Issuer-Side Governance and IPO Price Formation: Evidence from Independent Advisers

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Abstract

Issuer-side governance plays a central but understudied role in price formation in initial public offerings (IPOs). While the IPO literature primarily focuses on investor information production and underwriter incentives, issuers increasingly introduce an additional intermediary into the process: independent IPO advisers who oversee underwriter selection, investor engagement and pricing strategy. Using a new dataset on adviser participation in U.S. and European IPOs from 2010–2023 constructed from hand-collected advisory mandates and underwriting fee data, we document systematic differences between advised and non-advised offerings. Because adviser adoption is endogenous, however, such cross-sectional patterns may reflect underlying differences across offerings rather than the effects of advisory governance itself. Our empirical strategy leverages an institutional feature of IPO markets. Practitioner surveys and advisory fee structures suggest that advisory mandates become more prevalent once offerings reach a scale of roughly $250M, consistent with the fixed-cost nature of advisory services. In the data, adviser participation rises sharply around this deal-size scale. Using a fuzzy regression-kink design centered on this threshold, we examine how localized variation in adviser adoption around $250M coincides with differences in IPO outcomes. Diagnostic tests show no evidence of manipulation or discontinuities in deal characteristics around the threshold. Applying this framework, two consistent patterns emerge. First, a one standard deviation increase in predicted adviser involvement is associated with a 4.80 percentage-point reduction in offer-price adjustments relative to the filing-range midpoint. Second, the same increase corresponds to approximately $19.1 million less underpricing for the average-sized IPO in our sample ($341 million), or a 5.61 percentage-point reduction in first-day returns. We find no corresponding association with underwriting spreads or withdrawal rates. These findings suggest that advisory governance is associated with earlier incorporation of information in the IPO process, and with reduced incentives for underwriters to underprice and strategically allocate shares. More broadly, the evidence highlights how issuer-side governance structures can influence both information aggregation and price formation in primary equity markets. These findings underscore the role of market design in shaping IPO price discovery.

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I. Introduction

Financial intermediaries play a central role in primary capital markets. In initial public offerings (IPOs), issuers rely on underwriters to manage marketing, pricing, and allocation decisions, creating well-documented agency tensions between issuers and the banks responsible for marketing the offering. Because most firms go public only once, they face substantial informational asymmetries and must navigate complex syndicate structures while interacting with institutional investors. Much of the academic literature therefore examines how investor information production and underwriter incentives shape IPO price formation and pricing outcomes and, ultimately, the efficiency with which firms access public equity markets.

Yet in practice, issuers increasingly introduce an additional intermediary into this process: independent IPO advisers.[1] These third-party firms are retained by issuers to assist in selecting and monitoring underwriters, coordinating execution, and structuring investor engagement prior to and during bookbuilding. Their emergence reflects a market response to the informational frictions and agency tensions inherent in IPOs. In our 2010–2023 sample, advisers participate in 15% of IPOs but account for 36% of aggregate proceeds (approximately $490 billion), indicating that advisers are concentrated in larger and more complex offerings.

The role of independent advisers sits at the intersection of two strands of the IPO literature. One emphasizes the role of investor information production during marketing and bookbuilding in shaping IPO prices (Benveniste and Spindt, 1989; Hanley and Hoberg, 2010; Chahine et al., 2020; Blankespoor et al., 2023; Dambra et al., 2023; Gustafson et al., 2024).[2] Another examines the incentives of financial intermediaries and documents circumstances under which underwriters may underprice offerings or allocate shares strategically

[1] Advisers are "independent" in the sense that they act solely on behalf of the issuing firm and do not face the dual-agency problem inherent to underwriting, where banks serve both issuers and investors. For brevity, we refer to independent IPO advisers simply as "advisers."

[2] Recent theory suggests that some IPO institutions may limit costly investor information acquisition (Habib and Ljungqvist, 2025). Our focus instead is on issuer-side advisory governance and its role in price discovery.

(Chemmanur and Fulghieri, 1994; Reuter, 2006; Nimalendran et al., 2007; Ritter and Zhang, 2007; Liu and Ritter, 2010; Goldstein et al., 2011). By examining issuer-side advisory governance, a hitherto underexplored institutional feature of IPO markets, our analysis links these literatures and highlights how mechanisms designed to mitigate agency conflicts may also influence how information is produced and incorporated into IPO prices.

This raises a natural question: how does issuer-side advisory governance influence the incentives and information flows that shape IPO price formation? In practice, adviser involvement may influence IPO pricing through two broad channels. First, by coordinating marketing activity and investor engagement earlier in the process, they may shift information production forward in the IPO timeline, potentially reducing late-stage price revisions and aftermarket surprises. Second, by monitoring banks and shaping allocation and fee arrangements, they may mitigate incentives for rent extraction through underpricing. Previewing our results, we find that adviser involvement is associated with smaller offer-price adjustments and lower first-day returns around a salient deal-size threshold, while showing no systematic relation with underwriting spreads or IPO withdrawal rates.

Descriptive comparisons reveal striking differences between advised and non-advised IPOs. Advised offerings are significantly larger, involve more complex syndicate structures, and exhibit systematically different pricing and execution outcomes. In cross-sectional regressions controlling for issuer, market, and syndicate characteristics, adviser involvement is associated with smaller offer-price adjustments, lower first-day returns, lower underwriting spreads, and a lower probability of withdrawal. These patterns are broadly consistent with practitioner views that advisers help issuers negotiate underwriting terms and improve execution certainty (Espinasse, 2014; FCA, 2016). Because the decision to employ an adviser is endogenous, however, such cross-sectional correlations are difficult to interpret.

Our empirical strategy therefore exploits a salient institutional regularity in IPO markets: adviser participation increases sharply once deal size approaches the range where independent advisers typically operate. Survey evidence from IPO practitioners (Table 1) indicates that advisers rarely target offerings below roughly $250 million but become increasingly involved as deal size rises above this threshold.[3] This pattern is consistent with a simple economic intuition: advisory mandates involve largely fixed costs, making them economically viable primarily in larger transactions. As a result, adviser adoption is relatively flat among smaller IPOs but becomes increasingly likely once offerings approach this scale, a mechanism formalized in the fixed-cost framework described in the Internet Appendix.

We exploit this change in slope in adviser participation using a regression-kink design ("RKD") in the spirit of Busaba and Restrepo (2022).[4] The design examines whether IPO pricing outcomes exhibit corresponding localized patterns around the same deal-size range while controlling flexibly for smooth relationships between deal size and IPO outcomes. Conceptually, the framework follows the RKD methodology developed by Card et al. (2015, 2017). We complement the regression analysis with flexible functional forms (Gelman and Imbens, 2019), non-parametric visualization (Calonico et al., 2015), and a range of falsification tests designed to assess whether the observed patterns are localized and threshold-specific.[5] While other IPO characteristics may also vary smoothly with deal size, the framework focuses attention on a transparent and economically meaningful margin where adviser involvement changes most sharply.

Our first-stage evidence shows a pronounced change in the slope of adviser adoption around the $250 million scale. Figure 1 plots the fitted adviser propensity, Pr(Advised), against

[3] The running variable is the logarithm of realized proceeds including overallotment. Results are similar using proceeds implied by the filing-range midpoint.
[4] Regression kink designs are widely used in policy evaluation and labor economics to identify local effects at slope discontinuities induced by institutional rules (Card et al., 2015; Card et al., 2017; Lurie et al., 2021).
[5] We use fitted probabilities from a first-stage probit model in a two-step IV framework, following Wooldridge (2010) and Xu (2021), and similar to the empirical implementation in Del Angel and Richardson (2024).

log proceeds relative to the threshold and shows that adviser involvement is broadly flat below $250 million but becomes sharply upward sloping above it. Regressions confirm that this kink-based fitted propensity strongly predicts realized adviser involvement in the linear first stage used for the IV analysis. In the most exhaustive specification, the coefficient on the fitted adviser probability is 0.909 ($p < 0.01$), and weak-identification diagnostics indicate a well-identified first stage (Kleibergen–Paap F = 69.86). In combination, the graphical and regression evidence indicate substantial localized variation in adviser adoption around this economically salient deal-size threshold.

We then examine whether this localized variation in adviser involvement coincides with systematic differences in IPO pricing outcomes. Around the threshold, higher predicted adviser involvement is associated with significantly smaller offer-price adjustments relative to the midpoint of the filing range and significantly lower first-day returns. A one standard deviation increase in the fitted adviser component corresponds to a 4.80 percentage-point reduction in offer-price adjustments and a 5.61 percentage-point reduction in first-day returns, roughly one-fifth of the sample standard deviation. At the average IPO size in our sample ($341 million), the first-day return magnitude corresponds to approximately $19.1 million under the conventional underpricing metric. In combination, these patterns suggest that advised IPOs exhibit closer alignment between preliminary pricing guidance, final offer prices, and aftermarket valuations.

One interpretation is that adviser involvement is associated with information being incorporated earlier in the IPO process, potentially through coordination of pre-marketing activity and investor engagement prior to formal bookbuilding. Advisers may also influence incentive structures within underwriting syndicates in ways that reduce rent-driven components of underpricing (Hanley, 2017; Lowry et al., 2017), although alternative mechanisms remain possible. In contrast, we find no systematic relationship between adviser involvement and

underwriting spreads or IPO withdrawal rates using the same kink-based design. The absence of comparable patterns in these outcomes provides a useful validation check for the design: if the $250 million scale merely captured generic nonlinearities related to IPO size or deal complexity, similar localized effects would be expected across multiple outcomes. These null results suggest that the pricing patterns associated with adviser involvement operate primarily through the timing and incorporation of information during price discovery rather than through direct reductions in underwriting compensation or execution risk.

A key contribution of this study is the construction of a new dataset on adviser participation and underwriting compensation in global IPOs. Information on adviser mandates and European underwriting spreads is not systematically reported in commercial databases or IPO prospectuses. We therefore assemble these data manually through direct communication with advisers and underwriters, thereby extending existing datasets used in the academic literature. The resulting sample allows us to examine multiple dimensions of IPO pricing and execution across a broad cross-section of global offerings. In addition, we draw on interviews with senior professionals at independent advisory firms. These discussions provide detailed institutional insights into how advisers participate in the IPO process and motivate a simple conceptual framework that maps these institutional features into testable predictions for IPO pricing outcomes. To our knowledge, these institutional details regarding advisory mandates, fee structures, and contracting arrangements have not previously been documented systematically in the academic IPO literature.

The analysis includes a range of graphical and regression-based falsification tests. We find no evidence of bunching in proceeds around the $250 million threshold. We find no kinks in a wide set of covariates at the threshold. Since IPO advisers were rare in the pre-2010 period, we test whether comparable kinks in IPO outcomes appear at the $250 million threshold during 2000-2009 and find no evidence of such patterns. Placebo thresholds at $100 million, $200

million, $300 million, and $400 million yield no systematic patterns, suggesting that our findings are unlikely to reflect generic nonlinearities in the size-outcome relation. Coefficient estimates are stable across bandwidth choices down to ¾ log-points around the threshold (IPOs between $118 million and $528 million). Finally, we verify that the main patterns hold in a purely U.S. setting and when including underwriting spread as an additional control variable.

This paper makes three contributions to the literature on IPO intermediation and price formation. First, using the hand-collected dataset described above, we provide the first large-sample evidence on how issuer-side advisory governance relates to IPO pricing outcomes in modern U.S. and European markets. Second, we document a previously underexplored institutional feature of the IPO market: adviser participation increases sharply around a widely recognized deal-size benchmark, consistent with survey evidence and a simple fixed-cost framework. Third, our findings connect two strands of the IPO literature that are often studied separately, one focusing on investor information production during bookbuilding, and another emphasizing agency conflicts between issuers and underwriters. By examining issuer-side advisory governance, we show how mechanisms intended to mitigate agency conflicts may also influence the timing and incorporation of information into IPO prices.

More broadly, our results highlight an often-overlooked dimension of IPO market design: the governance of the bookbuilding process itself. While much of the literature focuses on the incentives of underwriters and investors, our evidence suggests that the institutional structures through which issuers monitor and coordinate the offering process can also shape IPO price formation. Advisers represent an emerging mechanism through which issuers attempt to influence both the information flows and incentives underlying bookbuilding. In combination, the evidence suggests that IPO pricing outcomes depend not only on investor demand and underwriter incentives, but also on the governance arrangements through which issuers oversee the offering process.

These findings also speak to broader debates on the design of primary capital markets and the information-production role of bookbuilding. By documenting tighter alignment between preliminary price guidance and aftermarket valuations in offerings with adviser involvement, we provide evidence that issuer-side governance may influence how information is generated and incorporated during the IPO process. More generally, the results suggest that the organization of intermediation itself can shape the efficiency of price discovery in primary equity markets. In this sense, advisory governance highlights how institutional design within the bookbuilding process may influence not only IPO outcomes but the efficiency with which primary capital markets incorporate information.

II. Institutional Setting and Practitioner Survey

This section describes the institutional role of independent advisers in IPO markets and presents survey evidence from market participants regarding when advisers are typically engaged. The discussion draws on practitioner interviews and industry documentation to outline how advisers participate in the IPO process, how their compensation and contractual arrangements may affect incentives within underwriting syndicates, and why adviser participation tends to increase once offerings reach a particular scale.

A. The Role of Independent Advisers in IPOs

Independent advisers have become important participants in many IPO markets, performing roles that are distinct from (and potentially complementary to) those of traditional investment banks. Unlike investment banks, advisers do not underwrite securities and do not provide sales/trading or research services. Instead, they are engaged by the issuer to provide advisory and monitoring services at multiple stages of the offering process. Where advisory expertise overlaps with bank capabilities, such as valuation and equity-story positioning, advisers often centralize and scrutinize recommendations from syndicate banks and provide an independent perspective for issuer decision-making. Market participants commonly describe

this arrangement as a way for issuers to supplement in-house experience and to strengthen oversight of the broader IPO workstream, although the extent and effectiveness of such oversight is not directly observable.

The roles advisers play in U.S. and European IPOs appear similar in several key dimensions, but also reflect differences in local market practices and regulation. In the empirical analysis, we therefore combine U.S. and European observations while including region-relevant controls and fixed effects, and we also report region-specific robustness where feasible.

B. Advisory Services and the IPO Timeline

*Pre-IPO phase***.** Adviser involvement often begins before investment banks are formally selected. During this preliminary phase, advisers may help issuers clarify strategic objectives and evaluate alternatives to a public offering. If an IPO is pursued, advisers may also facilitate preliminary interactions with potential investors to gauge market receptivity and obtain feedback on the equity story.

*Bank selection and syndicate formation***.** Advisers can play a central coordinating role in the bank selection process (the "beauty parade"). Shortlists typically combine issuer relationship preferences with objective criteria such as research analyst rankings, league table positions, and, where available, advisers' own experience of bank performance in prior deals. In some cases, advisers facilitate pre-presentation interactions between analysts and issuer management teams to support syndicate selection and establish working relationships. Jenkinson et al. (2018) describe two systematic patterns associated with adviser involvement in European IPOs: syndicates tend to be larger with more active bookrunners, and gross spreads tend to include larger discretionary incentive components. These patterns are suggestive of advisers encouraging competition among banks and structuring performance incentives.

IPO preparation and documentation. Following syndicate appointment, advisers may review indications of interest from early marketing and coordinate preparation for analyst presentation meetings. Investor outreach prior to formal bookbuilding differs across jurisdictions, for example, Testing the Waters meetings in the U.S. and Pilot Fishing in European markets, but both involve early investor education and feedback gathering. Advisers may incorporate information from these interactions when forming views on the initial pricing range. They may also coordinate logistics across banks (e.g., coverage overlaps, investor targeting, and messaging consistency) and provide independent review of key transaction documentation, including investor materials and underwriting terms.

Marketing and roadshow phase. In Europe, IPOs often involve a structured investor education period prior to the formal roadshow; a common timeline involves a two-week pre-deal investor education ("PDIE") phase followed by a two-week roadshow (Divakaruni et al., 2025). U.S. IPOs lack a formally analogous PDIE phase, though similar investor education can occur through different channels. During these phases, advisers often centralize investor feedback to inform pricing-range recommendations and coordinate information flows from syndicate banks regarding demand indications and market conditions.

Pricing and allocation decisions. Pricing and allocation represent a juncture where adviser monitoring may matter most, given potential conflicts between issuers, investment banks, and institutional investors. Market participants report that, in some non-advised IPOs, allocation recommendations can be presented to issuers under tight time constraints, whereas advised IPOs may involve longer and more data-driven discussions among issuers, advisers, and lead bookrunners. Advisers may bring greater transparency to the evolution of the order book and the implied price–demand relationship, and may also help issuers interpret investor behaviour (e.g., indications of price discovery versus short-term demand). These practices vary

across transactions and market contexts; we present them here to illustrate why adviser involvement could plausibly influence pricing outcomes.

Post-IPO monitoring and performance assessment. After listing, advisers may monitor stabilization activity, aftermarket trading, and research coverage. They may also compile performance metrics from earlier phases of the process. Where underwriting fees include discretionary components, these data can inform adviser recommendations on how such incentive fees are distributed across syndicate members.

C. Advisers' Fees and Monitoring Powers

Our description of adviser compensation and contractual arrangements is based on interviews with senior professionals at independent IPO advisory firms and discussions with market participants involved in recent transactions. Adviser compensation often combines fixed and contingent components. Typical arrangements may include a monthly retainer (e.g., $25–50K), a fixed completion fee (e.g., around $1M), and a discretionary success or ratchet fee (e.g., 1–2x the completion fee) that may be linked to the IPO price or valuation achieved. Depending on contracting practices, these fees may be paid as an incremental issuer expense or financed from within the underwriting spread (which reduces total underwriter compensation). These fee structures imply incentives both to complete the IPO and, when contingent components are meaningful, to focus on valuation outcomes.

Engagement terms can also include provisions that strengthen the adviser's ability to monitor banks and influence incentives within the underwriting syndicate. Examples reported by market participants include key-person provisions, expectations that banks provide independent price-range analyses grounded in pre-marketing feedback, and real-time access to bookbuilding reports. These arrangements increase transparency around investor demand and allow advisers to assess the effort and informational contributions of syndicate members during the marketing process. In some cases, advisers also receive disclosure of secondary-trading

commission information that can inform allocation discussions. Advisers may therefore influence how discretionary underwriting fee components are allocated across banks based on observed effort, and may recommend the removal of underperforming syndicate members in extreme cases. While these mechanisms are not universal, they illustrate channels through which adviser involvement can affect both incentive alignment within the syndicate and the timing and incorporation of information during bookbuilding.[6] More broadly, these institutional features motivate the empirical predictions developed in the next section.

D. Small-Scale Survey of IPO Practitioners

A key premise of our empirical approach is that adviser involvement varies nonlinearly with IPO size and increases sharply once offerings reach a particular scale identified by market participants. Because adviser and issuer motivations are not directly observable, we conducted a small-scale survey of IPO practitioners to assess whether such a focal scale exists in practice and to characterize common market heuristics governing adviser participation. Surveying practitioners is challenging: potential respondents are time-constrained, may be reluctant to provide details, and are often bound by internal compliance policies. We therefore targeted senior professionals, promised anonymity, and conducted interviews by telephone. We identified 55 potential respondents and completed interviews with 16. [7]

Table 1 summarizes the commentary of IPO advisers, PE and VC practitioners, and high market-share IPO underwriters, split between U.S. and European-based respondents. Most respondents reported that deal size is an important determinant of adviser involvement, with a focal range around $250 million (or local equivalent). Importantly, this benchmark emerged from practitioner responses rather than being imposed by the researcher. Specifically, 12 of the 16 respondents (75%) identified a focal deal-size threshold of approximately $250 million

[6] Additional details on adviser fees and contracts are provided in the Internet Appendix (A3).
[7] For comparison, Gorman and Sahlman (1989) survey 49 of 100 venture capitalists, and Gompers et al. (2016) survey 64 of 136 buyout investors.

(or local equivalent). A further 3 respondents (19%) cited thresholds in the $200–300 million range, while the remaining respondent emphasized non-size determinants as primary drivers of adviser appointment. The survey evidence therefore suggests a focal but imperfect threshold: adviser propensity shifts meaningfully around a salient size, but compliance is imperfect and heterogeneous. To avoid over-weighting anecdotal evidence, we summarize the survey findings in Table 1 and report the full set of quotations in the Internet Appendix A1.

Several respondents further suggested that adviser propensity does not merely step up at $250 million but continues increasing with deal size above the threshold, suggestive of a steepening in slope. For example, a U.S. adviser noted that "our success rate increases with deal size," a European adviser stated that "having an adviser is increasingly commonplace as deals get bigger," and a European PE firm observed that "the larger the IPO, the more chance it will have an adviser." In addition, respondents reported fee structures that include fixed components around $1 million plus monthly retainers (e.g., $25–50K), implying total fixed compensation of roughly $1.25 million for a six-month engagement. Many issuers, particularly in M&A contexts, are accustomed to advisory fees that scale with transaction size (often expressed in percentage terms). Under a simple fixed-cost heuristic, adviser fees of this magnitude correspond to approximately 0.5% of proceeds at $250 million, providing one intuitive rationale for why adviser involvement may steepen around that scale. We emphasise that this calculation provides only an intuitive heuristic consistent with the survey evidence and the observed change in adviser propensity. It does not imply a unique or mechanically enforced threshold. [8]

The institutional features and survey evidence described in this section motivate the empirical framework developed in the next section.

[8] Internet Appendix A4 presents a simple fixed-cost framework illustrating how adviser adoption can generate a kink in hiring propensity as IPO size increases.

III. Conceptual Framework, Hypotheses and Data

This section develops testable predictions regarding how adviser involvement may influence IPO price formation and describes the data used in the empirical analysis. Because adviser roles and contracting arrangements are typically unobservable in standard transaction-level datasets, we introduce a parsimonious conceptual framework that maps commonly described adviser practices into directional predictions for IPO pricing outcomes. The framework highlights two channels through which adviser involvement may affect price formation: (i) effort reallocation that shifts information production earlier in the IPO process and (ii) monitoring that reduces rent extraction by underwriters. The framework is illustrative rather than structural and serves primarily to guide the empirical analysis.

A. Conceptual Framework

We develop testable predictions in a setting that reflects common U.S. and European IPO practices: offerings are pre-marketed, investors provide indications, and the IPO price reflects both information production and intermediaries' incentives.

1. Set-Up

A firm issues S shares with fundamental value V per share drawn from prior $N(\mu, \sigma_0^2)$. A syndicate of banks $i \in \{L, 2, \dots, n\}$ markets the deal; L is the traditional "lead-left" underwriter. Each bank chooses sales/marketing effort $e_i \geq 0$ (Testing the Waters meetings, research analyst involvement, roadshow meetings, investor coverage, etc.) at convex cost $C(e_i) = \frac{1}{2} c_i e_i^2$. Let total effort be $E = \sum_i e_i$. Investors produce information during pre-marketing and the roadshow. We capture the idea that greater effort shifts information production earlier by assuming that posterior uncertainty at pricing declines with total effort:

$$\sigma^2(E) = \frac{\sigma_0^2}{1 + kE}, \qquad k > 0,$$

with $\partial\sigma^2/\partial E < 0$ and $\partial^2\sigma^2/\partial E^2 > 0$, reflecting diminishing marginal information production, so higher *E* tightens belief earlier. The initial filing range width ϖ_0 is increasing in ex-ante uncertainty and in the dispersion of underwriter views; we capture this reduced form as

$$\varpi_0 = x_0 + x_1\sqrt{\sigma_0^2} + x_2\, Disp(bank\ signals),$$

with $x_1, x_2 > 0$. Because adviser-induced effort activates multiple banks, $Disp$ rises due to heterogeneous early signals, while posterior variance $\sigma^2(E)$ declines as aggregate information accumulates.

The offer price *P* is set at the pricing date (or "launch"); underpricing is $u \equiv \mathbb{E}[V|I_{launch}] - P$. A higher *E* moves information earlier, so fewer late surprises and fewer range revisions. Let expected absolute revisions after launch be decreasing in *E:*

$$\mathbb{E}[|\Delta range|\ |E] = r(E), \qquad r'(E) < 0$$

Underwriter private benefits from underpricing and effort free riding.

Beyond the underwriting spread τS, banks may obtain private benefits by allocating underpriced shares to favoured buy-side clients (e.g., quid pro quos via trading commissions). Let the syndicate's per dollar private benefit from underpricing be $b > 0$. Let reputational/regulatory frictions impose a convex penalty $\gamma u^2 S$ on the syndicate. In a standard lead-left setup, *L* both sets the marketing tone and controls the discretionary fees/allocations; other banks anticipate little compensation, so they free-ride ($e_i = 0\ for\ i \neq L$).

2. Information Production Channel

In bookbuilt IPOs, final offer prices reflect both the information revealed during investor marketing and the incentives of underwriting intermediaries. A reduced-form representation consistent with this process is

$$P = \mathbb{E}[V|I_{launch}] - u \qquad (1)$$

where underpricing u compensates investors for informational uncertainty and participation incentives. We write

$$u = \frac{b_{eff}}{2\gamma_{eff}} + \phi\left(\sigma^2(E)\right),\ \phi'(.) > 0 \qquad (2)$$

where the first component of u, namely $\frac{b_{eff}}{2\gamma_{eff}}$, reflects incentive-driven underpricing and the second, namely $\phi\left(\sigma^2(E)\right)$, reflects a risk or participation discount related to valuation uncertainty.

Initial filing range versus revisions. Adviser-induced heterogeneous early effort raises the dispersion of preliminary pricing views (wider ϖ_0), but because more information is produced before launch ($E \uparrow \Longrightarrow \sigma^2(E) \downarrow \Longrightarrow \phi \downarrow$) there are fewer late surprises translating into fewer range revisions and more accurate final pricing guidance.

3. Adviser Monitoring Channel

Baseline (no adviser).

Discretionary fees. A discretionary pool of selling concession ΔS is pre-agreed and effectively assigned in large part to the lead *L*; other banks' $\delta_i = 0$.

Allocations. L controls allocations; private benefit from underpricing is *b* (per $) to the syndicate.

Syndicate objective. Given *u* and efforts, choice of *u* is to balance private benefit and penalty:

$$\max_{u \geq 0} buS - \gamma u^2 S\,, \quad \Rightarrow \quad u^0 = \frac{b}{2\gamma} > 0 \qquad (3)$$

The first-order condition equates marginal private benefit from underpricing to the marginal reputational or regulatory penalty.

Effort. Only *L* expects to be paid for effort. With $\delta_L = \Delta$ and others $\delta_i = 0$, a reduced-form marginal marketing payoff for *L* yields $e_L^0 = \Delta / C_L$ and $e_i^0 = 0 (i \neq L)$. Hence $E^0 = e_L^0$ is low; investor engagement is concentrated.

With an adviser ('carrot and stick').

Carrot (fee reallocation across the syndicate). The discretionary pool ΔS is endogenous and allocated by an observable effort rule monitored and administered by the adviser:

$$\delta_i(E) = \Delta \,.\, \frac{e_i}{\sum_j e_j} \;\Rightarrow\; \text{each bank's marginal fee payoff is increasing in its own } e_i \qquad (4)$$

Stick (allocation discipline/anti-collusion). Using data on secondary trading commissions of underwriters with investors, beauty parade commitments, key-man clause and termination rights, the adviser ensures higher marketing effort and curtails quid-pro-quo allocations. Let discipline reduce the effective private benefit from underpricing to $(1-\theta)b$ with $\theta \in (0,1)$, and/or raise the expected penalty to $\gamma(1+\eta), \eta \geq 0$, via ex-post scrutiny.

Syndicate problem with adviser.

Underpricing:

$$u^A = arg\max_{u \geq 0}[(1-\theta)buS - \gamma(1+\eta)u^2 S\,] = \frac{(1-\theta)b}{2\gamma(1+\eta)} \qquad (5)$$

Thus $u^A < u^0$ strictly if $\theta > 0$ or $\eta > 0$. Adviser discipline lowers equilibrium underpricing either by reducing the marginal private benefit from rent extraction (θ) or by increasing the marginal penalty from reputational or regulatory scrutiny (η).

Effort choices with adviser.

Each bank *i* chooses e_i to maximise fee income from (2) minus effort cost:

$$\max_{e_i \geq 0} \Delta S \frac{e_i}{\sum_j e_j} - \frac{1}{2} c_i e_i^2 \;\Rightarrow\; e_i^A = \begin{cases} \frac{\Delta}{c_i} \cdot \frac{1}{n} \text{ if symmetric interior solution} \\ more\ generally,\ e_i^A \propto 1/c_i \end{cases} \qquad (6)$$

So $E^A = \sum_i e_i^A > E^0$.

B. Testable Hypotheses

The channels described above are not directly observable in our data. We therefore examine reduced-form pricing patterns that are consistent with these mechanisms and that correspond to observable adviser practices described in Section II. The following institutional practices correspond to the mechanisms captured in the framework:

Beauty parade, key-man clause and termination rights: raise the expected penalty for shirking (higher η) and ensure promised personnel and sustained effort.

Daily book reviews and price range guidance: move information production earlier (higher *E*), lowering posterior uncertainty $\sigma^2(E)$ and reducing late revisions to the price range.

Discretionary fees: implements the effort-contingent allocation rule in (2), activates non-lead banks, and generates more investor meetings and heterogeneous pricing views.

Allocation fairness using commissions data: increases θ by mitigating quid-pro-quo allocation practices, reducing rent-driven underpricing u.

The framework therefore yields two primary empirical predictions regarding IPO price formation.

Proposition 1: Information production channel and offer price adjustments.

Adviser involvement reallocates marketing effort across syndicate members and increases total information production prior to pricing. As a result, $E^A > E^0$, which lowers posterior uncertainty $\sigma^2(E)$ and reduces the expected magnitude of revisions between the filing-range midpoint and the final offer price (ie., offer-price adjustments), such that $r(E^A) < r(E^0)$. Under adviser-induced multi-bank effort, the initial filing range may reflect greater dispersion of early bank signals, but because more information is produced prior to launch, fewer late surprises translate into smaller offer-price adjustments.

Sketch. With discretionary pool ΔS allocated by (3), a symmetric interior Nash equilibrium in efforts exists with $e_i^A = \Delta/(nc_i)$. Without an adviser, where pre-agreed economics are largely assigned to the lead left bank, $e_i^0 = 0$ for $i \neq L$. By construction of $r(E)$ with $r'(E) < 0$, greater aggregate effort reduces the expected magnitude of late price revisions. Adviser-administered discretionary fees make the marginal payoff to effort positive for all banks, generating interior effort choices.

Interpretation. By incentivizing multiple banks to contribute to marketing and investor engagement, advisers shift information production earlier in the IPO process, thereby reducing offer-price adjustments.

Proposition 2: Adviser monitoring channel and underpricing.

Relative to the non-advised baseline, adviser involvement reduces equilibrium underpricing by lowering the marginal private benefit from rent extraction and increasing the effective penalty associated with strategic underpricing. Formally, with adviser discipline (θ, η) and fee-for-effort allocation in (2), equilibrium underpricing and total effort satisfy

$$u^A = \frac{(1-\theta)b}{2\gamma(1+\eta)} < \frac{b}{2\gamma} = u^0$$

Let θ parameterize adviser success in mitigating quid-pro-quo allocation; then $\frac{\partial u^A}{\partial \theta} = -\frac{b}{\{2\gamma(1+\eta)\}} < 0$. If adviser monitoring also raises the perceived penalty η, then $\frac{\partial u^A}{\partial \eta} < 0$.

Sketch. (5) follows by first order conditions in u. Adviser monitoring either reduces the effective private benefit from underpricing or increases the expected penalty. (6) yields interior $e_i^A > 0$ for all i, whereas in baseline only L chooses $e_L^0 > 0$ and others choose $e_i^0 = 0$. For mitigating quid pro quos, differentiate (5).

Interpretation. Adviser monitoring limits rent extraction through allocation practices and increases scrutiny of pricing decisions, thereby reducing equilibrium underpricing.

These propositions provide directional predictions to organize the empirical analysis; the RKD framework below tests whether localized pricing patterns around the adviser adoption threshold align with these mechanisms, without claiming structural identification of the underlying parameters.

C. Data and Sample Construction

We test the predictions outlined above by constructing a comprehensive dataset of IPOs in the United States and Europe covering the period 2010–2023. A key contribution of the

dataset is the identification of issuer-side adviser mandates, which are not systematically reported in commercial databases or public disclosures. Information on adviser involvement is compiled from public sources where available and supplemented with data obtained directly from advisory firms for mandates that are otherwise unreported. Where possible, privately provided mandate information is cross-validated against prospectuses, press releases, regulatory filings, and company websites. The dataset also includes underwriting spread data for European IPOs, which are frequently not fully disclosed in prospectuses and are therefore incompletely captured in commercial databases. We supplement Dealogic data with spread information obtained directly from bulge-bracket underwriters for transactions where public disclosure is incomplete. These data substantially expand the available coverage of underwriting compensation in European IPO markets. The resulting dataset represents, to our knowledge, the most comprehensive transaction-level record of independent adviser participation in IPO markets.

The sample comprises 3,500 completed IPOs and 1,069 withdrawn offerings. Adviser involvement is rare prior to 2010, reflecting both the sharp decline in IPO activity following the global financial crisis and the fact that independent IPO advisers are largely a post-crisis phenomenon. We therefore focus on the period in which adviser appointments become sufficiently prevalent to permit systematic analysis. We examine U.S. and European IPOs jointly. Many of the same advisory firms, underwriting banks, and institutional investors operate across both regions, and adviser roles are broadly comparable in purpose, even though market practices and regulation differ in detail. In the empirical analysis, we account for these differences through region-relevant covariates, fixed effects, and robustness checks. [9]

[9] Internet Appendices A2 and A3 provide details of adviser services and contracts. As a robustness check, we also estimate our main results using a U.S.-only sample and obtain similar findings (Internet Appendix A13).

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IPO characteristics, pricing data, and underwriting information are obtained from Dealogic and cross-checked against prospectuses, press releases, regulatory filings, and company websites. Daily and aftermarket price data are obtained from Bloomberg. Adviser fee data are generally not disclosed in prospectuses and are therefore unavailable at the transaction level. We apply standard IPO sample screens. We exclude unit offerings, SPACs, REITs, closed-end funds, trusts, special purpose entities, blind capital pools, acquisition vehicles, and preferred stock offerings. We also exclude offerings with proceeds below $30 million, where IPO processes and market dynamics are likely to differ materially.

Table 2 reports the distribution of IPOs over time and across regions. The sample is balanced between the United States and Europe (approximately 60% and 40% of IPOs, respectively) and spans a wide range of market conditions. Adviser involvement varies substantially over time, accounting for 15% of IPOs by number of deals (ranging from a low of 7% in 2012 to a high of 23% in 2015–2016) and 36% by deal proceeds (ranging from 13% in 2012 to 54% in 2016). These figures highlight both the economic importance of advisers and the concentration of adviser involvement in larger offerings. Average first-day returns in the sample are 13.7%, with pronounced time variation: returns are lowest in 2011 (8.3%) and highest in 2020 (32.0%). Withdrawal rates are elevated in the early part of the sample (around 40%) in the aftermath of the financial crisis, decline to approximately 11% a decade later, and rise again to 48% in 2022 following the global pandemic. [10] Mean underwriting spreads are 5.79% and are relatively stable over time.

Table 3 defines the variables used in the analysis and reports summary statistics. Panel A presents statistics for the full sample, while Panel B compares advised and non-advised IPOs. Spread data are available for 2,611 completed offerings, and some variables are unavailable

[10] The decline in U.S. IPO withdrawals after the JOBS Act reflects the introduction of confidential filing, allowing issuers to withdraw without public disclosure. Confidential filing has long been standard in European IPOs.

for withdrawn deals. Advised IPOs differ from non-advised offerings along several observable dimensions: they tend to be larger, employ larger underwriting syndicates, and are more likely to involve private equity backing and less likely to involve venture capital backing. They also exhibit lower average first-day returns, lower underwriting spreads, and lower withdrawal rates. These differences highlight the importance of conditioning on deal characteristics in the empirical analysis that follows.

Advisory activity is concentrated among a relatively small group of firms and is focused primarily on larger transactions. In our sample, the five most frequently used advisers account for roughly two-thirds of advised IPOs by number and about four-fifths of advised proceeds. This concentration suggests that issuer-side advisory governance has evolved into a specialized but relatively stable segment of the IPO ecosystem. The vast majority of advised deals exceed $250 million in size, indicating that advisory mandates are disproportionately associated with larger offerings. While some advisory firms are long-established institutions, others entered the IPO advisory market during the sample period. Despite differences in organizational structure, ranging from boutiques founded by former IPO bankers focused on capital markets advice to full-service investment banks that can also underwrite offerings, the core advisory role is broadly similar across firms.

Because adviser mandates and certain underwriting compensation data are not systematically disclosed, some measurement error is unavoidable in any transaction-level dataset. To mitigate this concern, we cross-validate advisory mandate information obtained from advisers against prospectuses, press coverage, and other public disclosures whenever possible. Spread information provided by underwriters is similarly checked against prospectus disclosures and Dealogic entries. In addition, the empirical design relies on localized comparisons around a deal-size threshold, which helps limit the influence of systematic reporting differences across issuers or intermediaries in the cross section. While measurement

error may attenuate some estimates, it is unlikely to generate the localized pricing patterns we document around the threshold.

While the descriptive statistics in this section highlight systematic differences between advised and non-advised IPOs, they do not isolate how adviser involvement relates to pricing outcomes. To address this challenge, the next section develops an empirical framework that exploits localized variation in adviser participation around a salient deal-size scale.

IV. Research Design

Estimating the relationship between adviser involvement and IPO pricing outcomes is challenging because adviser–issuer matching is endogenous and conventional sources of quasi-experimental variation are limited. We use a fuzzy regression-kink framework to organize local comparisons around a salient economic scale at which adviser propensity changes markedly and examine whether IPO pricing outcomes exhibit corresponding localized patterns.

A. Kink in Adviser Propensity

As discussed above, adviser involvement rises sharply once IPO size approaches the range where independent advisers typically operate. Figure 1 illustrates this change in slope around the $250 million threshold. Because adviser involvement is binary, we follow the two-step IV procedure described in Wooldridge (2010) and Xu (2021). In the first step, we estimate a probit model of adviser involvement as a function of the threshold interaction and control variables: $\Pr(Advised_i = 1 \mid Z_i, X_i) = \Phi(\alpha_0 + \alpha_1 Z_i + \alpha_2 X_i)$ where Z_i contains the threshold interaction term that generates the change in slope in adviser adoption at the $250M scale, and X_i includes controls and fixed effects.

Panel A of Figure 1 plots the fitted probabilities against distance from the $250 million threshold, and Panel B reports the corresponding nonparametric binned visualization. The fitted-probability plots show that adviser propensity is broadly flat below the threshold and becomes sharply upward sloping above it, consistent with the change in slope in adviser

participation that motivates the regression-kink framework.[11] We refer to this fitted probability $\hat{p}_i$ as the fitted adviser propensity, .[12]

B. Two-Step Estimation under the Fuzzy RKD

Our empirical approach proceeds in two steps. First, we estimate the kinked relation between adviser involvement and deal size, using the fitted adviser propensity to accommodate the binary nature of the adviser indicator. Second, we examine whether IPO outcomes exhibit corresponding localized patterns around the same deal-size scale, conditional on flexible controls for deal size and observables. Figure 2 provides visual evidence consistent with this pattern for each of our dependent variables (Panels A-D).

The fuzzy RKD is appropriate because adviser adoption is not governed by a strict threshold rule: advisers can be hired on either side of the $250 million benchmark, and adoption varies probabilistically rather than discontinuously. In such settings, fuzzy designs are more natural than sharp designs because measurement error, incomplete compliance, and other determinants of treatment are likely to be present (Card et al., 2017).

The empirical framework estimates the following linear first stage of the 2SLS estimator where $\hat{p}_i$ is the fitted probability of adviser involvement obtained from the probit model above and used as the excluded instrument:

$$Advised_i = \beta_0 + \beta_1 \hat{p}_i + \beta_2 Above250_i + \beta_3 DistanceThreshold_i + \beta_4 DistanceThreshold_i^2 + X_i'T + \varepsilon_i \quad (1)$$

The dependent variable, *Advised*, is a dummy indicating whether the IPO has an adviser. *Above250* is a dummy indicating IPOs with Proceeds above $250M. *DistanceThreshold* is the

[11] Internet Appendix A6 plots the binary adviser indicator directly, confirming that the change in slope is visible in the underlying adoption data.

[12] Xu (2021) shows that when the endogenous regressor is binary, fitted probabilities from nonlinear first-stage models can serve as valid instruments under standard IV assumptions and may improve instrument relevance relative to linear first-stage projections.

natural logarithm of proceeds relative to $250M, namely, the percentage distance between deal size and the $250M scale.

We then estimate the following second-stage equation for IPO outcomes:

$$Y_i = \gamma_0 + \gamma_1 Advised_i + \gamma_2 Above250_i + \gamma_3 DistanceThreshold_i + \gamma_4 DistanceThreshold_i^2 + X_i'T + \upsilon_i \quad (2)$$

We estimate Equation (2) using 2SLS, treating $Advised_i$ as endogenous and using the fitted adviser propensity $\hat{p}_i$ as the excluded instrument. The dependent variable, Y_i, measures the IPO outcome (i.e., offer-price adjustment, first-day return, spread, or withdrawal)[13]. *Above250* and *DistanceThreshold* absorb any smooth or piecewise-smooth relationship between proceeds and the IPO outcome of interest that is independent of adviser propensity. Operationally, 2SLS first projects $Advised_i$ onto the instrument space (including $\hat{p}_i$ and exogenous controls) and then estimates Equation (2) using the predicted component of adviser involvement. We refer to this predicted component as the fitted adviser component. Under this two-step structure, γ_1 captures the association between IPO outcomes and the component of adviser involvement predicted by the kink in adviser propensity at the $250 million threshold.

Because the fitted adviser component is generated from a nonlinear first-stage model, second-stage inference treats the fitted probability as an observed excluded instrument, in line with standard two-step IV asymptotics for generated instruments (Wooldridge, 2010; Xu, 2021). To the extent that first-stage estimation noise is classical, it would attenuate second-stage coefficients toward zero rather than spuriously inflate them.

C. Controls, Fixed Effects and Standard Errors

Regressors correspond to the variables summarized in Table 3. These include issuer characteristics, market conditions, and offering structure variables relevant to both U.S. and

[13] First-day return and offer-price adjustment are measured in logs (Appendix: Variable Definitions), which attenuates extreme observations and facilitates comparison with Busaba and Restrepo (2022).

European IPOs. Controls include fixed effects for year, month, country, industry, number of book managers, and lead-left book manager. These controls absorb broad sources of heterogeneity that could otherwise confound the local comparisons around the deal-size scale. Time fixed effects capture common market and macroeconomic conditions. Country and industry fixed effects absorb persistent cross-sectional differences in institutional setting and sector composition. Book-manager fixed effects capture systematic differences related to syndicate size, while lead-left underwriter fixed effects absorb persistent underwriter-level heterogeneity in adviser pairing and IPO selection (FCA, 2016).[14] Standard errors are clustered by country and industry.[15]

D. Interpreting the Kink-Based Estimates

The RKD framework relies on the assumption that, absent changes in adviser propensity, other determinants of IPO pricing outcomes evolve smoothly with deal size around the $250 million threshold (Card et al., 2017). Under this condition, changes in the slope of adviser participation generate variation in predicted adviser involvement that can be used to examine whether IPO outcomes exhibit corresponding localized patterns around the threshold. A concern is whether issuers can manipulate the running variable. Prior work suggests that IPO proceeds are constrained by funding needs, ownership considerations, market conditions, and investor demand, limiting the scope for precise sorting (Busaba and Restrepo, 2022).

A second concern is that the $250 million scale captures broader nonlinearities related to firm size rather than adviser involvement per se. Larger IPOs may differ systematically in valuation uncertainty, demand conditions, or placement frictions, which could influence pricing outcomes independently of advisory governance. We address this concern through

[14] While we include syndicate size and underwriter fixed effects, the empirical strategy requires that these variables do not display coincident slope changes at $250 million. We find no evidence of such discontinuities (Internet Appendix A7).

[15] Internet Appendix A8 reports alternative approaches to inference and shows that our preferred specification yields the most conservative (i.e., largest) standard errors.

several features of the empirical design: (i) specifications include flexible controls for deal size through the *DistanceThreshold* term and its polynomial expansion; (ii) regressions incorporate a rich set of controls as well as fixed effects; and (iii) localized patterns appear for first-day returns and offer-price adjustments but not for spreads or withdrawals, as might be expected if the deal-size scale primarily captured generic size effects.

Finally, the interpretation of the kink-based estimates requires that other institutional features affecting IPO outcomes do not exhibit coincident slope changes at the same scale.[16] We assess these considerations using a series of tests in Section VI and the Internet Appendix.

V. Empirical Results

This section examines how adviser involvement relates to IPO pricing and execution outcomes. We begin with cross-sectional evidence across the full sample before turning to the regression-kink framework described in Section IV, which exploits a sharp increase in adviser participation around the $250 million scale in expected IPO proceeds.

A. Descriptive Cross-Sectional Patterns

Table 4 reports cross-sectional ordinary least squares (OLS) estimates of the association between adviser involvement and IPO outcomes. The regressions include the same control variables and fixed effects used in the main specifications but replace the regression-kink variables with the logarithm of IPO proceeds so that deal size is controlled flexibly without imposing the threshold structure. Standard errors are two-way clustered by country and industry.

Across all specifications, adviser involvement is associated with smaller offer-price adjustments relative to the filing-range midpoint and lower first-day returns. Advised IPOs also exhibit lower underwriting spreads and a lower probability of withdrawal. These correlations

[16] One such potential feature is the SEC rule raising the Smaller Reporting Company threshold from $75 million to $250 million in 2018. However, the SEC's own analysis finds no evidence that the disclosure changes affect IPO pricing outcomes.

broadly align with practitioner narratives regarding the role of IPO advisers. Because adviser adoption is endogenous, however, the estimates should be interpreted as descriptive.

In combination, the cross-sectional patterns suggest that adviser involvement is associated with a more predictable IPO process. Smaller offer-price adjustments are consistent with information being incorporated earlier into preliminary price guidance, while lower first-day returns may reflect changes in pricing incentives during bookbuilding. However, advisers are disproportionately retained in larger and potentially more complex offerings, and the decision to hire an adviser is likely correlated with issuer characteristics, deal complexity, and anticipated market conditions (Table 3B).

The regression-kink design developed in the following sections addresses this endogeneity by exploiting the sharp increase in adviser participation around the $250 million deal-size scale. By focusing on this institutional margin, the framework isolates localized variation in adviser involvement and allows us to examine how changes in advisory intensity relate to IPO pricing outcomes.

B. First-Stage Patterns in Adviser Involvement

Table 5 reports the first-stage regressions underlying the IV specification in Equation (1). The excluded instrument is the fitted adviser probability $\hat{p}_i$ obtained from the probit model described in Section IV.A. Figure 1 provides the graphical counterpart: adviser propensity is relatively flat below the $250 million deal-size scale but increases steeply with proceeds above it, indicating a change in marginal adoption propensity at this scale. In line with this visual evidence, the fitted adviser probability strongly predicts realized adviser involvement across all specifications in Table 5. In the fully controlled specification (column 4), the coefficient on $\hat{p}_i$ is 0.909 ($p < 0.01$), indicating that the fitted propensity captures substantial variation in adviser adoption intensity. Standard weak-identification diagnostics confirm a strong first stage: the Kleibergen–Paap Wald F-statistic equals 62.85, well above conventional Stock–

Yogo thresholds. While the first stage is statistically strong, the underlying variation reflects institutional regularities in adviser participation rather than a policy rule.

For reference, the fitted value of *Advised* from the linear first stage has a mean of 0.19 and a standard deviation of 0.22 in the estimation sample, indicating substantial dispersion in predicted adviser propensity around the deal-size scale. As discussed earlier, we interpret this fitted component as capturing variation in adviser involvement predicted by the deal-size scale-based instrument in the vicinity of the kink, rather than as a claim of definitive causal identification.

C. Adviser Involvement and Offer-Price Adjustment

We next examine how adviser involvement relates to offer-price adjustments relative to the midpoint of the preliminary filing range. Table 6 reports the corresponding second-stage regressions. Across all specifications, the adviser component predicted by the deal-size scale instrument is negatively associated with offer-price adjustments, in line with the graphical evidence in Figure 2A.

In the most comprehensive specification (column 4), a one standard deviation increase in the fitted adviser component is associated with a 4.80 percentage-point lower offer-price adjustment, which represents more than one-quarter of the sample standard deviation of this variable (18.3; Table 3A).[17] For an IPO of average size, this magnitude corresponds to approximately $16.4 million in proceeds relative to the filing-range midpoint. This calculation serves as a benchmark and does not imply that advisers directly capture this amount or that it reflects a causal effect. Multiple mechanisms, some related to adviser practices and others potentially correlated with deal size and complexity, could contribute to this pattern.

[17] Clustered bootstrap estimates that re-estimate both stages of the procedure yield similar confidence intervals to the cluster-robust estimates reported in the main tables.

These findings align with the hypothesis that higher predicted adviser involvement coincides with IPOs in which pricing guidance is more closely aligned with eventual aftermarket valuations.

D. Adviser Involvement and First-Day Returns

Table 7 reports analogous second-stage regressions using first-day return as the dependent variable. As in the offer-price adjustment results, the adviser component predicted by the deal-size scale instrument is negatively associated with first-day returns across all specifications, in line with Figure 2B.

In the most comprehensive specification (column 4), the estimated coefficient of −0.254 implies that a one standard deviation increase in the first stage fitted value of *Advised* (0.221) is associated with a 5.61 percentage-point lower first-day return. This magnitude corresponds to approximately one-fifth of the sample standard deviation of first-day returns (27.7; Table 3A). Expressed using the conventional IPO "money left on the table" metric, this association mechanically corresponds to roughly $19.1 million for an IPO of average size in our sample ($341 million). As before, this calculation serves as a benchmark; it does not imply a causal effect on issuer proceeds and should not be interpreted as issuer welfare gains.

While offer-price adjustments and first-day returns are mechanically related, the fact that both move in the same direction and with similar magnitudes is consistent with information being incorporated earlier in the pricing process. Upward offer-price adjustments are typically partial, either because they are constrained by the upper end of the filing range or because range revisions do not fully incorporate new information (Hanley, 1993; Bradley and Jordan, 2002; Lowry and Schwert, 2004). Consequently, smaller upward adjustments during bookbuilding are naturally associated with lower first-day returns. These patterns are therefore consistent with the hypothesis that higher predicted adviser involvement coincides with IPOs that leave less value to be realized in the aftermarket.

E. Adviser Involvement, Underwriting Spreads, and IPO Withdrawals

The associations described above do not, by themselves, explain all components of IPO pricing. Underpricing has been shown to correlate positively with gross spreads (Busaba and Restrepo, 2022) and negatively with the likelihood of withdrawal (Busaba et al., 2001). We therefore examine whether adviser involvement is also associated with these outcomes.

Table 8 reports second-stage regressions using Spread as the dependent variable. While column (1) shows a negative unconditional association, this relation becomes statistically insignificant once fixed effects and controls are introduced in columns (2) to (4). In these specifications, once size and distance controls are included, we do not detect systematic associations with the fitted adviser component.

Table 9 reports analogous regressions using Withdrawn as the dependent variable. Across all specifications, we find no statistically significant association between the fitted adviser component and withdrawal. As with spreads, the kink apparent in Figure 2D appears to be absorbed by smooth size controls rather than by adviser involvement.

These null results are informative about the set of channels through which adviser involvement is associated with IPO pricing outcomes. In particular, conditional on the regression-kink structure and controls, the data provide little evidence for a simple interpretation in which advisers primarily affect pricing through underwriting fees or execution certainty (FCA, 2016). At the same time, we emphasize that these findings do not rule out more nuanced interactions between advisers, banks, and issuers that are not directly observable in transaction-level data.

More broadly, the absence of corresponding patterns in spreads and withdrawals provides a useful validation check for the empirical design. If the $250 million scale simply captured generic nonlinearities in IPO size or issuer characteristics, one would expect comparable localized effects across multiple outcomes. Instead, the patterns appear concentrated in price-

formation variables, consistent with the interpretation that adviser involvement primarily influences information aggregation during the pricing process.

F. Summary of Main Results

In combination, the results in Tables 6–9 indicate that higher predicted adviser involvement around the $250 million deal-size scale is associated with smaller offer-price adjustments and lower first-day returns, with no corresponding relationship for underwriting spreads or withdrawals. Comparing the magnitudes in column (4) of Tables 6 and 7 suggests that the associated pricing differences are split roughly evenly between offer-price adjustment (46%) and first-day returns (54%). These localized patterns are directionally consistent with the broader cross-sectional correlations reported in Table 4, although the regression-kink design isolates variation in adviser involvement that is less affected by endogenous matching between issuers and advisers.

Put differently, adviser involvement is associated with IPOs that exhibit less upward price revision during bookbuilding and correspondingly smaller aftermarket price jumps. A stylized illustrative of this relationship is provided in Internet Appendix IA14. [18]

G. Implications for the IPO Literature

Our findings speak to several longstanding debates in the IPO literature concerning information production, bookbuilding, and the role of intermediaries in shaping pricing outcomes. A central question in this literature is whether IPO pricing primarily reflects the aggregation of dispersed investor information or whether underwriters actively shape valuations through strategic pricing and allocation decisions (Hanley, 1993; Bradley and Jordan, 2002; Lowry and Schwert, 2004; Lowry et al., 2017). Our evidence highlights a

[18] Ljungqvist and Wilhelm (2005) show that issuers evaluate IPO outcomes relative to the midpoint of the initial filing range: prices above the midpoint are perceived as gains, while first-day returns represent foregone proceeds.

distinct institutional dimension that has received relatively little attention: issuer-side governance of the bookbuilding process itself. In doing so, the paper helps bridge two strands of the IPO literature that are often studied separately, one emphasizing agency conflicts between issuers and underwriters, and another focusing on investor information production during marketing and bookbuilding. The patterns we describe indicate that adviser involvement alters the relationship between preliminary pricing guidance, final offer prices, and aftermarket valuations, highlighting the importance of issuer-side governance in the pricing process.

First, our findings contribute to the literature on information production in IPOs by showing that issuer-side advisory governance is associated with earlier incorporation of information into IPO pricing. Prior studies emphasize the importance of early marketing activity, investor meetings, and roadshows in generating information that affects IPO pricing (Hanley and Hoberg, 2010; Lowry et al., 2017; Green et al., 2014; Gustafson et al., 2024). We find that adviser involvement is associated with smaller offer-price adjustments during bookbuilding alongside lower first-day returns. This combination is consistent with information being incorporated earlier in the process through more structured pre-marketing and scrutiny of investor feedback. Importantly, our results do not imply that offer-price adjustments are inherently inefficient; rather, they indicate that the timing and organization of information aggregation differ systematically across advised and non-advised IPOs.

Second, our findings contribute to the literature on agency conflicts in underwriting by showing that adviser involvement is associated with lower underpricing without corresponding reductions in underwriting spreads or withdrawal rates. A substantial body of work documents incentives for underwriters to underprice IPOs, including quid-pro-quo arrangements with institutional investors and the role of discretionary allocations (Reuter, 2006; Nimalendran et al., 2007; Ritter and Zhang, 2007; Liu and Ritter, 2010; Goldstein et al., 2011). Jenkinson et al. (2018) show that, even in advised European IPOs, allocations are strongly influenced by

brokerage relationships, raising questions about the extent to which advisers constrain underwriter behaviour. Our findings complement this evidence by showing that adviser involvement is associated with lower first-day returns but not with lower gross spreads or reduced withdrawal rates. This pattern suggests that adviser involvement operates primarily through information processing and demand aggregation rather than through direct reductions in spreads or risk-sharing mechanisms. In this sense, advisers appear to influence how information is produced and interpreted during bookbuilding**,** rather than simply altering contractual compensation terms between issuers and underwriters.

Third, our analysis contributes to work emphasizing the joint determination of IPO pricing outcomes by documenting how adviser involvement affects both offer-price adjustments and first-day returns simultaneously (Busaba et al., 2001; Gustafson et al., 2024). Busaba and Restrepo (2022) show that underwriting spreads are positively related to both offer-price adjustment and first-day returns, underscoring how pricing components interact. In our setting, adviser involvement is associated with both lower offer-price adjustments and lower first-day returns, but not with spreads or withdrawals. This joint pattern indicates that adviser-related pricing effects operate through channels distinct from those emphasized in the spread-based literature and underscores the importance of jointly analyzing filing ranges, pricing revisions, and aftermarket outcomes.

More broadly, our results relate to the literature on delegated monitoring and specialized financial intermediaries (Diamond, 1984; Morrison and Wilhelm, 2004; Golubov et al., 2012; Chemmanur et al., 2019; Gennaioli et al., 2015). Independent IPO advisers appear to operate within this tradition, combining advisory and monitoring functions in a setting characterized by complex agency relationships and high informational asymmetry. In this sense, IPO advisers introduce a second layer of delegated monitoring in the offering process, allowing issuers to oversee the intermediary responsible for price discovery.

In summary, our findings show how adviser involvement may reshape pricing relationships around a salient economic deal-size scale, providing empirical benchmarks for theories of bookbuilding, delegated monitoring, and incentive design in primary markets. The evidence suggests that the organization of intermediation itself, specifically the governance structures through which issuers oversee the bookbuilding process, can shape how information is produced and incorporated into prices in primary equity markets.

VI. Robustness and Sensitivity Analyses

The RKD framework used in this paper provides a structured way to study localized patterns in adviser involvement and IPO outcomes, but it does not eliminate all alternative explanations for the observed patterns. In this section, we report falsification, sensitivity, and scope analyses designed to assess whether the patterns we find are (i) localized to the salient deal-size scale, (ii) robust to reasonable specification choices, and (iii) unlikely to be driven by smooth nonlinearities in deal size or institutional features unrelated to adviser propensity. An additional validation comes from the selective response of outcomes in the main results: while pricing variables such as offer-price adjustments and first-day returns display localized patterns around the threshold, underwriting spreads and withdrawal rates do not. If the $250 million scale merely captured generic nonlinearities related to IPO size or issuer characteristics, comparable patterns would be expected across multiple outcomes rather than being concentrated in price-formation variables.

A. First-Stage Strength and Smoothness Around the Deal-Size Scale

Table 5 suggests a pronounced change in the slope of adviser involvement around the $250 million deal-size scale. Across specifications, the fitted adviser probability strongly predicts realized adviser involvement in the linear first stage. We report the magnitude and precision of the slope change in adviser propensity for transparency, but we emphasize that these statistics are descriptive and do not, by themselves, establish causal identification. Rather,

they confirm that adviser propensity changes sharply at the scale motivating the regression-kink design.

A standard concern in both regression-discontinuity and regression-kink designs is whether economic agents can precisely manipulate the forcing variable (Lee and Lemieux, 2010; Card et al., 2017). Prior work suggests that issuers face substantial constraints in setting IPO proceeds, due to funding needs, insider liquidity considerations, market conditions, and investor demand (Busaba and Restrepo, 2022). Moreover, adviser involvement displays a change in slope rather than a discrete jump, which reduces the scope for precise sorting around a single value of proceeds. Nevertheless, we examine the distribution of IPO proceeds around the $250 million deal-size scale. Figure 3 shows no evidence of discontinuities or bunching, suggestive of a smooth distribution of the forcing variable around the deal-size scale.

B. Covariate Smoothness and Pre-Period Falsification

In a regression-kink framework, one concern is that other variables that may independently affect IPO outcomes may also exhibit kinked relationships with deal size at the same threshold. To assess this possibility, we examine whether our covariates display changes in slope at $250 million using the same graphical approach as in Figure 1. Figure 4 presents the corresponding graphical tests for these variables. We find no graphical evidence of kinks at the deal-size scale. Internet Appendix A7 provides complementary graphical falsification exercises showing that, while many firm- and deal-level characteristics vary smoothly with offer size, none exhibits a coincident change in slope at $250 million, in accordance with the smoothness assumption underlying the regression-kink framework.

As an additional falsification, we exploit the fact that IPO advisers were rare prior to the global financial crisis. In Internet Appendix A9, we test for kinks in first-day returns and offer-price adjustments at $250 million during 2000–2009, a period in which adviser involvement was minimal. We find no evidence of such patterns. The absence of comparable kinks prior to

the emergence of independent advisers suggests that the relationships documented in the main sample are not generic features of IPO pricing around this scale, but instead arise in the institutional environment in which adviser involvement becomes economically relevant.

C. Placebo Thresholds

We further assess localization by re-estimating the main specifications using alternative size thresholds of $100M, $200M, $300M, and $400M. These thresholds are not motivated by practitioner heuristics or fee structures, and do not correspond to visually detectable changes in adviser adoption propensity (first-stage plots), whereas the $250 million threshold does. As reported in Internet Appendix 10, we find no statistically significant associations between the fitted adviser component and IPO pricing outcomes at these alternative cut-offs. The absence of comparable slope changes at placebo thresholds is consistent with the hypothesis that the observed results are specific to the economically salient $250 million scale.

D. Bandwidth Sensitivity

We re-estimate the main specifications using progressively narrower bandwidths around the $250 million deal-size scale (Internet Appendix A11). As the bandwidth shrinks from the full sample to a ¾ log-point window (IPOs between $118 million and $528 million), coefficient estimates remain stable in sign and magnitude, although precision naturally declines with sample size. These results highlight the standard trade-off between local focus and statistical power in regression-kink designs, and they indicate that the suggested patterns are not mechanically driven by observations far from the deal-size scale.

E. Robustness Checks

We conduct two additional robustness checks. First, we include underwriting spreads as an additional control variable (IA12). The main results are unchanged. Second, when restricting the sample to U.S. IPOs only (IA13), the negative association between adviser involvement and first-day returns remains statistically significant, while the estimate for offer-

price adjustment remains negative but less precisely estimated. This difference in precision may reflect institutional differences in the IPO process. In particular, European offerings typically involve a more structured pre-deal investor education phase (PDIE), whereas U.S. Testing-the-Waters meetings are often less formalized. These exercises indicate that the patterns documented here are consistent with, and complementary to, recent evidence linking underwriting compensation structures to IPO pricing dynamics (Busaba and Restrepo, 2022).

F. Binary Involvement and Nonlinear First Stage

Adviser involvement is a binary variable with a mass at zero, which motivates nonlinear first-stage estimation. Following Wooldridge (2010) and Xu (2021), we implement a two-step IV procedure based on fitted probabilities from a probit model. This approach follows standard two-step IV asymptotics for generated instruments, though, as in any such framework, finite-sample properties may depend on first-stage estimation noise. To account for such noise, we implement a cluster bootstrap that re-estimates both stages of the procedure in each replication (resampling at the country-industry level). The resulting confidence intervals are very similar to those obtained using two-way cluster-robust standard errors.

VII. Conclusions

Independent advisers have become a meaningful feature of modern IPO markets. In our sample of U.S. and European offerings from 2010–2023, advisers participate in 15% of deals by number while accounting for 36% of total proceeds raised. Despite their growing economic importance, systematic evidence on how adviser involvement relates to IPO pricing has remained limited.

Studying adviser involvement presents familiar empirical challenges because issuers' decisions to hire advisers are endogenous and correlated with deal characteristics. We address this issue by exploiting a salient institutional regularity in IPO markets: adviser participation rises sharply with offer size, exhibiting a change in slope around a $250 million benchmark.

Using a fuzzy regression-kink framework, we examine how localized variation in adviser involvement around this scale relates to IPO price formation.

Two consistent pricing patterns emerge. Higher predicted adviser involvement is associated with a 4.80 percentage-point reduction in offer-price adjustment relative to the midpoint of the initial filing range and a 5.61 percentage-point reduction in first-day returns, corresponding to approximately $19.1 million for the average deal in our sample when expressed using the standard underpricing metric. These outcomes map naturally to the mechanisms outlined in the conceptual framework: earlier information incorporation in the pricing process and tighter monitoring of underwriting incentives. In combination, the evidence indicates that IPOs with greater advisory governance exhibit closer alignment between preliminary price guidance, final offer prices, and aftermarket valuations.

More broadly, our findings highlight an often-overlooked dimension of IPO market design: the governance of the bookbuilding process itself. While much of the literature emphasizes the incentives of underwriters and investors, our evidence suggests that the institutional arrangements through which issuers monitor and coordinate the offering process can also shape price discovery in primary equity markets. Issuer-side advisory governance illustrates how the organization of intermediation itself influences how information is incorporated into IPO prices.

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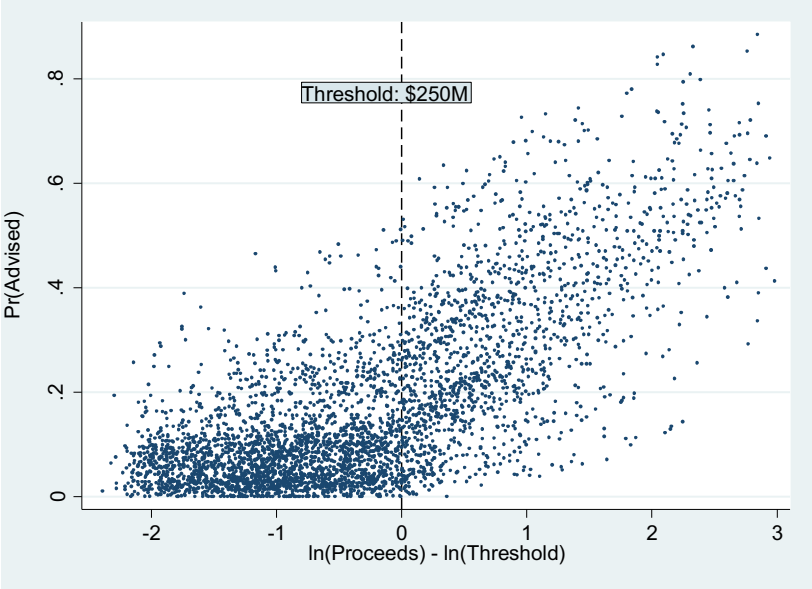
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Figure 1: IPO Size and Adviser Involvement Around the $250M Threshold

This figure illustrates the relationship between IPO size and adviser involvement, measured by the fitted probability Pr(Advised). In both panels, the horizontal axis plots the distance from the offer size threshold, defined as ln(Proceeds) − ln(Threshold). The vertical dashed line marks the $250 million threshold and corresponds to zero on the horizontal axis. Panel A presents a scatter plot of the fitted probability Pr(Advised) against log proceeds relative to the threshold, bounded between −2.5 and +3 log points for visual clarity. Panel B presents a binned regression plot constructed using quantile-spaced bins and local polynomial fits on either side of the threshold. Dots represent average values within bins, and fitted lines are estimated separately below and above the threshold. Details on bin construction, regression specification, and bandwidth selection are provided in Internet Appendix A5. Variable definitions are reported in the Appendix.

Panel A: Pr(Advised) scatter plot



Panel B: Pr(Advised) regression plot

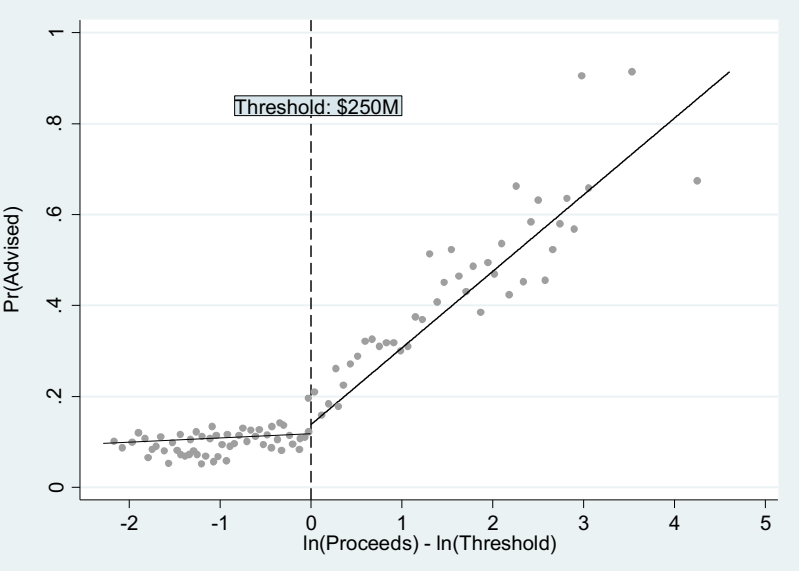
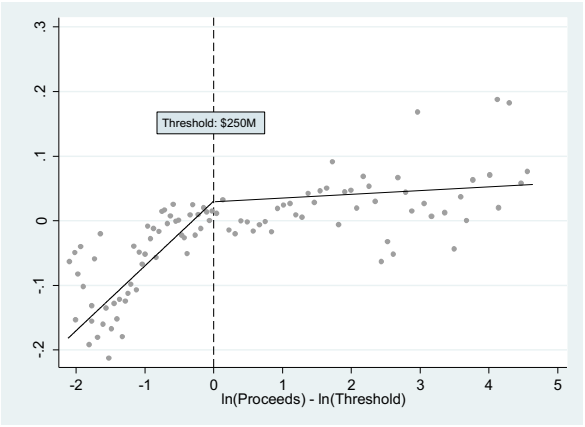


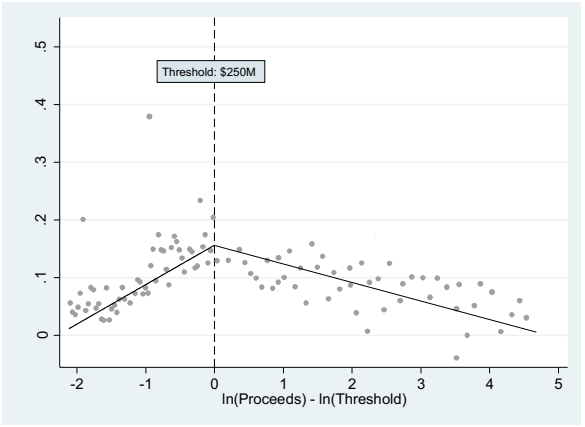
Figure 2: IPO Outcomes Around the $250M Threshold

This figure illustrates the relationship between IPO size and four outcome variables using the same regression-plot methodology as in Figure 1B. In each panel, the horizontal axis plots ln(Proceeds) − ln(Threshold), with the vertical dashed line indicating the $250 million threshold. Panel A reports offer-price adjustments, Panel B first-day returns, Panel C underwriting spreads, and Panel D IPO withdrawals. Fitted regression lines are estimated separately on either side of the threshold. Details on the regression specification and binning procedure are provided in Internet Appendix A5. Variable definitions are reported in the Appendix.

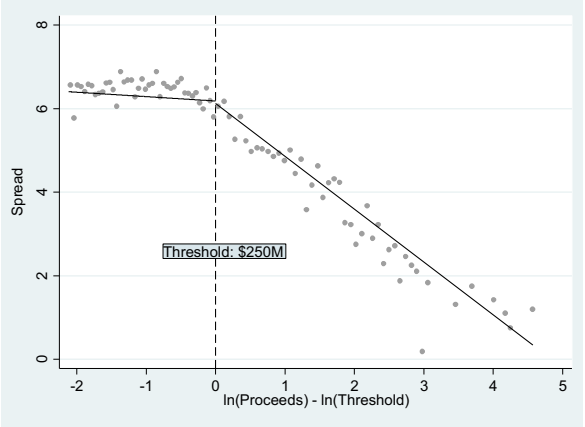
Panel A: Offer-price adjustment



Panel B: First-day return



Panel C: Spread



Panel D: Withdrawn

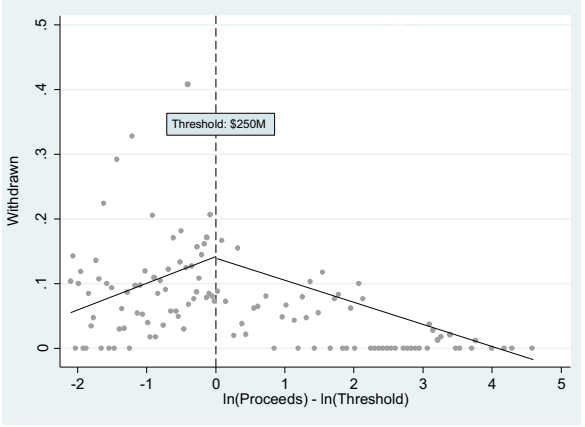
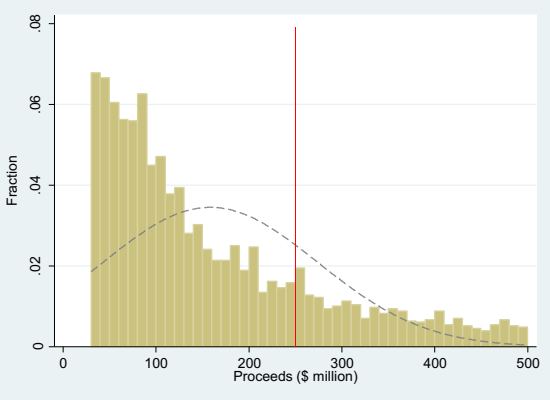


Figure 3: Distribution of IPO Proceeds Around the $250M Threshold

This figure plots the distribution of IPO proceeds around the $250 million deal-size threshold (indicated by the red vertical line). The horizontal axis shows offer proceeds in millions of U.S. dollars. The sample is restricted to IPOs with proceeds between $30 million (the minimum size included in the sample) and $500 million for visual clarity. The dashed grey line represents a fitted normal density. Panel A uses bins of width $10 million, while Panel B uses bins of width $5 million. The distributions appear smooth around the threshold, with no visible bunching or discontinuities.

Panel A: Bin width $10 M



Panel B: Bin width $5 M

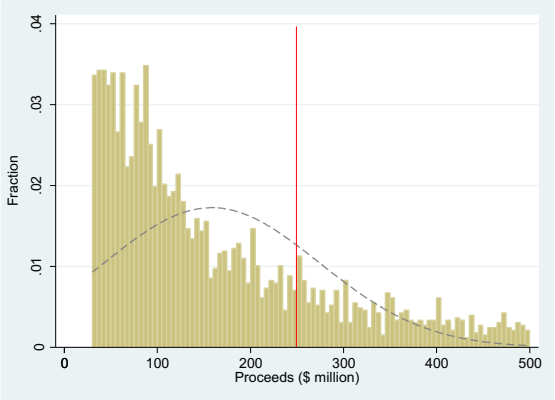
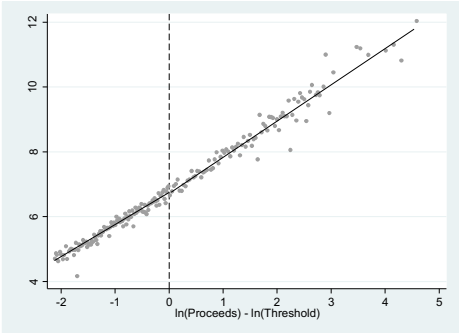


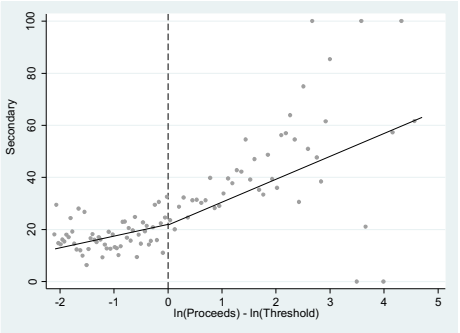
Figure 4: Covariate Smoothness Around the $250M Threshold

This figure shows the relation between IPO size and eight regressor variables, replicating the method used in Figure 1B. The absence of visible kinks supports the smoothness of observable characteristics around the threshold.

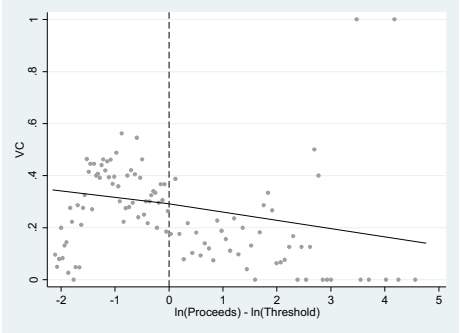
Panel A: ln(Market Value)



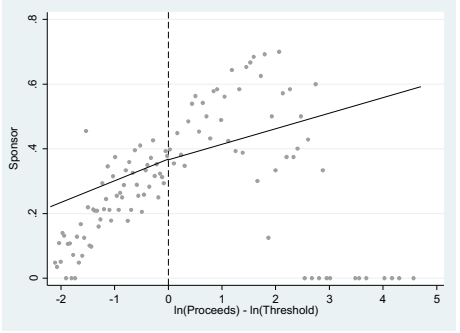
Panel B: Secondary



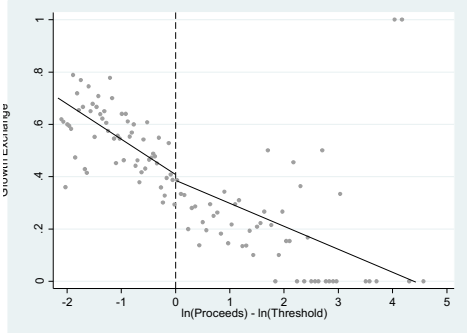
Panel C: VC



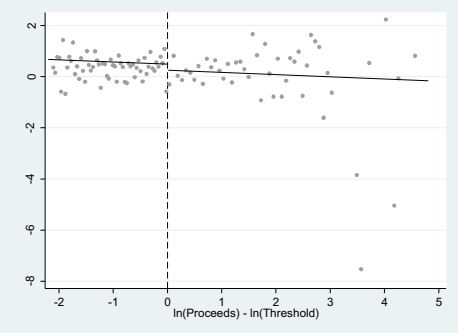
Panel D: PE



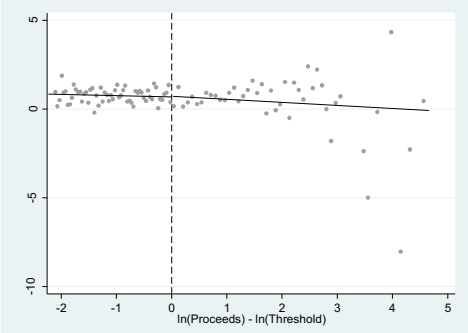
Panel E: Growth Exchange



Panel F: STOXX600 2w change



Panel G: NASDAQ 2w change



Panel H: Retail

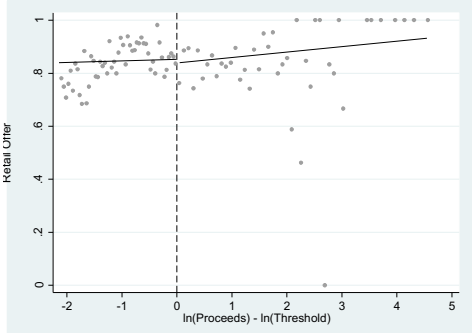


Table 1: Practitioner Survey – Summary Evidence on Adviser Involvement

This table summarizes responses from a small-scale survey of senior IPO practitioners regarding the role of deal size in adviser involvement. Respondents include IPO advisers, private equity and venture capital professionals, and senior equity capital markets bankers, split evenly between U.S.- and Europe-based practitioners. The table reports representative quotations grouped by practitioner type. Survey responses are used to motivate the empirical design and to assess the plausibility of size-based adoption heuristics; they are not used for statistical inference. All interviews were conducted by telephone under assurances of anonymity. The full set of practitioner quotations is reported in the Internet Appendix A1.

Panel A. IPO Advisory Firms	
US-based adviser	**European-based adviser**
"Deal size is a key determinant. In practice, adviser involvement typically becomes economically relevant once IPOs are around $250 million**,** reflecting fixed advisory fees and greater syndicate complexity."	"Issuers tend to consider advisers once IPOs reach approximately $250 million equivalent**.** At that scale, managing multiple banks and coordinating pricing and allocations becomes materially more complex."
"While advisers may be involved in smaller transactions for strategic or relationship reasons, our success rate and focus increase materially with deal size, particularly above the $250 million range."	"Having an adviser is increasingly commonplace as deals get bigger. Once IPOs exceed €200 million (≈$250 million)**,** issuers almost always consider external coordination support."
Panel B. Private Equity Firms Active in IPOs	
US-based PE	**European-based PE**
"We typically consider advisers when IPOs are expected to raise at least $200–250 million**.** Below that level, adding an adviser can risk diluting underwriter incentives."	"IPO size is the primary determinant. Above $250 million, adviser fees correspond roughly to standard M&A advisory benchmarks, making their involvement economically intuitive."
"Advisers are most useful on larger, multi-stakeholder IPOs where bank coordination matters. These situations tend to arise on larger transactions."	"The larger the IPO, the more likely it is to involve an adviser. Complexity and headline risk increase disproportionately with deal size."
Panel C. Venture Capital Firms Active in IPOs	
US-based VC	**European-based VC**
"We rarely use advisers on smaller IPOs. On the occasions we have, final proceeds exceeded $250 million, typically with multiple VCs or shareholders involved."	"Our adviser use has been concentrated on IPOs targeting around €200 million or more. These are the transactions where execution risk and public scrutiny are highest."
"Size matters indirectly: the largest exits are hardest to sell privately and more often become IPOs, which are also the cases where advisers are more commonly involved**.**"	"Not all large IPOs have advisers, but in our experience all adviser-assisted IPOs have been above €200 million."
Panel D. Bulge-Bracket Investment Banks	
US-based ECM	**European-based ECM**
"Below roughly $200–300 million**,** adviser involvement is uncommon. Once multiple bookrunners are involved and economics become discretionary, advisers add value."	"€200 million (≈$250 million) is a meaningful threshold for fees, analyst coverage, and liquidity. Advisers tend to appear once IPOs reach that scale."
"Advisers were rare a decade ago, but are now frequently involved in larger IPOs**,** particularly where formal RFP processes are used."	"Once an issuer runs a formal beauty parade, there is often an adviser coordinating the process, especially on larger deals."

Table 2: Sample Composition

This table reports descriptive statistics for completed and withdrawn IPOs in the U.S. and Europe from 2010 to 2023 (source: Dealogic). The sample excludes unit issues, SPACs, REITs, closed-end funds, trusts, special purpose entities, blind capital pools, acquisition vehicles, preferred stock, and IPOs with proceeds below $30 million. Proceeds data are unavailable for 656 withdrawn IPOs, and spread data are unavailable for 1,958 IPOs. Variable definitions are provided in the Appendix.

Year	No. of IPOs	Advised %	U.S. %	Proceeds ($m)	Advised % of Proceeds	1st day return %	Spread %	Withdrawn % of IPOs
2010	352	11	58	92,151	44	8.5	5.68	32
2011	294	14	62	83,624	29	8.3	5.62	40
2012	270	7	77	65,804	13	12.0	6.00	40
2013	344	16	71	104,763	33	16.1	5.85	15
2014	517	17	60	171,755	41	10.3	5.66	19
2015	392	23	51	104,655	52	11.2	5.27	26
2016	259	23	56	62,633	54	10.2	5.54	34
2017	328	21	51	84,572	46	8.6	5.59	15
2018	370	15	53	102,136	24	12.9	5.83	23
2019	249	10	69	79,449	35	15.5	6.11	23
2020	297	13	68	109,358	26	32.0	6.19	11
2021	645	16	55	241,086	35	16.8	6.03	11
2022	128	7	56	26,305	44	11.3	6.17	48
2023	124	10	45	31,016	35	8.8	5.63	24
Total	4,569	15	60	1,359,308	36	13.7	5.79	23

Table 3: Summary Statistics

This table reports summary statistics for the variables used in the paper. IPO data are obtained from Dealogic and price data from Bloomberg. Some variables are unavailable for withdrawn deals. Spread data are available for 2,611 deals. Panel A reports summary statistics for the full sample. Panel B compares Advised and Non-Advised IPOs and reports *t*-statistics (*z*-statistics) for differences in mean (median) between the sub-samples. ***, ** and * denotes significance at the 1%, 5% and 10% level respectively. Variable definitions are provided in the Appendix.

Panel A: Summary statistics

	Obs.	Mean	Med.	SD
Dependent Variables:				
Offer-price adjustment	3307	-2.96%	0.00%	18.3%
First-day return	3438	13.7	5.6	27.7
Spread	2611	5.79	7.00	1.69
Withdrawn	4569	0.23	0.00	0.42
Regressors:				
Proceeds	3913	347	150	816
Above250	3913	0.33	0.00	0.47
Distance Threshold	3913	-0.37	-0.51	1.06
ln(Market Value)	3865	6.40	6.23	1.28
Secondary	3968	22.44	0.00	34.70
VC	4569	0.24	0.00	0.43
PE	4569	0.31	0.00	0.46
Growth Exchange	4569	0.43	0.00	0.50
STOXX 2-week change	4569	0.25%	0.57%	2.96%
NASDAQ 2-week change	4569	0.65%	0.96%	3.29%
Retail	4569	0.83	1.00	0.37
Books	4569	3.27	3.00	2.24

Panel B: Summary statistics for IPOs with and without advisers

	Non-Advised				Advised				Difference	
	Obs.	Mean	Med.	SD	Obs.	Mean	Med.	SD	*t*-stat	*z*-stat
Dependent Variables:										
Offer Price Adj. (%)	2740	-3.11	0.01	18.8	567	-2.23	0.00	15.0	-1.20	1.33
First-day return	2855	14.4	6.13	28.6	583	10.6	4.48	22.4	3.51***	2.10**
Spread	2191	6.08	7.00	1.49	420	4.26	3.75	1.86	18.98***	19.84***
Withdrawn	3864	0.25	0.00	0.43	705	0.15	0.00	0.36	6.26***	5.51***
Regressors:										
Proceeds	3273	264	129	503	640	773	363	1600	-7.97***	-17.69***
Above250	3273	0.28	0.00	0.45	640	0.64	1.00	0.48	-17.37***	-17.50***
Distance Threshold	3273	-0.52	-0.66	0.97	640	0.37	0.37	1.20	-17.70***	-17.69***
ln(Market Value)	3232	6.27	6.13	1.21	633	7.02	7.04	1.43	-12.41***	-12.71***
Secondary	3316	19.1	0.00	32.5	652	39.3	26.7	40.4	-11.98***	-13.77***
VC	3864	0.27	0.00	0.44	705	0.09	0.00	0.28	14.39***	10.45***
PE	3864	0.27	0.00	0.44	705	0.53	1.00	0.50	-12.89***	-13.70***
Growth Exchange	3864	0.48	0.00	0.50	705	0.17	0.00	0.38	18.67***	15.04***
STOXX2w (%)	3864	0.26	0.60	2.95	705	0.22	0.43	3.02	0.33	0.78
NASDAQ2w (%)	3864	0.64	0.96	3.32	705	0.70	0.96	3.11	-0.43	-0.26
Retail	3864	0.86	1.00	0.35	705	0.70	1.00	0.46	8.78***	10.46***
Books	3864	3.09	3.00	2.08	705	4.27	4.00	2.81	-10.60***	-10.81***

Table 4: Cross-Sectional OLS Estimates of Adviser Involvement and IPO Outcomes

This table reports ordinary least squares (OLS) estimates of the cross-sectional association between adviser involvement and IPO outcomes. Deal size is controlled for using the logarithm of IPO proceeds rather than the regression-kink variables used in the main analysis. Regressors include log proceeds, market conditions, issuer characteristics, and syndicate structure variables. All specifications include year, month, industry, bookrunner, lead underwriter, and country fixed effects. Standard errors are two-way clustered by country and industry. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are provided in the Appendix.

	Offer Price Adj.	First Day Return	Spread	Withdrawn
	(1)	(2)	(3)	(4)
Advised	-0.022***	-0.008***	-0.096***	-0.052**
	(0.008)	(0.003)	(0.012)	(0.023)
Regressors	Yes	Yes	Yes	Yes
Time (year) FE	Yes	Yes	Yes	Yes
Time (month) FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Number of Book Managers FE	Yes	Yes	Yes	Yes
Lead-Left Book Manager FE	Yes	Yes	Yes	Yes
Observations	3,292	3,418	2,593	3,835
R-squared	0.33	0.23	0.88	0.16

Table 5: First-Stage Regression of Adviser Involvement

This table reports the linear 2SLS first stage corresponding to Equation (1). The dependent variable is *Advised*. The excluded instrument is the fitted probability $\hat{p}_i$ obtained from the probit model described in Section IV.A. Standard errors (in parentheses) are clustered by country and industry. Weak-identification diagnostics are reported for transparency. ***, ** and * denotes significance at the 1%, 5% and 10% level respectively. Variable definitions are provided in the Appendix.

	Dependent Variable: Advised			
	(1)	(2)	(3)	(4)
Fitted adviser probability $\hat{p}_i$	1.012***	0.986***	0.979***	0.909***
	(0.040)	(0.060)	(0.066)	(0.115)
Above250	0.005	0.006	0.009	0.008
	(0.023)	(0.028)	(0.028)	(0.024)
Distance Threshold	0.002	0.003	0.001	0.017
	(0.011)	(0.012)	(0.011)	(0.020)
Distance Threshold ^ 2			0.005	0.007
			(0.008)	(0.005)
Regressors	No	No	No	Yes
Time (year) FE	No	Yes	Yes	Yes
Time (month) FE	No	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes
Country FE	No	Yes	Yes	Yes
Number of Book Managers FE	No	Yes	Yes	Yes
Lead-Left Book Manager FE	No	Yes	Yes	Yes
Observations	2,955	2,955	2,955	2,955
R-squared	0.30	0.31	0.31	0.31
Weak Identification Test:				
- Kleibergen-Papp Wald rk F stat.		261.93	219.24	69.86
- Anderson-Rubin F(1, 19) p-val.	0.0000	0.0158	0.0065	0.0068
- Stock-Yogo weak ID test critical values	10% max. IV size = 16.38; 15% max = 8.96; 20% max = 6.66; 25% max = 5.53			
Summary statistics for Fitted Advised (1st stage)				
-Mean	0.190	0.190	0.190	0.190
-SD	0.217	0.221	0.220	0.221

Table 6: Second-Stage Regression, Offer-Price Adjustment

This table reports second-stage IV regressions corresponding to Equation (7). The dependent variable is Offer-price adjustment. The binary variable *Advised* is treated as endogenous and instrumented using the fitted probability of adviser involvement obtained from the probit first-stage model in Table 5. Standard errors (in parentheses) are clustered by country and industry. ***, ** and * denotes significance at the 1%, 5% and 10% level respectively. Variable definitions are provided in the Appendix.

	Dependent Variable: Offer-price adjustment			
	(1)	(2)	(3)	(4)
Advised (instrumented)	-0.100*	-0.189***	-0.160***	-0.217***
	(0.056)	(0.053)	(0.035)	(0.054)
Above250	-0.029*	-0.028	-0.037	-0.034
	(0.014)	(0.016)	(0.022)	(0.021)
Distance Threshold	0.064**	0.099***	0.106***	0.091***
	(0.029)	(0.027)	(0.034)	(0.025)
Distance Threshold ^ 2			-0.015	-0.014
			(0.010)	(0.010)
Regressors	No	No	No	Yes
Time (year) FE	No	Yes	Yes	Yes
Time (month) FE	No	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes
Country FE	No	Yes	Yes	Yes
Number of Book Managers FE	No	Yes	Yes	Yes
Lead-Left Book Manager FE	No	Yes	Yes	Yes
Observations	2,841	2,841	2,841	2,841

Table 7: Second-Stage Regression, First-Day Return

This table reports second-stage IV regressions corresponding to Equation (7). The dependent variable is First-day return. The binary variable *Advised* is treated as endogenous and instrumented using the fitted probability of adviser involvement obtained from the probit first-stage model in Table 5. Standard errors (in parentheses) are clustered by country and industry. ***, ** and * denotes significance at the 1%, 5% and 10% level respectively. Variable definitions are provided in the Appendix.

	Dependent Variable: First-day return			
	(1)	(2)	(3)	(4)
Advised (instrumented)	-0.223***	-0.198**	-0.183***	-0.254***
	(0.014)	(0.075)	(0.062)	(0.079)
Above250	-0.027**	-0.010	-0.014	-0.008
	(0.013)	(0.010)	(0.014)	(0.012)
Distance Threshold	0.052***	0.059**	0.063**	0.062*
	(0.016)	(0.022)	(0.027)	(0.031)
Distance Threshold ^ 2			-0.010	-0.009
			(0.008)	(0.007)
Regressors	No	No	No	Yes
Time (year) FE	No	Yes	Yes	Yes
Time (month) FE	No	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes
Country FE	No	Yes	Yes	Yes
Number of Book Managers FE	No	Yes	Yes	Yes
Lead-Left Book Manager FE	No	Yes	Yes	Yes
Observations	2,955	2,955	2,955	2,955

Table 8: Second-Stage Regression, Spread

This table reports second-stage IV regressions corresponding to Equation (7). The dependent variable is Spread. The binary variable *Advised* is treated as endogenous and instrumented using the fitted probability of adviser involvement obtained from the probit first-stage model in Table 5. Standard errors (in parentheses) are clustered by country and industry. ***, ** and * denotes significance at the 1%, 5% and 10% level respectively. Variable definitions are provided in the Appendix.

	Dependent Variable: Spread			
	(1)	(2)	(3)	(4)
Advised (instrumented)	-4.629***	0.008	0.360	0.781
	(1.068)	(0.548)	(0.409)	(0.725)
Above250	-0.165	0.163***	0.025	0.036
	(0.251)	(0.038)	(0.042)	(0.037)
Distance Threshold	-0.261	-0.715***	-0.583***	-0.623***
	(0.281)	(0.025)	(0.026)	(0.045)
Distance Threshold ^ 2			-0.164***	-0.176***
			(0.045)	(0.036)
Regressors	No	No	No	Yes
Time (year) FE	No	Yes	Yes	Yes
Time (month) FE	No	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes
Country FE	No	Yes	Yes	Yes
Number of Book Managers FE	No	Yes	Yes	Yes
Lead-Left Book Manager FE	No	Yes	Yes	Yes
Observations	2,310	2,310	2,310	2,310

Table 9: Second-Stage Regression, Withdrawn

This table reports second-stage IV regressions corresponding to Equation (7). The binary variable *Advised* is treated as endogenous and instrumented using the fitted probability of adviser involvement obtained from the probit first-stage model in Table 5. Standard errors (in parentheses) are clustered by country and industry. ***, ** and * denotes significance at the 1%, 5% and 10% level respectively. Variable definitions are provided in the Appendix.

	Dependent Variable: Withdrawn			
	(1)	(2)	(3)	(4)
Advised (instrumented)	-0.019	-0.079	-0.056	0.039
	(0.047)	(0.094)	(0.090)	(0.093)
Above250	0.016	0.020	0.013	0.009
	(0.017)	(0.017)	(0.016)	(0.014)
Distance Threshold	-0.007	-0.007	-0.002	0.033*
	(0.005)	(0.009)	(0.011)	(0.017)
Distance Threshold ^ 2			-0.016**	-0.015***
			(0.006)	(0.005)
Regressors	No	No	No	Yes
Time (year) FE	No	Yes	Yes	Yes
Time (month) FE	No	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes
Country FE	No	Yes	Yes	Yes
Number of Book Managers FE	No	Yes	Yes	Yes
Lead-Left Book Manager FE	No	Yes	Yes	Yes
Observations	3,298	3,298	3,298	3,298

Appendix: Variable Definitions

Variable	Definition
Involvement and First-Stage Variables:	
Advised	Indicator equal to one if the IPO employs an external independent adviser distinct from the lead underwriter, and zero otherwise.
$\hat{p}_i$	Fitted probability of adviser involvement from the first-stage probit model estimated by maximum likelihood. The model includes the interaction between *Above250* and *DistanceThreshold* (capturing the slope change at the threshold), their level effects, and the control variables and fixed effects described in Section IV.
Dependent Variables:	
Offer-price adjustment	Percent adjustment in the offer price from the midpoint of the preliminary price range = ln(Offer Price) – ln(Mid Price); price range is the first filed with the SEC or equivalent European body.
First-day return	Log return from the offer price to the closing price on the first day of trading = ln(First Day Price) – ln(Offer Price).
Spread	Gross spread (%) charged by underwriters as a commission.
Withdrawn	Dummy indicating IPOs that were withdrawn.
Regressors:	
Proceeds	Gross IPO proceeds ($M), including the overallotment option.
Above250	Dummy indicating IPOs with Proceeds > $250M.
Distance Threshold	Natural logarithm of Proceeds minus natural logarithm of the Proceeds threshold of $250M = ln(Proceeds) – ln($250M).
ln(Market Value)	Natural logarithm of the issuer's market capitalization ($M), upon completion of the offering.
Secondary	Percentage of secondary (existing) shares from total shares offered in the IPO.
VC	Dummy indicating issuers with Venture Capital backing prior to IPO.
PE	Dummy indicating issuers with Private Equity backing prior to IPO.
Growth Exchange	Dummy indicating issuers listed on NASDAQ or on growth segments of European exchanges, i.e., London AIM, Paris Alternext, Frankfurt Scale, AIM Italia, Madrid Alternative Market, Nordic "First North" and "NASDAQ" exchanges, Oslo Axess, Warsaw NewConnect.
STOXX 2-week change	Percentage change in STOXX Europe 600 index during the two weeks before the offer.
NASDAQ 2-week change	Percentage change in NASDAQ composite index during the two weeks before the offer.
Retail	Dummy indicating IPOs in which shares are offered to retail investors.
Other Variables:	
Books	Number of book managers in the IPO.
Lead-Left book manager	The primary investment bank responsible for leading the IPO, listed first (ie., on the left) of the top row of underwriters on the IPO prospectus.
Banks	Number of underwriters in the IPO syndicate

Internet Appendix

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A1: Full Verbatim Survey Responses from IPO Practitioners

This appendix reports the complete, unedited quotations obtained during the practitioner survey referenced in Table 1 of the main paper. Responses are organized by practitioner type and geography. Dollar amounts refer to expected or final IPO proceeds, unless otherwise stated, and are in bold for ease of reference. Quotations are reproduced verbatim to preserve context and nuance.

	US-based Practitioner	European-based Practitioner
IPO Advisory Firm (Partner)	"Yes, size is very important. I'd say $200M is a baseline for most issuers when thinking of hiring us. Gross spreads are more negotiable above this level, syndicates tend to be larger, and there may be secondary sellers. For these reasons, we tend to only target IPOs of $200M or more at the outset, meaning final proceeds end up being around **$250M**. That said, our success rate increases with deal size, so we prefer deals well above the threshold. Of course, we also do smaller deals, especially if it's an existing client or there is a personal relationship, but we don't focus on them when it comes to our origination efforts." "We are relatively new to IPO advisory, so don't really operate a size rule. In fact, many of our clients are VCs who tend to do smaller deals and raise mainly primary shares, in which case they don't tend to use an adviser. So, we tend to get hired as IPOs are larger, around $200M or more at the outset, and these end up around **$250M** in final proceeds**."**	"Issuers tend to hire us when IPOs are initially 200M or more in €s or £s, so around **$250M** equivalent when you consider final proceeds. This figure is probably psychological, but it's also when issuers begin to consider managing the multiple banks involved. So, our aim is to do deals >200M, partly because they take the same time, and partly because we lack the bandwidth to do multiple small IPOs. That said, we will always advise existing clients. Sometimes smaller IPOs have their own complexities, e.g., a family trust needing separate advice for legal reasons." "We are agnostic on deal size and can manage any type of execution. But, for the issuer, size correlates with complexity and risk, so there is a tendency to hire an adviser above **$250M** equivalent in local currency. Certainly, once you get to $1BN, every issuer has at least considered hiring an adviser. At this size, shaving 10bps off spread or first-day return can save $1M in costs, easily covering their fixed fees. So, having an adviser is increasingly common as deals get bigger."
PE Firm active in IPOs (Partner/ Senior MD)	"Hiring an adviser is like hiring an extra syndicate bank, so we only consider them if baseline size is expected to be $200M or more, which translates to final proceeds of around **$250M**. Otherwise, we end up demotivating the underwriters. Advisers earn their place by keeping gross spreads low and running the process for us. Occasionally, we ask them to organize anchor investors, or run a parallel private process, but again, these tend to apply only to the largest IPOs." "Size is important, but our main driver is whether there are other stakeholders (e.g., other PEs, etc). In these cases, we tend to hire a vendor adviser, especially if the issuing firm hires its own adviser. It's true that these deals tend to be bigger, but they could be anything from say **$200-300M** upwards, rather than a strict rule."	"Size of IPO is our key determinant when thinking of hiring an adviser. IPOs above **$250M** are sought after by multiple banks, and those same banks are important clients of ours in other areas. So, we use advisers to run beauty parades, avoid any perception of favouritism, and to award fees. Also, advisers often charge a fixed fee, say $1M, plus $25-50K retainer, so $250M equates to 0.5%, which is comparable to an M&A fee." "We do multiple IPOs a year and usually run things ourselves. Our main driver is the industry segment (if we don't have in-house expertise) or if we are looking at a parallel M&A sale. If the M&A doesn't go through, the same adviser ends up handling the IPO. Beyond that, it's true that the larger the IPO, the more chance it will have an adviser these days."

A1: Full Verbatim Survey Responses from IPO Practitioners – *continued*

	US-based Practitioner	European-based Practitioner
VC Firm active in IPOs (Partner)	"We don't usually use advisers since we prefer to manage our portfolio firms through the IPO process ourselves. That said, almost all our IPOs are on the smaller end of the scale, say below $200M initially, or **$250M** in final proceeds. On the occasions we've used advisers, it's been because of multiple VCs and other shareholders, both of which occurred on larger deals. On these occasions, advisers were useful in handling the banks, managing communications within the working parties, and ensuring press coverage after the IPO."	"We've used IPO advisers twice in the last decade, out of around 10 IPO exits. On both occasions, the target raise was around €200M, or **$250M** equivalent, but the deal grew bigger since we decided to exit some shares at the IPO. On both occasions, there were other VCs and founder/management groups that owned stakes."
	"Although we do many IPOs, we are now tending to favour private exits, as public markets are unpredictable and private money is generally paying a higher multiple. So, we use advisers more for their M&A track record, and occasionally these same firms help us through an IPO process instead. Size is a critical factor, in the sense that the biggest deals are the hardest to sell privately; hence, more of those have ended up as IPOs, and often they have leadership investors. But it is not a strict rule. In our case, while it's true that all our 'advised' IPOs have exceeded **$200M**, not all of our large IPOs have had advisers."	"For us, the trigger for IPO over M&A is usually size, e.g., if we hit '$1BN unicorn' status. As European listing rules require a 25% minimum free float, unicorns tend to be around €200M, or **$250M** equivalent, after applying an IPO discount. We've used advisers on these deals as the 'headline risk' is so high, and failure is not an option. These deals also garner a lot of press attention, usually years in advance. So, we find ourselves receiving multiple pitches from investment banks, which are easier to coordinate and determine if we have an adviser. Otherwise, on the smaller deals, we haven't really used advisers."
Bulge-Bracket Bank (Senior MD in Equity Capital Markets)	"We target $5M in fees when we bookrun, so we're happy to sole-manage IPOs of $75M baseline, or 50/50 deals of $150M. Once there are 3 books, and spreads are below 7%, baseline needs to be above $200M for us to take part. Advisers know this, so they probably target IPOs above this size when pitching their own services, as managing banks is how they add value to issuers. Bear in mind that a $200M baseline will end up being around **$250M** in final proceeds, if all goes well."	"For us, €200M is a key level when thinking of fees, so around **$250M** in dollars. Below that, we tend to pass if the IPO has incentive fees, or if there are multiple bookrunners. Our equities division has a similar rule: a €200M float which trades 0.5% per day, translates to €1M of daily volume, which is considered the minimum for a ranked analyst. I imagine PE/VCs and advisers know this, so it becomes a general rule of thumb when structuring an IPO."
	"We see advisers mainly on the PE-backed deals where there are multiple banks, and more of the economics are 'jump-ball'. I don't sense there is a strict size rule in the market. Certainly, there are still a lot of big deals that don't have advisers. But it's true that below say **$200-300M**, you are much less likely to find advisers."	"Ten years ago, IPO advisers were a rarity. Now, we are seeing them on all the big deals, and frequently on mid-size deals, say €200M (or **$250M** equivalent) and above. Essentially, once the issuer decides to run a formal Request for Proposal (RFP) process, there is almost always an adviser behind the scenes."

A2: Advisory services in IPOs

The table summarizes independent advisory services commonly observed at different stages of the IPO process. Advisers may also offer ancillary services such as audit, investor relations or press advice; these activities are not the focus of our analysis.

IPO stage	Independent advisory services offered
Pre-IPO planning	Evaluate strategic options (e.g. trade/partial sale, anchor investors, leveraged recap, M&A alternatives). Co-ordinate discussions with auditors, legal counsel and other professional advisers. Provide independent review of issuer's business plan, projections and equity story.
Structure and process	Advise on M&A dual track (if any), anchor process (if any), go/no-go decisions. Review/identify key value or process issues (e.g. marketing impact of proposed Board composition, corporate governance, financing facilities, capital structure, dividend policy, financial disclosure, tax issues, and recommended offering structure). Coordinate early look meetings and pilot fishing.
Appointment of syndicate and other advisers	Advise on the request for proposal (RFP) process, organise/host 'Beauty Parade.' Provide input on bank selection criteria, engagement letters and timing, syndicate structure, fee arrangements, bank terms and conditions. Review equity research, valuation assumptions, peer group selection. Appointment of additional advisers (e.g., press relations, industry consultants).
Timetable/ project management	Advise on allocation of responsibilities between Bookrunners, coordinate work streams (due diligence, equity story, financial disclosure, legal matters), progress calls and meetings. Review key timing decisions (e.g., intention to float, launch, books close, or withdrawal).
Documentation	Review terms and conditions recommended by Bookrunners. Review all materials to be made available to investors (e.g., prospectus, analyst presentation, roadshow materials). Rehearse management for all presentations.
Investor education and pre-marketing	Review marketing plan proposed by Bookrunners, manage overlaps, assign priorities. Design investor feedback forms for use in collecting feedback, hold daily calls. Advise on fine-tuning marketing message and sizing, price range and timing decisions. Review shadow book with Bookrunners, assign preliminary allocation rankings.
Roadshow and bookbuilding	Review all recommendations by Bookrunners regarding roadshow venues, allocation of one-on-one meetings, bookbuilding, and investor messaging. Analyze real-time progress of book, daily calls with Bookrunners and Issuer. Advise on briefing of independent analysts, trade press, other 3rd parties.
Pricing and allocation	Review Bookrunners recommendations on narrowing of price range, guidance, books close timing, sizing adjustments, final pricing and allocation, and advise on any adjustments.
Stabilization and aftermarket	Review stabilization strategy and trading activity of Bookrunners. Review Bookrunners' advice on establishing investor relations, research and market making.
Discretionary fee	Review performance of syndicate banks and advise on award and allocation of discretionary component of gross underwriting spread.

A3: Advisers' contracts and monitoring powers

The table below summarizes contractual terms commonly described between IPO advisers and issuers. The level and structure of adviser remuneration are typically not disclosed in IPO prospectuses.

Term	Description
Retainer	Fixed amount. Non-refundable. Paid monthly, typically in advance, until completion. Initial term (e.g., 3 months) often agreed. Subject to extension. Example: $25-50K per month.
Completion fee	Fixed amount payable upon pricing of the IPO. Example: $1M.
Success fee	Variable amount. Payable at the sole discretion of the Issuer. Typically defined as a multiple of the completion fee, depending on the Issuer's level of satisfaction. Payable a month or two after the IPO. Example: 1-2x.
Ratchet fee	Similar to success fee, except the multiple of completion fee is calculated with reference to the IPO price or valuation multiple achieved. Payable 1-2 months after the IPO. Example: 1-2x.
% of spread	Rather than fixed remuneration (retainer, completion and success/ratchet fees), advisers may be paid a % of the underwriting spread, taken as a praecipium from the management fee component of the spread.
Limitations	Adviser is not responsible for specialist advice in legal, accounting, taxation or actuarial matters, nor for due diligence in relation to these matters (but may rely on such advice). Issuer acknowledges that a law firm, and audit firm and a bank (or banks) will be appointed to diligence, audit, manage, underwrite and market the IPO to institutional investors.
'Stick and carrot' powers	*Key man clause*: Bank personnel listed in the working parties list cannot be changed without reference to the Adviser. *Filing price range setting*: Banks will be expected to give independent presentations of their price range recommendations to the Adviser. *Book of demand*: Banks will give real-time access to the Adviser of unfiltered bookbuilding reports. *Pricing/Allocation*: Issuer retains full discretion over pricing and allocation, once bank recommendations are made. Banks may be required to disclose secondary trading revenues with investors in the book of demand. *Discretionary fees*: Adviser to review performance of each underwriter and advise on allocation of discretionary component of gross underwriting spread. *Termination*: Banks may be removed from the syndicate by the Adviser if they fail to perform according to the Issuer's expectations. Terminations may impact future IPO mandates if beauty parades are hosted by the same Adviser.

IPO advisory contracts share some structural features with contracting arrangements observed in other financial intermediation settings. For example, retainers resemble fixed compensation, while completion and success-based fees introduce performance-contingent elements. Similarly, contractual provisions relating to personnel continuity, information access, and performance review are intended to facilitate monitoring and coordination rather than to transfer formal decision rights. These features are broadly analogous to incentive and oversight mechanisms discussed in the venture capital literature, though the institutional context and allocation of control remain distinct.

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A4: A Fixed-Cost Rationale for Adviser Adoption and the Emergence of a Size Threshold

This appendix provides a simple illustrative framework to motivate why adviser involvement may increase disproportionately with deal size and why such behaviour can generate a kink in adoption probabilities. The purpose is not to model adviser hiring exhaustively, but to demonstrate that a size-based threshold can arise naturally under plausible assumptions.

1. Set-Up

Let an issuer be raising gross proceeds $S > 0$. An adviser can be hired to monitor underwriter behaviour and coordinate overall IPO project execution, at a cost $C = f + v$, where $f > 0$ is a fixed fee paid upon completion, typically \$1M, and $v > 0$ is a retainer, typically \$25-50K paid monthly for the period of the project, assumed to be around 6 months, or a total of around \$0.25M. The issuer has an outside benchmark advisory rate $\alpha \in [0,1]$ (typically α = 0.5%) which is the fraction of deal size issuers are accustomed to paying in advisory contexts such as M&A. Issuers use αS as a mental benchmark for a "fair" advisory fee on an IPO transaction of size *S*.

If the issuer does not hire the adviser:

The expected proceeds net of underpricing and transaction costs are

$$\prod_0(S, \omega) = S - U_0(S, \omega)$$

where U_0 is the expected value of underpricing and other avoidable cost leakage (e.g., excess roadshow expenses, higher than necessary 3rd party fees such as IR and PR consultants, etc.); and ω indexes firm–deal type heterogeneity (quality of management, information asymmetry, reputational concerns, ex-ante bargaining power with underwriters, etc.).

If the issuer hires the adviser:

The cost is *C* and the adviser may reduce expected leakage by monitoring underwriters and project-managing the IPO. Let the random saving in leakage from hiring be $G(S,\omega) \geq 0$. We model this as

$$G(S, \omega) = p(\omega)\Delta(S, \omega)$$

where $p(\omega) \in [0,1]$ is the probability the adviser is effective for this issuer, and $\Delta(S, \omega)$ is the maximal achievable reduction in leakage conditional on effectiveness (could be proportional to *S* or have other scale properties). The issuer's expected net payoff when hiring is

$$\prod_1(S, \omega) = S - U_0(S, \omega) - C + (G(S, \omega))$$

Interpretation:

The issuer hires the adviser (Hiring Condition H) when $\prod_1 > \prod_0$, that is, if and only if

$$G(S, \omega) \geq C$$

2. Fixed Costs and Size-Based Adoption

To obtain a closed form threshold, make two assumptions:

First, assume $\Delta(S, \omega) = \beta S$, namely, the adviser, if effective, reduces leakage by a fraction β of proceeds, for example β could be up to 5% = 0.05.

Second, assume $p(\omega)$ is issuer-specific but independent of S.

Thus $G(S, \omega) = p(\omega)\beta S$. The issuer hiring condition (H) becomes $p(\omega)\beta S \geq C$. Solve for the cutoff in S:

$$S \geq S^*(\omega) \equiv \frac{C}{p(\omega)\beta}$$

If one uses the heuristic of the issuer that paying advisory fees should be roughly comparable to paying αS, then comparing C to αS gives the benchmark crossing point

$$S_{bench} \equiv \frac{C}{\alpha}$$

With numbers f = 1M, v = 0.25M, so C = 1.25M and α = 0.005, we get $S_{bench} = 1.25\text{M}/0.005 = 250\text{M}$. Hence, an issuer who uses the αS heuristic will view the adviser fee as "fair" when $S \geq$ 250M; if their $p(\omega)\beta$ is close to α this aligns with the formal inequality (1).

Interpretation:

C is fixed in dollars while the expected saving is proportional to S. This generates a threshold S^*above which the expected monetary gain exceeds the fixed cost. Hence a kink in hiring probability can appear around S^* (or S_{bench} if issuers use the α-rule). [19]

3. Heterogeneity and the Kink in Hiring Probability

Assume issuers vary in $p\beta$. Let $h \equiv p\beta$ and denote its continuous CDF by $F(h)$ and density $f(h) > 0$ on $[0, \bar{h}]$. For a given S the fraction (probability) of issuers hiring the adviser is

$$P_{hire}(S) = \Pr\left\{h \geq \frac{C}{S}\right\} = 1 - F\left(\frac{C}{S}\right)$$

Differentiate (using chain rule):

[19] More generally, scale thresholds can arise when compensation includes a fixed dollar component while expected benefits scale with deal size. Chahine et al. (2020) report that investor relations consultants in IPOs typically charge monthly retainers of $20–50K but do not levy fixed project-completion fees, limiting the scope for discrete size thresholds. Fixed "pay-for-completion" structures are similarly uncommon among public relations and other external consultants. Legal and audit firms often use retainer-plus-completion-fee arrangements; however, because completion fees are tied to billable hours rather than IPO proceeds, such contracts do not mechanically generate scale thresholds based on offer size.

$$\frac{dP_{hire}}{dS} = f\left(\frac{C}{S}\right).\frac{C}{S^2}$$

This derivative is continuous in *S*, but the second derivative will have a discontinuity at any point where the form of *C* (or the perceived *C*) changes discretely or where empirical behaviour shifts because firms use the benchmark rule $S_{bench} = \frac{C}{\alpha}$

If issuers use the monetary decision (1), $P_{hire}(S)$ is smooth. If a non-linear/informational heuristic is used (e.g., issuers compare *C* to αS and only consider advisers when $\alpha S \geq C$) then a kink arises at $S_{bench} = C/\alpha$ because behavioural thresholding converts a smooth underlying model into a piecewise rule.

Formally, let some share $\lambda \in [0,1]$ of issuers use the α-heuristic (binary rule: hire iff $\alpha S \geq C$), and the remaining $1-\lambda$ are fully optimizing according to (1). Then hiring probability is

$$P_{hire}(S) = \lambda 1\{S \geq S_{bench}\} + (1-\lambda)(1 - F(\frac{C}{S}))$$

This function has a discrete kink at S_{bench}. If λ is large enough, the empirical relationship will show a pronounced kink at S_{bench}. Using the same example numbers as above this predicts a kink at \$250M.

4. Implications for the Empirical Design

Consider an empirical design that exploits the kink at S_0 (take $S_0 = S_{bench}$). A firm just below S_0 that would hire the adviser if its size were slightly larger must satisfy $h \geq \frac{C}{S_0} = \alpha$ whenever the firm uses the optimizing rule; or, if it is a heuristic user, firms are simply at the cutoff by rule. Thus, in a pure fixed-benefit model (where *h* is constant across firms), the firms whose adoption decisions are most sensitive to deal size near the kink are those for which the expected benefit from adviser involvement is close to the fixed cost. Because $\frac{C}{S_0} = \alpha$ when $S_0 = S_{bench}$, these marginal firms have expected percentage benefits $h \approx \alpha$ (e.g., roughly 0.5% of proceeds).

In this framework, firms near the kink are precisely those for whom the expected dollar saving from hiring an adviser is close to C. Equivalently, their expected percent saving on proceeds, *h*, is close to α. This implies a degree of selection. The firms whose adoption decisions change around the threshold are not a random subset of IPOs, but those for which adviser involvement is approximately cost-justified at that scale. As a result, empirical comparisons focused on this region reflect the behaviour of transactions where the adviser hiring decision is most finely balanced.

In practice, the benefit from adviser involvement is unlikely to be constant across deals. Instead, it is plausible that *h(S)* increases with deal size. Larger offerings may involve more complex syndicates, greater scope for underpricing rents, and more uncertainty to resolve during marketing, all of which could increase the potential benefits of adviser coordination. If $h'(S) > 0$, the adoption threshold is determined by the condition $h(S^*)S^* = C$. Around this point, small changes in deal size can lead to substantial changes in the propensity to hire advisers, generating the change in slope in adoption observed in the data.

This framework highlights two implications for the empirical analysis. First, firms near the threshold represent transactions for which the expected benefits of adviser involvement are close to the associated fixed costs, making adoption particularly sensitive to deal size. Second, because adoption decisions near the threshold reflect this economic margin, patterns observed in this region may not generalize to all IPOs. Nonetheless, studying pricing outcomes in this subset remains informative, as it focuses on economically meaningful transactions where adviser involvement is most likely to vary with deal size.

Overall, this simple framework illustrates how a change in slope in adviser adoption can arise naturally from fixed advisory costs, heterogeneous benefits across firms, and the use of commonly cited size benchmarks. These mechanisms support the plausibility of the empirical patterns exploited in the main analysis without relying on stronger identification assumptions.

A5: Regression plots methodology

The table presents summary information for the regression plot presented in the main paper (Figure 1B). Our methodology follows Calonico et al. (2015). We use quantile-spaced partitioning and polynomial regression to select the number of bins. The kernel function is uniform. Binned sample means mimic the underlying variance of the data. Covariates include the regressors listed in Table 3, together with fixed effects for Year, Month, Industry, Country, Books, and Lead-Left.

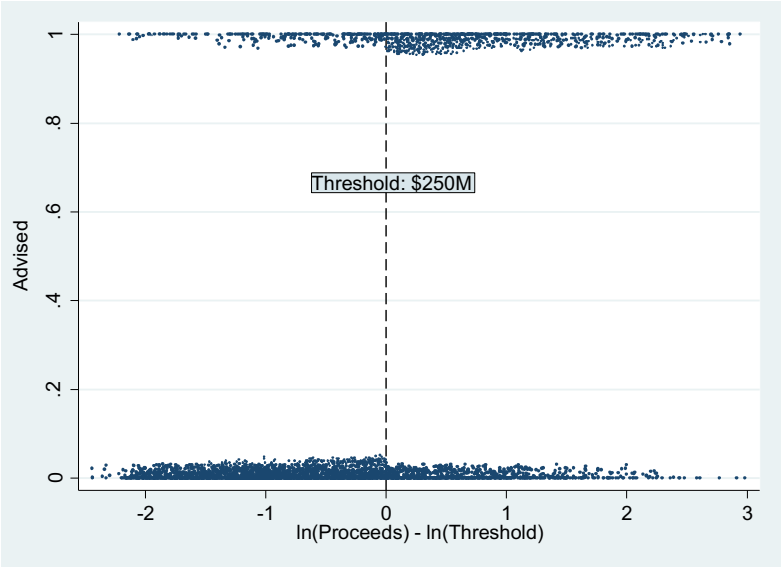
Summary information

	Left of cut-off	Right of cut-off
Effective no. observations	2,557	1,286
Order polynomial fit	1	1
Bandwidth polynomial fit	2.402	4.608
Average bin length	0.041	0.077
Median bin length	0.041	0.030
IMSE-optimal bins	12	22
Mimicking variance bins	58	60
Relative to IMSE-optimal:		
Implied scale	4.833	2.727
WIMSE variance weight	0.009	0.047
WIMSE bias weight	0.991	0.953

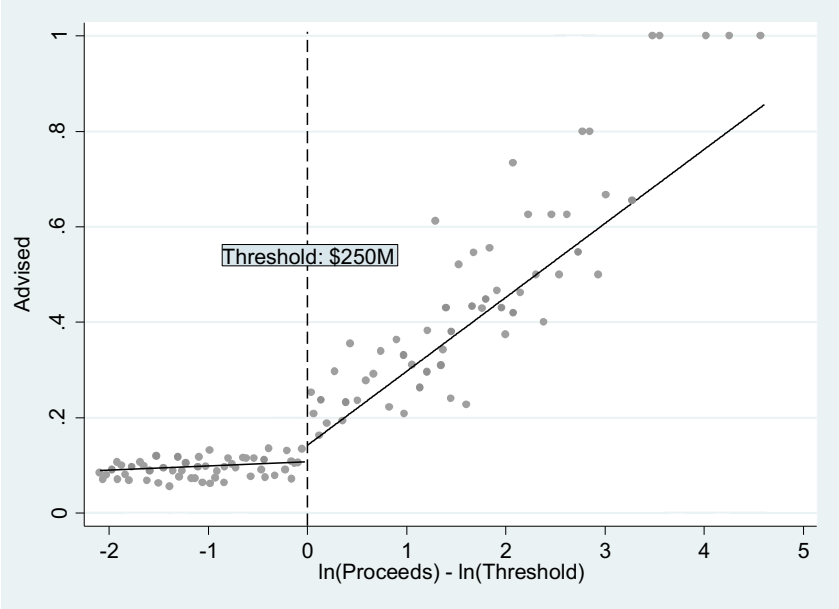
A6: Binary Adviser adoption around the $250 million threshold

This figure plots the binary adviser indicator (Advised) against log proceeds relative to the $250 million threshold. The dashed vertical line denotes the threshold. Local polynomial fits are shown separately on each side.

Panel A: Scatter plot of the binary adviser indicator



Panel B: Nonparametric regression plot of the adviser incidence (bin means)



A7: Other IPO variables around the $250 million threshold

This appendix examines whether other IPO characteristics display changes in slope at the $250 million proceeds threshold. In the regression-kink framework used in the paper, the key requirement is that other observable variables evolve smoothly with the running variable around the threshold. The figures below therefore plot a range of issuer, intermediary, and contract characteristics using the same regression-plot methodology as in Figure 1. The variables examined are defined in Panel A.

Panel A: Variable Definitions

Variable	Definition
Books	Number of book managers in the IPO
Banks	Number of underwriters in the IPO syndicate
BookBank	Books / Banks
LowBookBank	Dummy indicating IPOs in which the BookBank < 1.[20]
Bulge Bracket	Dummy indicating IPOs in which the lead left bookrunner is one of Goldman Sachs, Morgan Stanley, JP Morgan, Bank of America, Citigroup, Barclays, UBS or Deutsche Bank.
Big Four Audit	Dummy indicating IPOs in which the audit firm is one of Deloitte, E&Y, KPMG or PWC.
ln(Total Assets)	Natural logarithm of firm total assets in the last reporting period before the IPO.
EPS Dilution	Change in EPS that will result from issuance of new shares.
Incentive Ratio	Ratio of incentive fees to the Spread = Incentive Fee / Spread; where there is no incentive fee, the variable is set to 0.
Incentive Fees YN	Dummy indicating IPOs in which the underwriting spread comprises a base fee and a discretionary incentive fee.

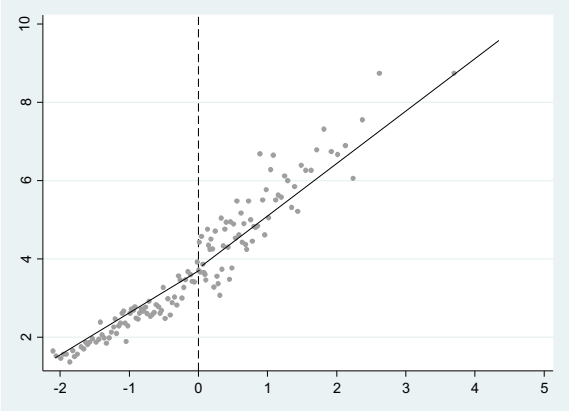
Implications for Research Design

The evidence in Panels B–K suggests that other variables evolve smoothly through the threshold. While many IPO characteristics vary with deal size, none exhibit a coincident change in functional form at the adviser threshold. As a result, the kink in adviser involvement at $250 million is not accompanied by comparable changes in slope in observable issuer, intermediary, or contract characteristics.

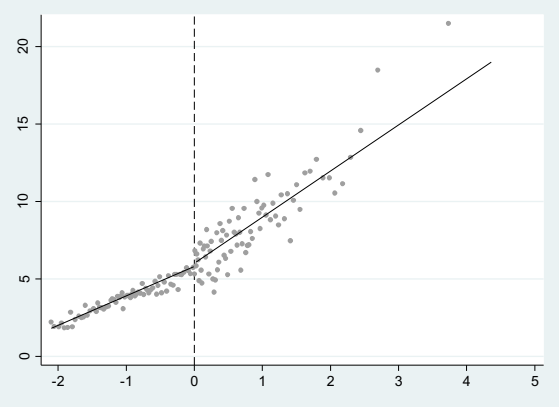
[20] The variable *BookBank* is bounded between 0 and 1, with approximately 45% of observations at the upper bound.

A7: Other IPO variables around the $250 million threshold – *continued*

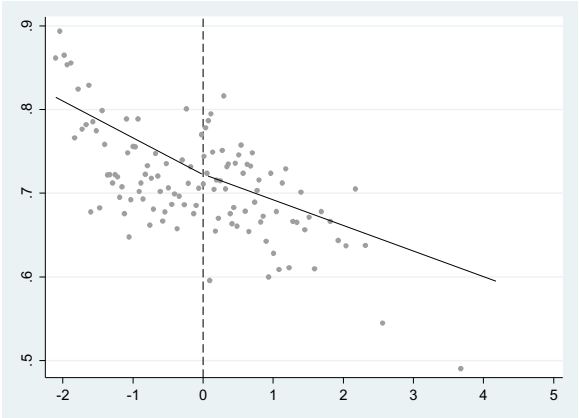
Panel B: Books



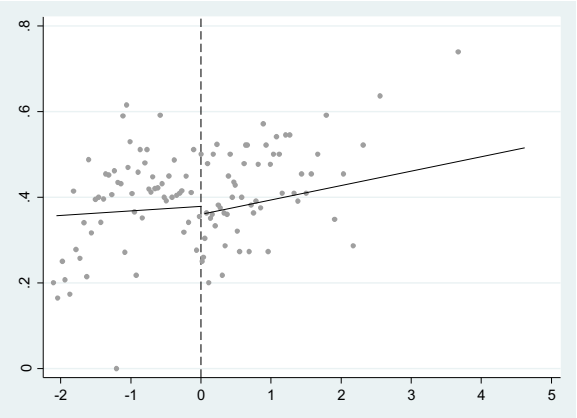
Panel C: Banks



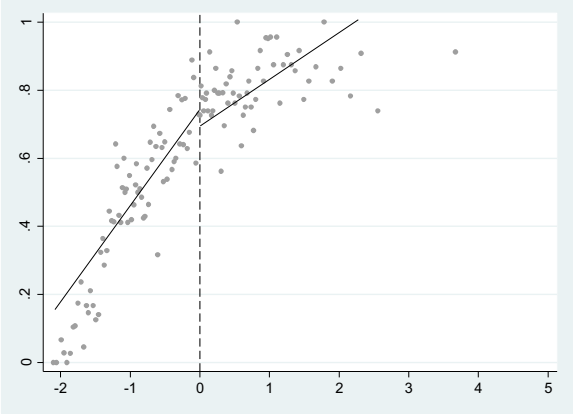
Panel D: Book Bank



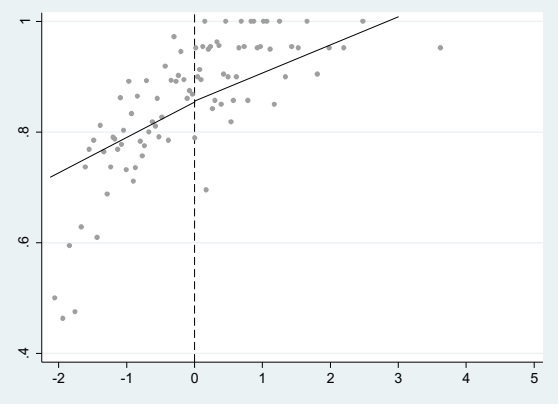
Panel E: Low Book Bank



Panel F: Bulge Bracket

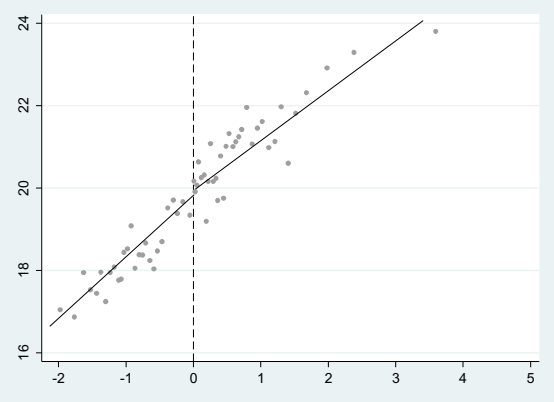


Panel G: Big Four Audit

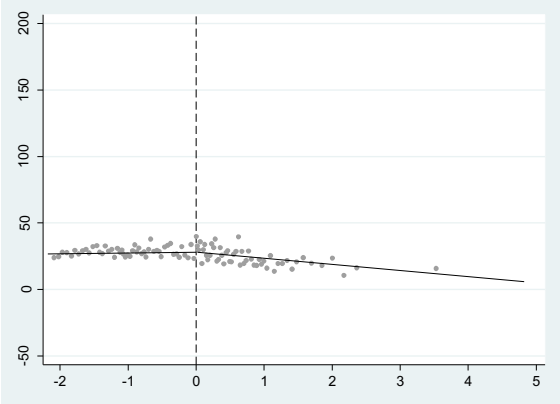


A7: Other IPO variables around the $250 million threshold – *continued*

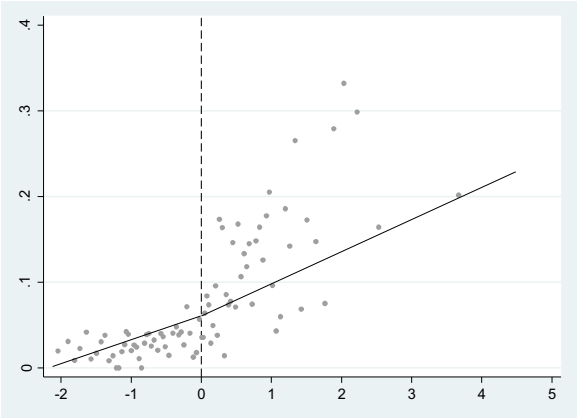
Panel H: ln(Total Assets)



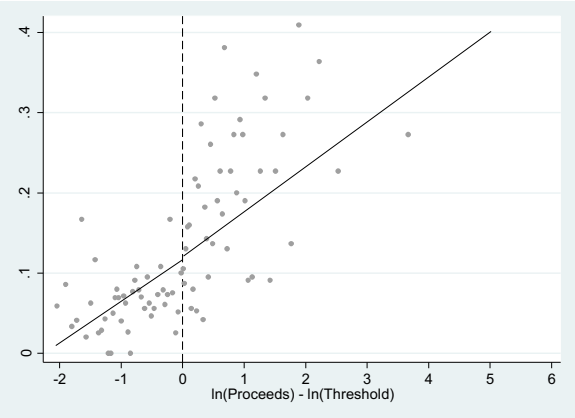
Panel I: EPS Dilution



Panel J: Incentive Ratio



Panel K: Incentive Fees YN



A8: Main results with alternative clustering of standard errors

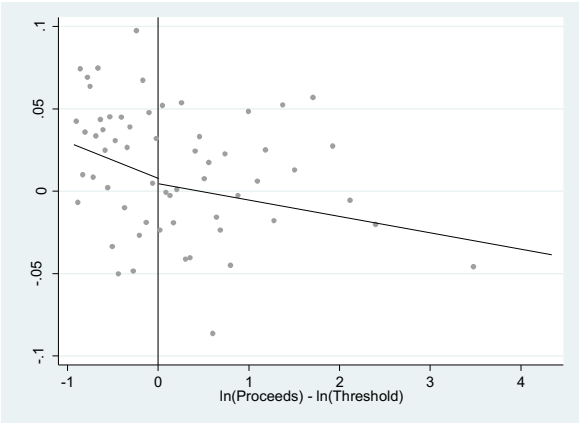
This table re-estimates the main results reported in Tables 6–9, column (4), using two-way clustered standard errors by country and lead-left bookrunner. The magnitudes, signs, and statistical significance of the first- and second-stage coefficients are unchanged relative to the baseline specifications. In particular, the estimated kink in adviser involvement at the $250 million threshold remains strong, and the fitted adviser component continues to exhibit a statistically significant negative association with both first-day returns and offer-price adjustments. The absence of significant associations with underwriting spreads and IPO withdrawals is likewise unaffected. These results indicate that the main findings are not sensitive to alternative assumptions regarding the structure of the error term and are robust to clustering at levels commonly used in the IPO literature.

	Dependent Variable				
	Advised	Offer-price adjustment	First-day return	Spread	Withdrawn
	(1)	(2)	(3)	(4)	(5)
$\hat{p}_i$	0.909***				
	(0.085)				
Advised (instr)		-0.217***	-0.254***	0.781	0.039
		(0.053)	(0.071)	(0.695)	(0.090)
Fixed Effects	Yes	Yes	Yes	Yes	Yes
Regressors	Yes	Yes	Yes	Yes	Yes
Observations	2,955	2,841	2,955	2,310	3,298
R-squared	0.31				

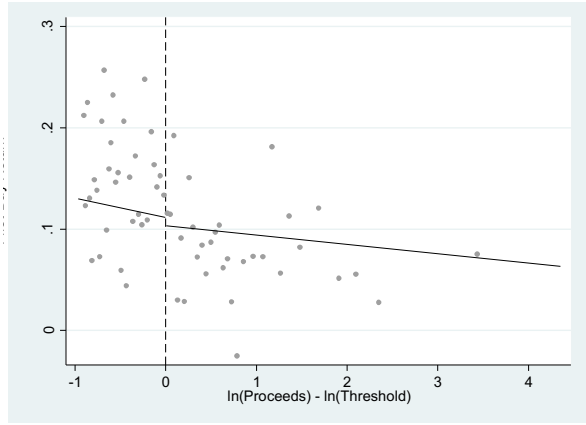
A9: Falsification test on IPO outcomes during 2000-09

This appendix conducts a pre-period falsification test by replicating the main graphical analysis for IPO outcomes using a sample of U.S. and European IPOs from 2000 to 2009. This period predates the widespread use of independent IPO advisers, which became prevalent only after the global financial crisis. Panels A and B replicate Figures 2A and 2B in the main paper, plotting first-day returns and offer-price adjustments, respectively, against deal size relative to the $250 million threshold.

Panel A: Offer-price adjustment



Panel B: First-day return



In line with the historical absence of adviser involvement, neither outcome exhibits a change in slope at the threshold during this earlier period. The absence of kinked patterns in IPO pricing outcomes prior to the emergence of advisers suggests that the relationships suggested in the main sample are not generic features of IPO pricing around this scale. Instead, they appear specific to the institutional environment in which adviser involvement becomes economically relevant.

A10: Falsification test using placebo thresholds

This table reports placebo threshold tests designed to assess whether the suggested pricing patterns are unique to the economically salient $250 million threshold. We re-estimate the main second-stage specifications (Tables 6 and 7, column (4)) using alternative thresholds of $100 million, $200 million, $300 million, and $400 million. These thresholds are not motivated by practitioner heuristics, fee structures, or institutional features of the IPO market.

Panel A: Offer-Price Adjustment

	$100M threshold (1)	$200M threshold (2)	$300M threshold (3)	$400M threshold (4)
Advised (instrumented)	-0.109*	-0.108*	-0.090	-0.078
	(0.060)	(0.059)	(0.059)	(0.058)
Fixed Effects & Regressors	Yes	Yes	Yes	Yes
Observations	2,841	2,841	2,841	2,841

Panel B: First-Day Return

	$100M threshold (1)	$200M threshold (2)	$300M threshold (3)	$400M threshold (4)
Advised (instrumented)	-0.119	-0.100	-0.099	-0.096
	(0.080)	(0.80)	(0.079)	(0.077)
Fixed Effects & Regressors	Yes	Yes	Yes	Yes
Observations	2,955	2,955	2,955	2,955

For Offer-Price Adjustment, coefficients at the $100 million and $200 million thresholds are marginally statistically significant at conventional levels, but their magnitudes are substantially smaller than those estimated at the $250 million threshold. Moreover, these placebo thresholds do not correspond to visible changes in the slope of adviser involvement in the first stage, nor are they supported by survey evidence or theoretical fee considerations.

For First-Day Return, across all placebo thresholds, the fitted adviser component exhibits smaller magnitudes and lacks statistical significance. The absence of robust associations suggests that the first-day return results suggested in the main paper are not driven by generic nonlinearities in offer size.

The placebo threshold tests indicate that the strongest and most economically meaningful pricing patterns coincide with the threshold at which adviser involvement changes sharply. The weaker and less stable results at alternative cut-offs reinforce the interpretation that the main findings are localized to the economically relevant scale motivating the regression-kink analysis.

A11: Estimated coefficients using alternative bandwidths

This table reports sensitivity analyses based on re-estimating the main specifications using progressively narrower bandwidths around the $250 million threshold. Specifically, we restrict the sample to IPOs within 1.5, 1.25, 1.0, and 0.75 log-points of the cut-off. Standard errors are clustered by country and industry.

Panel A: First-Stage

	First-Stage Estimates			
	$h = 1.5$ log-points	$h = 1.25$ log-points	$h = 1$ log-point	$h = 0.75$ log-points
Fitted adviser probability $\hat{p}_i$	0.910***	0.842***	0.935***	0.975***
	(0.135)	(0.150)	(0.173)	(0.221)
Fixed Effects & Regressors	Yes	Yes	Yes	Yes
Observations	2,441	2,160	1,776	1,365
R-squared	0.31	0.30	0.32	0.33
Weak ID test				
- KP Wald rk F statistic	45.34	31.63	29.37	19.44
- Stock-Yogo weak ID test critical values	10% max IV size = 16.38; 15% max = 8.96; 20% max = 6.66; 25% max = 5.53			

Panel B: Second-Stage

	Coefficient on Advised (instrumented)			
Dependent Variable:	$h = 1.5$ log-points	$h = 1.25$ log-point	$h = 1$ log-point	$h = 0.75$ log-points
Offer-price adjustment	-0.119***	-0.120***	-0.115***	-0.094**
	(0.045)	(0.048)	(0.045)	(0.054)
First-day return	-0.215***	-0.181***	-0.190***	-0.155**
	(0.077)	(0.071)	(0.070)	(0.067)
Fixed Effects & Regressors	Yes	Yes	Yes	Yes
Observations	2,441	2,160	1,776	1,365

Panel A reports first-stage estimates of adviser involvement across bandwidths. The estimated change in slope at the threshold remains strong and statistically significant throughout. First-stage diagnostics indicate that the fitted adviser component remains well identified even as the sample is restricted to observations closer to the threshold. While the Kleibergen–Paap F-statistic declines mechanically with sample size, it remains above conventional weak-identification thresholds at all bandwidths considered. Panel B reports second-stage estimates for offer-price adjustments and first-day returns. Coefficient estimates are stable in sign and economically similar across bandwidths. As the bandwidth narrows, precision declines, reflecting the reduced number of observations available to estimate slope changes on either side of the threshold. Nevertheless, statistically significant associations persist down to a 0.75 log-point bandwidth. These results illustrate the inherent trade-off in regression-kink designs between local focus and statistical power. The persistence of economically meaningful coefficients across bandwidths indicates that the suggested pricing patterns are not driven by observations far from the threshold and are robust to reasonable choices of the estimation window.

A12: Results including Spread as an additional regressor

This table re-estimates the main specifications including underwriting spread as an additional control. The first stage remains strong, and the fitted adviser component continues to be negatively associated with first-day returns and offer-price adjustment, indicating that the documented pricing patterns are not subsumed by underwriting fees.

	First-Stage Dependent Variable:	Second-Stage Dependent Variable:	
	Advised	Offer Price Adjustment	First-Day Return
	(1)	(2)	(3)
Fitted adviser probability $\hat{p}_i$	0.930***		
	(0.080)		
Spread	-0.013		
	(0.008)		
Advised (instrumented)		-0.137**	-0.334***
		(0.067)	(0.062)
Spread		0.045**	0.040***
		(0.021)	(0.014)
Fixed Effects & Regressors	Yes	Yes	Yes
Observations	2,263	2,237	2,263
R-squared	0.36		
K-P Wald rk F	135.78		
Anderson-Rubin F(1, 18) p-val.	0.0000		

A13: Results using U.S. IPOs only

This table re-estimates the main specifications using U.S. IPOs only, clustering standard errors by industry. The first stage remains strong, and weak-instrument–robust inference based on the Anderson–Rubin test rejects the null of no effect on first-day returns. The estimated coefficient for offer-price adjustment remains negative but is less precisely estimated in the smaller U.S.-only subsample.

	First-Stage Dependent Variable:	Second-Stage Dependent Variable:	
	Advised	Offer-price adjustment	First-Day Return
	(1)	(2)	(3)
Fitted adviser probability $\hat{p}_i$	1.077***		
	(0.185)		
Advised (instrumented)		-0.027	-0.291***
		(0.058)	(0.081)
Fixed Effects & Regressors	Yes	Yes	Yes
Observations	1,841	1,841	1,841
R-squared	0.25		
K-P Wald rk F	33.80		
Anderson-Rubin F(1, 24) p-val.	0.0001		

A14: Stylized Illustration of IPO Pricing Dynamics

This figure provides a stylized comparison of two IPO execution approaches for an otherwise identical firm. In both cases, the first-day closing price is $16, serving as a proxy for the firm's revealed post-IPO value. Under the advised approach, the filing range is $11.5–14.5, the marketed price range is $12–15, and the offer price is $14.5. Under the non-advised approach, the filing range is $10–12, the marketed price range is $12–14, and the offer price is $14. As a result, both the offer-price adjustment and the first-day return are larger under the non-advised approach than under the advised approach. The figure is intended for illustrative purposes only and abstracts from deal-specific heterogeneity.

