction costs and facilitates the transfer of ownership stakes.

A body of research shows that liability regimes shape organizational behavior by altering risk-taking incentives. Esty (1998) studies U.S. state-chartered banks in the early twentieth century and finds that banks subject to stricter liability rules, such as double or unlimited liability, exhibit lower volatility and hold less risky assets. Similarly, Grossman (2001) finds that U.S. banks operating under double-liability laws before the Great Depression undertook less risk than banks

subject to conventional limited liability rules. Koudijs, Salisbury, and Sran (2021) provide evidence from 19th-century New England that shielding bankers' familial wealth from recourse (effectively limiting banker liability) increases bank risk. Aldunate et al. (2021) show that weaker liability regimes are associated with higher bank failure rates during financial crises.

Beyond banking, Koskinen, Nguyen, and Pandes (2021) document that transitioning from unlimited to limited liability increases investment, riskiness, and profitability for a group of Canadian firms known as income trusts. Akey and Appel (2021) demonstrate that stronger liability protection for environmental cleanup costs leads subsidiaries to emit more toxins, illustrating how reduced liability facilitates socially costly pollution. In the same vein, Bucourt (2024) shows that extending legal liability for toxic contamination to executives and directors in the Canadian province of Ontario improves corporate environmental performance. Gregg (2020) and Hilt (2006) examine how incorporation affected productivity in the historical contexts of late Imperial Russia and the 19th century U.S. whaling industry, respectively, albeit reaching opposite conclusions.

More recently, Falato and Scharfstein (2025) show that commercial banks increase risk-taking after becoming publicly listed, attributing this change to short-term incentives associated with public ownership. Kedia, Rajgopal, and Zhou (2014) find that Moody's loosened rating standards for issuers after going public, suggesting that public ownership can alter the incentives of financial gatekeepers. For investment banks specifically, Morrison and Wilhelm (2008) argue that partnership structures promote human capital accumulation and that technological change spurred economies of scale (primarily in the brokerage business), prompting many investment banking partnerships to go public.

Our study is also related to research examining the certification role of investment banks in securities markets. Beatty and Ritter (1986), Booth and Smith (1986), Hughes (1986), and Titman

and Trueman (1986) show that underwriter reputation mitigates information asymmetry between issuers and investors. Chemmanur and Fulghieri (1994) show that the long-term success of investment banks depends on reputational capital, which is built through costly screening/due diligence efforts and consistent underwriting performance over time. Fang (2005) and Fernando, Gatchev, and Spindt (2005) find that the incentive of reputable underwriters to preserve their standing, together with high-quality issuers' need to signal their quality through reputable intermediaries, gives rise to a positive assortative matching equilibrium in which high-reputation underwriters pair with high-quality issuers, while lower-reputation banks serve lower-quality issuers.

Additional work examines how underwriter reputation relates to issuance outcomes. Carter and Manaster (1990), Michaely and Shaw (1994), Carter, Dark, and Singh (1998), and Dong, Michel, and Pandes (2011) find that IPOs underwritten by more reputable banks exhibit better long-run performance, although evidence on underpricing is mixed: early studies find a negative relation (Carter and Manaster (1990), Michaely and Shaw (1994)), while Beatty and Welch (1996) report a reversal in the 1990s. For SEOs, McLaughlin et al. (2000) finds that reputation improves announcement returns but not long-run performance. Fernando, May, and Megginson (2012) exploit the collapse of Lehman Brothers to show that equity underwriting clients derive value from their investment banking relationships, particularly when they are financially constrained. Jong et al. (2025) examine the securitization of West Indian plantation mortgages by Dutch banking partnerships in the 1760s and shows that banks' reputational concerns improve the quality of opaque, off-balance-sheet securities – but only when bankers are personally exposed to reputational losses.

Finally, a strand of the literature studies structural changes in the U.S. investment banking industry. Kroszner and Rajan (1997) and Puri (1996) study concurrent lending and underwriting by U.S. commercial banks prior to the Glass-Steagall Act. While Kroszner and Rajan (1997) find inferior issue pricing when lending and underwriting are done by the same entity – consistent with conflicts of interest, Puri (1996) finds the opposite – in line with greater certification value of concurrent activities. Chen, Morrison, and Wilhelm (2014) suggest that technological change fostered the emergence of a "star" culture that weakened traditional concerns for institutional reputation within investment banks. Griffin, Lowery, and Saretto (2014) contend that the advent of complex securities reduced the disciplining effect traditionally exerted by investment bank reputation. Piskorski, Seru, and Witkin (2015) study the nonagency residential mortgage-backed securities before the 2008 financial crisis and find that contractual disclosures by reputable intermediaries during the sale of mortgages contained false information about the borrower's housing equity. Chen, Morrison, and Wilhelm (2015) argue that different dimensions of a bank's reputation may conflict with one another, as some operating units prioritize executing complex transactions over serving clients' interests, while others do not. Morrison et al. (2018) study the evolution of investment-banking relationships from the 1930s to the 2000s and argue that the emergence of codification and contracting technologies that enable cheaper forms of commitment eroded both client and bank incentives to maintain exclusive relationships. Chen et al. (2023) contend that the increasing scale and complexity of investment banks weaken internal governance mechanisms that align individual bankers' incentives with those of the firm, thereby diminishing banks' ability to commit to relational contracts with clients and reducing the value of bank–client relationships.

Despite the large literature on financial intermediaries, there is no work examining how changes in investment banks' liability structures shape underwriting behavior in primary capital markets. The only exception is recent work by Koudijs and Mulder (2026), who study the effect of personal banker guarantees on securities underwriting in an early 20th century Dutch bank. They find that higher personal guarantees were associated with issues with higher subscription rates and stronger balance sheets, consistent with lower risk-taking. We focus on a more recent and familiar setting and provide the first systematic evidence on how the transition of U.S. investment banks from unlimited to limited liability may have altered their underwriting activities.

3. Data and Methodology

3.1 Sample

We obtain data on IPOs and SEOs from Refinitiv Workspace (formerly Thomson Reuters SDC). The selection criteria for the sample are as follows: (1) the deal occurred between 1970 and 2006, (2) the deal was completed, (3) the issuer was a U.S. firm, and (4) the target market was the U.S. We exclude shelf-registered issues from the sample because these deals often take multiple years to complete, and the role of underwriters is relatively limited compared to fully marketed deals. We also restrict the sample to firm-commitment deals, because these are offering types that put underwriters' capital at risk and because other types (mainly "best efforts") represent only a small fraction of the total. Furthermore, we exclude deals that offer no primary shares, as well as issuers in the financial or utility industries. Table A1 presents the sample construction process.

For the most part, we focus on equity offerings rather than bond offerings because the value of equity securities is significantly more uncertain than that of bonds, making equity underwriting a riskier business. Consequently, changes in banks' risk appetite should be more effectively

captured by their behavior in the equity market than in the bond market. Nevertheless, we also examine the credit ratings of bond issuers to corroborate our findings.

To identify the dates when investment banks transitioned from traditional partnerships to limited-liability organizational forms, we draw on multiple sources. Our primary source is Factiva, a database of historical news articles. Given that there were over one thousand investment banks during the sample period (some very small, boutique entities), we focus on the larger institutions. Specifically, we restrict the sample to banks that underwrote at least 30 equity offerings during the period. This criterion yields a sample of 120 investment banks that collectively account for approximately 69% of all equity offerings by deal count and 85% of total proceeds raised during our sample period.

For each of the 120 investment banks, we search Factiva for news articles reporting the date or year in which they transitioned from a traditional partnership to a limited-liability organizational form. We also consulted additional sources when available, such as some banks' incorporation year provided in Morrison and Wilhelm (2008). Ultimately, we identified the transition date (or year) for 16 banks that underwent such a change during the sample period.[5] Table 1, Panel A reports the transition dates (or years) for these banks.[6]

(Insert Table 1 here)

The transition events we consider involve investment banks transitioning from general partnerships or limited partnerships to limited-liability organizational forms, including public

[5] For banks with unknown transition dates, we include them in the sample only from the first year their names appear with the suffix "Inc.," "Corp.," "LLC," or "LLP," indicating that they had already adopted a limited-liability organizational form. This restriction ensures that we do not overlook transition events that may have occurred during our sample period. Our results remain unchanged when this restriction is lifted.

[6] The list excludes investment banks that transitioned before 1970 (e.g., Merrill Lynch, Kidder Peabody, Smith Barney), which is the earliest year for which Refinitiv provides IPO and SEO data.

corporations, private corporations, limited liability partnerships, and corporate subsidiaries, through IPOs, private incorporations, reverse takeover, or other restructuring events. The "treatment" in our analysis is best understood as a shift from an unlimited-liability to a limited-liability organizational form, rather than as a switch between two distinct business structures.

Following previous studies (e.g., Carter and Manaster (1990), Fernando, Gatchev, and Spindt (2005)), we focus on bookrunner mandates. Each observation in our dataset corresponds to an underwriter–issue pair, where the investment bank serves as the bookrunner for that issue. For deals with multiple bookrunners, each underwriter–issue pair is treated as a separate observation. We complement our data on securities issuance with stock price data from CRSP and accounting data from Compustat. In addition, we use data from Capital IQ, Jay Ritter's website, and Kenneth R. French's data library to construct certain variables.

3.2 Methodology

We examine how investment banks' underwriting performance changed after transitioning from an unlimited- to a limited-liability organizational form, whereby each transition is considered as a treatment event for that bank. Since the transitions occur at different times for different banks, our setting is that of multiple staggered treatments. We therefore adopt a stacked Difference-in-Differences (DiD) approach, following Gormley and Matsa (2011). For each treated bank, the event window spans eight years, covering the four years before (exclusive of) and the four years after (inclusive of) the transition year. The control banks for a treated bank are those whose organizational forms remained unchanged throughout that treated bank's event window and that satisfy our matching procedure described below. Each treated bank and its corresponding control banks form a cohort, and we stack all cohorts together for the DiD estimation. Our estimates show

how the characteristics of treated banks' mandates change from before to after the transition, differencing out the contemporaneous change for issues underwritten by control banks.

Our design requires each treated bank to have at least one deal both before and after its transition event. Consequently, we exclude cohorts that do not meet this condition. We also drop cohorts for which we lack the full eight-year event window for the treated bank. As a result, banks that transitioned in the early 1970s, such as Lehman Brothers and White Weld, are excluded from the DiD analysis due to the unavailability of IPO and SEO data for the early years of their event window. The final samples used for the DiD analysis include four cohorts in the IPO sample and five cohorts in the SEO sample, corresponding to six unique treated banks across the two samples combined. Table 1, Panel B reports the number of observations associated with each treated bank in different samples.

Our DiD design relies on the assumption that, in the absence of the treated banks' transitions, their underwriting behavior would have evolved similarly to the control banks. Although this parallel-trends assumption cannot be tested directly, we attempt to increase its validity by selecting control banks that closely match the treated banks based on their *ex-ante* position in the underwriting market, measured by the total number of deals and the total dollar value of proceeds. Specifically, for each cohort's four-year period preceding the treated bank's transition year, we calculate each bank's total number of deals and total dollar value of proceeds from all deals underwritten during that period, and then rank the banks within each cohort based on these two measures. We define matched control banks as those ranked within a range of ±5 positions around the treated bank's rank.[7] For example, in the cohort where Goldman Sachs is the treated bank, if it ranks 3rd in deal count, banks ranked between 1st and 8th are selected as matched control banks

[7] Most of our results also hold with a bandwidth of ±3. However, because we cluster standard errors at the bank level, using a ±3 bandwidth would result in too few clusters in our case.

for that cohort. This selection criterion is applied separately to total deal count and total proceeds, and a control bank is considered matched if it satisfies either of the two criteria. We then compare the treated banks only with their matched control banks in the DiD analysis. While all tabulated results are based on this matching approach, our findings remain robust when we use all non-treated banks as controls.

We estimate the following regression model to implement the stacked DiD analysis:

$$Y_{itc} = \beta_1 TreatPost_{itc} + \gamma_{ic} + \omega_{tc} + \varepsilon_{itc}, \quad (1)$$

where i denotes the bank, t denotes the year, and c denotes the cohort. Y_{itc} is the outcome variable of interest – either deal-level or issuer-level characteristics of the offering. $TreatPost_{itc}$ is a dummy variable equal to one if the offering's underwriter is a treated bank and the offering occurred after the bank's transition event, and zero otherwise. γ_{ic} is a bank × cohort fixed effect, and ω_{tc} is a year × cohort fixed effect. We also estimate an augmented version of Model (1) that includes industry × cohort fixed effects, where industries are coarsely defined (based on ten SIC divisions) to preserve sample size and to minimize over-controlling (as some of the effects may operate through re-orienting the client base in terms of industries served). Towards the same goal of not controlling for what could be part of the effect (the "bad control" problem), we deliberately exclude time-varying controls for bank or deal characteristics from the regression models.

Standard errors are clustered at the bank level in all tabulated results. This clustering choice not only accommodates the multi-cohort structure – where the same bank may appear in multiple cohorts – but also accounts for potential correlations among different deals underwritten by the same bank over time. As another check on the validity of the parallel-trends assumption, we also examine pre-trends in the outcome variables by estimating a dynamic version of model (1), described further below.

We acknowledge that, despite our use of the terminology (e.g., "treated" banks) that is commonly associated with causal inference, our DiD estimates should not necessarily be interpreted as causal effects of bank transitions to limited liability. This is because adopting limited liability is an active decision by the banks – a decision that is almost certainly non-random. That said, this would only pose a threat to causal interpretation of our results if the timing of the transition decisions by the different "treated" banks systematically coincides with changes in the underwriting markets faced by those banks – and not the control banks. One possible story is that the transitioning banks anticipate riskier mandates in the near future, and so they adopt limited liability structures to limit personal exposure. While this changes the direction of causality (riskier future mandates cause banks' transitions), it does not change the general flavor of our ultimate conclusions: limited liability structures are more conducive to risk-taking, whether through actively altering incentives or through generating risk-bearing capacity. We also take some comfort from the fact that transitions to limited liability were largely driven by increasing capital needs of investment banks' brokerage and trading operations, rather than any considerations regarding the growing riskiness of the underwriting business.[8] Nevertheless, in recognition of potential endogeneity concerns, we stop short of a strong causal interpretation of our DiD estimates, instead referring to any effects as being "associated" with the transition to limited liability. Endogeneity concerns should be further assuaged in our stock market event-study evidence on the impacts on

[8] Among the six sample banks, four (Alex Brown & Sons, Bear Stearns, McDonald Investments, and Salomon Brothers) transitioned to limited liability through either an IPO or a reverse takeover by a public company. Given investment banks' growing demand for capital to support proprietary trading and market-making activities during this period, as well as the capital-light nature of the securities underwriting business, these decisions to go public were unlikely to have been driven primarily by their underwriting operations (Morrison and Wilhelm (2008)). Lazard Freres' transition to a limited-liability structure in 1995 was directly triggered by the enactment of the New York Limited Liability Company Law in October 1994, which allowed investment banking partnerships and law firms in New York to operate as LLCs. Goldman Sachs's conversion to a limited liability partnership (LLP) was largely motivated by substantial bond-trading losses in 1994 and the subsequent withdrawal of capital by several partners.

existing clients, by virtue of analyzing high-frequency (a few trading days) announcement effects on third parties.

3.3. Summary Statistics

Detailed variable definitions are provided in Table A2. Table A3 presents the summary statistics for all dependent variables used in the DiD analysis. Panels A and B report the summary statistics for all unique deals before and after matching the control banks, respectively. Our sample covers most years in the 1980s and 1990s. The descriptive statistics for many variables are consistent with those reported in previous studies. For example, the mean IPO underpricing of 15.56% in Panel A is close to the average underpricing of 15% during 1990–1998 reported by Loughran and Ritter (2004). Similarly, the mean IPO gross spread of 7.40% and mean SEO gross spread of 5.65% before matching align with the figures reported by Kim et al. (2010) for the 1980–2000 period (7.43% for IPOs and 5.46% for SEOs). The average IPO in our sample raises $30-$40 million, while the average proceeds from SEOs are $40-$50 million. In line with the typical negative market reaction to SEOs, the sample's mean announcement return in the event window [–5, +5] is –1%. Consistent with the negative market reaction, the SEO issuers in question appear to be generously priced by the market, with a mean market-to-book ratio of over 5.

4. Results

4.1. Risk Profile of Underwriting Clients

We begin our analysis by testing the empirical predictions of the *risk-taking hypothesis*. If transitions to limited liability change bankers' risk-taking incentives/capacity, we expect transitioning banks to take more underwriting risks, namely, to underwrite for issuers subject to greater valuation uncertainty. Following previous studies (e.g., Ritter (1984), Megginson and

Weiss (1991), Ljungqvist and Wilhelm (2003), Benveniste et al. (2003)), we use firm age and a technology industry indicator as proxies for the *ex ante* valuation uncertainty of IPOs. If investment banks increase their risk-taking upon transitioning to limited-liability organizational forms, we expect the IPOs they underwrite to involve younger firms and a higher fraction to come from the technology industry. We also examine the use of price rounding in setting offer prices. Bradley et al. (2004) show that IPO firms and their underwriters are more likely to negotiate within a set of rounded prices when aftermarket price uncertainty is high. If underwriters engage with issuers with greater valuation uncertainty after transitioning to limited liability, we expect the frequency of integer offer prices to increase.

Table 2 presents our stacked DiD estimates for the dependent variable *Young*, a dummy variable that equals one if the IPO firm's age is below the sample median (eight years) and zero otherwise. Column (1) reports the estimates from Model (1), showing that treated banks are more likely to underwrite IPOs for younger firms after transitioning from an unlimited- to a limited-liability organizational structure. The coefficient on *TreatPost* indicates that this likelihood increases by 13 percentage points, which is economically large given the average percentage of young issuers of 45.5%, as reported in Panel B of Table A3.

(Insert Table 2 here)

Like other studies using the DiD approach, we follow Bertrand and Mullainathan (2003) to examine the dynamic differences in the dependent variables between treated and control banks over time. To this end, we estimate the following regression model:

$$Y_{itc} = \beta_1 TreatPre(-2)_{itc} + \beta_2 TreatPost(+1)_{itc} + \beta_3 TreatPost(+2)_{itc} + \gamma_{ic} + \omega_{tc} + \varepsilon_{itc} \quad (2)$$

where i, t, and c are defined in the same manner as in Model (1). Because most investment banks underwrite only a few deals each year, we follow Golubov and Zhong (2025) and define the lead and lag terms on a two-year basis to improve statistical power. An insignificant coefficient on $TreatPre(-2)_{itc}$ would suggest that any changes in underwriting behavior in the post-transition period are not a continuation of pre-existing trends, offering some comfort about the parallel-trends assumption.

Column (2) reports the estimates from Model (2), whereby the coefficient on *TreatPre(–2)* is statistically insignificant, suggesting that differences between treated and control banks only emerge after the treated banks' transition. Consistent with a prolonged treatment effect in Column (1), the coefficients on *TreatPost(+1)* and *TreatPost(+2)* are statistically significant at the 5% level. In Column (3), we augment Model (1) by including industry-cohort fixed effects, and the coefficient on *TreatPost* remains statistically significant. The magnitude of the estimated coefficient is similar to that in Column (1), suggesting that the change in issuers' age following the treated banks' transition is not driven by changes in issuers' macro-industry affiliation. In Column (4), we similarly augment Model (2) by adding industry-cohort fixed effects, and the results remain consistent with those in Column (2). Overall, these findings show that treated banks are more likely to underwrite IPOs for younger firms after transitioning to limited liability.

Table 3 presents the results regarding the likelihood that an IPO firm operates in the technology industry as well as the use of integer offer prices. Column (1) reports the estimates from Model (1) and shows that treated banks are significantly more likely to underwrite IPOs for technology firms following their transition. The coefficient on *TreatPost* implies an 11-percentage point increase in this likelihood, which is sizeable given its sample-wide value of approximately 50%. Column (2) reports results from Model (2), which once again shows no significant pre-trends

in the likelihood of underwriting technology firm IPOs and a persistent positive effect for transitioning banks post reorganization.

(Insert Table 3 here)

Column (3) reports the results for integer offer prices using Model (1). The estimates indicate that IPOs underwritten by treated banks are marginally more likely to have integer offer prices post transition, as the coefficient on *TreatPost* is statistically significant only at the 10% level. The coefficient implies a 10-percentage point increase in this likelihood, compared to the 75% likelihood of observing integer offer prices in our overall sample. The results from the dynamic Model (2), reported in Column (4), indicate that the increase in the use of integer offer prices by treated banks emerges upon transition but is not quite statistically significant until the third and fourth years after. Columns (5) and (6) present results from models augmented with industry-cohort fixed effects, which remain consistent with those in Columns (3) and (4). Overall, similar to the findings in Table 2, the results suggest that investment banks tend to underwrite for issuers subject to greater valuation uncertainty after transitioning to limited liability.

We also examine an *ex post* measure of IPO firm valuation uncertainty, namely, the post-IPO stock volatility, calculated from the issuing firm's daily returns over the 30-day period following its offer date. Table 4 reports the results. Estimates in Columns (1) and (3) show that post-IPO volatility is significantly higher following the treated banks' transition: Both estimates for *TreatPost* are statistically significant at the 1% level, and the coefficient magnitudes of 0.006-0.007 are economically meaningful given the unconditional mean of *Post-IPO Volatility* of 0.038. Meanwhile, Columns (2) and (4) show that the dynamics of changes in issuer stock return volatility exhibit no significant pre-trend and a persistent effect upon transition, consistent with the patterns observed in earlier tests.

(Insert Table 4 here)

We now turn to the sample of SEOs. Similar to our analysis of IPO issuers, we examine changes in the stock volatility of SEO issuers, except that we can now measure it *ex ante* using the issuing firm's daily returns over the 30-day period preceding the SEO announcement date. Table 5 reports the results. The estimates for *TreatPost* in Columns (1) and (3) are statistically significant at the 1% level, and the magnitudes of the coefficients are virtually identical to those in the IPO sample analysis. The estimates of dynamic treatment effects in Columns (2) and (4) once again confirm that the change coincides with transition events is not a continuation of pre-existing trends. Since our measure of volatility captures both market-wide and idiosyncratic valuation risks – each relevant to underwriters of firm-commitment offerings – we interpret these findings as evidence that treated banks take more SEO underwriting risk following their transition to limited liability.

(Insert Table 5 here)

We further examine the *ex ante* profitability and market-to-book ratio of SEO issuers to assess how the composition of investment banks' clientele in the SEO market changes following their transition to limited liability. In parallel to our findings in the IPO market, where we document that investment banks increasingly work with clients subject to greater valuation uncertainty in the form of younger firms and a higher share of technology firms, increased risk-taking by investment banks may shift their clientele in the SEO market toward firms with lower profitability and higher growth potential.

Starting with profitability, we measure the pre-SEO return on assets (ROA) and construct a dummy variable equal to one if an issuer's ROA is below the median ROA of issuers *working with that underwriter in the pre-transition period*, and zero otherwise. This approach allows us to test how the profitability of SEO issuers evolves for treated and control banks relative to their typical

pre-transition client. To the extent that current profitability is the basis for forecasting future cash flows and valuing the firm, companies with thinner margins (including loss-making firms) should be subject to greater valuation uncertainty and, therefore, make for riskier underwriting mandates.

(Insert Table 6 here)

The results reported in Table 6 show that the ROA of the treated underwriters' post-transition clients is more likely to be lower than the median ROA of their pre-transition issuers. Controlling for the same change of matched banks, this likelihood increases by approximately 14–15 percentage points, as evidenced by the DiD coefficients in columns (1) and (3). This effect is sizeable relative to the unconditional mean of the dependent variable, which is approximately 50% by construction. Columns (2) and (4) confirm that this change in SEO issuer profitability profile occurs only after the treated banks transition to limited liability. We interpret these results as consistent with greater risk-taking by transitioning banks.

Next, we examine issuers' pre-SEO market-to-book ratios, which serve as a proxy for growth opportunities (with higher values implying higher growth-option intensity). Firms whose market values derive predominantly from growth options rather than assets-in-place are subject to greater valuation uncertainty. As is commonly done in the literature, we exclude issuers with negative book values of equity from this test. Table 7 presents the results.

(Insert Table 7 here)

Estimates from Model (1), reported in Columns (1) and (3), indicate that the market-to-book ratio of issuers underwritten by the treated banks increases significantly following the banks' transition to limited liability. The estimated coefficient of approximately 2.5 is economically meaningful, given that the unconditional mean of market-to-book ratios in the SEO sample is 5.49.

The robustness of the result in column (3), where industry-cohort fixed effects are included, suggests that the shift towards higher market-to-book ratio firms is not merely driven by changes in issuers' industry affiliations. Columns (2) and (4) confirm that there are no differential pre-trends in market-to-book ratios, and that the positive effect coinciding with transition events is persistent (while the coefficient on *TreatPost(+2)* is not statistically significant, its magnitude is comparable to that of *TreatPost(+1)*). Overall, these findings suggest SEO issuers served by investment banks after their transition to limited liability become more growth-option intensive – the type of firms that are more uncertain/riskier.[9]

We end our analysis of issuer characteristics by turning to bond underwriting markets, in which we can conveniently measure the riskiness of the issuer using their credit ratings. Specifically, we examine changes in issuers' credit ratings, measured on a numerical scale from 1 to 17 based on Moody's ratings, with lower values indicating higher credit risk. To avoid the complications associated with multiple bond issues for the same underwriter-issuer pair in the same year (which is common in the bond underwriting sample, unlike the IPO or SEO samples), we restrict our data to the first deal between each underwriter–issuer pair in each year. Table 8 presents the results of this analysis.

(Insert Table 8 here)

Columns (1) and (3) both show a statistically significant decline in issuers' credit ratings upon the underwriters' transition to limited liability. The estimated coefficient on *TreatPost* in column (1) corresponds to a roughly one-notch downgrade on the Moody's rating scale. The

[9] An alternative measure is Tobin's *q*. However, the typical measurement of the firm's Tobin's *q* (relying on book value of debt as the surrogate for its market value) mechanically makes it a function of leverage. We find similar evidence using Tobin's *q* when we control for issuer leverage, but doing so raises concerns about "bad controls." Therefore, we prefer the market-to-book equity ratio.

magnitude of the *TreatPost* coefficient decreases only slightly after controlling for industry-cohort fixed effects, suggesting much of the increase in issuer credit risk profile that we find is not due to changing industry composition of issuers. As is the case in all of our results so far, Columns (2) and (4) show no evidence of significantly different pre-trends and reveal a persistent treatment effect.

Overall, the results reported thus far are consistent with the *risk-taking hypothesis*: according to a variety of characteristics, underwriters transitioning to limited liability begin working with more uncertain/riskier clients, and these effects are detectable in both equity and bond underwriting markets.

4.2. Issue Pricing and Market Reaction

We now turn to the second hypothesized mechanism, namely, *horizon-shortenin*g. If limited liability makes bankers' ownership stakes more liquid, this could reduce their incentives to invest in banks' long-run reputations by exerting costly efforts to screen issuers and perform due diligence. If such a horizon-shortening effect is anticipated by primary market investors, we would expect issues underwritten by transitioning banks to be met with inferior pricing (higher discounts to fundamental value), since investors would perceive higher adverse selection risk.

We test the above prediction using IPO underpricing, with the results reported in Table 9. Column (1) shows that IPOs underwritten by treated banks experience a significant increase in underpricing following their transition. On average, underpricing rises by more than 9.5 percentage points, which is economically large given its unconditional mean of 17.36% in the matched sample. The results from Model (2), reported in Column (2), reveal an insignificant coefficient on *TreatPre(–2)* and persistently positive coefficients on *TreatPost(+1)* and *TreatPost(+2)*, both

significant at the 1% level. Columns (3) and (4) report results from models that enforce within-industry comparisons, which remain consistent with those in Columns (1) and (2).

(Insert Table 9 here)

The increase in underpricing following treated banks' transition to limited liability is consistent with lower certification value as per the horizon-shortening mechanism. However, it can also be a manifestation of greater risk-taking, since we have already shown that transitioning banks begin working with more uncertain issuers: greater issuer valuation uncertainty would normally result in higher underpricing. So far, we cannot directly verify which of the two mechanisms is at play, but we attempt to do so in our later tests.

While we expect the role of underwriter due diligence – and hence any pricing effects – to be less critical in SEOs, where investors already possess a lot of information about the issuers, we nevertheless examine how transitions to limited liability are reflected in SEO discounts. We find some weak evidence that SEO discounts also increase upon banks' transition, with these results reported in Table A4 of the Appendix to preserve space. Like IPO underpricing, the increase in SEO discounts is consistent with weakened certification value under limited liability structures, but it may also reflect greater uncertainty about the fundamental value of the offered securities (Altınkılıç and Hansen (2003), Corwin (2003), Mola and Loughran (2004)) as per our earlier findings.

Another outcome that may be indicative of the certification value provided by the underwriter is the SEO announcement return. According to the asymmetric information model of Myers and Majluf (1984), negative market reactions to SEO announcements are a manifestation of adverse selection risk: only those issuers whose private information suggests the stock price is too high will choose to issue. If transitions to limited liability weaken the incentive to invest in

costly issuer screening and due diligence, investors will perceive greater adverse selection risk and react more negatively.[10]

We measure SEO announcement returns as the cumulative market-adjusted return of the issuer's stock over an eleven-day window centered on the SEO announcement date. We adopt a relatively long event window here in order to account for potential inaccuracies in the recorded announcement dates of SEOs in the Refinitiv dataset. Table 10 reports the results.

(Insert Table 10 here)

We find that issuers served by the treated banks after their transition experience significantly more negative market reactions. Relative to the unconditional mean announcement return of –1% for our sample, the estimated coefficients on *TreatPost* are economically large. The results are thus consistent with weaker certification value – but once again could reflect a shift towards more uncertain issuers, since the degree of valuation uncertainty increases adverse selection risk holding the level of information asymmetry constant (Bessembinder, Hao, and Zheng (2015)).

4.3. The Value of Underwriting Relationship for Incumbent Clients

Both the risk-taking mechanism and the horizon-shortening mechanism may have implications for the transitioning banks' relationship clients. We have already shown that banks adopting limited liability structures start working with riskier issuers. If these banks are capacity-constrained, the shift in client composition could result in a certain rationing of services for incumbent clients. In addition, if transitions to limited liability reduce bankers' incentives to preserve long-run institutional reputation through consistent due diligence and information

[10] For instance, McLaughlin, Saffiedine, and Vasudevan (2000) report a positive association between underwriter reputation and SEO announcement returns. The horizon-shortening effect is akin to weaker concerns for long-run reputation.

production efforts, the certification value of future underwriting services for existing clients may go down.

To examine this possibility, we resort to a stock market event-study approach, whereby we analyze the stock price reaction of investment banks' existing underwriting clients – both equity and bond issuers – to their banks' transition announcements. The announcement dates for the treated banks are collected using the same procedure as for the transition dates. Announcement returns are measured as the clients' cumulative market-adjusted returns over a three-day window centered on the banks' transition announcement date.[11] Our sample here includes market reactions for 429 clients that have retained the transitioning banks for securities underwriting in the 10-year period prior to the transition event, including 270 equity underwriting clients and 159 non-equity underwriting clients (i.e., clients that obtained only bond underwriting services). The results are presented in Table 11.

(Insert Table 11 here)

Panel A shows that the underwriting clients of the treated banks experienced an average cumulative abnormal return (CAR) of –0.398% over the three-day window surrounding their banks' transition announcement, which is statistically different from zero at the 10% significance level. The median CAR is –0.462%, and a Wilcoxon signed-rank test shows that the median is significantly different from zero at the 1% level. The negative market reaction suggests that market participants perceive investment bank transitions to limited liability as detrimental to the value of incumbent clients' underwriting relationships.

[11] Our results remain robust when alternative expected return models, such as the Fama–French four-factor model, are used to compute abnormal returns.

We further examine the heterogeneity in these market reactions according to client type. Using the sudden collapse of Lehman Brothers in 2008, Fernando, May, and Megginson (2012) show that investment banking relationships are more valuable for equity underwriting clients than for bond underwriting clients. We therefore examine the market reactions to transition announcements separately for equity and non-equity underwriting clients, and we expect the reaction to be more negative for the former. Panel B reports the associated results. Consistent with our expectation, the market reaction for equity underwriting clients is substantially lower than that of non-equity underwriting clients. While both the mean and median CARs of equity clients are even more negative (–0.69% and –0.89%) than the full-sample reactions, those of non-equity clients are not distinguishable from zero in terms of both economic magnitudes and statistical significance. The right-most columns of Panel B also show that the mean and median CARs in the two subsamples are significantly different from each other. We conclude that the negative market reaction for the treated banks' incumbent clients is driven by firms with prior equity underwriting relationships.

Fernando, May, and Megginson (2012) further find that investment banking relationships are more valuable to financially constrained firms, such as small firms. We therefore also examine how the market reaction differs between small and large clients. We classify clients as small or large based on whether their market capitalization is below or above the median market capitalization of all incumbent underwriting clients of that investment bank. Panel C shows that both the mean and median CARs of small clients are significantly negative (–0.78% and –1.16%, respectively), while those of large clients are once again not distinguishable from zero both economically and statistically. Differences between large and small clients' mean and median CARs are statistically significant, as shown in the right-most columns of Panel C. Overall, these

results suggest that the negative market reaction experienced by the transitioning banks' underwriting clients is driven by firms that typically face greater financing barriers.

If the negative stock price reaction of the treated banks' equity underwriting clients and small-firm clients reflects a decline in the value of their investment banking relationships, we should observe corresponding real effects on these firms' subsequent activities. Specifically, if investment bank transitions to limited liability hurt incumbent clients by raising financing barriers, we would expect those clients to scale back investment. To test this prediction, we return to our DiD approach and examine changes in incumbent clients' annual capital expenditures around the treated banks' transition to limited liability.

In this DiD analysis, the treated group consists of firms that completed an equity or bond offering underwritten by a treated bank within the ten years preceding the bank's transition to limited liability. The control group comprises firms that, in the same timeframe, completed an equity or bond offering underwritten by matched control banks identified in our earlier analysis of issue/issuer characteristics.[12] As before, we adopt an event window of [–4, +3], extending from four years before to three years after each cohort's transition year. The unit of observation is firm-year and the dependent variable is capital expenditures (CAPEX) scaled by lagged total assets. Based on the stock market event study evidence, we expect the effect (if any) to concentrate in equity underwriting clients and small clients, so we interact *TreatPost* with *Equity* and *Small* indicators (these indicators are absorbed by firm × cohort fixed effects; the specification also includes either year × cohort or year × industry × cohort fixed effects). Table 12 reports the results of this DiD analysis.

[12] A firm may maintain relationships with multiple banks. If at least one of those banks is a transitioning bank, we classify the firm as belonging to the treated group.

(Insert Table 12 here)

Consistent with the stock market event study evidence, Columns (1) and (2) reveal that non-equity underwriting clients do not exhibit significant reductions in investment, as reflected by the insignificant coefficient on *TreatPost* in the presence of the interaction term. In contrast, the coefficient on *TreatPost* × *Equity* is significantly negative, indicating that the investment response of equity underwriting clients is more negative than that of non-equity underwriting clients. Importantly, the sum of the coefficients on *TreatPost* and *TreatPost* × *Equity* reported at the bottom of the table is negative and significant, suggesting that, relative to control firms, equity underwriting clients reduce their CAPEX-to-lagged-assets ratio by approximately 1.2%–1.4% following their relationship bank's transition. Columns (3) and (4) reveal the same pattern for large vs. small clients: while large clients of transitioning banks do not reduce investment relative to control firms (the insignificant coefficient on *TreatPost*), small clients' capital expenditures decline by approximately 1.3%–1.4% (the sum of the coefficients on *TreatPost* and *TreatPost* × *Small*). The economic magnitudes of the investment response are sizeable, considering that the sample average CAPEX-to-lagged-assets ratio is 10.13%. Overall, the results in Table 12 corroborate the link between investment bank transitions to limited liability and a decline in the value of banking relationships, and they also demonstrate that this decline has real consequences for client firms' investment activities.

4.4. Testing the Horizon-Shortening Mechanism

While we find evidence consistent with investment banks pivoting towards riskier underwriting mandates upon transition to limited liability, it remains unclear whether the adverse issue pricing effect and the declining value of bank relationships for incumbent clients are a by-

product of this clientele shift – or at least partly driven by lower certification value implied by the separate horizon-shortening mechanism. In this section, we devise three tests that zero-in on the specific channel through which shorter banker horizons could bring about lower certification value, namely, reduced issuer screening and due diligence efforts. These tests follow the DiD strategy used throughout our earlier analysis.

First, we examine changes in IPO and SEO underwriting spreads. Lower certification value due to less intensive screening and due diligence implies a lower-cost (and lower quality) service, which should be met with lower fees/spreads. In contrast, a shift toward riskier mandates does not imply lower-cost or lower quality services; if anything, fees may increase due to greater complexity of working for firms with more uncertain valuations. Table 13 reports the DiD analysis of underwriting fees. Our tests using IPO spreads (Columns (1)–(4)) show no significant change associated with the treated banks' transition. While this finding does not support the notion of weaker screening/due diligence efforts, it may also reflect the fact, pointed out by Chen and Ritter (2000), that the vast majority of U.S. IPOs issued between 1985 and 1998 featured a spread of seven percent exactly. Indeed, the summary statistics of our IPO sample confirm that there is little variation in IPO spreads around 7%. The results for SEO gross spreads, reported in Columns (5)–(8), reveal a different picture. Specifically, we find that the spreads of SEOs underwritten by treated banks *increase* significantly following their transition to limited liability. However, the effect appears to be short-lived: only the coefficient on *TreatPost(+1)* is statistically significant. Overall, these patterns for underwriting fees are more consistent with a shift toward riskier clientele than with a decline in the certification value of the treated banks.

(Insert Table 13 here)

Second, we examine whether the average length of the registration period for IPOs and SEOs changes after the treated banks' transition. If bankers exert less effort on due diligence and information production during the registration period and rush to complete deals to secure underwriting fees, one would expect the average length of the registration period to decline following the transition. Shifting towards riskier issuers does not predict a reduction in the length of the registration period; if anything, working on securities subject to greater valuation uncertainty may require additional due diligence and marketing efforts, potentially lengthening the time to issuance. The results reported in Table 14 show that, across different regression specifications, there is no evidence of significant changes in the average length of the registration period for transitioning banks, which does not support the horizon-shortening mechanism.

(Insert Table 14 here)

Third, we examine the long-run performance of issuers. Extant literature shows that high-reputation banks tend to work with higher-quality issuers (Fang (2005), Fernando, Gatchev, and Spindt (2005)), and IPO firms underwritten by prestigious underwriters exhibit better long-run performance, on average (Carter and Manaster (1990), Michaely and Shaw (1994), Carter, Dark, and Singh (1998), Dong, Michel, and Pandes (2011)). If the shortening of bankers' horizons reduces their concerns for long-run institutional reputations – normally maintained through stringent issuer screening and due diligence – then one would expect a greater fraction of post-transition issuers to turn out to be "lemons" *ex post*. Thus, the horizon-shortening logic predicts that a larger fraction of deals underwritten by transitioning banks after adopting limited liability should underperform in the long run.

To test this prediction, we examine the post-issue long-term performance of IPO and SEO firms. We first calculate each IPO or SEO firm's buy-and-hold return over a five-year period using

daily returns (including dividends) from the first trading day after the offer date to the last trading day reported by CRSP within the five years following the offer. Each firm is then matched to one of the 25 portfolios formed on size and book-to-market ratio from Kenneth R. French's data library,[13] and the buy-and-hold return of each matched portfolio is computed over the same five-year horizon. The buy-and-hold abnormal return (BHAR) is then defined as the difference between the firm's raw return and the corresponding portfolio return. Finally, we construct a dummy variable equal to one if a firm underperformed its benchmark – i.e. BHAR is negative – and zero otherwise. This dummy variable approach serves two purposes. First, it is aligned with our empirical prediction regarding "the fraction of lemons", i.e. long-run underperforming firms. Second, the wide variation in the continuous BHAR variable makes regression estimates sensitive to extreme values.

(Insert Table 15 here)

Table 15 reports the results of the long-run underperformance analysis. All estimated coefficients for *TreatPost*, *TreatPost(+1)*, and *TreatPost(+2)* are statistically insignificant. Thus, there does not appear to be evidence that issuers underwritten by the transitioning banks are more likely to underperform in the long run. For IPOs, we also examine the likelihood of performance-related delisting within five years after the offering date. Again, we do not find evidence that IPO firms underwritten by treated banks upon transition are more likely to be delisted for performance-related reasons (for brevity, the results are reported in Table A5 of the Appendix). Overall, our tests on issuers' long-run performance outcomes do not provide support for the horizon-shortening mechanism.

[13] We use value-weighted portfolios; however, the results are similar when we use equal-weighted portfolios.

To summarize our targeted tests, we find no evidence of weaker due diligence and information production efforts as judged by the underwriting fees, registration period length, and long-run performance of the issuers. Nevertheless, we acknowledge that the tests conducted here are based on imperfect proxies, and so our conclusions here are not necessarily definitive.

4.5. Robustness and Auxiliary Tests

We also conduct two robustness tests. First, because a large portion of our treated observations involves deals underwritten by Goldman Sachs, our results could be disproportionately driven by this particular transition event rather than reflecting a broader pattern among treated banks. To address this concern, we exclude the Goldman Sachs cohort from the DiD analysis and re-estimate our models (unreported for brevity). Although some coefficients lose statistical significance – likely due to the reduction in sample size – the remaining significant results, including those for IPO industry composition and offer price precision, pre-SEO stock volatility, SEO issuer profitability, SEO announcement returns, and SEO gross spreads, remain intact. Importantly, these results continue to indicate that investment banks underwrite riskier mandates following the adoption of limited liability. This suggests that our findings are not driven by a single transition event.

Second, although our analysis centers on changes in banker personal liability, the transition to limited liability coincides with going-public events for some banks in our sample. As a result, our findings could be potentially driven by changes in public status rather than by liability regime alone. To address this concern, we conduct a placebo test using a sample of investment banks that transition from private corporations to public corporations, which does not entail a change in personal banker liability. This test also serves a second purpose: because going public is likely associated with a greater increase in the liquidity of investment bankers' ownership stakes than a

change in liability rules, it may provide a more targeted setting for the horizon-shortening effect. For the same set of dependent variables, the placebo test fails to generate patterns comparable to those observed in our main analysis. Most estimated effects are statistically insignificant, while the few significant coefficients for outcomes such as IPO firm age, industry composition, and offer price precision are of the wrong sign and show no clear treatment-effect dynamics (unreported for brevity). These results suggest that our findings are not driven by changes in public status and provide little support for the horizon-shortening effect in this alternative setting.

5. Conclusion

We study how investment banks' transitions from partnerships with unlimited liability for key decision-makers to limited liability organizational forms shape their underwriting behavior. Theoretically, limited liability can incentivize bankers to take more risks by limiting personal downside exposure. Moreover, through raising the liquidity of ownership stakes, limited liability structures could shorten bankers' planning horizons, thereby reducing their incentives to maintain long-run institutional reputation through high quality service provision.

In line with the prediction of greater risk-taking incentives/capacity, we show that transitioning banks begin taking more underwriting risks. In the IPO market, this manifests in serving younger, more technology-oriented firms, and issuers with greater post-offering stock volatility. In the market for SEOs, this translates into underwriting for less profitable firms with higher growth opportunities and for more volatile issuers. In the bond market, transitioning investment banks begin serving issuers with higher credit risk. The shift to limited liability is met with higher IPO underpricing and SEO discounts, as well as with more negative SEO announcement returns.

We further find that incumbent underwriting clients – particularly equity-underwriting clients and smaller firms – experience negative stock-market reactions to their banks' transition announcements, and they subsequently reduce capital expenditures. These patterns suggest a decline in the value of pre-existing underwriting relationships upon transition to limited liability forms. However, contrary to the predictions of the horizon-shortening mechanism, additional tests on underwriter spreads, the registration period length, and long-run issuer performance do not support the notion that underwriters weaken their screening or due diligence efforts post transition. Taken together, our findings suggest that changes to limited liability primarily affect underwriting behavior through expanded risk-taking and client selection, with downstream implications for issue pricing and relationship value. Adopting limited liability does not appear to lower certification value provided by banks, suggesting that bankers maintain their incentive to invest in their institutions' long-run reputations.

Overall, our study highlights the importance of organizational forms in shaping investment banking behavior. For instance, our findings of negative wealth effects for incumbent clients of transitioning banks substantiate conjectures in the literature that abandoning traditional partnership structures resulted in a shift away from relationship-based and toward more transactional investment banking practices. However, our analysis also reveals that this transition may have expanded access to capital for high-risk firms with high growth potential, thereby channelling resources to the type of companies that often drive innovation. From a policy perspective, our results suggest that proposals to increase personal liability of investment bankers would have implications for capital formation in the economy.

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Table 1: Transition Events and Sample Banks

Panel A lists investment bank transitions from partnerships with unlimited liability for key decision-makers to limited-liability organizational forms. The starting point is a list of all investment banks that underwrote at least 30 equity offerings between 1970 and 2006 in the Refinitiv dataset (120 investment banks in total). Transition events, their type, and their timing are identified using Factiva, complemented with extensive Web searches. Panel B reports the transitioning investment banks that enter our analysis, along with the number of observations of each type.

Panel A: Date/Year of Transition to Limited Liability Structure

Investment Bank	Transition Date/Year	Pre-transition Form	Post-transition Form
Goldman Sachs	Nov. 30, 1996	Limited Partnership	Limited Liability Partnership
Lazard Freres	May 1, 1995	Limited Partnership	Limited Liability Company
Alex Brown & Sons	Jan. 10, 1986	Limited Partnership	Public Corporation
Bear Stearns	Oct. 29, 1985	Limited Partnership	Public Corporation
McDonald Investments	Jul. 20, 1983	General Partnership	Public Corporation
Salomon Brothers	Aug. 2, 1981	General Partnership	Public Corporation Subsidiary
Advest	1977	General Partnership	Private Corporation
Loeb Rhoades	1977	General Partnership	Private Corporation
Drexel Burnham Lambert	1976	Limited Partnership	Private Corporation
Hornblower & Weeks Hemphill Noyes	Sep. 20, 1972	General Partnership	Private Corporation
White Weld	Feb. 1, 1972	General Partnership	Private Corporation
Eastman Dillon Union Securities	Mar. 1, 1971	General Partnership	Private Corporation
Reynolds Securities	1971	General Partnership	Private Corporation
Paine, Webber, Jackson, Curtis	Nov. 12, 1970	General Partnership	Private Corporation
Lehman Brothers	Oct. 19, 1970	General Partnership	Private Corporation
Morgan Stanley	1970	Limited Partnership	Private Corporation

Panel B: Sample Banks

Investment Bank	IPO Sample	SEO Sample	Bond Sample	Event Study
Goldman Sachs	179	131	358	275
Lazard Freres		4	12	17
Alex Brown & Sons	82	58	38	40
Bear Stearns	27	44	65	63
McDonald Investments	8			
Salomon Brothers		22	294	34

Table 2: IPO Firm Age

This table reports the results of the DiD analysis of IPO firm age around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Young*, defined as a dummy variable that equals one if the IPO firm's age is below the sample median (8 years) and zero otherwise. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	0.130**		0.128**	
	[2.23]		[2.25]	
TreatPre(–2)		-0.045		-0.041
		[-0.47]		[-0.40]
TreatPost(+1)		0.111**		0.098**
		[2.63]		[2.40]
TreatPost(+2)		0.150**		0.147***
		[2.67]		[2.72]
Bank-cohort FE	Y	Y	Y	Y
Year-cohort FE	Y	Y	Y	Y
Industry-cohort FE			Y	Y
Observations	2,068	2,068	2,067	2,067
Adjusted R-squared	0.0528	0.0525	0.0637	0.0632
#Cohorts	4	4	4	4
#Obs. (Treat = 1)	249	249	249	249
#Obs. (TreatPost = 1)	144	144	144	144

Table 3: Industry Composition and Offer Price Precision of IPOs

This table reports the results of the DiD analysis of IPO firms' industry composition and offer price precision around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable in columns (1) and (2) is *Tech*, defined as an indicator that equals one if the issuer operates in the tech industry (according to Refinitiv's "High Tech Industry" variable), and zero otherwise. The dependent variable in columns (3)–(6) is *Integer-Price*, defined as an indicator that equals one if the IPO has an integer offer price, and zero otherwise. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
TreatPost	0.106**		0.103*		0.105*	
	[2.22]		[1.96]		[2.00]	
TreatPre(–2)		0.060		0.049		0.048
		[0.95]		[0.59]		[0.55]
TreatPost(+1)		0.107**		0.095		0.101
		[2.60]		[1.51]		[1.51]
TreatPost(+2)		0.239***		0.181**		0.179**
		[3.08]		[2.47]		[2.48]
Bank × cohort FE	Y	Y	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y	Y	Y
Industry × cohort FE					Y	Y
Observations	2,793	2,793	2,793	2,793	2,790	2,790
Adjusted R-squared	0.149	0.150	0.0706	0.0707	0.0724	0.0724
#Cohorts	4	4	4	4	4	4
#Obs. (Treat = 1)	296	296	296	296	296	296
#Obs. (TreatPost = 1)	150	150	150	150	150	150

Table 4: Post-IPO Stock Volatility

This table reports the results of the DiD analysis of post-IPO stock volatility around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Post-IPO Volatility*, defined as the IPO firm's 30-day stock return volatility (using daily returns) after the IPO date. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	0.007***		0.006***	
	[3.29]		[2.96]	
TreatPre(–2)		0.001		0.001
		[0.41]		[0.58]
TreatPost(+1)		0.005***		0.005***
		[3.00]		[2.92]
TreatPost(+2)		0.009***		0.008***
		[2.78]		[2.79]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,528	2,528	2,525	2,525
Adjusted R-squared	0.341	0.340	0.360	0.360
#Cohorts	4	4	4	4
#Obs. (Treat = 1)	283	283	282	282
#Obs. (TreatPost = 1)	145	145	144	144

Table 5: Pre-SEO Stock Volatility

This table reports the results of the DiD analysis of SEO firms' pre-offering stock volatility around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Pre-SEO Volatility*, defined as the SEO firm's 30-day stock return volatility (using daily returns) before the SEO announcement date. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	0.007***		0.007***	
	[3.37]		[3.71]	
TreatPre(–2)		-0.001		-0.001
		[-0.75]		[-0.70]
TreatPost(+1)		0.003**		0.003*
		[2.02]		[2.00]
TreatPost(+2)		0.006***		0.005***
		[3.04]		[3.09]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,696	2,696	2,693	2,693
Adjusted R-squared	0.242	0.240	0.244	0.242
#Cohorts	5	5	5	5
#Obs. (Treat = 1)	239	239	239	239
#Obs. (TreatPost = 1)	109	109	109	109

Table 6: SEO Issuer Profitability

This table reports the results of the DiD analysis of SEO firms' profitability around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Low_ROA*, defined as a dummy that equals one if the SEO firm's pre-SEO return on assets (Compustat items: ib / at) is below the median return on assets of SEO issuers served by that underwriter during the cohort's pre-transition period, and zero otherwise. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	0.147***		0.142***	
	[3.61]		[3.35]	
TreatPre(–2)		0.085		0.101
		[1.21]		[1.61]
TreatPost(+1)		0.194***		0.198***
		[3.29]		[3.81]
TreatPost(+2)		0.252***		0.249***
		[5.55]		[4.49]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,294	2,294	2,291	2,291
Adjusted R-squared	0.0212	0.0214	0.0475	0.0477
#Cohorts	5	5	5	5
#Obs. (Treat = 1)	229	229	229	229
#Obs. (TreatPost = 1)	99	99	99	99

Table 7: SEO Firms' Market-to-Book Ratio

This table reports the results of the DiD analysis of SEO firms' market-to-book ratios around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Market-to-Book*, defined as the SEO firm's pre-SEO market-to-book ratio (Compustat items: mktcap / ceq). *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	2.492**		2.615**	
	[2.09]		[2.59]	
TreatPre(–2)		-0.227		-0.104
		[-0.43]		[-0.24]
TreatPost(+1)		1.524***		1.723***
		[3.50]		[4.22]
TreatPost(+2)		1.549		1.709
		[1.18]		[1.55]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,430	2,430	2,427	2,427
Adjusted R-squared	0.0900	0.0875	0.103	0.100
#Cohorts	5	5	5	5
#Obs. (Treat = 1)	218	218	218	218
#Obs. (TreatPost = 1)	96	96	96	96

Table 8: Bond Issuer Credit Risk

This table reports the results of the DiD analysis of bond issuers' credit ratings around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Credit Rating*, defined as the bond issuer's credit rating from Moody's (on a numerical scale from 1 to 17, with higher value representing higher credit rating) at the time of the bond offering. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. t-statistics are reported in parentheses. *t*-statistics are reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	-0.978**		-0.787**	
	[-2.43]		[-2.51]	
TreatPre(–2)		-0.277		-0.447
		[-0.69]		[-1.43]
TreatPost(+1)		-0.727*		-0.752
		[-1.86]		[-1.65]
TreatPost(+2)		-1.587**		-1.457**
		[-2.72]		[-2.67]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,089	2,089	2,087	2,087
Adjusted R-squared	0.516	0.516	0.537	0.538
#Cohorts	4	4	4	4
#Obs. (Treat = 1)	310	310	310	310
#Obs. (TreatPost = 1)	129	129	129	129

Table 9: IPO Underpricing

This table reports the results of the DiD analysis of IPO underpricing around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Underpricing*, defined as IPO underpricing calculated as ((first day's closing price – offer price) / offer price) × 100. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	9.554**		9.029**	
	[2.33]		[2.40]	
TreatPre(–2)		-1.295		-1.060
		[-0.31]		[-0.25]
TreatPost(+1)		5.023***		5.330***
		[3.20]		[4.04]
TreatPost(+2)		16.652***		15.878***
		[3.19]		[3.27]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,505	2,505	2,502	2,502
Adjusted R-squared	0.259	0.262	0.270	0.272
#Cohorts	4	4	4	4
#Obs. (Treat = 1)	281	281	280	280
#Obs. (TreatPost = 1)	145	145	144	144

Table 10: SEO Announcement Returns

This table reports the results of the DiD analysis of SEO issuer announcement return around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *SEO Announcement Return*, defined as the cumulative market-adjusted return of the SEO firm's stock over the eleven-day window around the SEO announcement date (−5, +5). *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	-0.026***		-0.024***	
	[-3.31]		[-3.25]	
TreatPre(–2)		0.004		0.005
		[0.34]		[0.41]
TreatPost(+1)		-0.025**		-0.022**
		[-2.43]		[-2.43]
TreatPost(+2)		-0.033***		-0.031***
		[-3.02]		[-2.97]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,591	2,591	2,588	2,588
Adjusted R-squared	0.0188	0.0188	0.0144	0.0143
#Cohorts	5	5	5	5
#Obs. (Treat = 1)	231	231	231	231
#Obs. (TreatPost = 1)	101	101	101	101

Table 11: Incumbent Clients' Market Reaction to Their Underwriter Transition Announcement

This table reports stock market reactions of incumbent clients to the announcements of their underwriter transition to limited-liability organizational forms. The sample consists of 429 firms that were equity (270 firms) or bond (159 firms) underwriting clients of one of the five transitioning investment banks. Underwriting clients are defined as firms with at least one equity or bond offering underwritten by an investment bank during the 10-year period preceding the bank's incorporation decision. For each transitioning investment bank, a client firm is classified as small if its market capitalization is below the median market capitalization of that bank's clients, and as large otherwise (213 small and 216 large). *Incorporation Announcement Return* is the cumulative market-adjusted of a bank's equity or bond underwriting client over the three-day window surrounding its incorporation announcement. In Panels A, B, and C, the first row reports the mean and median *Incorporation Announcement Return* for all firms and subgroups, as well as the differences between subgroup means and medians. The second row reports the corresponding *p*-values for means, medians, mean differences, and median differences.

Panel A: Full Sample

All Clients (N=429)			
Mean	-0.398%	Median	-0.462%
p-val	0.081	*p*-val	0.003

Panel B: Equity vs. Non-Equity Clients

Equity (N=270)				Non-Equity (N=159)				Difference			
Mean	-0.690%	Median	-0.890%	Mean	0.098%	Median	0.069%	Mean	-0.788%	Median	-0.959%
p-val	0.039	*p*-val	0.000	*p*-val	0.678	*p*-val	0.650	*p*-val	0.054	*p*-val	0.002

Panel C: Small vs. Large Clients

Small (N=213)				Large (N=216)				Difference			
Mean	-0.783%	Median	-1.16%	Mean	-0.019%	Median	-0.041%	Mean	-0.763%	Median	-1.115%
p-val	0.046	*p*-val	0.000	*p*-val	0.935	*p*-val	0.783	*p*-val	0.095	*p*-val	0.003

Table 12: Incumbent Clients' Investment

This table reports the results of the DiD analysis of capital expenditures by incumbent underwriting clients around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The treated group comprises firms that obtained equity or bond underwriting services from treated banks within ten years prior to the banks' transition, while the control group consists of equity or bond underwriting clients of matched control banks over the same period. In all columns, the dependent variable is *CAPEX/Assets*, which is the client firm's capital expenditure (Compustat item: capx) in year *t*, scaled by total assets (Compustat item: at) in year *t–1*. *TreatPost* is an indicator equal to one if a firm is an underwriting client of a treated bank and the observation year is the transition year or later. *TreatPost* × *Equity* is the interaction between *TreatPost* and *Equity*, where *Equity* is an indicator that equals one for equity underwriting clients of treated banks and zero otherwise. *TreatPost* × *Small* is the interaction between *TreatPost* and *Small*, where *Small* is an indicator that equals one if the firm's market capitalization, measured shortly before the treated bank's transition, is below the median market capitalization of that bank's clients, and zero otherwise. *t*-statistics are reported in parentheses are based on standard errors are clustered at the industry level, defined by the first two digits of the client firm's SIC code. Symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	0.011*	0.007	0.005	0.002
	[1.79]	[1.15]	[0.95]	[0.36]
TreatPost × Equity	-0.024***	-0.020**		
	[-2.70]	[-2.35]		
TreatPost × Small			-0.019***	-0.015**
			[-2.89]	[-2.34]
Firm × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y		Y	
Year × industry × cohort FE		Y		Y
Observations	28,274	27,863	28,274	27,863
Adjusted R-squared	0.498	0.529	0.498	0.529
TreatPost + Interaction	-0.014*	-0.012*	-0.014**	-0.013*
t-stat	[-1.95]	[-1.87]	[-2.15]	[-1.94]

Table 13: IPO/SEO Underwriting Fees

This table reports the results of the DiD analysis of IPO and SEO gross spreads after investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable in columns (1)–(4) is *IPO Gross Spread*, which is the gross spread paid to the IPO underwriter, calculated as ((offer price - price paid by underwriters to the issuer) / offer price) × 100. The dependent variable in columns (5)–(8) is *SEO Gross Spread*, which is the gross spread paid to the SEO underwriter, defined similarly. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics are reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TreatPost	0.062		0.055		0.271**		0.273***	
	[0.95]		[0.83]		[2.62]		[2.73]	
TreatPre(–2)		0.024		0.021		0.055		0.067
		[0.53]		[0.44]		[0.29]		[0.36]
TreatPost(+1)		0.59		0.57		0.455***		0.468***
		[1.34]		[1.23]		[3.34]		[3.57]
TreatPost(+2)		0.108		0.101		0.160		0.163
		[1.24]		[1.21]		[1.39]		[1.30]
Bank × cohort FE	Y	Y	Y	Y	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y	Y	Y	Y	Y
Industry × cohort FE			Y	Y			Y	Y
Observations	2,792	2,792	2,789	2,789	2,915	2,915	2,913	2,913
Adjusted R-squared	0.825	0.825	0.827	0.827	0.453	0.453	0.464	0.465
#Cohorts	4	4	4	4	5	5	5	5
#Obs. (Treat = 1)	296	296	296	296	259	259	259	259
#Obs. (TreatPost = 1)	150	150	150	150	116	116	116	116

Table 14: IPO/SEO Registration Period Length

This table reports the results of the DiD analysis of the length of IPO and SEO registration periods around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable in Columns (1)–(4) is the natural logarithm of *IPO RegistPeriod*, defined as the number of days between the IPO announcement date and the offer date. The dependent variable in Columns (5)–(8) is the natural logarithm of *SEO RegistPeriod*, defined as the number of days between the SEO announcement date and the offer date. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics are reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TreatPost	-0.010		-0.011		0.042		0.073	
	[-0.10]		[-0.11]		[0.84]		[1.53]	
TreatPre(–2)		-0.076		-0.078		0.013		0.020
		[-0.45]		[-0.47]		[0.08]		[0.14]
TreatPost(+1)		-0.099		-0.105		0.078		0.099
		[-0.79]		[-0.79]		[0.99]		[1.30]
TreatPost(+2)		0.002		0.011		0.055		0.093
		[0.01]		[0.07]		[0.51]		[0.87]
Bank × cohort FE	Y	Y	Y	Y	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y	Y	Y	Y	Y
Industry × cohort FE			Y	Y			Y	Y
Observations	2,768	2,768	2,765	2,765	2,856	2,856	2,854	2,854
Adjusted R-squared	0.232	0.232	0.235	0.235	0.213	0.213	0.223	0.223
#Cohorts	4	4	4	4	5	5	5	5
#Obs. (Treat = 1)	295	295	295	295	255	255	255	255
#Obs. (TreatPost = 1)	150	150	150	150	116	116	116	116

Table 15: IPO/SEO Long-Term Underperformance

This table reports the results of the DiD analysis of IPO and SEO firms' post-issue long-term stock underperformance around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable in Column (1)–(4) is *Underperformed IPO*, defined as a dummy that equals one if the buy-and-hold return of the IPO firm's stock over the five years after the offering date is lower than that of the matched style-adjusted portfolio (based on market capitalization and book-to-market ratio), and zero otherwise. The dependent variable in Column (5)–(8) is *Underperformed SEO*, defined as a dummy that equals one if the buy-and-hold return of the SEO firm's stock over the five years after the offering date is lower than that of the matched style-adjusted portfolio (based on market capitalization and book-to-market ratio), and zero otherwise. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics are reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TreatPost	0.043		0.043		0.021		0.020	
	[0.65]		[0.57]		[0.53]		[0.54]	
TreatPre(–2)		-0.096		-0.109		-0.034		-0.050
		[-0.57]		[-0.66]		[-0.45]		[-0.67]
TreatPost(+1)		-0.045		-0.056		-0.072		-0.080
		[-0.73]		[-1.05]		[-0.94]		[-1.04]
TreatPost(+2)		0.028		0.027		-0.001		-0.006
		[1.16]		[0.80]		[-0.01]		[-0.09]
Bank × cohort FE	Y	Y	Y	Y	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y	Y	Y	Y	Y
Industry × cohort FE			Y	Y			Y	Y
Observations	2,325	2,325	2,321	2,321	2,656	2,656	2,654	2,654
Adjusted R-squared	0.0196	0.0193	0.0253	0.0253	0.0163	0.0158	0.0264	0.0260
#Cohorts	4	4	4	4	5	5	5	5
#Obs. (Treat = 1)	262	262	261	261	238	238	238	238
#Obs. (TreatPost = 1)	140	140	139	139	109	109	109	109

Appendix

Table A1: Sample Construction Process

This table presents the sample selection steps and the associated number of observations. Panel A is for the IPO sample, Panel B is for the SEO sample.

Panel A: IPO Sample

Step	Screening Criteria	#Obs.
1	Retrieved from Refinitiv	15,019
2	Exclude deals with bookrunner/offer date missing	14,868
3	Exclude deals with no primary shares issued	13,607
4	Exclude uncompleted deals	12,015
5	Exclude non-firm-commitment/shelf-registration deals	11,970
6	Exclude financial, utility, and public administration industries	9,191
7	Deals underwritten by selected banks	5,747
8	Used in the DiD test before matching	4,095
9	Used in the DiD test after matching	2,464

Panel B: SEO Sample

Step	Screening Criteria	#Obs.
1	Retrieved from Refinitiv	22,638
2	Exclude deals with bookrunner/offer date missing	20,924
3	Exclude deals with no primary shares issued	15,217
4	Exclude uncompleted deals	14,597
5	Exclude non-firm-commitment/shelf-registration deals	10,449
6	Exclude financial, utility, and public administration industries	7,216
7	Deals underwritten by selected banks	5,324
8	Used in the DiD test before matching	3,892
9	Used in the DiD test after matching	2,490

Table A2: Variable Definitions

Variable	Definition
	All Samples
TreatPost	A dummy that equals one if the offering's underwriter transitioned from a general partnership to a limited-liability organizational form during the cohort's sample period and the offering occurred after the transition event, and zero otherwise.
	IPO Sample
Underpricing	IPO underpricing calculated as ((first day's closing price – offer price) / offer price) × 100. Source: Refinitiv.
IPO Gross Spread	The gross spread paid to the IPO underwriter, calculated as ((offer price - price paid by underwriters to the issuer) / offer price) × 100. Source: Refinitiv.
Post-IPO Volatility	The IPO firm's 30-day stock volatility (based on daily returns) after the IPO date. Source: CRSP.
Young	A dummy that equals one if the IPO firm's age is below the sample median (8 years), and zero otherwise. Source: Jay R. Ritter's IPO data and Capital IQ.
Tech	A dummy that equals one if the issuer operates in the tech industry (according to Refinitiv's "High Tech Industry" variable), and zero otherwise. Source: Refinitiv.
Delist	A dummy that equals one if the IPO firm delisted within five years after going public, and zero otherwise. Source: CRSP.
IPO Proceeds	The total proceeds (in millions) raised from all primary shares sold in the IPO. Source: Refinitiv.
Integer-Price	A dummy that equals one if the IPO has an integer offer price, and zero otherwise. Source: Refinitiv.
IPO RegistPeriod	The number of days between the IPO announcement date and the offer date. Source: Refinitiv.
Underperformed IPO	A dummy that equals one if the buy-and-hold return of the IPO firm's stock over the five years after the offering date is lower than that of the matched style-adjusted portfolio (based on market capitalization and book-to-market ratio), and zero otherwise. Source: CRSP and Ken French's data library.
	SEO Sample
SEO Discount	The SEO discount, calculated as: ((last closing price – offer price) / last closing price) × 100. Source: Refinitiv.
SEO Gross Spread	The gross spread paid to the SEO underwriter, calculated as ((offer price - price paid by underwriters to the issuer) / offer price) × 100. Source: Refinitiv.

Pre-SEO Volatility	The SEO firm's 30-day stock return volatility (using daily returns) before the SEO announcement date. Source: CRSP.
Low_ROA	A dummy that equals one if the SEO firm's pre-SEO return on assets (Compustat item: ib / at) is below the median return on assets of SEO issuers served by that underwriter during the cohort's pre-incorporation period, and zero otherwise. Source: Compustat.
Market-to-Book	The SEO firm's pre-SEO market-to-book ratio (Compustat item: mktcap / ceq). Source: Compustat.
SEO Announcement Return	The cumulative market-adjusted return of the SEO firm's stock over the eleven-day window around the SEO announcement date (−5, +5). Source: CRSP.
SEO Proceeds	The total proceeds (in millions) raised from all primary shares sold in the SEO. Source: Refinitiv.
SEO RegistPeriod	The number of days between the SEO announcement date and the offer date. Source: Refinitiv.
Underperformed SEO	A dummy that equals one if the buy-and-hold return of the SEO firm's stock over the five years after the offering date is lower than that of the matched style-adjusted portfolio (based on market capitalization and book-to-market ratio), and zero otherwise. Source: CRSP and Ken French's data library.
	Bond Issue Sample
Credit Rating	The bond issuer's credit rating from Moody's (on a numerical scale from 1 to 17, with higher values corresponding to higher credit rating) at the time of the bond offering. Source: Refinitiv.
	Event Study
Incorporation Announcement Return	The cumulative market-adjusted returns of the equity or bond underwriting clients of the treated investment banks (i.e., banks that announced their decision to incorporate) over the three-day window surrounding the banks' announcements. Source: CRSP for returns, Factiva for announcement dates.
	Client Firm Panel
CAPEX/Assets	The ratio of a client firm's capital expenditure (Compustat item: capx) in year *t* divided by total assets (Compustat item: at) in year *t–1*. Source: Compustat.

Table A3: Summary Statistics

Panel A: All unique offerings in the DiD sample before matching

Variable	#Obs.	Mean	Std. dev.	Min.	25th	50th	75th	Max.
			IPO Sample					
Underpricing	3,697	15.557	28.764	-18.438	0	5.645	20	173.810
IPO Gross Spread	4,066	7.402	1.095	5.273	7	7	7.407	10
Post-IPO Volatility	3,735	0.038	0.022	0.008	0.023	0.033	0.046	0.131
Young	3,205	0.460	0.498	0	0	0	1	1
Tech	4,068	0.496	0.500	0	0	0	1	1
IPO Proceeds	4,068	33.692	43.914	1.600	8.315	20	39.999	276.58
Integer-Price	4,068	0.745	0.436	0	0	1	1	1
Delist	3,818	0.141	0.349	0	0	0	0	1
IPO RegistPeriod	4,022	64.941	48.275	4	42	55	70	346
Underperformed IPO	3,371	0.754	0.431	0	1	1	1	1
			SEO Sample					
SEO Discount	3,858	1.881	3.733	-9.84	0	0.67	2.9	17.95
SEO Gross Spread	3,878	5.650	1.471	2.595	4.795	5.493	6.250	10
Pre-SEO Volatility	3,578	0.032	0.015	0.009	0.022	0.029	0.040	0.091
ROA	3,389	0.002	0.190	-1.022	0.009	0.048	0.087	0.230
Market-to-Book	3,250	5.316	5.734	0.732	2.241	3.583	6.122	40.131
SEO Announcement Return	3,459	-0.009	0.096	-0.236	-0.069	-0.016	0.043	0.292
SEO RegistPeriod	3,723	33.865	24.554	4	19	28	42	162
Underperformed SEO	3,505	0.767	0.423	0	1	1	1	1
SEO Proceeds	3,881	46.900	66.773	1.673	11.38	24.68	53.25	434.63
			Bond Issue Sample					
Credit Rating	2,756	6.864	4.992	1	3	4	12	17

Panel B: All unique offerings in the DiD sample after matching

Variable	#Obs.	Mean	Std. dev.	Min.	25th	50th	75th	Max.
			IPO Sample					
Underpricing	2,235	17.357	30.559	-16.667	0.417	6.250	22.222	183.594
IPO Gross Spread	2,452	7.228	0.995	5.125	7	7	7.083	10
Post-IPO Volatility	2,254	0.038	0.022	0.009	0.023	0.033	0.046	0.131
Young	1,887	0.455	0.498	0	0	0	1	1
Tech	2,453	0.523	0.500	0	0	1	1	1
IPO Proceeds	2,453	39.577	52.212	2.07	10	22.5	46.080	324
Integer-Price	2,453	0.754	0.431	0	1	1	1	1
Delist	2,294	0.114	0.318	0	0	0	0	1
IPO RegistPeriod	2,432	62.458	49.494	4	41	52	68	369
Underperformed IPO	2,068	0.737	0.440	0	0	1	1	1
			SEO Sample					
SEO Discount	2,469	1.819	3.521	-8.7	0	0.69	2.66	17.95
SEO Gross Spread	2,480	5.497	1.512	2.752	4.739	5.271	6	14
Pre-SEO Volatility	2,297	0.032	0.015	0.009	0.021	0.029	0.040	0.087
ROA	2,168	0.003	0.181	-0.940	0.008	0.046	0.086	0.233
Market-to-Book	2,067	5.488	6.223	0.707	2.279	3.669	6.230	46.027
SEO Announcement Return	2,206	-0.009	0.096	-0.231	-0.069	-0.017	0.043	0.287
SEO RegistPeriod	2,423	32.645	23.615	4	18	27	41	151
Underperformed SEO	2,267	0.757	0.429	0	1	1	1	1
SEO Proceeds	2,482	53.268	71.326	2.19	13.78	29.06	61.25	449.387
			Bond Issue Sample					
Credit Rating	1,990	6.969	5.032	1	3	5	12	17

Table A4: SEO Discount

This table reports the results of the DiD analysis of SEO discount around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *SEO Discount*, defined as the SEO discount calculated as: ((last closing price – offer price) / last closing price) × 100. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	1.047**		1.148**	
	[2.28]		[2.59]	
TreatPre(–2)		-0.072		-0.035
		[-0.13]		[-0.07]
TreatPost(+1)		0.775		0.832
		[1.01]		[1.18]
TreatPost(+2)		0.146		0.350
		[0.30]		[0.81]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,903	2,903	2,901	2,901
Adjusted R-squared	0.174	0.173	0.182	0.180
#Cohorts	5	5	5	5
#Obs. (Treat = 1)	255	255	255	255
#Obs. (TreatPost = 1)	115	115	115	115

Table A5: Post-IPO Delisting Likelihood

This table reports the results of the DiD analysis of post-IPO delisting likelihood around investment banks' transition from a partnership with unlimited liability for key decision-makers to a limited-liability organizational form. The dependent variable is *Delist*, defined as a dummy that equals one if the IPO firm delisted within five years after going public, and zero otherwise. *TreatPost* is a dummy variable that equals one if the offering's underwriter is a treated bank in a cohort and the offering occurred after the treated bank's transition, and zero otherwise. *TreatPre(–2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the third or fourth year prior to the bank's transition year, and zero otherwise. *TreatPost(+1)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date occurs in the bank's transition year or the following year, and zero otherwise. *TreatPost(+2)* is a dummy variable equal to one if the deal is underwritten by a treated bank and the offering date falls in the second or third year after the bank's transition year, and zero otherwise. *t*-statistics reported in parentheses are based on standard errors clustered at the underwriter level. Symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
TreatPost	-0.006		-0.011	
	[-0.10]		[-0.19]	
TreatPre(–2)		0.063		0.060
		[1.14]		[1.24]
TreatPost(+1)		-0.070*		-0.081**
		[-1.76]		[-2.35]
TreatPost(+2)		0.037		0.039
		[0.62]		[0.69]
Bank × cohort FE	Y	Y	Y	Y
Year × cohort FE	Y	Y	Y	Y
Industry × cohort FE			Y	Y
Observations	2,585	2,585	2,582	2,582
Adjusted R-squared	0.0609	0.0628	0.0732	0.0756
#Cohorts	4	4	4	4
#Obs. (Treat = 1)	284	284	284	284
#Obs. (TreatPost = 1)	145	145	145	145

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