DETERMINANTS OF DUAL-CLASS INITIAL PUBLIC OFFERINGS: EVIDENCE OF A POST-2014 STRUCTURAL SHIFT

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Abstract

This paper investigates the determinants of dual-class share initial public offerings (IPOs) in the United States (U.S.), with a focus on how these drivers have changed over time. By dividing the sample into two periods, before and after 2014, we find a structural shift in the firm characteristics associated with dual-class IPOs. Logistic regression results show that, while many traditional predictors remain stable or insignificant across periods, the technology sector emerges as a key driver in the post-2014 sample, with a strong and statistically significant positive effect on the likelihood of adopting a dual-class structure. This contrasts with the pre-2015 period, in which technology affiliation showed no such influence. Venture capital backing does not appear to play a significant role in either period. Our findings suggest that since 2014, the dual-class IPO landscape has evolved in response to changing market dynamics, particularly reflecting the rise of high-growth technology firms and shifting norms around control and governance at the time of going public. These insights contribute to the ongoing discussion around dual-class structures and their implications for capital market development.

Keywords: Dual-Class Shares, Initial Public Offerings (IPOs), Corporate Governance, Ownership Structure

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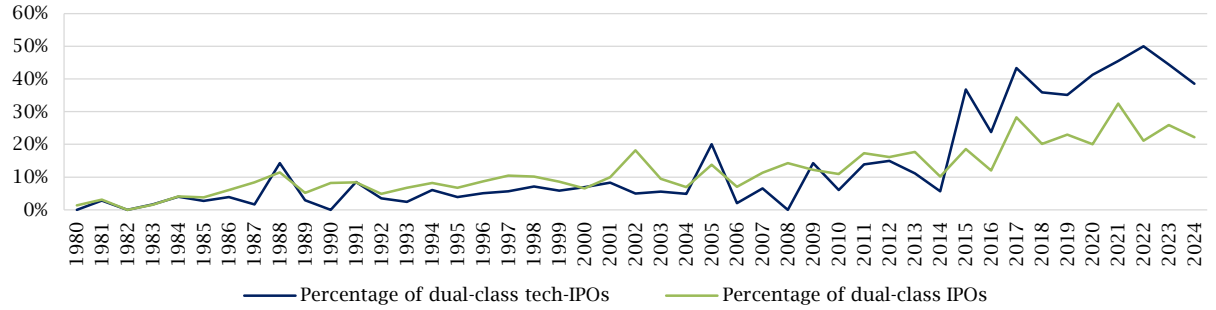
1. INTRODUCTION

The share structure of a company is important for determining its corporate governance mechanisms and influencing overall strategic decisions. Share structures change how voting rights and cash flow rights are allocated among shareholders. This influences decision-making processes and enables powerful shareholders to overrule other shareholders within the firm. A fixed distribution between voting and cash flow rights is called the one-share-one-vote principle, and it is the traditional governance scheme for many companies. This is believed to ensure fairness and is commonly assumed to be the optimal governance scheme (Harris & Raviv, 1988).

In recent years, however, dual-class share structures have become increasingly prominent, particularly among founder-led firms and within high-growth sectors such as technology (Aggarwal et al., 2022), as seen in Figure 1. These structures allow firms to issue multiple classes of shares with different voting rights, enabling a small group of insiders to maintain control while holding a relatively small share of the company's equity. Proponents argue that this control mechanism allows founders to pursue long-term strategies and resist short-term pressures from public markets (Chemmanur & Jiao, 2012). As a result, dual-class structures are often seen as particularly attractive for firms with a strong visionary leadership or a heavy focus on innovation.

Figure 1. Dual-class initial public offerings (IPOs) in American markets



Source: Adapted from Ritter (2025).

At the same time, the overall number of IPOs in the United States (U.S.) has declined significantly over the past decade (Gao et al., 2013). Despite this reduction in IPO activity, the relative share of firms going public with a dual-class structure has increased. This development suggests that the dual-class model has become more appealing under current market conditions, particularly for firms seeking to retain founder control and pursue long-term strategic goals.

Motivated by this apparent shift, our research question is as follows:

RQ: Have the firm-level determinants of adopting a dual-class share structure at IPO changed over time, and how has the profile of adopting firms evolved following the recent surge in dual-class IPOs?

The growing prevalence of dual-class IPOs points to a broader shift in governance preferences among private firms preparing to enter public markets. Understanding what drives this shift and which firm characteristics are associated with the adoption of dual-class structures is essential for evaluating the implications for corporate governance, investor protection, and capital market dynamics.

Based on the developed research question, this paper investigates the firm-level determinants of dual-class share adoption at the time of IPO, with a particular focus on how these drivers have changed over time. The empirical analysis is based on a sample of firms that conducted an IPO on American stock exchanges between 1991 and 2023. The IPO data is retrieved from the Ritter database, which serves as a widely used and reliable source for IPO classification. To capture potential structural shifts in the use of dual-class shares, we divide the sample into two periods: IPOs before 2015 and those from 2015 onward. This division is motivated by a noticeable increase in high-profile dual-class IPOs around 2014 and 2015 (Ritter, 2025). Using a logistic regression framework, we examine how firm characteristics, including industry affiliation, venture capital involvement, and ownership structure, influence the likelihood of adopting a dual-class structure at the time of listing. By comparing the determinants across the two subperiods, the analysis identifies evolving patterns in governance preferences and strategic priorities. The results indicate that while some predictors remain stable over time, technology sector affiliation becomes a significantly stronger determinant of dual-class adoption after 2014, whereas variables such as venture capital backing and family ownership show limited or inconsistent effects.

Our findings have important implications for understanding the changing dynamics of corporate control in public markets, thus shedding light on how firms adapt their governance structures in response to shifting market conditions and investor expectations. Beyond highlighting this evolution, the results suggest that dual-class firms should not be treated as a homogeneous category. They differ fundamentally not only from one-share-one-vote firms but also among themselves, depending on when and under which conditions they went public. Future research should, therefore, account for this heterogeneity, recognizing that the profile and motivations of dual-class adopters evolve over time.

The remainder of this paper is structured as follows. Section 2 presents a review of the relevant literature on dual-class shares and IPO governance. Section 3 outlines the nature of the sampled data and presents the methodology used. Section 4 provides the main results and interprets them in light of the research question. Finally, Section 5 concludes by summarizing the key findings and discussing their implications for future research and policy.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Ownership in dual-class firms

Ownership plays an important role in the context of dual-class IPOs, because one of the main purposes of dual-class structures is to retain control of firms. Two topics are particularly discussed in the literature: 1) family involvement and 2) venture capital backing. Theory and evidence are focused on whether dual-class firms are more likely to occur in family-owned firms and how family involvement and venture capital-backing influence firm performance.

Family firms frequently adopt dual-class structures to retain control across generations without holding a majority equity stake, while allowing family members to occupy multiple top management positions (DeAngelo & DeAngelo, 1985). In addition to controlling retention, dual-class shares can serve as a protective mechanism against hostile takeovers (Amoako-Adu & Smith, 2001). Although this perspective slightly expands on the earlier view, both explanations emphasize the role of control preservation in firms with concentrated ownership. Similar arguments apply to founder-led firms, where dual-class structures are used to safeguard the founder's leadership and long-term vision from short-term external pressures (Chemmanur & Jiao, 2012). These perspectives converge on the idea that founder or family involvement is positively associated with the adoption of dual-class structures.

Empirical evidence supports this theoretical link. Smith and Amoako-Adu (1999) show that Canadian family firms use dual-class structures to access external equity without surrendering control. More recently, Aggarwal et al. (2022) demonstrate that founder-led firms are significantly more likely to go public with a dual-class structure and have been a major driver of the growing prevalence of such IPOs. Further studies highlight that founder or family involvement can enhance post-IPO performance, as these actors often pursue long-term strategic goals, bring valuable firm-specific knowledge, and retain stronger bargaining power during the IPO process (Andres, 2008; Shi et al., 2022). On the other hand, Anderson et al. (2025) argue that investors of family firms with a dual-class structure expect a risk-premium which is associated not with dual-class firms alone, but solely with family-led dual-class firms, thus indicating an increased expectancy of monitoring costs, especially from institutional investors. Family firms are additionally more prone to adopt control-enhancing mechanisms such as loyalty shares (Bajo et al., 2020).

While family and founder involvement are strongly associated with dual-class adoption, the role of venture capital backing is more complex. Venture capital firms are known for their active involvement in portfolio companies, particularly through board participation and close monitoring of strategic decisions (Lerner, 1995). Their ownership stakes tend to be concentrated and are often held for extended periods after the IPO to signal long-term commitment and confidence to the market (Barry et al., 1990). However, unlike family firms, founders in venture capital-backed firms are more likely to relinquish control following the IPO (Broughman & Fried, 2018), which would suggest a lower likelihood of dual-class adoption in the presence of venture capital investors. Burson and Jensen (2021) find evidence that institutional investors see a dual-class share structure as a risky governance mechanism, thus opting for investing in firms with sunset provisions if given the chance.

Despite this theoretical expectation, recent evidence indicates a changing dynamic. Aggarwal et al. (2022) find that venture capital-backed firms are now just as likely to go public with a dual-class structure as non-venture capital-backed firms. This suggests that venture capital investors have become more willing to cede formal governance power, possibly due to an increase in available private capital, which has shifted bargaining power toward founders. As founders gain more leverage in the IPO process, the dual-class structure becomes a viable option even in the presence of institutional investors.

Overall, while traditional theory implies a negative relationship between venture capital backing and dual-class adoption, newer empirical findings challenge this view. This study includes venture capital involvement as a key ownership-related variable to examine whether historical assumptions about venture capital preferences still hold in today's evolving IPO landscape.

2.2. Corporate governance in dual-class firms

Dual-class share structures alter corporate governance by granting disproportionate voting rights to specific shareholders, typically founders or insiders. While this concentration of control supports long-term strategic decision-making, it raises concerns about accountability and potential conflicts of interest. One central issue is the extraction of private benefits of control, defined as monetary or non-monetary gains that controlling shareholders can obtain beyond those available to all investors (Dyck & Zingales, 2004).

Firms may adopt dual-class structures due to the high value of private benefits (Chemmanur & Jiao, 2012) and the low cost of retaining control (Gompers et al., 2010). However, this can lead to weaker governance outcomes. Masulis et al. (2009) associate dual-class structures with less transparent compensation, inefficient acquisition decisions, and poor cash management. Furthermore, Beladi, Hu, Li, et al. (2022) show that dual-class firms are less prone to perform payouts to their investors, ultimately leading to overinvestments benefiting firm insiders (Beladi, Hu, Yang, et al., 2022).

Disclosure of executive compensation is also more limited (Tinaikar, 2014; Cieslak et al., 2021), with evidence of higher pay in the U.S. (Tinaikar, 2014) but lower compensation in Swedish firms, reflecting institutional differences (Cieslak et al., 2021). Because dual-class structures enable control without proportional ownership, these risks are amplified. Cremens et al. (2024) show that, while dual-class firms tend to profit from an increased control of the firm's decision making, this advantage dissipates over time with a gradual widening of the wedge between voting and cash flow rights, which has been shown to be a determining factor of the increased agency costs in dual-class firms (Palas et al., 2023).

The effect of dual-class structures on efficiency remains contested. Critics argue they impair decision-making and governance by breaking the one-share-one-vote principle (Harris & Raviv, 1988; Adams & Ferreira, 2008). Others highlight benefits such as better financial reporting (Omar, 2023) or increased monitoring and flexibility, especially in founder-led or innovation-driven firms (Taylor & Whittred, 1998; Lel et al., 2025). Nonetheless, dual-class firms tend to have lower board independence (Li & Zaiats, 2018), which may weaken oversight.

A key consequence of disproportionate control is the rise of agency costs, driven by the misalignment between control and ownership. These costs are particularly relevant post-IPO as firms mature and managerial entrenchment increases (Baulkaran, 2014; Lin et al., 2022). Entrenchment is more problematic when the chief executive officer (CEO) is also the controlling shareholder, often resulting in valuation discounts (Baulkaran, 2014). Weak board independence exacerbates this issue by limiting resistance to self-serving behavior (de Andrade et al., 2017).

Ultimately, adopting a dual-class structure involves a trade-off between control retention and governance quality (Rydqvist, 1992). Field and Lowry (2022) show that IPOs adopting dual-class share structures often do so to insulate management from short-term pressures, reflecting a deliberate trade-off between visionary leadership and investor protection.

However, strong governance mechanisms can reduce agency problems and improve outcomes. Hossain (2015), for example, finds that such firms perform better during events like mergers and acquisitions, where oversight is crucial. The same findings are supported by Kim (2023), who shows that the increased risk-taking in the form of acquisitions sequentially increases the market value of dual-class firms.

Despite these insights, the existing literature has tended to treat the motivations for adopting dual-class structures as relatively stable over time, focusing primarily on ownership concentration and governance consequences. While Aggarwal et al. (2022) document a shift from an ownership perspective showing that founders have increasingly driven dual-class adoption since 2007, little is known about whether the broader firm-level determinants of such structures have changed in recent years. In particular, it remains underexplored whether variables beyond ownership, such as firm size, age, financial structure, and sector affiliation, have become more important in explaining dual-class adoption. This paper addresses that gap by investigating how the characteristics of firms adopting dual-class structures at IPO have changed over time and by analyzing whether the factors that drive adoption differ between earlier and more recent issuers.

2.3. Hypothesis development

Dual-class share structures have traditionally been adopted by firms seeking to retain concentrated control after going public. Early research emphasized ownership characteristics as the key determinant of this governance choice. In particular, family-controlled firms were found to use dual-class shares to maintain influence across generations without holding majority cash flow rights (DeAngelo and DeAngelo, 1985). More recent work, such as Aggarwal et al. (2022), has expanded this perspective by examining how the identity of controlling parties in dual-class IPOs has changed over time, focusing on whether founders, families, or external investors hold control.

However, the growing number of dual-class IPOs by firms in the technology sector suggests that the characteristics driving this governance choice may no longer be limited to ownership-related factors. Technology firms differ from traditional dual-class issuers in important ways. They tend to rely on intangible assets, operate in fast-moving markets, and pursue growth strategies that depend on sustained innovation and strategic continuity. These features may make industry affiliation a more powerful predictor of dual-class adoption than ownership structure or financing background.

This shift is consistent with broader changes in the IPO landscape. Brown and Wiles (2020) document the rise of the unicorn market and the increasing ability of high-growth firms, particularly in the technology sector, to remain private for longer while raising substantial capital. During this extended private phase, these firms operate under centralized founder control and grow accustomed to making strategic decisions without external interference. By the time they go public, this control structure has become deeply embedded in their corporate governance. To preserve that autonomy after the IPO, many of these firms choose to implement dual-class share structures. As a result, firms in the technology sector are more likely than others to adopt this governance model, not due to changes in ownership or financing per se, but because of sector-specific characteristics and governance preferences developed before the IPO.

Descriptive evidence from the Ritter database supports this development. As shown in Figure 1, the share of dual-class IPOs has increased significantly after 2015, with a particularly sharp rise in the technology sector. This pattern suggests that the firm profile associated with dual-class adoption has shifted, and that the primary driver of this shift may be the industry in which the firm operates.

We, therefore, propose the following hypothesis:

H1: Following the increase in private capital available to technology firms over the past decade, insiders at firms in this sector have become more likely to adopt a dual-class share structure at IPO in order to maintain corporate control after going public.

3. RESEARCH METHODOLOGY

3.1. Sample selection

To investigate the determinants of dual-class share adoption at the time of IPO, we construct a dataset of firms that went public on American stock exchanges between 1991 and 2023. Information on IPO dates and the presence of a dual-class structure is retrieved from the Ritter database, a widely used source for IPO research, which consists of a dataset of 15,447 IPOs in the U.S. from January 1975 to December 2023[1]. It includes most IPOs within the specified timeframe, except those with an offer price below $5 before 1984. The choice of firm-level characteristics is based on prior research examining the drivers of dual-class IPOs (Aggarwal et al., 2022; Gompers et al., 2010) and is retrieved from the LSEG database. Additionally, in order to capture potential structural changes over time, the sample is divided into two subsamples: IPOs before 2015 and those from 2015 onward. This split reflects a notable shift in the dual-class IPO landscape around 2014, marked by a growing number of high-profile dual-class offerings (Ritter, 2025).

To enrich the dataset with additional firm-level information from the LSEG database, we first match the individual company identifiers between the two databases. This process involves converting Committee on Uniform Security Identification Procedures (CUSIP) codes from the Ritter dataset into LSEG-compatible identifiers. However, nearly one-third of the firms could not be matched automatically. A key reason for this limitation is that LSEG does not always maintain links between historical CUSIPs and current firm identifiers. For example, Alphabet Inc., formerly known as Google Inc., received a new CUSIP following its name change in 2015. Searching for the old CUSIP in LSEG yields no results, as the database does not retroactively link past identifiers to the updated firm profile. Additionally, inconsistencies between the CUSIPs in the Ritter dataset and those used by LSEG further complicate the matching process.

Aiming to preserve as many observations as possible, we manually research unmatched firms using their names or ticker symbols, both of which are provided in the Ritter dataset. When a potential match is identified in LSEG, it is verified through multiple criteria, including IPO date, date of incorporation, and documented name changes. Only if all these factors confirm a reliable match is the corresponding LSEG identifier added to the dataset. Firms that cannot be reliably identified are excluded.

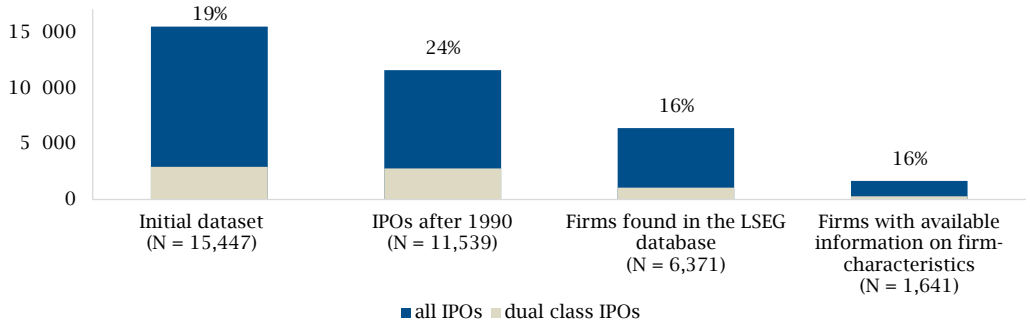
As expected, data availability diminishes for IPOs further in the past. For firms that went public in the early 1990s, the share of cases not

[1] https://site.warrington.ufl.edu/ritter/ipo-data/

automatically matched via CUSIP rises significantly, and manual verification becomes increasingly difficult or infeasible. Consequently, the final sample includes only IPOs from 1991 onward. While it would be possible to retain unmatched firms using only CUSIP-based matches, this would likely introduce a bias toward larger and still-active companies, disproportionately excluding smaller or delisted firms. This issue is further amplified by the limited financial data available for smaller firms. Since firm size indicators are only available in the final matched dataset, it is not possible to directly compare the pre- and post-matching samples. Figure 2 illustrates the evolution of the sample size and the proportion of dual-class firms across the various stages of data collection and filtering.

Starting from an initial sample of 15,447 IPOs in the Ritter dataset, our final sample ultimately comprises 1,641 IPOs after all individual screening and matching steps. Among these, approximately 16% (267) feature firms with a dual-class share structure.

Figure 2. Size of the dataset over the data retrieval and filtering process



This proportion is notably lower than in the full Ritter sample, where roughly 19% (2,903) of firms are classified as dual-class. This decline can be attributed to data availability constraints and the exclusion of firms that could not be reliably matched or supplemented with additional information.

3.2. Research method

This section portrays the applied methodology in this study. In order to define the key drivers of dual-class IPOs over time, we apply a set of multiple logistic regressions, controlling for firm characteristics shown to be of importance for corporate governance decisions in previous research (Aggarwal et al., 2022; Gompers et al., 2010). An overview of the applied variables in our investigation can be found in Table 1.

The dependent variable (*DUAL*) equals one if the firm has a dual-class structure, and zero otherwise. Firms with more than two share classes are also classified as dual-class.

Table 1. Overview of regression variables

Variable name	*Description*
Dependent variable	
DUAL	Indicates dual-class IPOs.
Independent variables	
VC	Indicates venture capital-backed firms.
FF	Indicates family-owned firms.
INT	Internet-based companies.
TECH	Companies within the technology industry.
AGE	Age of the company at the time of the IPO.
SIZE	Firm size is measured by total assets.
Control variables	
Performance and growth indicators	
RTA	Ratio of revenue to assets.
RevC	Change in revenue over the one year prior to the IPO.
CAPEX	Capital expenditures to revenue.
R&D	Research and development (R&D) expenses to operating expenses (OPEX).
MB	Market-to-book ratio.
Liquidity and asset structure	
WoCa	Working capital to total assets.
CASH	Cash and cash equivalents to total current assets.
PPE	Property, plants, and equipment to total assets.
LVRG	Leverage (total liabilities to total assets).

The key explanatory variables capture firm characteristics that previous literature identifies as relevant to dual-class adoption: venture capital backing (*VC*), family ownership (*FF*), internet-based business models (*INT*), technology sector affiliation (*TECH*), firm age at IPO (*AGE*), and firm size (*SIZE*). Firm age and size are log-transformed.

Two groups of control variables are included. The first group consists of performance and growth indicators: revenue-to-assets ratio (*RTA*), revenue growth (*RevC*) in logarithmic terms, capital expenditures to revenue (*CAPEX*), R&D intensity (*R&D*), and market-to-book ratio (*MB*) in logarithmic terms. The second group captures liquidity and asset structure: working capital to total assets

(*WoCa*), cash holdings to total assets (*CASH*), fixed assets to total assets (*PPE*), and leverage (*LVRG*). All financials are retrieved from LSEG and winsorized at the 5th and 95th percentiles.

Overall, the model for our logistic regression assumes the following format:

$$P(DUAL_i = 1) = \alpha + \beta_1 VC_i + \beta_2 FF_i + \beta_3 INT_i + \beta_4 TECH_i + \beta_6 \log(AGE_i) + \beta_7 \log(SIZE_i) + \delta(Performance\ and\ growth\ indicators_i) + \varphi(Liquidity\ and\ asset\ structure_i) + \varepsilon \quad (1)$$

The model is estimated for three sets of regressions: the full sample, the period prior to 2015, and the period from 2015 to 2023, in order to capture potential shifts in dual-class adoption over time.

4. RESULTS AND DISCUSSION

Before turning to the regression analysis, we present descriptive statistics for the final sample of 1,641 IPOs between 1991 and 2023. Table 2 provides an overview of the main firm-level variables used in the analysis, including indicators for dual-class status, ownership structure, sector affiliation, and key financial metrics. Panel A presents the statistics for the entire sample, Panel B for the period from 1991 to 2014, and Panel C for the period from 2015 to 2023.

Most notably, the share of dual-class IPOs increased sharply, from just over 8% in the earlier period to 43% in the post-2014 period. This pronounced shift supports the hypothesis of a structural change in governance preferences. Firms going public in the more recent period also appear larger and somewhat older on average, with median firm size increasing substantially.

In contrast, the proportion of firms backed by venture capital (*VC*), family-owned firms (*FF*), internet-based companies (*INT*), and firms operating in the technology sector (*TECH*) remains relatively stable across both subsamples. This consistency suggests that the increased prevalence of dual-class structures is not driven by major compositional changes in these characteristics.

More noticeable differences are found in financial indicators. Firms in the later period show lower capital intensity (as reflected by lower *PPE*), higher cash holdings (*CASH*), and a lower revenue-to-asset ratio (*RTA*), pointing toward a shift toward less asset-heavy and more liquidity-focused business models.

Table 2. Descriptive statistics of IPOs between 1991 and 2023

Continuous variables						*Binary variables*		
Variable	***Mean***	***Median***	***σ***	***$Q_{0.05}$***	***$Q_{0.95}$***	***Variable***	***Count***	***Percentage***
Panel A: Full sample (N = 1,641)								
AGE	13.098	9.000	15.489	3.000	37.000	*DUAL*	267	16.271
SIZE (Mio. USD)	406.535	42.921	2,539.872	4.351	1,327.584	*VC*	1,121	68.312
RTA	1.030	0.881	0.881	0.060	2.365	*FF*	465	28.336
RevC	3.734	1.491	18.579	0.852	8.213	*INT*	337	20.536
CAPEX	0.320	0.056	1.851	0.008	0.827	*TECH*	876	53.382
MB	7.125	3.770	102.029	0.570	18.601			
R&D	0.222	0.165	0.215	0.012	0.771			
WoCa	0.223	0.307	0.718	-0.497	0.795			
CASH	0.414	0.376	0.277	0.025	0.903			
PPE	0.395	0.107	9.905	0.014	0.451			
LVGR	0.826	0.616	1.219	0.161	1.992			
Panel B: Sub-sample 1991–2014 (N = 1,255)								
AGE	12.686	8.000	16.111	3.000	39.000	*DUAL*	101	8.048
SIZE (Mio. USD)	311.190	29.798	2,632.841	3.954	732.122	*VC*	854	68.048
RTA	1.098	0.980	0.904	0.067	2.495	*FF*	350	27.888
RevC	4.160	1.531	20.223	0.864	9.232	*INT*	247	19.681
CAPEX	0.305	0.062	1.853	0.010	0.869	*TECH*	673	53.625
MB	7.358	3.652	116.549	0.659	17.606			
R&D	0.221	0.165	0.213	0.012	0.764			
WoCa	0.248	0.331	0.716	-0.444	0.803			
CASH	0.400	0.368	0.276	0.020	0.902			
PPE	0.481	0.118	11.326	0.020	0.474			
LVGR	0.798	0.602	1.082	0.163	1.983			
Panel C: Sub-sample 2015–2023 (N = 386)								
AGE	14.438	11.000	13.198	4.000	34.000	*DUAL*	166	43.005
SIZE (Mio. USD)	716.532	154.401	2,185.259	8.082	2,993.866	*VC*	267	69.171
RTA	0.812	0.662	0.761	0.049	1.960	*FF*	115	29.793
RevC	2.347	1.393	11.651	0.842	3.970	*INT*	90	23.316
CAPEX	0.367	0.041	1.849	0.005	0.774	*TECH*	203	52.591
MB	6.366	4.345	9.953	0.347	19.014			
R&D	0.227	0.167	0.220	0.011	0.791			
WoCa	0.143	0.250	0.719	-0.635	0.775			
CASH	0.459	0.432	0.279	0.061	0.908			
PPE	0.115	0.072	0.131	0.007	0.394			
LVGR	0.921	0.671	1.585	0.162	2.018			

These patterns provide context for the subsequent regression analysis and suggest that while some structural characteristics remained stable, the role of dual-class adoption has changed over time.

Building on the descriptive overview of IPO characteristics across time, the following regression analyses, illustrated in Table 3, aim to identify which firm-level factors are associated with the adoption of a dual-class structure at the time of going public.

While the descriptive statistics offer insights into how the overall composition of IPO firms has evolved between the two periods, they do not reveal the specific drivers behind the decision to adopt a dual-class structure. The logistic regression framework allows for a more precise examination by jointly considering explanatory variables related to ownership, industry affiliation, and financial structure. Estimating the model for the full sample as well as for the two subsamples (1991 to 2014 and 2015 to 2023) enables a direct assessment of how these determinants may have shifted over time, particularly in light of the rising prevalence of dual-class IPOs in the more recent period.

The regression analysis identifies a clear shift in the firm-level determinants of dual-class adoption over time, with the technology sector emerging as the most important driver in the recent IPO landscape.

The *TECH* variable, indicating whether a firm belongs to the technology sector, shows no significant association with dual-class adoption in the earlier period (1991–2014), but becomes highly significant and economically meaningful in the period from 2015 to 2023. In the recent subsample, technology firms are much more likely to adopt a dual-class structure compared to firms in other sectors (odds ratio = 3.24, $p < 0.001$). This striking increase suggests a sectoral transformation in the profile of dual-class adopters. Whereas dual-class structures were previously more associated with family ownership and long-term control motives, they now seem to be predominantly used by technology firms seeking to protect founder influence and preserve strategic autonomy in highly dynamic and innovation-driven markets. The significant and positive effect of the *TECH* variable in the recent period supports this trend, indicating that sector affiliation alone has become a strong predictor of dual-class adoption.

Table 3. Logistic regressions for the determinants of dual-class share adoption.

Variable	***Full sample***			***1991–2014***			***2015–2023***		
(Intercept)	-13.653***	[0.000]	(0.000)	-14.186***	[0.000]	(0.000)	-3.318**	[0.036]	(0.047)
VC	-0.046	[0.955]	(0.803)	-0.269	[0.764]	(0.329)	0.013	[1.014]	(0.964)
FF	-0.459***	[0.632]	(0.009)	-0.634**	[0.531]	(0.026)	-0.371	[0.690]	(0.160)
INT	0.162	[1.176]	(0.373)	0.318	[1.374]	(0.278)	0.234	[1.263]	(0.407)
TECH	0.358**	[1.430]	(0.028)	-0.041	[0.960]	(0.861)	1.176***	[3.243]	(0.000)
AGE	-0.220**	[0.802]	(0.033)	-0.298**	[0.742]	(0.036)	-0.441**	[0.643]	(0.011)
SIZE	0.655***	[1.925]	(0.000)	0.663***	[1.940]	(0.000)	0.171**	[1.187]	(0.027)
RTA	0.329**	[1.389]	(0.048)	0.541**	[1.719]	(0.025)	0.212	[1.236]	(0.396)
RevC	-0.003	[0.997]	(0.985)	0.239	[1.270]	(0.343)	0.176	[1.193]	(0.590)
CAPEX	0.475	[1.607]	(0.382)	0.785	[2.192]	(0.301)	0.408	[1.503]	(0.622)
MB	0.209**	[1.232]	(0.043)	0.015	[1.015]	(0.926)	0.209	[1.232]	(0.192)
R&D	-0.805	[0.447]	(0.160)	-0.506	[0.603]	(0.555)	-1.899**	[0.150]	(0.025)
WoCa	-0.562*	[0.570]	(0.066)	-0.173	[0.841]	(0.711)	-0.186	[0.830]	(0.716)
CASH	0.735**	[2.086]	(0.026)	0.106	[1.112]	(0.838)	0.434	[1.543]	(0.383)
PPE	-1.261*	[0.283]	(0.089)	-0.462	[0.630]	(0.665)	0.132	[1.142]	(0.911)
LVRG	-0.001	[0.999]	(0.997)	0.158	[1.171]	(0.589)	-0.310	[0.734]	(0.365)
Nagelkerke R^2		0.265			0.200			0.274	
McKelvey-Zavoina R^2		0.692			0.699			0.320	
Sample size		1,641			1,255			386	

*Note: The table reports the results of the logistic regressions estimating the likelihood of a firm adopting a dual-class structure at the time of its IPO. The model is estimated for the full sample (1991–2023) as well as for two time-based subsamples: 1991–2014 and 2015–2023. All specifications include the same set of explanatory and control variables as outlined in Section 3. Illustrated are the estimates resulting directly from the logistic regression (without brackets), the odds ratios resulting from the estimates (square brackets), and the respective p-values (round brackets). Model fit is assessed using the Nagelkerke and McKelvey-Zavoina R^2 measures. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.*

At the same time, the regression reveals a negative relationship between R&D intensity and the likelihood of adopting a dual-class structure. This contrast highlights an important distinction. While many firms classified in the technology sector are indeed innovative, they often rely on business models that do not depend heavily on formal R&D investment. Especially in the case of software companies, digital platforms, and data-driven service providers, innovation is frequently achieved through rapid scaling, product iteration, and market responsiveness rather than through sustained R&D spending.

Baran et al. (2023) find that dual-class structures are associated with increased patent output, quality, creativity, and R&D efficiency. This suggests that such governance structures can support innovation by allowing founders to pursue long-term projects without short-term market pressures. However, the negative association between R&D intensity and dual-class adoption in our findings may indicate that firms with high R&D expenditures are more cautious about adopting dual-class structures, possibly due to concerns about investor perceptions or the need for greater transparency.

Therefore, the adoption of dual-class structures in technology firms appears to be less about shielding long-term R&D efforts and more about securing decision-making power for founders during phases of high growth and strategic uncertainty. This implies that it is not innovation itself driving dual-class adoption but rather the governance needs of specific business models where founder leadership is central to value creation.

This interpretation is further supported by the industry-level R&D data presented in Table A.1 (see Appendix). While technology firms do show relatively high R&D intensity compared to most sectors, they are not the leading industry in this regard. Across all periods, healthcare firms exhibit the highest mean and median R&D expenditure ratios, consistently surpassing those of the technology sector. More importantly, Table A.1 reveals that within nearly every industry and time period, dual-class firms tend to report lower average R&D

intensity than their single-class counterparts. This pattern suggests that R&D intensity alone is not a driving force behind the decision to adopt a dual-class structure.

Instead, the positive and significant effect of the *TECH* variable in the regression reflects broader sectoral characteristics, such as growth potential, scalability, and the strategic desire to retain founder control, rather than a reliance on high R&D spending. The findings imply that while technology firms are indeed innovative, dual-class structures are adopted primarily to preserve control and strategic flexibility, not necessarily to shield intensive R&D efforts from short-term investor pressures.

The findings of this study reveal a notable shift in the profile of firms choosing dual-class structures at the time of IPO. Whereas earlier research has emphasized ownership structures as the central determinant of dual-class adoption, our results show that this explanation has weakened in recent years. Instead, the technology sector has emerged as the dominant driver of dual-class IPOs, suggesting a structural transformation in the underlying motivations for adopting such governance mechanisms. Rather than reflecting traditional concerns about control retention, the recent wave of dual-class IPOs appears to be shaped by the characteristics of high-growth and innovation-driven industries. This indicates a reorientation from ownership-based to sector-based drivers, where the adoption of dual-class structures is increasingly tied to strategic considerations such as maintaining entrepreneurial vision and flexibility in rapidly changing markets, a necessity for a fast-growing, scalable, and innovative sector such as the technological industry (Almus & Nerlinger, 1999). Prior evidence supports this shift, as firms in technology-based environments have been found to account for an increasing share of dual-class IPOs (Grinapell, 2020), and recent work shows that technology firms are particularly likely to go public with dual-class structures that preserve founder control (Aran et al., 2025). Our findings additionally complement those of Aggarwal et al. (2022), who emphasize the shift in the role of founders and ownership structures in dual-class IPOs, by showing that this broader transformation is also reflected in sectoral dynamics, with technology firms becoming the central adopters in recent years.

5. CONCLUSION

This study set out to identify the key firm-level characteristics that drive the decision to adopt a dual-class share structure at the time of an IPO. By analyzing a broad sample of U.S. IPOs from 1991 to 2023, it documents how the profile of dual-class firms has evolved over time and how the determinants of such governance choices have shifted accordingly. The empirical findings indicate that while family ownership once played a central role in explaining the presence of dual-class structures (DeAngelo & DeAngelo, 1985), its influence has declined significantly in recent years. In contrast, sector affiliation, particularly belonging to the technology industry, has become a much stronger and more consistent predictor of dual-class adoption (Aggarwal et al., 2022), especially in the period following 2014.

This shift is not merely a statistical artifact but reflects a broader transformation in the governance motivations of newly public firms. Earlier adopters of the dual-class share structure often did so to maintain family control or to safeguard against hostile takeovers, reflecting the priorities of more traditional ownership structures. In contrast, many of today's dual-class IPOs come from founder-led technology firms operating in fast-paced, highly competitive, and innovation-driven markets (Almus & Nerlinger, 1999). These firms appear to view the dual-class structure primarily as a means to preserve strategic flexibility and founder autonomy in the face of external pressures, particularly from capital markets focused on short-term performance.

The implications of this change are significant. Much of the existing literature on the effects of dual-class structures, whether concerning firm valuation, long-term performance, investor protection, or governance quality, has been developed in the context of a very different set of firms compared to those that dominate dual-class IPOs today. As a result, the generalizability of prior findings is increasingly uncertain. The assumption that all dual-class firms can be treated as a homogeneous group may no longer hold, and empirical results based on older samples risk becoming outdated or even misleading when applied to the current generation of dual-class firms.

Our results, therefore, underscore the importance of re-evaluating the consequences of dual-class governance in light of the changing composition of firms that adopt such structures. At the same time, this study is not without limitations. First, comparability with Aggarwal et al. (2022) is somewhat constrained by our simplified definition of family firms following La Porta et al. (1999), which does not allow us to separate founders from families as clearly as in their framework. Second, while our analysis builds on the comprehensive Ritter IPO dataset, a large share of IPOs had to be excluded due to missing data. Although this primarily concerns smaller offerings that are less representative of the U.S. IPO market, it nevertheless reduces the breadth of our sample. Third, our study does not yet disentangle the interaction between sector affiliation and ownership structures, which would provide deeper insights into the dynamics of technology-driven dual-class adoption. These limitations point to promising avenues for further research.

Future research should, therefore, aim to disentangle the heterogeneous motivations and characteristics of dual-class firms across different time periods, industries, and strategic contexts. Doing so will not only enhance the empirical validity of the literature but also provide more nuanced guidance for investors, policymakers, and regulators tasked with evaluating the merits and risks of dual-class structures in an evolving market environment.

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APPENDIX

Table A.1. Summary of R&D expenditure by industry

Parameter	Technology			Healthcare			Industrials			Consumer cyclicals			Consumer non-cyclicals			Others		
	1991–2023	Pre-2015	Post-2014	1991–2023	Pre-2015	Post-2014	1991–2023	Pre-2015	Post-2014	1991–2023	Pre-2015	Post-2014	1991–2023	Pre-2015	Post-2014	1991–2023	Pre-2015	Post-2014
Panel A: Full sample (N = 1,461)																		
Mean	0.176	0.178	0.170	0.412	0.409	0.420	0.127	0.128	0.122	0.104	0.107	0.096	0.097	0.115	0.070	0.116	0.122	0.091
Median	0.169	0.170	0.169	0.334	0.336	0.333	0.111	0.118	0.092	0.070	0.071	0.065	0.018	0.033	0.012	0.049	0.054	0.034
σ	0.114	0.118	0.099	0.303	0.305	0.297	0.117	0.102	0.175	0.114	0.121	0.092	0.174	0.199	0.128	0.152	0.158	0.121
$Q_{0.05}$	0.027	0.027	0.027	0.032	0.027	0.053	0.003	0.008	0.003	0.005	0.000	0.009	0.003	0.004	0.003	0.001	0.000	0.008
$Q_{0.95}$	0.358	0.366	0.323	0.859	0.853	0.861	0.280	0.280	0.219	0.266	0.266	0.217	0.551	0.650	0.278	0.405	0.404	0.360
Panel B: Single-class IPOs (N = 1,374)																		
Mean	0.181	0.180	0.185	0.415	0.416	0.413	0.133	0.131	0.142	0.107	0.109	0.099	0.123	0.160	0.075	0.121	0.123	0.107
Median	0.173	0.171	0.184	0.342	0.344	0.333	0.119	0.121	0.077	0.071	0.069	0.095	0.045	0.057	0.012	0.056	0.061	0.027
σ	0.116	0.118	0.094	0.302	0.304	0.291	0.120	0.102	0.197	0.120	0.127	0.083	0.195	0.228	0.139	0.157	0.158	0.127
$Q_{0.05}$	0.030	0.030	0.031	0.033	0.032	0.053	0.010	0.011	0.012	0.005	0.003	0.012	0.001	0.003	0.002	0.000	0.000	0.007
$Q_{0.95}$	0.367	0.366	0.378	0.860	0.858	0.859	0.281	0.281	0.442	0.265	0.268	0.201	0.629	0.654	0.310	0.409	0.387	0.365
Panel C: Dual-class IPOs (N = 267)																		
Mean	0.158	0.153	0.160	0.371	0.283	0.465	0.083	0.071	0.091	0.093	0.094	0.093	0.023	0.016	0.043	0.100	0.117	0.079
Median	0.157	0.143	0.159	0.244	0.116	0.450	0.051	0.040	0.092	0.065	0.099	0.060	0.013	0.013	0.043	0.040	0.042	0.036
σ	0.102	0.109	0.100	0.318	0.312	0.318	0.081	0.099	0.072	0.094	0.084	0.105	0.024	0.010	0.050	0.137	0.167	0.092
$Q_{0.05}$	0.021	0.012	0.026	0.011	0.012	0.065	0.001	0.005	0.004	0.007	0.007	0.009	0.007	0.007	0.012	0.004	0.003	0.016
$Q_{0.95}$	0.319	0.319	0.312	0.831	0.808	0.847	0.218	0.215	0.189	0.259	0.215	0.279	0.063	0.030	0.075	0.382	0.436	0.232

Note: The table presents the summary statistics of the variable R&D, which stands for the ratio between R&D expenditures and operational expenditures.