

Dual-Class Contracting—A Response to Roberto Tallarita

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INTRODUCTION

Roberto Tallarita’s *Dual-Class Contracting* confronts a question that scholars and policymakers have largely overlooked: once a firm opts out of “one-share, one-vote,” how does it determine the *degree* and *duration* of voting inequality? This is not a binary choice between single- and dual-class structures, but a continuum with infinitely many possible configurations. To investigate this question, Tallarita assembled a dataset of 293 corporate charters from dual-class IPOs completed between 1996 and 2022.¹ Despite the wide latitude firms have to tailor these arrangements, he finds that most converge on strikingly similar terms—granting holders of high-vote stock majority control with just 9–10% of the equity.² This clustering is difficult to reconcile with traditional theories of contractual optimization, which predict that firms will select governance structures that reflect their unique characteristics. Instead, Tallarita argues that issuer counsel—serving as custodians of prevailing “market norms”—are the primary drivers of this result. In his account, variation in dual-class structures arises not from bespoke negotiation, but from occasional “mutations” introduced by norm entrepreneurs (such as Google’s dual-class IPO in 2004) that rapidly diffuse across law firm networks.

The remainder of this response is organized as follows. First, I describe the Article’s contribution to empirical scholarship on dual-class structures. Second, I examine two sources of unobserved heterogeneity that complicate Tallarita’s argument: (i) differences between firms that adopt a dual-class structure and those that do not, and (ii) variation in the percentage of equity retained by founders at the time of the IPO. To supplement Tallarita’s findings, I draw on data from my recent study of CEO turnover at dual-class firms, which reveals greater variation in actual voting control than the charter terms alone would

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1. Roberto Tallarita, *Dual-Class Contracting*, 49 J. CORP. L. 971, 975 (2024).

2. *Id.* at 976. In this response piece I focus most of my comments on the degree of voting inequality, not on its duration. Tallarita finds that the duration of the dual-class arrangement is also clustered, but the modal arrangement changes over time.

suggest.³ Third, I explore when we should expect lawyer-driven norms, as opposed to market forces, to be the primary driver of contractual standardization. Specifically, I argue that dual-class voting arrangements appear to have no clear effect on shareholder value at the IPO stage, creating space for lawyer-driven norms to influence governance terms.

I. EMPIRICAL CONTRIBUTION

A dual-class IPO occurs when a firm goes public with multiple classes of common stock—typically, one class with a single vote per share sold to the public and another high-vote class retained by corporate insiders. Academics have long debated the normative implications of dual-class voting structures. Some argue these arrangements entrench corporate insiders, disenfranchising minority shareholders and insulating managers from accountability to investors.⁴ Others contend they protect founders’ idiosyncratic visions from market short-termism, thus enabling long-term strategic planning.⁵ The contemporary debate has focused on an uptick in dual-class IPOs over the past decade among prominent technology companies. Yet, until recently, discussions largely relied on anecdotal evidence—such as Mark Zuckerberg’s control over Meta (formerly Facebook)—or merely documented the existence of dual-class structures without examining their substantive characteristics.⁶

A study by Aggarwal et al. is the first to systematically investigate the control arrangements found in dual-class IPOs (hereafter “AEHL”).⁷ Their paper, *The Rise of Dual-Class Stock IPOs*, published in the *Journal of Financial Economics*, found that the increased use of dual-class IPOs is driven by founder-led technology firms.⁸ Founders, however, are not the only party holding high-vote stock. Indeed, AEHL document that controlling blocks are sometimes held by VC or PE funds, holding companies, or shared among various parties.⁹

For each controlling shareholder, AEHL measure the divergence or “wedge” between the shareholder’s voting rights and cash flow rights caused by the dual-class arrangement.¹⁰ To illustrate, a founder’s high-vote stock might give her 40% of the voting rights and 10%

3. See generally Yifat Aran, Brian Broughman & Elizabeth Pollman, *CEO Turnover at Dual-Class Firms* (Eur. Corp. Governance Inst., L. Working Paper No. 839, 2025).

4. See Lucian A. Bebchuk & Kobi Kastiel, *The Untenable Case for Perpetual Dual-Class Stock*, 103 VA. L. REV. 585, 631 (2017).

5. Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560, 617 (2016).

6. For a survey of older empirical research related to dual-class equity and other mechanisms that decouple voting interest from economic interest see Renée Adams & Daniel Ferreira, *One Share-One Vote: The Empirical Evidence*, 12 REV. FIN. 51 (2008). See also Scott B. Smart, Ramabhadran S. Thirumalai & Chad J. Zutter, *What’s in a Vote? The Short- and Long-Run Impact of Dual-Class Equity on IPO Firm Values*, 45 J. ACCT. & ECON. 94 (2008).

7. See generally Dhruv Aggarwal et al., *The Rise of Dual-Class Stock IPOs*, 144 J. FIN. ECON. 122 (2022). Earlier research measured the gap between voting power and economic rights for officers and directors at dual-class firms. See, e.g., Paul A. Gompers, Joy Ishii & Andrew Metrick, *Extreme Governance: An Analysis of Dual-Class Firms in the United States*, 23 REV. FIN. STUD. 1051 (2010). This work, however, preceded the recent wave of dual-class IPOs and does not identify the full range of parties who hold high-vote stock.

8. See generally Aggarwal et al., *supra* note 7.

9. *Id.* at 124, 129.

10. *Id.* at 124, 130 fig.3.

of the economic rights at the close of the IPO, implying a +30% wedge.¹¹ The wedge is a snapshot that measures the gap between a specific investor's voting rights and economic interest at a point in time—typically the moment of the IPO.

By contrast, Tallarita's empirical analysis focuses on governance rights included in the IPO charter, not on the holdings of any particular investor.¹² For each firm, his study measures the "control lock"—the minimum equity stake needed to obtain majority voting control.¹³ Unlike the wedge, which is investor-specific and changes over time, the control lock is based on the formal terms of the charter. It captures the potential degree of voting inequality embedded in the firm's governance documents regardless of who actually holds the high-vote shares. In this way, the control lock serves as an ex-ante measure of voting asymmetry that shareholders have consented to.

Tallarita's empirical results pose a direct challenge to the contractarian theory of the firm, which conceptualizes governance terms in IPO charters as components of an efficient "contract" designed to attract outside investors.¹⁴ According to this view, a firm's IPO charter is an efficient contract between the firm's insiders and outside investors, with governance terms tailored to the firm's individual circumstances.¹⁵ It is therefore puzzling, from a contractarian perspective, that firms choosing to adopt a dual-class structure—having already borne the costs of deviating from the default one-share-one-vote rule—tend to converge on remarkably similar voting arrangements. Some uniformity might be expected at the *extensive margin*—that is, in the initial decision whether to adopt a dual-class structure at all. There are transaction costs associated with opting out of the default voting arrangement.¹⁶ But once that threshold is crossed, contractarian theory would predict greater variation at the *intensive margin*, with the specific terms of the dual-class arrangement tailored to the particular needs of each firm.

II. UNOBSERVED HETEROGENEITY

By focusing exclusively on charters and not recording the voting rights of individual shareholders or differences between single- and dual-class firms, Tallarita overlooks important sources of variation relevant to a full understanding of norms related to IPO bargaining. To present a more complete picture, I supplement Tallarita's analysis with data from my study (co-authored with Aran and Pollman) of CEO turnover at dual-class firms. Our study is limited to venture-backed firms, but it includes both dual- and single-class

11. At a single-class firm there is no wedge, as each share provides a single vote.

12. Tallarita, *supra* note 1, at 975–76.

13. The concept of a control lock was first introduced in Lucian A. Bebchuk & Kobi Kastiel, *The Perils of Small-Minority Controllers*, 107 GEO. L.J. 1453 (2019).

14. See generally Frank H. Easterbrook & Daniel R. Fischel, *Voting in Corporate Law*, 26 J.L. & ECON. 395 (1983).

15. See *id.*

16. There are clear marginal costs associated with crossing the *extensive margin*. For instance, under corporate law, firms must amend their charters to authorize a second class of stock and specify the rights, preferences, and privileges of each class. See DGCL § 102(a)(4). Using a dual-class structure also creates additional disclosure obligations in the firm's IPO prospectus. But, once that decision is made, there appears to be no meaningful marginal cost at the *intensive margin*. It is hard to see any additional burden—legal, administrative, or economic—associated with giving Class B stock 15 votes per share rather than 10 votes per share.

IPOs. The sample is otherwise similar to the firms studied by Tallarita.¹⁷ For current purposes, an advantage of our study is it includes both formal rights contained in the charter and measures the shareholdings and wedge of each firm's CEO (typically a founder).

III. VARIATION BETWEEN SINGLE- AND DUAL-CLASS IPOs

Tallarita's study exclusively analyzes dual-class IPOs and does not include or provide summary statistics for single-class IPOs. This choice is understandable, given that many of the governance features he analyzes—such as sunset provisions and differential voting ratios—only exist if a firm has multiple classes of stock. For single-class IPOs, the control lock defaults to 50% equity.

However, omitting single-class IPOs from the analysis creates several challenges. Dual-class firms differ markedly from their single-class counterparts. Among venture-backed IPOs, “the average market cap for dual-class firms is a full order of magnitude higher than for single-class firms (\$23.3 billion vs \$1.9 billion).”¹⁸ They also tend to have more assets and employees and are in different industries—dual-class firms are more likely to operate in technology or software, whereas single-class IPOs are more common among health, bioscience, and pharmaceutical companies.¹⁹ To illustrate, Figure 1 sorts firms into deciles based on their market capitalization at IPO and plots the probability that a firm chooses a dual-class structure. Firms in the top decile of market capitalization are more than twice as likely to use a dual-class structure.

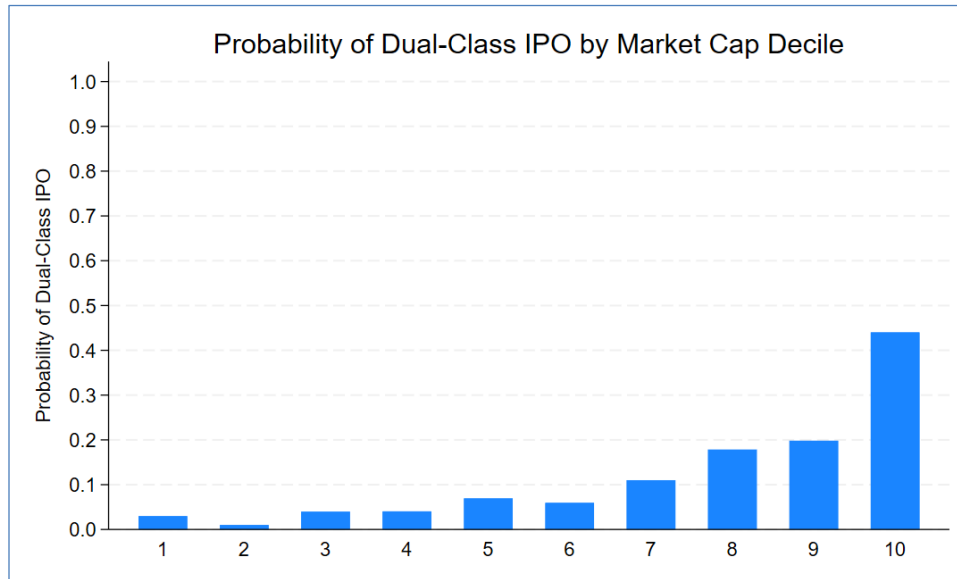
Figure 1: Probability of Dual-Class Sorted by Market Capitalization

For venture-backed IPOs from 2002 to 2022, this graph plots the likelihood of a dual-class voting structure sorted by each firm's market capitalization at the time of its IPO. Data comes from Aran, Broughman and Pollman (2025).

17. We collect data for all VC-backed dual-class IPOs that went public between 2002 to 2020. Similar to Tallarita, we start with Jay Ritter's database and then filter out firms that issue multiple classes of equity but do not involve high-vote stock.

18. Aran, Broughman & Pollman, *supra* note 3, at 8.

19. *Id.*



By excluding single-class firms, Tallarita’s study may mistakenly attribute the observed convergence in control lock thresholds and other charter terms to market norms.²⁰ An alternative explanation is that firms that choose a dual-class structure may differ in important ways from other IPO firms, such that they are particularly inclined to use the standard dual-class arrangement (i.e., 9–10% control lock).²¹ Under this account, clustering of contract terms is driven by selection rather than market norms.

Consider a counterfactual example: imagine a firm typical of the single-class group—a small pharmaceutical startup with modest market capitalization, few employees, and limited assets. If this firm decided to go public with dual-class stock, would “market norms” necessarily push it toward the same 10:1 voting ratio observed among larger tech IPOs? Perhaps, but it is also possible that such a firm would choose a different configuration more suited to its unique situation. Since smaller firms, like this hypothetical, are rarely present in the dual-class cohort, we do not know. The fact that these smaller firms typically opt for single-class structures implies that the decision at the extensive margin—whether to use dual-class or not—might overshadow convergence observed at the intensive margin (specific dual-class charter terms).

An alternative way to understand the impact of excluding single-class IPOs is to imagine a functionally identical arrangement. Imagine each single-class IPO were to instead create two *identical* classes of common stock: Class A and Class B. Each class gets “one-share one-vote,” there are no special rights, and they vote together on all matters. Functionally nothing has changed—this is single-class in substance reimagined as dual-class. But now we can measure the voting ratio (1:1) and control lock (50%) for these reimagined firms and compare them to actual dual-class IPOs. A benefit of this reframing is that it collapses everything to the intensive margin. We do not have to ask the preliminary

20. Tallarita, *supra* note 1, at 1030–31.

21. To be sure, this alternative account cannot explain the *precise* clustering at a 10:1 vote ratio instead of 9:1 or 11:1, for instance.

question of whether the firm chose dual- or single-class. We just ask about the voting ratio and control lock.

This reframing would allow Tallarita to include single-class firms in several of the Article's tables and figures. For instance, the histograms reported in the Article²² could be redone as a series of bimodal distributions where the vast majority of IPO firms pick either a 50% control lock or a 9.09% control lock. Some of the subsamples included in that figure—tech firms, founder-controlled firms, large firms, etc. would likely result in a very different distribution if the single-class cohort were included. For instance, it appears firms in the top quartile by market cap are about two- to three-times more likely to use a dual-class structure than firms with a smaller market cap, suggesting that the likelihood of a 9–10% control lock will be much higher for this group.

More importantly, the “functionally identical” reframing uncovers significant variation in charter terms, but the variation is almost entirely a choice between a 50% control lock and a 9–10% control lock. This suggests a deeper puzzle: why does the decision whether to adopt dual-class governance appear to be more consequential and responsive to market forces than the specific voting arrangement selected for the subset of firms that opt into a dual-class structure?

My sense is that Tallarita's argument in favor of market norms rather than bespoke contracting is better at explaining the lack of variation on the intensive margin than it is at explaining whether firms will choose a dual-class structure in the first place. I say this for a couple of reasons. First, founders at highly valued startups likely have more bargaining power in the IPO negotiations than founders of less valuable firms. As argued by Ofer Eldar, for large unicorn firms, the practical alternative to a dual-class IPO is not a single-class IPO but rather staying private and raising an additional round of PE/VC funding.²³ Founders of unicorn firms can credibly threaten to walk away from IPO negotiations if their demands are not met. In contrast, at a smaller firm with a lower valuation, the ability to raise additional private funding may not be a credible threat.

Do founders at smaller firms not know that they could request dual-class structures, do they value them less than founders at larger firms, or do they make such requests but find themselves blocked? I think it is more plausible that founders at smaller firms do not push the dual-class issue (or bring it up at all), not because of ignorance, but because they do not have bargaining power to walk away from the IPO if anyone objects.

Second, once the parties decide to use a dual-class structure, figuring out the details of this arrangement (sunsets, transferability, conversion triggers, vote ratios, etc.) clearly involves the issuer's legal counsel as the main party drafting the offering documents. Working out these details allows such lawyers to introduce “market norms” and standardize the terms. By contrast, the preliminary decision of whether to use dual-class at all may occur among non-lawyer parties. Furthermore, even if a founder consults their lawyers at this preliminary stage, the most the lawyer can say is whether “dual-class” is a reasonable request for their firm.²⁴

22. Tallarita, *supra* note 1, at 1000 fig.4.

23. See Ofer Eldar, *Dual-Class IPOs: A Solution to Unicorn Governance Failure* 7–8 (Eur. Corp. Governance Inst., L. Working Paper No. 741, 2023).

24. While one could still interpret this as a market norm enforced by issuer counsel, doing so would cast lawyers in the uncomfortable position of gatekeepers, effectively informing some founders that their company is insufficiently valuable or successful to even warrant consideration of dual-class governance.

Third, dual-class IPOs account for only about 13% of all IPOs completed during the time period covered by Tallarita's article (1996 and 2022).²⁵ Most founders are unable to get this protection. This fact makes it a bit strained to characterize the use of dual-class itself as a "market norm." At best, it represents a selective norm applicable only to a subset of high-valued tech firms. Conditional on using a dual-class IPO, Tallarita's analysis provides strong evidence that charter terms, especially the voting ratio, cluster around a "market norm."

IV. VARIATION IN FOUNDER EQUITY HOLDINGS

Using data from the dual-class firms in my study, Figure 2, shown below, reports the distribution of the founder's wedge. Not all founder-CEOs are controllers, and consequently, the founder wedge is often modest (less than 2%).²⁶ The more important takeaway from Figure 2, however, is that there is no obvious clustering. Compare this with Figure 2 from Tallarita,²⁷ which shows that 62% of his sample firms cluster with a control lock between 9% and 10%.

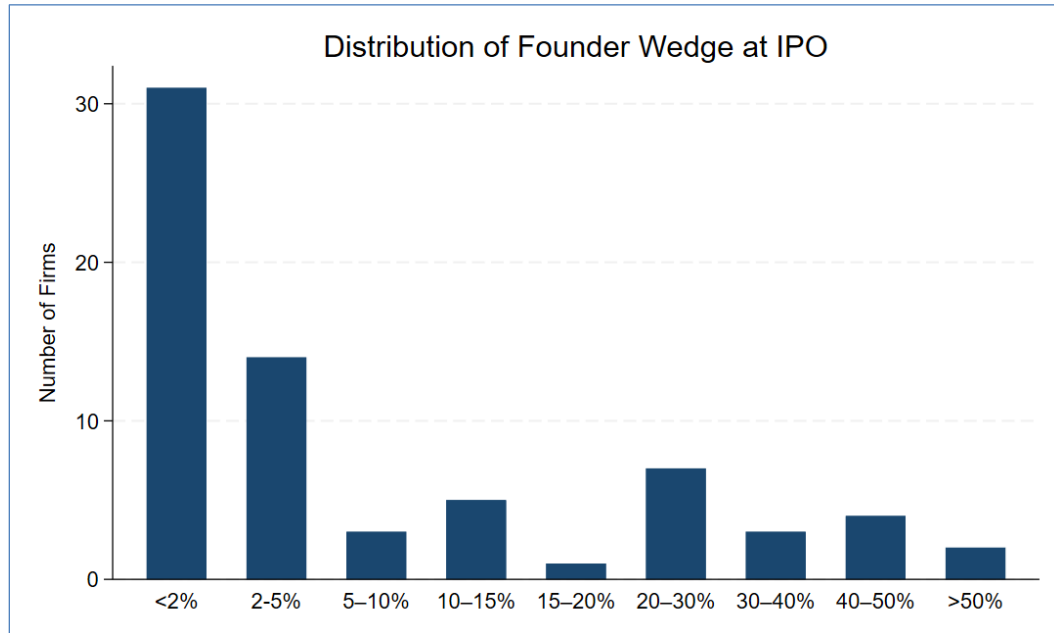
Figure 2: Distribution of Founder-CEO Wedge at IPO

This graph plots the distribution of the "wedge" held by the founder-CEO at the completion of the IPO. Data are limited to VC-backed dual-class IPOs from 2002 to 2022, in which a founder was CEO at the close of the IPO. Aran, Broughman and Pollman (2025).

25. See JAY R. RITTER, INITIAL PUBLIC OFFERINGS: DUAL CLASS STRUCTURE OF IPOs THROUGH 2024 (2025) (data on dual-class IPOs).

26. AEHL only report the founder wedge for firms that have a founder as controller. Aggarwal et al., *supra* note 7, at 122. Limited to founder-controllers, they report an average founder wedge of approximately 26% with a standard deviation of 18%. *Id.* at 129.

27. Tallarita, *supra* note 1, at 996 fig.2.



Given that the wedge and the control lock both measure voting inequality, what explains this difference? It is not a difference in formal charter terms. Compared to Tallarita, we found a similar percentage of dual-class IPOs with a 10:1 vote ratio (corresponding to a 9–10% control lock).²⁸ Rather, variation in the wedge appears to stem from underlying variation in the percentage of equity held by the founder-CEO at the time of the IPO. When the founder-CEO holds a large block of stock, the size of the wedge is amplified.

The founder's economic interest, in turn, is largely a function of how much outside equity the firm raised prior to (or in connection with) its IPO. Outside investors demand a portion of the firm's residual returns, diluting the founder's ownership percentage. Since different firms have different capital needs, a founder's residual ownership interest is not especially informative about the founder's quality or strategic importance. A founder whose idiosyncratic vision is important to the firm may nonetheless hold a relatively small ownership interest due to significant prior dilution and vice versa. Dual-class charters could theoretically adjust for this by strategically awarding critical founders a higher vote ratio or adjusting the vote ratio based on dilution from outside financing. However, Tallarita finds limited support for such tailoring.²⁹ At dual-class firms, most founders receive the same 10x vote ratio regardless of the extent of pre-IPO dilution—underscoring the salience of this ratio as a market norm.

28. We found 58 out of the 79 dual-class IPOs in our study gave 1 vote per share to class A and 10 votes per share to class B. The 10x multiple for high vote stock typically results in a control lock equal to 9.09%. Email conversation with Roberto Tallarita, Assistant Professor, Harv. L. Sch and Brian Broughman, Professor of L., Vand. U.L. Sch. (May 9, 2025, 4:40 ET) (on file with Author). This follows since $x = .0909$ solves the following equation $\frac{10x}{(1-x)+10x} = .5$. To be sure, some of the 58 firms in our study that had a 10:1 vote ratio sample may have included an equity-based sunset (a provision we did not code) that would lead to a different control lock.

29. See Tallarita, *supra* note 1, at 1001 tbl.5.

In addition to pre-IPO events, the size of a controller's wedge also changes *after* the IPO. Tallarita, for instance, examines the 20 largest firms in his sample and finds that the controller's wedge typically increases in the five years following the IPO.³⁰ This raises an important question: how much of the post-IPO increase in voting inequality is attributable to the control lock (and the vote ratio) negotiated at the time of the IPO?

Indeed, one prediction extending from Tallarita's analysis is that a smaller control lock at IPO may facilitate greater voting inequality over time.³¹ Even if no one holds a large wedge at the time of the IPO, a controlling position can be assembled later. Tallarita provides anecdotal evidence from the 20 largest firms in his sample, suggesting that this kind of post-IPO consolidation of voting power does occur.³² But how widespread is this pattern?

Among VC-backed firms, much of the post-IPO increase in voting power stems from VC investors—who typically hold high-vote stock—selling their shares, which then automatically convert into low-vote shares. This automatic conversion reduces the pool of high-vote shares and, in turn, increases the founder's relative share of the vote. In our study, we found that dual-class CEO's share of the vote increased by approximately eight percentage points on average in the three years after the IPO, a period that roughly corresponds to the expected timeline for VCs to sell their shares after an IPO.³³ While this sell-down is typically anticipated at the time of the IPO,³⁴ less is known about other sources of post-IPO consolidation. Outside the VC exit context, how frequently—and by what magnitude—does the controller's wedge increase? Future research could examine whether particular terms of dual-class charters are associated with significant post-IPO shifts in controller voting power.³⁵

V. NORMS OR MARKETS

Tallarita's argument that market norms play a significant role in standardizing dual-class charter terms is compelling and well-supported by both quantitative data and

30. *Id.* at 985 fig.1.

31. Ultimately, the control lock is an interesting concept because it can enable a large wedge based on a small ownership interest. For instance, a 9% control lock implies that an investor holding as little as 9% of the outstanding equity could still control 50% of the vote—implying a +41% wedge.

32. See Tallarita, *supra* note 1, at 985–86 (discussing findings of his study).

33. See Aran, Broughman & Pollman, *supra* note 3, at 143 fig.7. For studies looking at the timing of VC (& PE) exit, see Anup Basnet et al., *VC Ownership Post-IPO: When, Why, and How do VCs Exit?*, 48 J. FIN. RSCH. 73 (2025); see also Tim Jenkinson, Howard Jones & Christian Rauch, *Long Goodbyes: How do Private Equity Funds Manage Sell-Downs after Initial Public Offerings?*, (Dec. 2024) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3753480.

34. Tallarita calculates the IPO control lock as if all VCs have already sold their positions, converting the shares into standard 1x vote common. Email from Roberto Tallarita, Assistant Professor, Harv. L. Sch., to Brian Broughman, Professor of L., Vand. U. L. Sch. (May 9, 2025, 4:40 ET) (on file with author).

35. To my knowledge, the article that comes closest to addressing this is Martijn Cremers, Beni Lauterbach & Anete Pajuste, *The Life Cycle of Dual-Class Firm Valuation*, 13 REV. CORP. FIN. STUD. 459 (2024) (showing that the wedge increases in the post-IPO period). My article on CEO turnover addresses a related issue. Aran, Broughman & Pollman, *supra* note 3. We find that dual-class CEOs (most of whom are founders) have a median post-IPO tenure of 6.6 years. *Id.* at 1. To be sure, even after a founder leaves the CEO position, they may retain considerable voting power and influence at their former firm. *Id.* at 5. However, in other cases the founder leaves to found a new company and/or otherwise appears to become less involved at the original firm. *Id.*

qualitative interviews with IPO lawyers. I find little reason to disagree. Nonetheless, I wonder why norms exert such a powerful influence here, while in other contracting contexts, market forces typically drive greater variation in terms. What makes dual-class charter terms especially susceptible to norm-driven standardization?

On this point, I suggest an explanation that complements Tallarita's account of lawyer-driven norms. Specifically, lawyer-driven norms persist because dual-class voting structures have minimal effect on shareholder value at the IPO stage. As one of the IPO lawyers interviewed by Tallarita remarked, "nobody can ever say whether a dual-class feature hurts [the price] or not."³⁶ Another interview respondent noted that bankers cannot model the price discount associated with dual-class.³⁷ Uncertainty regarding the impact of dual-class on shareholder value is not limited to bankers. Theorists disagree on whether dual-class structures have a positive or negative impact on shareholder returns, and empirical research provides mixed evidence. Cremers, Lauterbach and Pajuste, for instance, find that dual-class firms initially trade at a valuation premium shortly after the IPO, but this premium dissipates over time and ultimately reverses into a discount.³⁸

All of this begs the question, how would contracting over dual-class IPOs have unfolded if there were clear evidence that it harmed shareholders? If underwriters were able to model a clear price discount associated with dual-class, would we still expect standardization around the 10x vote ratio, or would founders who place a higher value on the private benefit of control be willing to pay for it by agreeing to a lower IPO price?

36. Tallarita, *supra* note 1, at 1018.

37. *Id.*

38. Martijn Cremers, Lauterbach & Pajuste, *supra* note 35, at 461; *see also* Hyunseob Kim & Roni Michaely, *Sticking Around Too Long? Dynamics of the Benefits of Dual-Class Voting* (Eur. Corp. Governance Inst., L. Working Paper No. 590, 2019) (documenting that younger dual-class firms initially enjoy a valuation premium, which declines as these firms become less efficient over time).