

Multi-class Shares around the World: Role of Institutional Investors*

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This study examines multi-class share structures around the world. We use a comprehensive sample of publicly listed firms in 45 countries over the period 2001–2016 and find that institutional investors exhibit strong aversion toward multi-class firms, penalizing them through a valuation discount. The presence of institutional investors correlates with a higher likelihood of share-class unification. These effects are stronger for local (particularly in the US) and actively managed investors. Overall, our research highlights the role of institutional investors in the current debate on banning multi-class stocks from global stock indices.

JEL Classification: G31, G32

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“(...) Effective voting rights are central to the rights of ownership and we believe strongly in one vote for one share as a guiding principle that supports good corporate governance. (...) We are concerned that the creation of a dual share class may result in an over-concentration of power in the hands of a few shareholders (...) While our preference is for one share, one vote companies, we recognize that in certain circumstances, there may be a valid argument for dual-class listings, at least for a limited period of time (...).”

– Barbara Novick, Vice Chairman, Blackrock

Open Letter Regarding Consultation on the Treatment of
Unequal Voting Structures in the MSCI Equity Indexes, 2018

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I. Introduction

The merits of differential voting rights in publicly listed companies have long been debated. Firms can have two (dual-) or more (multi-) classes of shares with unequal votes allocated to different types of investors.¹ Typically, the superior voting shares are primarily held by founders and other insiders to achieve control of a firm. This situation enables insiders to operate without interference from outside shareholders, who may be less well-informed or more short-term-oriented than insiders. However, separating control from ownership may be detrimental by insulating insiders from investor accountability and weakening their incentives to maximize shareholder value. It may also depend on the type of investors in a firm's shareholder base. This study focuses on one important type of shareholders, namely, institutional investors, and asks the following questions: What is institutional investors' preference toward multi-class share structures? How do they express their preferences? How do institutional investors shape the valuation and evolution of multi-class share structures?

The US equity market has historically been the paradigm of the "one-share one-vote" model, but this case has been changing in the past decades with the trend of technology companies tapping markets while limiting the voting rights of public shareholders.² Gompers, Ishii, and Metrick (2010) documented that only 6% of US publicly listed firms had dual-class share structures in 2002. However, over 15% of companies that went public in the last decade had multiple classes of shares (Ritter, 2017). Multi-class shares have been featured in high-profile IPOs, such as Google (2004), Facebook (2012), Square (2015), and the issuance of non-voting shares by Snap (2017). These IPOs have attracted substantial debate from regulators and market participants.

The debate on differential voting rights goes beyond the US equity markets. On the one hand, some observers have blamed US listing standards for causing a "race to the bottom" between stock exchanges around the world. Baidu and Alibaba's multi-class listings in the US sparked debate among Asian exchanges. The Hong Kong Stock Exchange and Singapore Exchange, faced with a string of de-listings and attempting to attract tech companies, changed their rules in 2018 to allow multi-class listings.³ On the other hand, other markets have experienced a "race to

¹ To simplify the language used in this paper, we adopt the terminology of "multi-class" firms, which encompass the sub-case of "dual-class" firms, a term commonly used in US studies, in which shares tend to have just two classes.

² The NYSE historically prohibited multi-class structures. However, after AMEX allowed voting ratios of up to 10:1 in 1976, it allowed low-vote shares in 1985 and permitted non-voting shares in 1994 if these shares exist prior to going public.

³ The Economist, "Hong Kong and Singapore succumb to the lure of dual-class shares" (March 1, 2018).

the top.” Historically, Brazil had many dual-class firms. In 2000, Bovespa launched Novo Mercado (“New Market”), a premium segment imposing single-class share structure and has grown to represent about 40% of the market. Companies that listed or migrated into the one-share-one-vote segment have exhibited higher valuations and better performance (Matos, 2017). Apart from these emerging markets, multi-class shares have also been an important control-enhancing mechanism and the subject of debate in developed markets, such as Canada and continental Europe.

As institutional investors hold a considerably large fraction of shares across the world, these professional money managers have been vocal in their concerns over expropriation by multi-class firms’ insiders. For example, the Council of Institutional Investors (CII), an organization representing US pension funds, proposed barring Snap from stock-market indexes.⁴ In 2017, FTSE Russell announced that it would require its index constituents to have a minimum voting rights of 5% in hands of free-float shareholders, while S&P Dow Jones Indices would no longer add multi-class companies to S&P 1500 and MSCI temporarily treated these companies as ineligible for its indexes and started a consultation period.⁵ With the emergence of passive strategies, the listing standards of index providers are an important battleground for investors. The world’s largest asset manager, Blackrock, although in favor of “one-share one-vote” (see opening quote), expressed the view that policy-makers, not index providers, should set corporate governance standards.⁶ The worry is that excluding these firms from market indexes will limit the diversity of the underlying industries and economies, the performance of which these indexes seek to determine.⁷

This study takes a global perspective and examine multiple-class shares by assembling a comprehensive sample of publicly listed companies around the world. The data comprise share classes and votes-per-share for publicly listed firms in 45 developed and emerging markets that are part of the MSCI All Country World Index (ACWI) for the 2001-2016 period.⁸ These data show that firms with multi-

⁴ CII has petitioned index providers (“CII letter to FTSE/Russell requesting public consultation on index eligibility of dual-class companies,” “CII submission to S&P Dow Jones consultation on no-vote shares,” “CII letter to MSCI on treatment of unequal voting structures”), as well written letters to stock exchanges and individual companies.

⁵ FTSE Russell “Indexers take action on voting rights” (August 23, 2017), S&PDJI “S&P Dow Jones Indices announces decision on multi-class shares and voting rules” (July 31, 2017) and MSCI “Consultation on the treatment of unequal voting structures in the MSCI equity indexes” (January, 2018).

⁶ SEC Commissioner Jackson recently examined multi-class firms and found that those without sunset provisions underperformed (Jackson (2018)). However, the SEC is not expected to regulate on this issue.

⁷ Blackrock, “The Investment Stewardship Ecosystem” (July 2018).

⁸ We focus on the MSCI ACWI markets because these are the ones covered by most institutional investors. It also allowed us to cross-validate the share class classification country-by-country by cross-

class structures represent about 5% of publicly listed firms and 10% of world market capitalization. For the US market, we confirm recent findings that multi-class firms have grown in the past decade to over 8% of publicly listed firms and 10% of market capitalization (Bebchuk and Kastiel, 2017; CII, 2017; Kim and Michaely, 2018; Cremers, Lauterbach and Pajuste, 2022). Outside the US, we find considerable variation among developed economies, from representing the majority of public market capitalization in Nordic markets (Sweden, Denmark and Finland), between 10% to 25% for Canada and a handful of continental European countries (e.g., Germany, Netherlands, Switzerland, and Italy), to 5% or less in the majority of other countries. Moreover, emerging markets have a large variation, with these structures representing over 40% of local market capitalization in Brazil and South Korea but insignificant in a large majority of countries.

We start by examining the valuation effects of multi-class structures. On average, we fail to uncover an average difference in the Tobin's Q for US multi-class firms compared with similar single-class firms, consistent with recent findings by Cremers et al. (2022) and Kim and Michaely (2018). However, some statistical evidence outside the indicate a 4% valuation discount. If we focus on firms located in countries with strong investor protection, then there is an approximate 9% valuation discount for multi-class firms. When we conduct the analysis country-by-country, we find that the discount for multi-class firms is concentrated in Brazil, Canada, and Germany (which have been the focus of previous single-country studies) but no evidence for Nordic markets.

Thereafter, we turn to the core research question of our study: How does the agency and valuation consequences of multi-class firms depend on its investor base? For this purpose, we gather institutional ownership data building on Ferreira and Matos (2008) and subsequent studies that have shown the increasing importance of institutional investors around the world. We find that a higher presence of institutional investors is associated with a discount in Tobin's Q for multi-class firms compared with single-class firms, in the sample of US non-US firms and firms in countries with strong investor protection. This result is stronger among firms with more active ownership (less passive ownership by the top three passive fund managers: BlackRock, State Street, and Vanguard), consistent with institutional investors discounting multi-class firms through exit rather than voice.

In the last section of the paper, we investigate whether firms respond to institutional investor preferences by undertaking share class unification, which is the voluntary conversion to a single-class share structure. Our tests suggest that institutional investors are positively associated with a multi-class firm's likelihood of switching to single-class. The influence of institutional investors is statistically

checking it with a list of firms with unequal voting rights identified by MSCI in its recent investor consultation on multi-class shares.

significant for active investors. For non-US firms and firms in countries with strong investor protection, long-term institutional investors also play a statistically significant role. Furthermore, when examining the valuation effects of these unifications, we find a positive effect on Tobin's Q for non-US firms and firms in countries with strong and weak investor protection. These results may clarify why there has been considerably strong advocacy effort by institutional investors in the last couple of years with index providers. Given the collective action problem these minority investors face and the limited influence in any particular listed firm, it may be more impactful if investors influence firms indirectly through stricter index requirements. Corporate insiders, faced with the prospect of being kicked out of popular market indices, and not receiving the capital of indexed funds, may be considerably willing to adopt one-share-one-vote structures.

Our study contributes to the literature on differential voting rights by highlighting the increasing role played by institutional investors. To our knowledge, this study is the first to examine this topic using a worldwide sample of firms while the majority of previous studies have focused on single country samples. For the US, Gompers et al. (2010) report that the value of multi-class firms is increasing insiders' cash flow rights and decreasing in their voting rights. Masulis et al. (2009) document how excess control rights enabled by dual-class structure enable managers to extract private benefits from the firm. Recent studies have focused on the life-cycle effects. Bebchuk and Kastiel (2017) propose that the debate on dual-class firms should focus on the permissibility of finite-term dual-class structure, namely, those that "sunset" after a fixed period and subject to approval by shareholders unaffiliated with the controller. Cremers et al. (2022) and Kim and Michaely (2018) offer related empirical evidence. They focus on insiders—the passage of time leads to standardization and erodes the superiority of insiders' leadership and vision; it is also associated with decreases in inside ownership, giving insiders increasing incentives to extract private benefits. Instead of the insider perspective, our study focuses on outside shareholders, namely, the presence and heterogeneity of institutional investors.

Other major countries studied previously include Brazil (Gledson de Carvalho and Pennacchi, 2012), Canada (Amoako-Adu and Smith, 2001), Germany (Dittmann and Ulbrich, 2007), Italy (Bigelli et al., 2011; Croci, 2018), Sweden (Eckbo et al., 2010), the UK (Braggion and Giannetti, 2016), and South Korea (Chung and Kim, 1999), as well as geographical regions, such as Western Europe (Bennedsen and Nielsen, 2010) and Eastern Europe (Gugler et al., 2014). No research has analyzed a global panel of multi-class firms possibly because the identification of these firms has only become feasible with additional comprehensive financial datasets used in the current study. We contribute by providing a global view of multi-class share structure and highlighting that previous findings documented in the US may not hold in other countries when institutional

environment and shareholder base change.

II. Data and Summary Statistics

Our data come primarily from the FactSet databases, with certain variables obtained from Datastream. We construct a panel of publicly listed firms in the 2001–2016 period from FactSet. We focus on firms based in the MSCI All Country World Index (ACWI) because they are the ones covered by most institutional investors. Our sample covers 23 developed and 22 emerging markets, encompassing 45 out of the 47 MSCI ACWI countries (we could not obtain good data coverage for two emerging markets: United Arab Emirates and Pakistan). We exclude utilities (Standard Industrial Classification (SIC) codes 4900–4999) and financial firms (SIC codes 6000–6999) because these industries tend to be regulated. To mitigate the influence of extremely small firms in the analysis, we restrict the sample to firms with total book assets above US\$100 million in 2000 dollars (adjusted using CPI).⁹ After requiring non-missing values for variables used later in our multivariate regressions, our final sample consists of 21,255 unique firms across 45 countries, for a total of 185,973 firm-year observations.

2.1. Identifying Multi-class Shares

Table A.1 in the Appendix describes the legal rules on share class structures across countries based on the OECD Corporate Governance Factbook (OECD, 2017).¹⁰ It shows that issuing a class of shares with limited voting rights is allowed in the company law (or listing rules in Australia) in all jurisdictions other than Indonesia, Israel, and Singapore. Issuing a class of shares without voting rights is prohibited in only five jurisdictions (i.e., Australia, the Netherlands, Singapore, Slovak Republic, and Sweden). Typically, non-voting shares are given preferential rights to dividends and may not represent above 25% or 50% of capital. Issuing shares with multiple voting rights is prohibited in numerous jurisdictions.

We obtain information on share classes and votes per share from FactSet. This database has been used by CII (2017) in a US study on Russell 3000 companies and validated against 10-K filings. We start by downloading all equity-like securities (security types “SHARE,” “PREFEQ,” “PREF,” and “DR”) in FactSet, including active and inactive ones. We exclude securities with missing market capitalization

⁹ Kim and Michaely (2018) exclude firm-years in their US sample with book assets with under \$10 million in 2000 dollars. We impose a considerably high threshold of \$100 million for our global sample to ensure the quality of the voting and price data in FactSet. The effect of this sample filter is small: it reduces the global market capitalization of firms at the end of 2016 by only 3%.

¹⁰ OECD (2017) does not provide information on Egypt, Poland, Qatar, Thailand, and Taiwan.

and missing votes per share. Thereafter, we match each security to a firm-year using the security's FactSet entity ID and the security's inception and terminate dates.

We create a dummy variable *MULTI_CLASS* that equals one if a firm has multiple classes of shares with differential voting rights, and zero if it has a single-class structure that grants shareholders equal cash flow and voting rights on a per-share basis. This case is based on whether or not we find multiple securities with differential votes per share for the same FactSet entity ID. To flag a firm as having differential voting rights, we first require that all share classes do not have equal votes. Thereafter, we adjust for the cases where share classes have different par values. Firms with share classes having the same votes and the same par values are coded as single-class.

To properly validate this measure, we further manually cross-check our multi-class classification against the list of MSCI ACWI member firms with unequal voting identified by MSCI in its recent investor consultation on multi-class shares (MSCI, 2018). Data validation is done country-by-country. The few differences we found were due to MSCI not counting convertible preferred securities. Although this issue affects mostly banks and insurance companies (and we exclude financial firms in our analysis), we adjust our classification to adopt the MSCI criteria of excluding convertible preferred.¹¹ Panel B of Table 1 shows the quality of the match for the non-utilities/financials firms in the MSCI ACWI index (208 out of the 219 multi-class firms identified by MSCI). After this validation for MSCI ACWI constituent firms, we expand this classification method to companies outside the MSCI ACWI index.

Panel A of Table 1 shows that about 5% of publicly listed firms have multiple-class structures. These forms constitute 1,040 unique firms (357 US firms and 683 non-US firms) over the 2001–2016 sample period. For the US, the fraction of multi-class firms is 8%, which is higher than the 6% in Gompers et al. (2010) for their 1995–2002 sample but consistent with relatively recent samples in CII (2017), such as Kim and Michaely (2018) and Cremers et al. (2022).¹² This finding confirms that multi-class structures have become markedly common in the last two decades with the type of firms changing from old industrial titans (e.g., Ford Motor Company) and media conglomerates (e.g., Comcast Corp) to include top technology companies, such as Alphabet and Facebook, as shown in Panel B of Table 1. Figure 1 illustrates the growing market share of US multi-class firms from 6% in 2001 to 11% of total market capitalization in 2016.

¹¹ The countries where we made the adjustment were Australia, Belgium, Canada, Hong Kong, Ireland, Israel, Japan, the Netherlands, New Zealand, Norway, Singapore, the UK, the US, Greece, Hungary, India, Peru, South Africa, Thailand, and Taiwan.

¹² We manually check and confirm that all the Russell 3,000 firms identified as multi-class by CII (2017) were well identified in our data. We also cross-check our sample against the list of S&P 1500 firms provided by the Investor Responsibility Research Center Institute and Institutional Shareholder Services (IRRC and ISS, 2012).

[Table 1] Sample of Multi-Class Firms Around the World

This table reports the frequency of multi-class firms by country. The sample covers publicly-listed firms from MSCI ACWI countries from 2001 to 2016 with total assets above \$100 million and excludes financial and utility companies. Panel A presents the number of firm-year observations and the number of unique firms by country. Panel B details the sample at the end of 2016 and our data validation against the MSCI list of multi-class firms in the MSCI ACWI index.

Panel A. Frequency of Firms with Multi-class Share Structures per Country

Country	Regression Sample - Firm-Years			Regression Sample - Unique Firms		
	Single Class (N)	Multi-Class (N)	(%)	Single Class (N)	Multi-Class (N)	(%)
MSCI Developed Countries:						
Australia	4,031	0	0%	623	0	0%
Austria	539	51	8.6%	63	6	8.7%
Belgium	863	45	5.0%	94	10	9.6%
Canada	5,655	674	10.6%	875	69	7.3%
Denmark	522	249	32.3%	59	21	26.3%
Finland	710	254	26.3%	81	24	22.9%
France	1,127	50	4.2%	102	4	3.8%
Germany	3,644	461	11.2%	451	48	9.6%
Hong Kong	5,285	31	0.6%	620	6	1.0%
Ireland	629	12	1.9%	83	2	2.4%
Israel	1,491	0	0%	201	0	0%
Italy	1,867	216	10.4%	213	22	9.4%
Japan	35,731	31	0.1%	3,034	7	0.2%
Netherlands	1,254	112	8.2%	148	9	5.7%
New Zealand	550	0	0%	73	0	0%
Norway	1,169	41	3.4%	169	5	2.9%
Portugal	456	29	6.0%	42	5	10.6%
Singapore	2,401	1	0.0%	314	1	0.3%

	Spain	1,284	12	0.9%	129	3	2.3%
	Sweden	913	773	45.8%	146	66	31.1%
	Switzerland	1,950	185	8.7%	190	21	10.0%
	United Kingdom	7,080	124	1.7%	884	20	2.2%
	United States	32,247	2,798	8.0%	4,067	357	8.1%
	Total - Developed	111,398	6,149	5.2%	12,661	706	5.3%
MSCI Emerging Countries:	Brazil	1,188	1,145	49.1%	165	122	42.5%
	Chile	1,062	45	4.1%	93	6	6.1%
	China	22,061	49	0.2%	2,637	11	0.4%
	Colombia	212	16	7.0%	27	1	3.6%
	Czech Republic	104	0	0%	18	0	0%
	Egypt	480	0	0%	48	0	0%
	Greece	756	5	0.7%	67	4	5.6%
	Hungary	101	14	12.2%	10	1	9.1%
	India	7,838	39	0.5%	916	9	1.0%
	Indonesia	1,943	0	0%	226	0	0%
	Malaysia	3,171	17	0.5%	355	2	0.6%
	Mexico	883	139	13.6%	77	15	16.3%
	Peru	309	107	25.7%	32	9	22.0%
	Philippines	586	55	8.6%	69	5	6.8%
	Poland	892	0	0%	110	0	0%
	Qatar	102	0	0%	9	0	0%
	Russia	1,193	312	20.7%	182	47	20.5%
	South Africa	1,585	33	2.0%	195	4	2.0%
	South Korea	8,280	1,130	12.0%	995	94	8.6%
	Taiwan	8,983	0	0%	935	0	0%
	Thailand	1,996	0	0%	240	0	0%
	Turkey	1,562	33	2.1%	148	4	2.6%
	Total - Emerging	65,287	3,139	4.6%	7,554	334	4.2%
Total		176,685	9,288	5.0%	20,215	1,040	4.9%

[Table 1] (continued)

Panel B: Data Validation with MSCI Sample

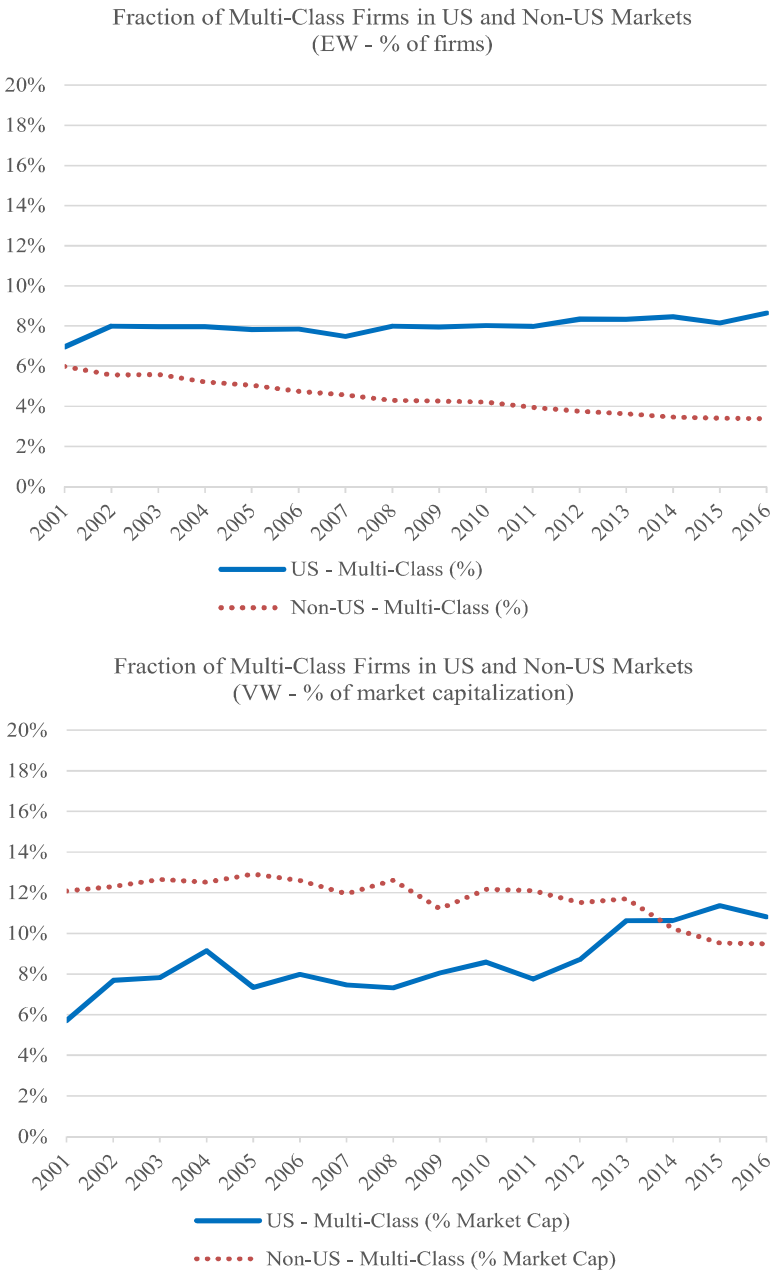
Country	Regression Sample - Firms in 2016					MSCI Firms in Regression Sample - 2016							Non-Top 3 MSCI Firms - Largest Multi-Class
	Single Class		Multi-Class		% Market Cap	Single Class		Multi-Class		Top 3 MSCI Firms - Ranked by Market Cap [(*): if Multi-Class]			
	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	#1:	#2:	#3:	
MSCI Developed Countries:	267	0	0%	0%	0%	69	0	0%	0	CommBank	Rio Tinto	BHP Billiton	#15: Alim Couche-Tard (*)
Australia	32	2	5.9%	2.4%	0%	5	0	0%	0	Erste Group	OMV	voestalpine	
Austria	59	0	0%	0%	0%	10	0	0%	0	AB InBev	KBC Groupe	GBL	
Belgium	359	44	10.9%	15.0%	0%	78	16	17.0%	17	RBC	TD Bank	Scotiabank	
Canada	30	14	31.8%	62.5%	0%	11	5	31.3%	5	Novo Nordisk (*)	Maersk (*)	Danske Bank	
Denmark	45	16	26.2%	32.0%	0%	8	4	33.3%	4	Nokia	Sampo (*)	Kone (*)	#8: Stora Enso (*)
Finland	62	3	4.6%	11.5%	0%	29	2	6.5%	0	L'Oreal	BNP Paribas	Air Liquide	#9: Renault (*)
France	207	22	9.6%	16.5%	0%	45	9	16.7%	10	SAP	Siemens	Bayer	#8: Volkswagen (*)
Germany	445	1	0.2%	1.6%	0%	82	1	1.2%	1	China Mobile	AIA Group	CNOOC	#25: Swire Pacific (*)
Hong Kong	40	0	0%	0%	0%	21	0	0%	0	Medtronic	Accenture	Allergan	
Ireland	127	0	0%	0%	0%	13	0	0%	0	Teva	Check Point	Mobileye	
Israel	111	5	4.3%	13.3%	0%	15	2	11.8%	4	Pharmaceutical	Soft Tech	Intesa Sanpaolo (*)	#7: Telecom Italia (*)
Italy	2,119	2	0.1%	0.1%	0%	318	1	0.3%	1	Eni	Enel	NTT DoCoMo	#318: Cyberdyne (*)
Japan	58	9	13.4%	24.1%	0%	20	6	23.1%	3	Toyota Motor	Unilever NV	ING Groep	#10: Ahold Delhaize (*)
Netherlands										Royal Dutch Shell			

New Zealand	45	0	0%	0%	7	0	0%	0	Auckland Intl Airport	Meridian Energy	Spark NZ	
Norway	76	3	3.8%	3.8%	8	1	11.1%	1	Statoil	DNB	Telenor	#10: Schibsted (*)
Portugal	30	1	3.2%	0.2%	3	0	0%	0	Galp Energia	EDP	Jeronimo Martins	
Singapore	167	1	0.6%	0.0%	28	0	0%	1	Broadcom	Singtel	DBS Group	
Spain	72	2	2.7%	3.8%	24	1	4.0%	0	Inditex	Banco Santander	Telefonica	#12: Grifols (*)
Sweden	70	61	46.6%	69.5%	10	20	66.7%	20	H & M (*)	Nordea Bank	Atlas Copco (*)	#4: Investor AB (*)
Switzerland	125	7	5.3%	24.8%	36	7	16.3%	7	Nestle	Roche (*)	Novartis	#8: Richemont (*)
United Kingdom	423	9	2.1%	3.5%	108	4	3.6%	2	HSBC Holdings	BP	Unilever PLC	#22: Liberty Global (*)
United States	1,847	175	8.7%	10.6%	540	42	7.2%	47	Apple	Alphabet (*)	Berkshire Hathaway (*)	#7: Facebook (*)
Total – Developed	6,816	377	5.2%	10.6%	1,488	121	7.5%	123				
MSCI Emerging Countries:												
Brazil	100	43	30.1%	44%	34	19	35.8%	19	Ambev	Petrobras (*)	Itau Unibanco (*)	#4: Bradesco (*)
Chile	69	3	4.2%	5%	17	2	10.5%	1	Falabella	Empresas Copec	Banco de Chile	#18: Embotelladora Andina (*)
China	2,408	3	0.1%	0%	92	1	1.1%	8	Tencent	ICBC H	CCB H	
Colombia	18	1	5.3%	15%	3	5	62.5%	5	Ecopetrol	Grupo Aval (*)	Bancolombia	#4: Grupo Sura (*)
Czech Republic	4	0	0%	0%	4	0	0%	0	CEZ	Komerční banka	O2 Czech Rep	
Egypt	38	0	0%	0%	3	0	0%	0	CIB	Global Telecom Hold	QNB ALAHLI	
Greece	38	3	7.3%		9	0	0%	0	OTE	Alpha Bank	OPAP	
Hungary	2	1	33.3%	49%	2	1	33.3%	0	OTP Bank	MOL Hungary (*)	Geddon Richter	

India	657	2	0.3%	2%	73	1	1.4%	1	Tata Consultancy	Reliance Industries	ITC	#16: Tata Motors (*)
Indonesia	195	0	0%	0%	31	0	0%	1	Sampoerna	Telekomunikasi Bank Central Indonesia	Asia	
Malaysia	220	2	0.9%	0%	43	0	0%	0	Maybank	Tenaga Nasional	Public Bank	
Mexico	62	6	8.8%	26%	22	3	12.0%	5	America Movil (*)	Wal-Mart de Mexico	Grupo Mexico	#5: Coca-Cola Femsa (*)
Peru	24	7	22.6%	11%	1	1	50.0%	0	Credicorp	Buenaventura (*)		
Philippines	55	5	8.3%	27%	13	10	43.5%	10	SM Prime Holdings	SM Investments	JG Summit Hold (*)	#4: Ayala Land
Poland	68	0	0%	0%	19	0	0%	3	PKN ORLEN	PKO Bank	Bank Pekao	
Qatar	9	0	0%	0%	11	0	0%	0	QNB	Industries Qatar	Ooredoo	
Russia	74	18	19.6%	19%	15	5	25.0%	5	Rosneft Oil	Sberbank (*)	Gazprom	#8: Transneft (*)
South Africa	97	4	4.0%	31%	45	4	8.2%	4	Naspers (*)	Sasol	FirstRand	#10: Remgro (*)
South Korea	765	78	9.3%	48%	68	33	32.7%	32	Samsung Electronics (*)	Hyundai Motor (*)	SK hynix	#7: Amorepacific (*)
Taiwan	678	0	0%	0%	87	0	0%	0	TSMC	Hon Hai	Formosa	
Thailand	186	0	0%	0%	34	0	0%	0	Krung Thai Bank	Precision Ind	Petrochem	
Turkey	113	2	1.7%	1%	22	2	8.3%	2	Koc Holding (*)	PTT	ThaiBev	#4: Turkiye Is Bankasi (*)
Total - Emerging	5,880	178	2.9%	8.3%	648	87	11.8%	96				
Total	12,696	555	4.2%	10.0%	2,136	208	8.9%	219				

[Figure 1] Prevalence of Multi-class Firms

Figure 1 shows the prevalence of multi-class firms as a fraction of listed firms (EW = “Equal-Weighted”) and as a percentage of total market capitalization (VW = “Value-Weighted”) for firms listed in US markets (solid lines) and non-US markets (dotted lines) from 2001 to 2016. The sample covers publicly listed firms from MSCI ACWI countries with total assets above \$100 million and excludes financial and utility companies.



Outside the US, Panel B of Table 1 shows considerable variation in the frequency of multi-class firms in developed and emerging economies, despite these structures being allowed in most countries. Among developed economies, multi-class firms represent the majority of the public market capitalization in Nordic markets (Sweden, Denmark, and Finland), between 10% to 25% for Canada and a handful of continental European countries (Germany, Netherlands, Switzerland and Italy), only 5% or below in the UK and the majority of other countries, and almost non-existent in Japan. Interestingly, a large cross-country variation also exists in emerging markets, with these structures representing over 40% of local market capitalization in Brazil and South Korea; intermediate in Mexico, Russia, and South Africa; but insignificant in many other markets, such as India or China. Many flagship companies in these emerging markets have multi-class structures, such as Petrobras (ranked #2 in Brazil by market cap in 2016), Samsung Electronics (#1 in South Korea), America Movil (#1 in Mexico), Sberbank (#2 in Russia), and Naspers (#1 in South Africa), which we validated by cross-checking with the MSCI list, as shown in Panel B of Table 1. Figure 1 shows a downward trend in the fraction of multi-class firms from 12% to 9% of market capitalization outside the US. Comparing the panel averages in Panel A with the 2016 levels in Panel B of Table 1, the most significant changes occurred in Brazil owing to the growth in the Novo Mercado one-share-one-vote segment (Matos, 2017).¹³ We also observe a decrease in the prevalence of multi-class firms in a few European countries, such as Italy.¹⁴

2.2. Institutional Investors

Institutional investors around the world have generally expressed opposition to multi-class structures, with some calling for an end to its use.¹⁵ In the US, these investors include pension fund groups, such as CII (as mentioned in the Introduction), The Investor Stewardship Group (including BlackRock, CalSTRS, Vanguard, T. Rowe Price, and SSGA), and the leading shareholder advisory firm,

¹³ For Brazil, we performed a manual data validation of our sample with that of Matos (2017), which uses Economática, a local financial database.

¹⁴ Adams and Ferreira (2008) report that 24% of the 464 large European firms surveyed by Institutional Investor Services in 2007 utilized dual class shares but we could not find a relatively recent study. For our sample, the average in 2016 for the close to 2,000 European firms is 9% and 14% of market capitalization (indicating it is a more common structure for the large firms).

¹⁵ In response to the 2017–2018 ISS Global Policy Survey with 121 major institutional investors, 43% of the respondents indicate that they consider unequal voting rights as never appropriate and 43% indicate that it may be appropriate in the limited circumstances of newly public companies if they are subject to automatic sunset requirements or periodic re-approval by the holders of the low-vote shares. Only 5% of the investor respondents agree with the opinion that companies should be allowed to choose whatever capital structure they see fit.

Institutional Shareholder Services (ISS).¹⁶ In the UK, hostility toward non-voting shares by institutional investors was responsible for their abandonment in the 1950s and 1960s (Bragion and Giannetti, 2019). In Brazil, AMEC (the “Association of Capital Market Investors”), which represents foreign and domestic institutional investors, has been extremely active in the reforms of the “Novo Mercado” (the one-share-one-vote segment of BM&FBOVESPA), which has grown considerably in the past 15 years (Matos, 2017). In Europe, a report by the European Corporate Governance Institute and ISS (ECGI and ISS, 2007) surveyed large investors and found that 80% were opposed and applied a discount to the shares of companies using multi-class structures.¹⁷ In Asia, when the Singapore and Hong Kong stock exchanges started public consultations on changes to listing rules to permit dual-class stocks, the Asian Corporate Governance Association (ACGA) submitted a survey of its large asset manager members that showed opposition to multi-class shares (“weighted-voting right structures” as called in Hong Kong).¹⁸ However, there is less investor consensus in other markets. For example, the Canadian Coalition for Good Governance (CCGG) could not find unanimity among its pension fund members as to the governance principles that should apply to dual-class share companies.¹⁹

We collect institutional holdings data from the FactSet/LionShares database.²⁰ Institutions in the database are professional money managers, such as mutual funds, pension funds, bank trusts, and insurance companies. We define total institutional ownership (*IO_TOTAL*) as the sum of the holdings of all institutions in a firm’s stock divided by its total market capitalization at the end of each calendar year. Institutional ownership is highest for US companies at 71% compared with the world average of 24%. Even though institutions are, on average, individually minority shareholders, they tend to be the most influential group in terms of their share of trading and investor activism. We decompose total institutional ownership by the nationality of the institution. In most countries, the holdings of foreign institutions (*IO_FOR*) exceed those of domestic institutions (*IO_DOM*); the exceptions are Canada, Sweden, and the US.

¹⁶ Corporate Governance Principle 2 of the ISS stewardship code states that “shareholders should be entitled to voting rights in proportion to their economic interest.” In the 2017 update of its Americas Proxy Voting Guidelines, ISS indicated its intention to issue negative recommendations for director nominees at companies with a dual-class structure that does not include a “reasonable sunset provision.”

¹⁷ The Economist, “European Corporate Governance: Tricks of the Trade” (June 7, 2007).

¹⁸ ACGA, “Survey on Alibaba and Non-Standard Shareholding in Hong Kong” (2014).

¹⁹ CCGG, “Dual Class Share Policy” (2013).

²⁰ The FactSet/LionShares institutional ownership data are available at the Wharton Research Data Services website: <https://wrds-web.wharton.upenn.edu/wrds/ds/factset/holdingsbyfirmmsci/index.cfm?navId=195>. See Ferreira and Matos (2008) for more details on these data.

[Table 2] Summary Statistics

This table reports univariate analysis for the full sample and subsamples. Panel A shows the results for the full, U.S. and non-U.S. sample. Panel B shows the results for strong and weak investor protection sample. The degree of investor protection is divided based on the anti-self-dealing index from Djankov et al. (2008). The sample covers publicly-listed firms from MSCI ACWI countries from 2001 to 2016 with total assets above \$100 million and excludes financial and utility companies. Variable definitions are provided in Table A.2 in the Appendix. Variables defined in terms of ratios are winsorized at the top and bottom 2.5%. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A. Results for Full, U.S. and Non-U.S. Sample

	Full sample				U.S. sample				Non-U.S. sample			
	Single-Class mean	Multi-Class mean	Difference	t-stat	Single-Class mean	Multi-Class mean	Difference	t-stat	Single-Class mean	Multi-Class mean	Difference	t-stat
TOBIN_Q	1.56	1.54	0.02	(1.50)	1.92	1.83	0.09***	(3.54)	1.48	1.41	0.06***	(5.01)
IO_TOTAL	0.24	0.31	-0.07***	(-23.38)	0.72	0.59	0.13***	(25.40)	0.11	0.18	-0.06***	(-27.27)
IO_PASSIVE	0.02	0.03	-0.01***	(-11.24)	0.09	0.07	0.02***	(20.60)	0.01	0.01	-0.00***	(-12.10)
IO_ACTIVE	0.21	0.28	-0.07***	(-24.48)	0.63	0.52	0.11***	(24.01)	0.11	0.17	-0.06***	(-27.34)
IO_HIGHTHREAT	0.01	0.01	-0.00**	(-2.69)	0.04	0.03	0.01***	(11.24)				
IO_LOWTHREAT	0.23	0.30	-0.07***	(-24.12)	0.68	0.57	0.12***	(24.09)				
IO_LT	0.22	0.35	-0.12***	(-26.79)	0.63	0.66	-0.02***	(-3.68)	0.10	0.19	-0.09***	(-24.62)
IO_ST	0.03	0.04	-0.01***	(-11.88)	0.07	0.07	0.00	(0.25)	0.01	0.02	-0.01***	(-7.77)
IO_FOR	0.06	0.08	-0.02***	(-14.78)	0.04	0.03	0.01***	(9.36)	0.07	0.10	-0.03***	(-20.72)
IO_DOM	0.18	0.23	-0.06***	(-18.00)	0.68	0.56	0.12***	(25.31)	0.05	0.08	-0.03***	(-19.68)
LN(TOTAL_ASSETS)	6.54	7.31	-0.77***	(-44.69)	6.96	7.13	-0.18***	(-6.13)	6.45	7.39	-0.94***	(-44.03)
YEARS_FROM_IPO	13.80	15.59	-1.80***	(-19.46)	16.81	16.10	0.71**	(3.17)	13.12	15.37	-2.25***	(-24.54)
LEVERAGE	0.24	0.26	-0.02***	(-10.06)	0.24	0.27	-0.03***	(-5.92)	0.24	0.26	-0.02***	(-7.97)
R&D	0.03	0.02	0.01***	(9.57)	0.08	0.04	0.05***	(14.34)	0.02	0.01	0.01***	(9.60)
TANGIBILITY	0.32	0.31	0.01***	(3.33)	0.27	0.25	0.02***	(5.37)	0.33	0.34	-0.01**	(-3.24)
SALES_GROWTH	11.62	9.17	2.45***	(8.45)	11.80	8.95	2.85***	(5.23)	11.58	9.26	2.32***	(6.73)
ROA	6.25	7.74	-1.49***	(-15.38)	6.97	8.16	-1.19***	(-5.90)	6.09	7.56	-1.47***	(-13.32)
DIVIDEND_YIELD	1.76	1.96	-0.20***	(-8.22)	0.84	1.06	-0.22***	(-6.04)	1.96	2.34	-0.38***	(-12.95)
Observations	176,685	9,288	185,973		32,247	2,798	35,045		144,438	6,490	150,928	

Panel B. Results for Strong and Weak Investor Protection Sample

	Strong Investor Protection sample				Weak Investor Protection sample			
	Single-Class mean	Multi-Class mean	Difference	t-stat	Single-Class mean	Multi-Class mean	Difference	t-stat
<i>TOBIN_Q</i>	1.26	1.25	0.02***	(6.01)	1.77	1.65	0.12***	(8.16)
<i>IO_TOTAL</i>	0.20	0.21	-0.00	(-0.73)	0.33	0.38	-0.05***	(-12.43)
<i>IO_PASSIVE</i>	0.01	0.01	-0.00***	(-8.84)	0.04	0.04	0.00	(1.01)
<i>IO_ACTIVE</i>	0.10	0.10	0.00	(0.28)	0.30	0.34	-0.05***	(-14.32)
<i>IO_LT</i>	0.08	0.10	-0.02***	(-4.94)	0.33	0.43	-0.10***	(-17.60)
<i>IO_ST</i>	0.01	0.01	-0.00***	(-3.94)	0.04	0.05	-0.00***	(-3.54)
<i>IO_FOR</i>	0.06	0.09	-0.03***	(-10.78)	0.06	0.07	-0.01***	(-9.82)
<i>IO_DOM</i>	0.05	0.02	0.03***	(21.34)	0.27	0.30	-0.03***	(-8.95)
<i>LN(TOTAL_ASSETS)</i>	6.44	7.35	-0.90***	(-26.73)	6.61	7.30	-0.69***	(-34.22)
<i>YEARS_FROM_IPO</i>	15.11	15.09	0.02	(0.16)	12.84	15.79	-2.94***	(-25.35)
<i>LEVERAGE</i>	0.23	0.28	-0.05***	(-14.07)	0.25	0.26	-0.01*	(-2.36)
<i>R&D</i>	0.01	0.01	0.01***	(15.18)	0.04	0.02	0.01***	(10.80)
<i>TANGIBILITY</i>	0.32	0.37	-0.05***	(-12.26)	0.32	0.29	0.03***	(10.68)
<i>SALES_GROWTH</i>	8.78	11.58	-2.80***	(-4.53)	13.67	8.24	5.43***	(16.62)
<i>ROA</i>	6.14	6.52	-0.38*	(-2.10)	6.32	8.21	-1.88***	(-16.26)
<i>DIVIDEND_YIELD</i>	1.95	2.25	-0.30***	(-5.90)	1.62	1.84	-0.23***	(-8.45)
Observations	74,472	2,575	77,047		102,111	6,713	108,824	

2.3. Summary Statistics

Table 2 shows the summary statistics for our samples. Table A.2 in the Appendix provides detailed variable definitions. We winsorize variables defined in ratios with potentially unbounded values at the 2.5% tails to mitigate the influence of outliers. We follow prior studies and measure valuation using Tobin's Q (*TOBIN_Q*), defined as the ratio of the market value of total assets to the book value of total assets. Univariate tests show a valuation discount for multi-class firms relative to single-class ones for all the subsamples, albeit no discount for the pooled sample. Multi-class firms are on average larger, more levered, and more profitable. They also invest less in R&D and pay more dividends.

III. Results

3.1. Are There Valuation Effects of Multi-Class Share Structures?

We start our analysis by validating the valuation effect of multi-class share structures previously documented in the US by Kim and Michaely (2018) and Cremers et al. (2022). Thereafter, we expand our analysis into non-US markets. To further address the role of different governance environment, we divide our sample into countries with strong and weak investor protection. The degree of investor protection is divided based on the anti-self-dealing index from Djankov et al. (2008). To account for the different valuation models across countries, we resort to subsample analysis rather than interactions.

Our main specification is a panel regression, in which the dependent variable is Tobin's Q (*TOBIN_Q*), which is the workhorse of large-sample valuation studies. The key independent variable is *MULTI_CLASS*, a dummy equal to one if a firm has multiple classes of equities with differential voting rights in a given year. We follow Kim and Michaely (2018) and the prior literature and control for total assets, firm's public age (i.e., number of years since IPO), leverage, R&D, tangibility, sales growth, ROA, and dividend yield. We further include industry-year fixed effects to account for unobserved common industry shocks and country fixed effects to absorb country characteristics.²¹ All variables are contemporaneous to the dependent variable and are defined in detail in Table A.2 in the Appendix.

Panel A of Table 3 presents the baseline results. Column 1 shows that there is, on average, a negative but statistically insignificant valuation effect of multi-class firms compared with similar single-class firms. We find no statistically significant valuation difference between single-class and multi-class firms in the US (column

²¹ To define industry dummies, we use the Fama-French 12-industry classification. Our results remain similar when controlling for the country- and industry-year fixed effects.

2), which is consistent with the findings of Cremers et al. (2022) and Kim and Michaely (2018).²² When extending the analysis to non-US markets in column 3, we find a negative valuation effect of multi-class share structures. On average, multi-class firms based outside the US have a 4% lower Tobin's Q than comparable single-class firms, although the difference is statistically significant only at the 10%

[Table 3] Valuation Effect of Multi-class Structures

This table presents the results of ordinary least squares (OLS) firm-level panel regressions of Tobin's Q on a multi-class indicator and control variables. Panel A shows the baseline results for the full sample and separately for US and non-US firms. Panel A also shows the baseline results for firms in countries with strong and weak investor protection. The degree of investor protection is divided based on the anti-self-dealing index from Djankov et al. (2008). Panel B shows the country-by-country regression results for the subset of countries with at least 10 unique multi-class firms. Variable definitions are provided in Table A.2 in the Appendix. Robust standard errors adjusted for firm-level clustering are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A. Baseline results

Dependent variables:	Full sample	US sample	Non-US sample	Strong Investor Protection sample	Weak Investor Protection sample
TOBIN_Q	(1)	(2)	(3)	(4)	(5)
MULTI_CLASS	-0.046 [0.030]	0.002 [0.056]	-0.062* [0.036]	-0.107** [0.050]	-0.029 [0.037]
LN(TOTAL_ASSETS)	-0.014*** [0.004]	-0.026*** [0.010]	-0.013*** [0.005]	0.026*** [0.006]	-0.048*** [0.006]
YEARS_FROM_IPO	-0.007*** [0.001]	-0.006*** [0.001]	-0.007*** [0.001]	-0.004*** [0.001]	-0.006*** [0.001]
LEVERAGE	-0.426*** [0.038]	-0.269*** [0.092]	-0.485*** [0.040]	-0.112** [0.055]	-0.583*** [0.053]
R&D	1.574*** [0.087]	1.328*** [0.114]	1.543*** [0.151]	1.922*** [0.326]	1.387*** [0.090]
TANGIBILITY	-0.295*** [0.025]	-0.304*** [0.067]	-0.297*** [0.027]	-0.359*** [0.037]	-0.274*** [0.034]
SALES_GROWTH	0.002*** [0.000]	0.004*** [0.000]	0.001*** [0.000]	0.000 [0.000]	0.002*** [0.000]
ROA	0.032*** [0.001]	0.027*** [0.002]	0.035*** [0.002]	0.042*** [0.003]	0.029*** [0.002]
DIVIDEND_YIELD	-0.065*** [0.003]	-0.003 [0.007]	-0.078*** [0.003]	-0.087*** [0.004]	-0.051*** [0.004]
Country FE	Yes	No	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes
Observations	185,957	35,044	150,913	77,043	108,812
R ²	0.262	0.216	0.266	0.262	0.234

²² The results are robust when we use log transformations of Q and $-1/Q$.

[Table 3] (continued)

Panel B. Country-specific results

Countries		Observations	MULTI_CLASS Coefficient	Std. err.
MSCI	Belgium	908	0.064	[0.111]
Developed	Canada	6,329	-0.161**	[0.076]
Countries:	Denmark	771	-0.129	[0.221]
	Finland	964	0.040	[0.109]
	Germany	4,105	-0.130*	[0.071]
	Italy	2,083	0.060	[0.071]
	Sweden	1,686	0.037	[0.098]
	Switzerland	2,135	0.021	[0.122]
	United Kingdom	7,204	-0.076	[0.095]
	United States	35,045	0.002	[0.056]
	Countries with insufficient observations:	Australia, Austria, France, Hong Kong, Ireland, Israel, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain		
MSCI	Brazil	2,333	-0.468***	[0.178]
Emerging	Mexico	1,022	-0.001	[0.100]
Countries:	Russia	1,505	-0.257	[0.163]
	South Korea	9,410	0.050	[0.042]
	Countries with insufficient observations:	Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Malaysia, Peru, Philippines, Poland, Qatar, South Africa, Taiwan, Thailand, Turkey		

level. We also find a significant valuation discount of multi-class firms in countries with strong investor protection (column 4), but not in countries with weak investor protection (column 5). Across all columns, control variables exhibit coefficient signs consistent with Kim and Michaely (2018) and prior studies.

The results suggest that the value implication of multi-class share structures can be different across equity markets owing to potentially different institutions or governance environments. Lower investor protection standards could potentially magnify the agency costs of multi-class share structure relative to its benefits. However, different investor bases and investors' preferences could lead to different value implications across countries. Moreover, the role of investors on the valuation discount of multi-class firms likely varies across governance environments. We will further explore this aspect in Section 3.2.

To further understand which markets drive the valuation discount in non-US markets, we run the Tobin's Q regressions country by country. To ensure there is power for meaningful statistical inference, we restrict to countries with at least 10 unique multi-class firms in the sample. Panel B of Table 3 presents the estimated coefficients on *MULTI_CLASS* and its standard error by country. We find that discount for multi-class firms is statistically and economically meaningful in three

countries, namely, Canada, Germany, and Brazil, with the discounts being 11%, 9%, and 27%, respectively, of the average Tobin's Q in these markets. The larger valuation discount in Brazil may be consistent with a lower level of investor protection. Overall, Panel B of Table 3 highlights that in most countries, be it developing or emerging, there is no significant valuation effect of multi-class share structure. This finding is consistent with the trade-off view of multi-class share structure: costs and benefits co-exist and understanding its net effect requires a considerably nuanced approach.

3.2. What Are the Preferences of (Different) Institutional Investors?

As highlighted in the previous section, the net costs and benefits associated with multi-class share structure are likely to depend on a firm's investor base. As discussed in Section 2.2, institutional investors have been vocal in the recent debate on multi-class structures. The dominant view among these investors is that multi-class share structure impedes shareholder democracy and their mandate to create value on behalf of their clients. Such a preference could manifest in firms' stock prices through institutional investors' trading (Edmans, 2014) or in firms' institutional ownership through these investors' decisions to invest in the first place. This "exit" channel would predict a lower valuation for multi-class firms when institutional ownership is high. An alternative hypothesis is that institutional investors may express their preference through "voice," directly engaging with the management (Becht et al., 2005). Such interventions may mitigate the downside of multi-class structures, therefore predicting a higher valuation of multi-class firms when institutional ownership is high. In addition, investor protection standards could affect the role of institutional ownership. Institutional investors could have more incentives to play their governance role in countries with strong investor protection. We test these hypotheses in this section.

Table 4 examines how institutional investors affect the valuation of multi-class firms across different governance environments. We interact the multi-class dummy with a firm's total institutional ownership ($MULTI_CLASS \times IO_TOTAL$), and do this separately for US, non-US, and strong and weak investor protection subsamples. To facilitate interpretation across columns, we standardize IO_TOTAL in each regression by subtracting its mean and dividing by its standard error within the regression sample. We find that in US and non-US companies, the presence of institutional investors widens the valuation discount of multi-class relative to single-class firms. In particular, a one-standard-deviation increase in institutional ownership decreases the Tobin's Q of multi-class firms relative to single-class ones by 6.4% in the US and decreases that by 4.1% in non-US markets.

If we move on the strong and weak investor protection subsamples, there is a valuation discount of multi-class firms only in countries with strong investor

[Table 4] Valuation of Multi-Class Firms: the Preference of Institutional Investors

This table examines how institutional investors influence the valuation of multi-class firms. Panel A presents the baseline results of the ordinary least squares (OLS) panel regressions of Tobin's Q on a multi-class indicator interacted with IO_TOTAL (total institutional ownership) for US and non-US firms. Panel A also shows the baseline results for firms in countries with strong and weak investor protection. Panel B divides the samples into firms that are part of a major index (S&P 500 in the US and MSCI ACWI outside the US) and firms that are not. Panel C decomposes total institutional ownership by different types, namely, passive and active, high threat and low threat, long- and short-term, and domestic and foreign, and interact the multi-class indicator with these decomposed pairs of institutional ownership variables. $IO_PASSIVE$ is the total ownership owned by the top three largest passive institutional investors around the world: BlackRock, State Street, and Vanguard. IO_ACTIVE is IO_TOTAL minus $IO_PASSIVE$. $IO_HIGHTHREAT$ is the total ownership by institutional investors that are classified as very high, high, or medium threat by SharkRepellent. $IO_LOWTHREAT$ is IO_TOTAL minus $IO_HIGHTHREAT$. The two variables are defined only for the US sample. IO_LT and IO_ST refer to total ownership by long- and short-term institutional investors, respectively. IO_DOM and IO_FOR refer to total ownership by domestic and foreign institutional investors, respectively. To facilitate interpretation across columns, all institutional ownership variables are standardized (remove mean and divide by standard error) in all regressions. Definitions of all variables are provided in Table A.2 in the Appendix. Robust standard errors adjusted for firm-level clustering are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A. Baseline results

	US sample Non-U.S. sample		Strong Investor Protection	Weak Investor Protection
Dependent variable:			sample	sample
<i>TOBIN_Q</i>	(1)	(2)	(3)	(4)
<i>MULTI_CLASS</i>	-0.001 [0.061]	-0.011 [0.041]	-0.069 [0.049]	0.015 [0.042]
<i>IO_TOTAL</i>	0.124*** [0.016]	0.131*** [0.011]	0.109*** [0.0151]	0.192*** [0.018]
<i>MULTI_CLASS</i> × <i>IO_TOTAL</i>	-0.123** [0.062]	-0.060*** [0.023]	-0.107*** [0.037]	-0.038 [0.044]
<i>LN(TOTAL_ASSETS)</i>	-0.053*** [0.011]	-0.050*** [0.006]	-0.004 [0.007]	-0.081*** [0.007]
<i>YEARS_FROM_IPO</i>	-0.006*** [0.001]	-0.006*** [0.001]	-0.004*** [0.001]	-0.007*** [0.001]
<i>LEVERAGE</i>	-0.220** [0.094]	-0.485*** [0.041]	-0.124** [0.055]	-0.533*** [0.057]
<i>R&D</i>	1.303*** [0.113]	1.521*** [0.151]	1.903*** [0.341]	1.371*** [0.090]
<i>TANGIBILITY</i>	-0.259*** [0.068]	-0.275*** [0.028]	-0.340*** [0.038]	-0.243*** [0.037]
<i>SALES_GROWTH</i>	0.005*** [0.000]	0.001*** [0.000]	0.000 [0.000]	0.003*** [0.000]
<i>ROA</i>	0.026***	0.037***	0.046***	0.029***

	[0.002]	[0.002]	[0.004]	[0.002]
<i>DIVIDEND_YIELD</i>	0.008	−0.080***	−0.091***	−0.044***
	[0.007]	[0.003]	[0.005]	[0.003]
Country FE	No	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	34,483	128,687	66,896	96,274
R ²	0.226	0.297	0.302	0.254

Panel B. Index members versus non-index members

Dependent variable:	US sample		Non-US sample	
<i>TOBIN_Q</i>	S&P 500 firms	non-S&P 500 firms	MSCI firms	non-MSCI firms
	(1)	(2)	(3)	(4)
<i>MULTI_CLASS</i>	0.057	−0.008	−0.049	0.007
	[0.148]	[0.053]	[0.080]	[0.035]
<i>IO_TOTAL</i>	−0.069**	0.172***	−0.037	0.119***
	[0.027]	[0.018]	[0.029]	[0.009]
<i>MULTI_CLASS</i> × <i>IO_TOTAL</i>	−0.151*	−0.156**	−0.046	−0.069***
	[0.083]	[0.067]	[0.056]	[0.023]
<i>LN(TOTAL_ASSETS)</i>	−0.185***	−0.172***	−0.246***	−0.122***
	[0.028]	[0.015]	[0.021]	[0.007]
<i>YEARS_FROM_IPO</i>	−0.005*	−0.010***	−0.002	−0.008***
	[0.003]	[0.001]	[0.003]	[0.001]
<i>LEVERAGE</i>	−0.146	−0.062	−0.131	−0.392***
	[0.201]	[0.099]	[0.125]	[0.036]
<i>R&D</i>	5.636***	1.041***	4.131***	1.202***
	[1.172]	[0.105]	[1.258]	[0.113]
<i>TANGIBILITY</i>	−0.070	−0.213***	−0.332***	−0.243***
	[0.160]	[0.067]	[0.079]	[0.027]
<i>SALES_GROWTH</i>	0.000	0.005***	−0.001*	0.002***
	[0.001]	[0.000]	[0.001]	[0.000]
<i>ROA</i>	0.097***	0.018***	0.084***	0.028***
	[0.005]	[0.002]	[0.005]	[0.002]
<i>DIVIDEND_YIELD</i>	−0.062***	0.015**	−0.116***	−0.071***
	[0.017]	[0.007]	[0.009]	[0.003]
Country FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	5,576	28,907	19,936	108,751
R ²	0.569	0.233	0.442	0.311

Panel C. Heterogeneity across different types of institutional ownership

Dependent variable:	US sample				Non-US sample		
<i>TOBIN_Q</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>MULTI_CLASS</i>	0.004	−0.009	−0.023	0.009	−0.007	−0.079**	−0.011
	[0.061]	[0.060]	[0.060]	[0.060]	[0.041]	[0.040]	[0.040]
<i>MULTI_CLASS</i> × <i>IO_ACTIVE</i>	−0.135**				−0.066**		
	[0.062]				[0.030]		

<i>MULTI_CLASS</i> ×	0.020				0.020		
<i>IO_PASSIVE</i>	[0.047]				[0.044]		
<i>MULTI_CLASS</i> ×	−0.108**						
<i>IO_HIGHTHREAT</i>	[0.047]						
<i>MULTI_CLASS</i> ×	−0.104						
<i>IO_LOWTHREAT</i>	[0.064]						
<i>MULTI_CLASS</i> × <i>IO_LT</i>		−0.049			−0.071***		
		[0.054]			[0.020]		
<i>MULTI_CLASS</i> × <i>IO_ST</i>		−0.025			−0.043***		
		[0.038]			[0.012]		
<i>MULTI_CLASS</i> × <i>IO_FOR</i>			0.003			−0.008	
			[0.055]			[0.030]	
<i>MULTI_CLASS</i> × <i>IO_DOM</i>			−0.135**			−0.061***	
			[0.066]			[0.018]	
<i>IO_ACTIVE</i>	0.109***				0.096***		
	[0.017]				[0.010]		
<i>IO_PASSIVE</i>	0.029*				0.062***		
	[0.017]				[0.008]		
<i>IO_HIGHTHREAT</i>	−0.031***						
	[0.011]						
<i>IO_LOWTHREAT</i>	0.136***						
	[0.016]						
<i>IO_LT</i>		0.085***			0.082***		
		[0.017]			[0.012]		
<i>IO_ST</i>		0.027***			0.036***		
		[0.012]			[0.007]		
<i>IO_FOR</i>			0.163***			0.111***	
			[0.020]			[0.011]	
<i>IO_DOM</i>			0.090***			0.051***	
			[0.015]			[0.008]	
<i>LN(TOTAL_ASSETS)</i>	−0.053***	−0.055***	−0.037***	−0.093***	−0.059***	−0.010*	−0.054***
	[0.011]	[0.011]	[0.012]	[0.013]	[0.006]	[0.006]	[0.006]
<i>YEARS_FROM_IPO</i>	−0.006***	−0.007***	−0.006***	−0.006***	−0.007***	−0.007***	−0.006***
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
<i>LEVERAGE</i>	−0.220**	−0.189**	−0.273***	−0.203**	−0.476***	−0.342***	−0.477***
	[0.096]	[0.094]	[0.099]	[0.092]	[0.042]	[0.048]	[0.042]
<i>R&D</i>	1.301***	1.299***	1.266***	1.236***	1.525***	1.026***	1.513***
	[0.114]	[0.113]	[0.112]	[0.112]	[0.151]	[0.148]	[0.151]
<i>TANGIBILITY</i>	−0.263***	−0.267***	−0.256***	−0.238***	−0.282***	−0.259***	−0.280***
	[0.068]	[0.068]	[0.076]	[0.067]	[0.029]	[0.031]	[0.029]
<i>SALES_GROWTH</i>	0.005***	0.005***	0.004***	0.005***	0.001***	0.001***	0.001***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
<i>ROA</i>	0.026***	0.025***	0.033***	0.025***	0.037***	0.035***	0.037***
	[0.002]	[0.002]	[0.003]	[0.002]	[0.002]	[0.002]	[0.002]
<i>DIVIDEND_YIELD</i>	0.008	0.006	0.009	0.009	−0.079***	−0.076***	−0.079***
	[0.007]	[0.007]	[0.007]	[0.007]	[0.003]	[0.004]	[0.003]
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Observations	34,453	34,453	34,450	34,483	128,626	128,550	128,687
R ²	0.226	0.229	0.248	0.235	0.298	0.290	0.297

Panel C. Heterogeneity across different types of institutional ownership (cont'd)

Dependent variable:	Strong Investor Protection			Weak Investor Protection		
	sample			sample		
<i>TOBIN_Q</i>	(8)	(9)	(10)	(11)	(12)	(13)
<i>MULTI_CLASS</i>	-0.071 [0.049]	-0.109** [0.044]	-0.045 [0.048]	0.023 [0.044]	-0.085* [0.044]	0.013 [0.041]
<i>MULTI_CLASS</i> × <i>IO_ACTIVE</i>	-0.125*** [0.033]			-0.085 [0.056]		
<i>MULTI_CLASS</i> × <i>IO_PASSIVE</i>	0.022 [0.029]			0.062 [0.044]		
<i>MULTI_CLASS</i> × <i>IO_LT</i>		-0.088*** [0.029]			-0.004 [0.036]	
<i>MULTI_CLASS</i> × <i>IO_ST</i>		-0.018 [0.013]			-0.023 [0.024]	
<i>MULTI_CLASS</i> × <i>IO_FOR</i>			-0.115*** [0.034]			-0.025 [0.034]
<i>MULTI_CLASS</i> × <i>IO_DOM</i>			-0.017 [0.025]			-0.049 [0.045]
<i>IO_ACTIVE</i>	0.072*** [0.015]			0.162*** [0.017]		
<i>IO_PASSIVE</i>	0.060*** [0.011]			0.042*** [0.013]		
<i>IO_LT</i>		0.097*** [0.016]			0.106*** [0.019]	
<i>IO_ST</i>		0.012 [0.007]			0.032*** [0.008]	
<i>IO_FOR</i>			0.117*** [0.015]			0.113*** [0.013]
<i>IO_DOM</i>			0.003 [0.011]			0.129*** [0.018]
<i>LN(TOTAL_ASSETS)</i>	-0.012 [0.007]	0.014** [0.006]	-0.013*** [0.008]	-0.082*** [0.007]	-0.042*** [0.008]	-0.091*** [0.007]
<i>YEARS_FROM_IPO</i>	-0.004*** [0.001]	-0.007*** [0.002]	-0.004*** [0.001]	-0.007*** [0.001]	-0.006*** [0.001]	-0.007*** [0.001]
<i>LEVERAGE</i>	-0.117** [0.053]	0.002 [0.057]	-0.107** [0.054]	-0.532*** [0.058]	-0.495*** [0.066]	-0.519*** [0.057]
<i>R&D</i>	1.915*** [0.339]	1.249*** [0.236]	1.901*** [0.337]	1.369*** [0.090]	1.194*** [0.094]	1.348*** [0.090]
<i>TANGIBILITY</i>	-0.344*** [0.038]	-0.359*** [0.039]	-0.349*** [0.038]	-0.246*** [0.037]	-0.209*** [0.044]	-0.247*** [0.037]
<i>SALES_GROWTH</i>	0.000 [0.000]	0.000 [0.000]	0.000 [0.000]	0.003*** [0.000]	0.002*** [0.000]	0.003*** [0.000]
<i>ROA</i>	0.046*** [0.003]	0.041*** [0.004]	0.045*** [0.004]	0.029*** [0.002]	0.032*** [0.002]	0.029*** [0.002]

<i>DIVIDEND_YIELD</i>	−0.091***	−0.086***	−0.090***	−0.045***	−0.045***	−0.044***
	[0.005]	[0.005]	[0.005]	[0.003]	[0.004]	[0.003]
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	66,851	66,870	66,896	96,228	96,130	96,274
R ²	0.305	0.313	0.304	0.254	0.255	0.256

protection. A one-standard-deviation increase in institutional ownership decreases the Tobin's Q of multi-class firms relative to single-class ones by 8.5%. In countries with weak investor protection, the coefficient of *MULTI_CLASS* x *IO_TOTAL* is negative but insignificant. These results suggest that the strong investor protection environment provides institutional investors more incentives and abilities to express their dislike for multi-class firms. In countries with weak investor protection, institutional investors' act may have minimal impact on multi-class share structure. These results are consistent with Zhong et al. (2017), which shows that the positive association between institutional investors and earnings quality is stronger in countries with strong investor protection.

As mentioned in the beginning of Section 3.2, institutional investors could express their preference against multi-class firms through "exit" or "voice." To further explore these alternative channels, we exploit variation in firms' active versus passive ownership. Given that passive investors need to maintain portfolio weights that closely track the weights in index benchmark, they govern only through voice, rather than exit (Appel et al., 2016), whereas active investors govern through both. If the discount we have found in Panel A of Table 4 is driven by institutional investors' "exit," then it should be more evident among firms with more active ownership.

Appel et al. (2016, 2018) show that firms that are index-members have substantially higher passive ownership, but not active ownership, than firms that are non-index members. Therefore, we divide our samples into firms that are index members versus those that are not. In particular, we divide by S&P 500 membership for US firms and by MSCI ACWI membership for non-US firms. The reason is that these indices are the largest ones tracked by institutional investors in the respective regions. Panel B of Table 5 reports these results. We find that in the US, institutional investors discount multi-class firms slightly more (and statistically much stronger) when these firms are outside S&P 500 than within S&P 500. For non-U.S. markets, such discount only happens for firms outside MSIC ACWI. These results further suggest the discount by institutional investors toward multi-class firms is driven by their exit rather than voice.

In Panel C of Table 4, we further explore the differential valuation effect of different types of institutional investors on multi-class firms. We decompose total institutional ownership into those by passive and active investors, high threat and low threat activist investors, long- and short-term investors, and domestic and foreign investors. Thereafter, we interact these decomposed institutional ownership

variables with the multi-class indicator. *IO_PASSIVE* is the total ownership owned by the top three largest passive institutional investors around the world: BlackRock, State Street Global Advisors, and Vanguard Group.²³ *IO_ACTIVE* is *IO_TOTAL* minus *IO_PASSIVE*. *IO_HIGHTHREAT* is the total ownership by institutional investors that are classified as very high, high, or medium threat by FactSet SharkRepellent, while *IO_LOWTHREAT* is *IO_TOTAL* minus *IO_HIGHTHREAT*.²⁴ The two variables are defined only for the US sample. *IO_LT* and *IO_ST* is divided based on the portfolio turnover. Lastly, *IO_DOM* and *IO_FOR* refer to total ownership by domestic and foreign institutional investors, respectively.

We find that passive investors do not have a significant role on the valuation of multi-class firms relative to single-class ones, consistent with the results in Panel B. However, ownership by active investors does have a negative association with the valuation of multi-class firms. These results hold in the US (column 1 of Panel C), non-US (column 5 of Panel C), and strong investor protection samples (column 8 of Panel C). Within the US, institutional investors with a high threat of activism are significantly negatively associated with the valuation of multi-class firms, while those with a low threat do not have a significant relation with these firms (column 2).

We also find that long-term institutional investors play a role in the valuation discount of multi-class firms in the non-US and strong investor protection samples (columns 6 and 9). The negative association between ownership by long-term institutions and Tobin's Q of multi-class firms could result from the fact that long-term institutional investors can benefit more from their monitoring effects (Gaspar et al., 2005). The results in Panel C of Table 4 are also relatively consistent with Kim et al. (2019), which present active long-term investors are positively related to corporate social responsibility activities. Lastly, in the US and non-US markets, we find that the role of institutional ownership on the valuation discount of multi-class firms is mainly driven by domestic institutional investors rather than foreign ones (columns 4 and 7). However, foreign institutional investors, not domestic ones, play a role in the strong investor protection sample. Given that foreign institutions have more motivation for monitoring in countries with strong investor protection, they may actively express their preference against multi-class firms in those countries.

²³ The three fund management companies are known as the "Big Three" because they control a large fraction of ETF and index fund assets (Pension & Investments, "Growth of ETFs reflects passive shift; 3 largest firms hold 79% of assets" May 28, 2018).

²⁴ The FactSet SharkRepellent database tracks the history of each institutions' activist campaigns (voting for stockholder proposals, voting against management proposal, support dissent group in a proxy fight, seeking board representation, enhancing corporate governance or voting against a merger) but is limited only to the US market. These data are used by Boyson et al. (2017) to measure hedge fund activism.

Although Table 4 shows the role of institutional investors on the valuation discount of multi-class firms, the results are subject to endogeneity concerns, such as omitted variable bias and reverse causality. To address these concerns, we conduct instrumental variable (IV) panel regressions for the relation between total institutional ownership and Tobin's Q of multi-class firms. In the IV regressions, the instrument we use is a dummy variable (*MSCI*) that equals one if a firm is a member of the MSCI ACWI in a given year, and zero otherwise. For the IV regressions to be effective, the instrumental variable should affect variations in institutional ownership (relevance condition) but should not directly influence firm valuation, except through its impact on institutional ownership (exclusion restriction). Thus, we assume that the addition to MSCI ACWI is associated with an increase in institutional ownership but is not directly correlated with firm valuation. We establish the relevance condition in the first-stage estimation and that the exclusion restriction assumption likely holds because stocks are added to MSCI ACWI based on their representation of a country's investable equities, rather than the firms' expected performance. The results from the two-stage least squares (2SLS) regressions are presented in Table 5. Panel A outlines the results for the US and non-US subsamples, while Panel B presents the results for the strong and weak investor protection subsamples.

As shown in Panels A and B of Table 5, the statistics from the Wu-Hausman test reject the null hypothesis that institutional ownership is exogenous to Tobin's Q. This finding highlights the need to address the endogeneity issue using 2SLS estimation. The first-stage regressions in Table 5 reveal a positive relationship between *MSCI* and *IO_TOTAL* across all subsamples. In addition, the first-stage F-statistics confirm the relevance of IV. For example, in the non-U.S. subsample, the F-statistic is 139.37, which is significant at the 1% level. Therefore, we reject the null hypothesis that the instrument is weak. The second-stage results align with those in Panel A of Table 4. Institutional ownership is negatively associated with the valuation of multi-class firms in the non-US and strong investor protection subsamples. Note that the estimates of $MULTI_CLASS \times IO_TOTAL_IV$ are larger in the IV regression (Table 5) compared with the OLS regression (Table 4). This result suggests that the OLS regression underestimates the role of institutional ownership on the valuation discount of multi-class firms by treating institutional ownership as exogenous.

Combining all the results in Tables 4 and 5, we conclude that institutional investors, particularly active institutional investors, exhibit a strong aversion toward multi-class firms; they express their preference through actively trading against these firms ("exit"), thereby dampening the valuation of these firms.

[Table 5] Robustness Check: Valuation of Multi-class Firms

This table presents the results of two-stage least squares (2SLS) panel regressions examining the effect of institutional investors on the valuation of multi-class firms. Institutional ownership is instrumented with MSCI (a dummy variable that equals one if a firm is a member of the MSCI ACWI in a given year, and zero otherwise). The dependent variable is Tobin's Q and the main variable of interest is a multi-class indicator interacted with instrumented IO_TOTAL (total institutional ownership). To facilitate interpretation across columns, all institutional ownership variables are standardized (i.e., removed mean and divided by the standard error) in all regressions. Definitions of all variables are provided in Table A.2 in the Appendix. Robust standard errors adjusted for firm-level clustering are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A. US Sample versus Non-US Sample

	US sample		Non-US sample	
	1st Stage	2nd Stage	1st Stage	2nd Stage
	(1)	(2)	(3)	(4)
Dependent variable:	IO_TOTAL	$TOBIN_Q$	IO_TOTAL	$TOBIN_Q$
$MULTI_CLASS$	-0.440*** [0.049]	-1.492*** [0.468]	-0.175*** [0.021]	-0.470 [0.352]
IO_TOTAL_IV		3.789*** [0.594]		2.013*** [0.151]
$MULTI_CLASS \times IO_TOTAL_IV$		-0.289 [0.869]		-0.461** [0.181]
$LN(TOTAL_ASSETS)$	0.260*** [0.014]	-0.772*** [0.126]	0.140*** [0.006]	-0.421*** [0.031]
$YEARS_FROM_IPO$	0.002** [0.001]	0.001 [0.005]	-0.001 [0.001]	-0.005** [0.002]
$LEVERAGE$	-0.550*** [0.063]	-2.197*** [0.377]	-0.371*** [0.031]	-0.328*** [0.092]
$R\&D$	0.250*** [0.050]	2.163*** [0.291]	0.641*** [0.096]	0.209 [0.231]
$TANGIBILITY$	-0.425*** [0.068]	-1.841*** [0.374]	-0.200*** [0.030]	0.088 [0.071]
$SALES_GROWTH$	-0.001*** [0.000]	0.002** [0.001]	-0.000 [0.000]	0.002*** [0.000]
ROA	0.012*** [0.001]	0.072*** [0.009]	0.011*** [0.001]	0.013*** [0.002]
$DIVIDEND_YIELD$	-0.106*** [0.008]	-0.404*** [0.071]	-0.017*** [0.003]	-0.048*** [0.006]
$MSCI$	0.264*** [0.038]		0.346*** [0.021]	
First stage F-statistics	114.13 (p < 0.000)		139.37 (p < 0.000)	
Wu-Hausman F-statistics		168.20 (p < 0.000)		245.65 (p < 0.000)
Country FE	No	No	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	34,483	34,483	128,687	128,687

Panel B. Strong Investor Protection Sample versus Weak Investor Protection Sample

	Strong Investor Protection sample		Weak Investor Protection sample	
	1st Stage (1)	2nd Stage (2)	1st Stage (3)	2nd Stage (4)
Dependent variable:	<i>IO_TOTAL</i>	<i>TOBIN_Q</i>	<i>IO_TOTAL</i>	<i>TOBIN_Q</i>
<i>MULTI_CLASS</i>	-0.155*** [0.053]	-0.287 [0.242]	-0.217*** [0.022]	1.592 [0.982]
<i>IO_TOTAL_IV</i>		2.247*** [0.295]		11.245*** [2.147]
<i>MULTI_CLASS</i> × <i>IO_TOTAL_IV</i>		-1.016*** [0.218]		-2.386 [3.772]
<i>LN(TOTAL_ASSETS)</i>	0.144*** [0.008]	-0.411*** [0.057]	0.113*** [0.005]	-1.461*** [0.276]
<i>YEARS_FROM_IPO</i>	0.001 [0.002]	-0.007* [0.004]	0.001 [0.001]	-0.016** [0.008]
<i>LEVERAGE</i>	-0.280*** [0.043]	-0.563*** [0.135]	-0.318*** [0.026]	-3.107*** [0.768]
<i>R&D</i>	0.991*** [0.199]	0.349 [0.577]	0.154*** [0.029]	0.464 [0.455]
<i>TANGIBILITY</i>	-0.244*** [0.046]	0.193 [0.133]	-0.174*** [0.023]	1.614*** [0.462]
<i>SALES_GROWTH</i>	-0.000 [0.000]	0.001** [0.000]	-0.000*** [0.000]	0.005*** [0.001]
<i>ROA</i>	0.015*** [0.001]	0.012** [0.005]	0.007*** [0.000]	-0.051*** [0.016]
<i>DIVIDEND_YIELD</i>	-0.011** [0.004]	-0.067*** [0.011]	-0.029*** [0.002]	0.265*** [0.064]
<i>MSCI</i>	0.278*** [0.029]		0.075*** [0.014]	
First stage F-statistics	191.89 (p < 0.000)		813.90 (p < 0.000)	
Wu-Hausman F-statistics		86.20 (p < 0.000)		335.83 (p < 0.000)
Country FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	66,896	66,896	96,274	96,274

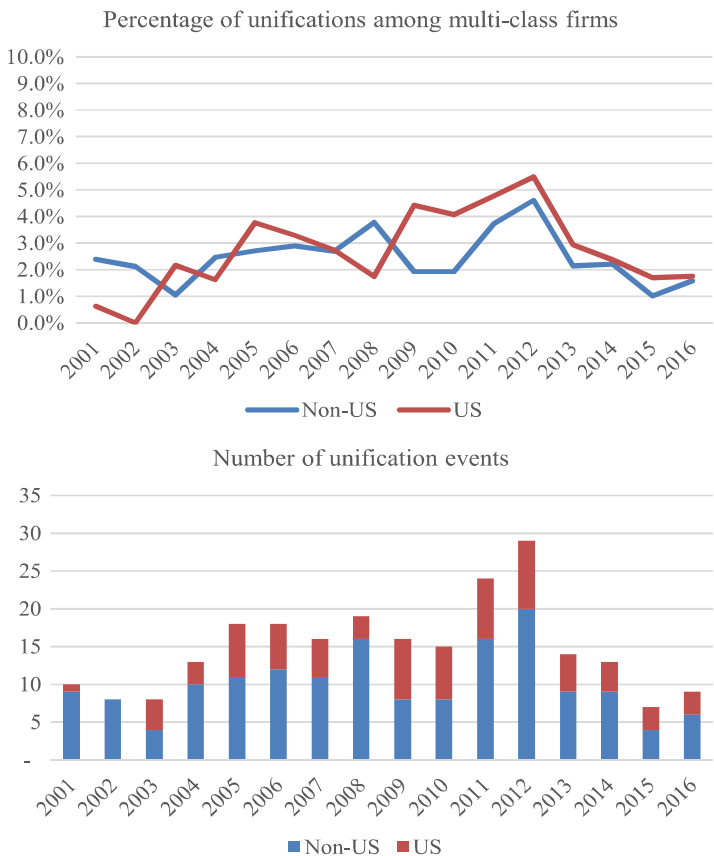
3.3. Do Firms Respond to Investor Preferences? The Case of Share-class Unifications

Given institutional investors' increasing importance in global capital markets and their dislike for multi-class share structures, firms may respond by adjusting their share structures to potentially increase their stock value. We investigate this hypothesis in this section by studying share class unifications (i.e., voluntary conversions to single-class share structures).

We identify 237 such unification events in our sample by tagging firms that transitioned from multi-class to single-class. On average, 2.6% of multi-class firms unified their shares in our sample period, with the number being slightly higher in the US (2.8%) than outside the US (2.5%). Figure 2 shows the frequency of these events over time. For the US and non-US countries, there is an overall upward trend in unifications from 2001 to 2012, and a decline in recent years. The countries with more events are the US (76), followed by Brazil (27), Germany (17), Switzerland (16), and Canada (12). This list corresponds to the set of countries that have been examined in prior studies of share class unifications. We manually validate the set of Brazilian unifications with those in Gledson De Carvalho and Pennacchi (2012) and Bortolon and Camara Leal (2014). In addition, we search the official list of firms in Novo Mercado (the one-share-on-vote segment) to determine

[Figure 2] Share-Class Unification Events

This figure shows the fraction and number of share-class unification events (a firm switching from multi-class to single-class structure) among multi-class firms per year for US and non-US in the 2001–2016 period.



unifications that were the result of migrations rather than direct IPOs. Only a few studies have been conducted on unifications in the US (Jordan, Liu and Wu, 2016), Canada (Amoako-Adu and Smith, 2001), Germany (Dittmann and Ulbricht, 2008), and Western Europe (Maury and Pajuste, 2011; Lauterbach and Pajuste, 2015). However, the periods of these studies pre-date our sample period or the lists of unifying firms are not provided to allow cross-checking.

Table 6 examines the role of institutional investors in multi-class firms' unification decisions. The sample includes all firms that had a multi-class structure over our sample period. The dependent variable *UNIFICATION* is a dummy that equals one if a firm is multi-class this year and single-class next year. Owing to the low frequency of unification events, we employ Probit rather than linear probability model. Panel A presents the results for US and non-US samples and Panel B shows the results for strong and weak investor protection samples. We find that high institutional ownership in the US predicts subsequent unifications. This aspect is driven by domestic institutional investors and institutional investors that are active or with a high threat of activism. For non-US markets, although we do not find a significant effect of overall institutional ownership on the likelihood of unification, the ownership by domestic, active, and long-term institutional investors is significantly related with a higher likelihood of unifications. In countries with strong investor protection, we find the ownership by total, active, and long-term institutional is positively associated with unifications. Across all the subsamples, passive institutional investors are associated with a lower likelihood of unification.

To check the direction of causality, we further conduct the Granger causality tests for the relation between total institutional ownership and unification. As shown in Table 7, *IO_TOTAL* does Granger-cause multi-class firms' unification decisions in the US and strong investor protection samples. However, there is no Granger-causality from unifications to total institutional ownership across all the samples.

Lastly, we study the value implication of share class unification. Table 3 shows that multi-class firms, on average, exhibit no discount in the US but a discount outside the US and in countries with strong investor protection. If this is the case, then we would expect these valuation effects to also hold within a firm. This aspect is what we exploit next. Table 8 includes three independent variables: lagged multi-class dummy (*MULTI_CLASS_{t-1}*) that is equal to one if a firm is multi-class in the previous year, a unification dummy (*UNIFICATION*) that is equal to one if a firm is single-class in a given year and multi-class in the previous year, and a multiplication dummy (*MULTIPLICATION*) indicating a firms being multi-class in a year and single-class in the previous year. The dependent variable is current year Tobin's Q. This specification will tease out the valuation effect of unification, relative to non-unifying multi-class firms, single-class firms, as well as single-class firms that transitioned to multi-class. We find that unification is associated with a

value increase in the non-US and strong investor protection sample, consistent with the panel results in Table 3.

[Table 6] Unification of Multi-class Shares

This table presents the effects of institutional ownership on the likelihood of multi-class firms unifying their shares into a single-class (unification). We estimate Probit panel regressions of unification events on different types of institutional ownership and report the estimated average marginal effects. Panel A presents the results for US and non-US firms and Panel B shows the results for firms in countries with strong and weak investor protection. The dependent variable *UNIFICATION* is a dummy equal to one if a firm is multi-class this year and single-class next year. Definitions of other variables are provided in Table A.2 in the Appendix. Robust standard errors adjusted for firm-level clustering are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A. Results for US and Non-US firms

Dependent variable:	US sample					Non-US sample			
<i>UNIFICATION</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>IO_TOTAL</i>	0.070*** [0.025]					0.027 [0.020]			
<i>IO_ACTIVE</i>		0.151*** [0.030]					0.065*** [0.025]		
<i>IO_PASSIVE</i>		-0.612*** [0.157]					-0.674*** [0.238]		
<i>IO_HIGHTHREAT</i>			0.306*** [0.086]						
<i>IO_LOWTHREAT</i>			0.051* [0.026]						
<i>IO_LT</i>				0.001 [0.001]				0.025* [0.015]	
<i>IO_ST</i>				-0.011 [0.014]				-0.004 [0.013]	
<i>IO_FOR</i>					-0.029 [0.158]				0.011 [0.026]
<i>IO_DOM</i>					0.075*** [0.026]				0.056* [0.032]
<i>LN(TOTAL_ASSETS)</i>	-0.005 [0.004]	-0.003 [0.004]	-0.005 [0.004]	0.005 [0.005]	-0.004 [0.004]	-0.002 [0.002]	0.000 [0.002]	-0.001 [0.003]	-0.001 [0.002]
<i>YEARS_FROM_IPO</i>	-0.001** [0.000]	-0.000 [0.000]	-0.001* [0.000]	0.000 [0.001]	-0.001* [0.000]	-0.002*** [0.000]	-0.002*** [0.000]	-0.001* [0.001]	-0.002*** [0.000]
<i>LEVERAGE</i>	-0.004 [0.025]	-0.014 [0.026]	-0.006 [0.026]	-0.023 [0.039]	-0.004 [0.025]	0.021 [0.017]	0.020 [0.017]	-0.021 [0.027]	0.021 [0.017]
<i>R&D</i>	0.018 [0.031]	0.041 [0.034]	0.027 [0.030]	0.041 [0.030]	0.024 [0.034]	-0.151 [0.171]	-0.157 [0.171]	-0.193 [0.190]	-0.142 [0.171]
<i>TANGIBILITY</i>	0.065*** [0.023]	0.059*** [0.021]	0.066*** [0.022]	0.074** [0.034]	0.065*** [0.023]	0.007 [0.017]	0.005 [0.017]	0.005 [0.025]	0.007 [0.017]
<i>SALES_GROWTH</i>	0.000* [0.000]	0.000 [0.000]	0.000* [0.000]	0.000 [0.000]	0.000* [0.000]	-0.000** [0.000]	-0.000** [0.000]	-0.000** [0.000]	-0.000** [0.000]

<i>ROA</i>	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.000	0.001
	[0.000]	[0.001]	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]	[0.001]	[0.000]
<i>DIVIDEND_YIELD</i>	0.001	0.000	0.001	-0.011**	0.001	0.003**	0.002**	0.004*	0.002**
	[0.002]	[0.002]	[0.002]	[0.005]	[0.002]	[0.001]	[0.001]	[0.002]	[0.001]
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,491	1,491	1,491	1,491	1,491	3,427	3,427	3,427	3,427
Pseudo-R ²	0.090	0.116	0.101	0.085	0.090	0.125	0.131	0.138	0.125

Panel B. Results for firms in countries with strong and weak investor protection

Dependent variable:	Strong Investor Protection sample				Weak Investor Protection sample			
<i>UNIFICATION</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>IO_TOTAL</i>	0.085**				0.041***			
	[0.043]				[0.013]			
<i>IO_ACTIVE</i>		0.249***				0.073***		
		[0.064]				[0.016]		
<i>IO_PASSIVE</i>		-2.095***				-0.253***		
		[0.632]				[0.088]		
<i>IO_LT</i>			0.194***				0.001	
			[0.062]				[0.020]	
<i>IO_ST</i>			0.271				-0.005	
			[0.413]				[0.005]	
<i>IO_FOR</i>				0.083				-0.025
				[0.060]				[0.031]
<i>IO_DOM</i>				0.093				0.056***
				[0.111]				[0.015]
<i>LN(TOTAL_ASSETS)</i>	-0.015***	-0.009	-0.021**	-0.015***	-0.003	-0.002	0.001	-0.001
	[0.005]	[0.005]	[0.009]	[0.006]	[0.002]	[0.002]	[0.003]	[0.002]
<i>YEARS_FROM_IPO</i>	-0.002	-0.002	-0.003	-0.002	-0.001***	-0.001**	0.000	-0.001***
	[0.001]	[0.001]	[0.002]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]
<i>LEVERAGE</i>	0.002	0.006	0.009	0.002	0.009	0.006	-0.027	0.008
	[0.036]	[0.035]	[0.063]	[0.036]	[0.014]	[0.014]	[0.021]	[0.014]
<i>R&D</i>	0.272	0.361	0.207	0.279	0.005	0.012	0.010	0.009
	[0.614]	[0.596]	[0.775]	[0.623]	[0.024]	[0.023]	[0.023]	[0.025]
<i>TANGIBILITY</i>	-0.044	-0.051	0.019	-0.044	0.039***	0.037***	0.037*	0.039***
	[0.040]	[0.038]	[0.059]	[0.040]	[0.013]	[0.012]	[0.019]	[0.013]
<i>SALES_GROWTH</i>	-0.001**	-0.001**	-0.001**	-0.001**	0.000	0.000	0.000	-0.000
	[0.000]	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
<i>ROA</i>	0.002**	0.002**	0.004**	0.002**	0.000	0.000	0.000	0.000
	[0.001]	[0.001]	[0.002]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]
<i>DIVIDEND_YIELD</i>	-0.003	-0.002	-0.003	-0.003	0.003***	0.003***	0.002	0.003***
	[0.003]	[0.003]	[0.005]	[0.003]	[0.001]	[0.001]	[0.002]	[0.001]
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	813	813	813	813	4,430	4,430	4,430	4,430
Pseudo-R ²	0.183	0.204	0.252	0.183	0.094	0.100	0.082	0.097

[Table 7] Granger causality tests: Unification of Multi-class Shares

This table presents the results of the Granger causality tests to examine the casual relationship between institutional ownership and unification. Panel A shows the results for US and non-US firms. Panel B shows the results for firms in countries with strong and weak investor protection. Results of the control variables are not presented for simplicity. Chi-squared statistics and robust standard errors are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A. Results for US and Non-US firms

Dependent variable:	US sample (1)		Non-US sample (2)	
	Unification	IO_TOTAL	Unification	IO_TOTAL
Unification t-1		0.005 (0.016)		0.007 (0.006)
IO_TOTAL t-1	0.016** (0.007)		0.008 (0.014)	

Panel B. Results for firms in countries with strong and weak investor protection

Dependent variable:	Strong investor protection sample (1)		Weak investor protection sample (2)	
	Unification	IO	Unification	IO_TOTAL
Unification t-1		0.010 (0.014)		0.007 (0.007)
IO_TOTAL t-1	0.038** (0.018)		0.024 (0.017)	

[Table 8] Valuation Effects of Share-class Structure Changes

This table presents results of ordinary least squares (OLS) firm-level panel regressions of Tobin's Q on share-class structure changes. The variable *UNIFICATION* is a dummy equal to one if a firm goes from multi-class in the previous year to single-class in that year while *MULTIPLICATION* is a dummy equal to one if a firm goes from single-class to multi-class. Definitions of other control variables are provided in Table A.2 in the Appendix. Robust standard errors adjusted for firm-level clustering are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent variable:	U.S. sample		Strong Investor Protection sample	Weak Investor Protection sample
	(1)	(2)	(3)	(4)
<i>TOBIN_Q</i>				
<i>MULTI_CLASS_{t-1}</i>	0.007 [0.058]	-0.063* [0.036]	-0.108** [0.050]	-0.027 [0.038]
<i>UNIFICATION</i>	-0.006 [0.112]	0.180** [0.078]	0.155* [0.088]	0.118* [0.068]
<i>MULTIPLICATION</i>	-0.070 [0.076]	-0.018 [0.066]	-0.063 [0.104]	-0.047 [0.057]
<i>LN(TOTAL_ASSETS)</i>	-0.026*** [0.010]	-0.014*** [0.005]	0.026*** [0.006]	-0.048*** [0.006]

<i>YEARS_FROM_IPO</i>	-0.006*** [0.001]	-0.007*** [0.001]	-0.004*** [0.001]	-0.006*** [0.001]
<i>LEVERAGE</i>	-0.269*** [0.092]	-0.485*** [0.040]	-0.112** [0.055]	-0.583*** [0.053]
<i>R&D</i>	1.328*** [0.114]	1.543*** [0.151]	1.922*** [0.326]	1.387*** [0.090]
<i>TANGIBILITY</i>	-0.304*** [0.067]	-0.297*** [0.027]	-0.359*** [0.037]	-0.274*** [0.034]
<i>SALES_GROWTH</i>	0.004*** [0.000]	0.001*** [0.000]	0.000 [0.000]	0.002*** [0.000]
<i>ROA</i>	0.027*** [0.002]	0.035*** [0.002]	0.042*** [0.003]	0.029*** [0.002]
<i>DIVIDEND_YIELD</i>	-0.003 [0.007]	-0.078*** [0.003]	-0.087*** [0.004]	-0.051*** [0.004]
Country FE	No	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	35,044	150,913	77,043	108,812
R ²	0.216	0.266	0.262	0.234

IV. Conclusion

When summarizing the debate over one-share-one-vote, a *Financial Times* columnist summed it up as follows: “*The advantage of a dual class share structure is that it protects entrepreneurial management from the demands of shareholders. The disadvantage of a dual class share structure is that it protects entrepreneurial management from the demands of shareholders.*”²⁵ Although previous research has examined the entrepreneur’s incentives, our study focuses on a firm’s shareholder base - in particular, the role of institutional investors around the world.

We find that institutional investors penalize multi-class share structures by discounting the stock valuation of multi-class firms relative to single-class firms. These effects are considerably strong for actively managed and long-term investors. To respond to the institutional investors’ dislike for multi-class firms, these firms are likely to unify their shares if their dominant investors are active and have long-term horizons. The role of active and long-term institutional investors is prominent in countries with strong investor protection, but their role is weak in countries with weak investor protection. This difference can be attributable to the fact that institutional investors have more incentives and abilities to monitoring firms in countries with strong investor protection. Overall, our findings inform the recent discussion on the role of institutional investors in reforming multi-class structures.

²⁵ Financial Times, “Enrolment open for an MBA in Murdoch” (July 18, 2011).

Appendix

[Table A.1] Rules on Share Class Structure by Country

This table summarizes whether a country's Company Law allows issuing multiple classes of shares. It is based on Table 3.3 of OECD Corporate Governance Factbook 2017.

MSCI Developed Countries:	Limited voting rights			No voting shares		Multiple voting rights	
	Allowed (listing rules)	Not allowed	Allowed	Allowed (up to 1/3 of total shares)	Not allowed	Allowed	Not allowed
Australia	Allowed	Not allowed					
Austria	Allowed	Allowed					
Belgium	Allowed	Allowed					
Canada	Allowed	Allowed					
Denmark	Allowed	Allowed					
Finland	Allowed	Allowed					
France	Allowed (up to 1/2 of total shares)	Allowed					
Germany	Allowed	Allowed (up to 1/2 of total shares; must have preferential rights to dividends)					
Hong Kong	Allowed (but listing rules impose "one-share-one-vote")	Allowed					
Ireland	Allowed	Allowed					
Israel	Not allowed (preference shares allowed under certain conditions)	Allowed					
Italy	Allowed (up to 1/2 of total shares)	Allowed					
Japan	Allowed (up to 1/2 of total shares)	Allowed					
Netherlands	Allowed	Not allowed					
New Zealand	Allowed	Allowed					
Norway	Allowed (code prescribes "one-share one-vote")	Allowed					
Portugal	Allowed	Allowed (up to 1/2 of total shares)					
Singapore	Not allowed (listed companies)	Not allowed					
Spain	Allowed	Allowed (up to 1/2 of total shares; must have preferential rights to dividends)					
Sweden	Allowed	Not allowed					

[Table A.1] (continued)

MSCI Developed Countries:	Limited voting rights		Multiple voting rights	
	Allowed	No voting shares	Allowed (must have preferential rights to dividends)	Allowed
Switzerland	Allowed		Allowed (must have preferential rights to dividends)	Allowed
United Kingdom	Allowed		Allowed	Allowed
United States	Allowed		Allowed	Allowed
Brazil	Allowed		Allowed (up to 1/2 of total shares; must have preferential rights to dividends)	Not allowed
Chile	Allowed		Allowed	
China	Allowed		Allowed (must have preferential rights to dividends)	Not allowed
Colombia)	Allowed		Allowed (up to 1/2 of total shares; must have preferential rights to dividends)	Not allowed
Czech Republic	Allowed		Allowed	Allowed
Egypt	... Info N/A ...			
Greece	Allowed		Allowed	Allowed
Hungary	Allowed		Allowed	Not allowed (listing rules)
India	Not allowed (listing rules)		Not allowed (listing rules)	Not allowed (listing rules)
Indonesia	Not allowed		Allowed	Not allowed
Malaysia	... Info N/A ...			
Mexico	Allowed (up to 1/4 of total shares)		Allowed (up to 1/4 of total shares)	Not allowed
Peru	... Info N/A ...			
Philippines	... Info N/A ...			
Poland	Allowed		Allowed	
Qatar	... Info N/A ...			
Russia	Allowed			
South Africa	Allowed		Allowed (up to 1/4 of total shares; must have preferential rights to dividends)	Allowed
South Korea	Allowed (up to 1/4 of total shares)		Allowed	Not allowed
Taiwan	... Info N/A ...			
Thailand	... Info N/A ...			
Turkey	Allowed (need authorization)		Allowed	Allowed

[Table A.2] Variable definitions

Variable	Definition
<i>MULTI_CLASS</i>	Dummy variable that equals one if a firms has multiple classes of shares with differential voting rights. This measure is constructed based on all equity securities a firm has in FactSet and associated information on votes per share.
<i>TOBIN_Q</i>	Total assets (FactSet item <i>FF_ASSETS</i>) plus market value of equity (Factset item <i>FF_MKT_VAL</i>) minus book value of equity (Factset item <i>FF_COM_EQ</i>) divided by total assets.
<i>IO_TOTAL</i>	Holdings by institutional investors as a fraction of market capitalization (FactSet Ownership).
<i>IO_FOR</i>	Holdings by foreign institutional investors (institutions located in a different country from where the stock is listed) as a fraction of market capitalization (FactSet Ownership).
<i>IO_DOM</i>	Holdings by domestic institutional investors as a fraction of market capitalization (FactSet Ownership).
<i>IO_LT</i>	Holdings by long-term institutional investors, defined as those with portfolio turnover below the median (FactSet Ownership).
<i>IO_ST</i>	Holdings by short-term institutional investors, defined as those with portfolio turnover above the median (FactSet Ownership).
<i>IO_PASSIVE</i>	Holdings by the top three largest passive institutional investors around the world: BlackRock, State Street, and Vanguard (FactSet Ownership).
<i>IO_ACTIVE</i>	Holdings by the non-top three largest passive institutional investors (FactSet Ownership).
<i>IO_HIGHTHREAT</i>	Holdings by institutional investors that are classified as very high, high, or medium activist threat by SharkRepellent (FactSet).
<i>IO_LOWTHREAT</i>	Holdings by institutional investors that are classified as low activist threat by SharkRepellent (FactSet).
<i>LN(TOTAL_ASSETS)</i>	Total assets in millions of U.S. dollars (FactSet item <i>FF_ASSETS</i> converted at the currency exchange rate to USD).
<i>YEARS_FROM_IPO</i>	The number of years since a firms went IPO (based on FactSet item <i>INCEPTION_DATE</i>)
<i>LEVERAGE</i>	Total debt (FactSet item <i>FF_DEBT</i>) divided by total assets (FactSet item <i>FF_ASSETS</i>).
<i>R&D</i>	Research and development expenditures (FactSet item <i>FF_RD_EXP</i>) divided by total assets (FactSet item <i>FF_ASSETS</i>).
<i>TANGIBILITY</i>	Net property, plant, and equipment (FactSet item <i>FF_PPE_NET</i>) divided by total assets (FactSet item <i>FF_ASSETS</i>)
<i>SALES_GROWTH</i>	One-year growth in net sales (based on FactSet item <i>FF_SALES_GR</i>)
<i>ROA</i>	Return on assets (FactSet item <i>FF_ROA</i>)
<i>DIVIDEND_YIELD</i>	Dividend per share divided by stock price, multiplied by 100 (FactSet item <i>FF_DIV_YLD</i>)
<i>MSCI</i>	Dummy that equals one if a firm is a member of the MSCI All Country World Index, and zero otherwise
<i>UNIFICATION</i>	Dummy that equals one if a firms is multi-class this year and single-class the following year.
<i>MULTIPLICATION</i>	Dummy that equals one if a firms is single-class this year and multi-class the following year.

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기관투자자가 바라보는 차등의결권 주식 제도*

류 지 예** · 김 진 희***

초 록 본 연구는 전 세계의 차등의결권 주식 현황에 대해 조사했다. 2001년부터 2016년까지 45개국에 상장된 기업들을 분석한 결과, 기관투자자들은 차등의결권 주식을 발행한 기업에 대한 투자 회피 경향을 보였다. 기관투자자들은 이러한 성향을 차등의결권 주식을 발행한 기업의 가치를 할인함으로써 나타낸다. 또한, 기관투자자들이 투자한 기업은 차등의결권 주식을 통합하는 경향이 있으며, 이러한 효과는 국내 투자자 (특히 미국의 국내 투자자)와 행동 투자자들이 주식을 보유할 때 더욱 두드러지게 나타났다. 전반적으로 본 연구는 현재 활발히 논의되고 있는 차등의결권 주식에 대한 기관투자자들의 동향을 조명한다.

핵심 주제어: 차등의결권 주식, 기관투자자, 가버넌스

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