Does Wedge Size Matter? Financial Reporting Quality and Effective Regulation of Dual-Class Firms

Rimona Palas, Dov Solomon, Dalit Gafni & Ido Baum*

Abstract

Dual-class capital structures create a gap ("wedge") between voting and cash flow rights. Our analysis indicates that the larger the wedge, the higher the quality of financial reporting, reflecting a tradeoff between the dilution of voting rights and enhancement of the credibility of information provided to investors. It suggests that increasing management's insulation from the market for corporate control is stronger than agency costs, reducing motivation to manipulate earnings. Moreover, better quality reporting allows for attracting second-class investors who agree to a larger wedge. Therefore, concerning financial reporting, a nuanced regulation restricting wedge size may not be more effective.

Key words: Dual-class, earnings quality, financial reports, disclosure, corporate governance, wedge

JEL Codes: G32, G34, G38, K22, M41, M48

---

* Dr. Rimona Palas is an Associate Professor of Accounting and Head of the Accounting Department, Business School, College of Law and Business, Ramat Gan.

Dr. Dov Solomon is an Associate Professor of Law and Academic Director of the LL.M. program, Law School, College of Law and Business, Ramat Gan; Visiting Professor, Faculty of Economics, University of Kassel; Visiting Scientist, Department of Public, International and Community Law, University of Padova.

Dr. Dalit Gafni is an Associate Professor of Economics and Vice Dean, School of Economics, College of Management-Academic Studies (Colman), Rishon LeZion.

Dr. Ido Baum is an Associate Professor of Law, Haim Striks Faculty of Law, College of Management-Academic Studies (Colman), Rishon LeZion; Visiting Professor, Columbia law school and Peking University School of Transnational Law; Director of the Brandeis Institute for Society, Economy and Democracy.

1. Introduction

This paper deals with one of the most heated debates in current financial regulation: the effectiveness of regulation of dual-class firms. In 2021, 23% of U.S. companies going public did so with a dual-class structure, where one class of shares confers more votes per share than the other (Council of Institutional Investors, 2022). By creating a gap ("wedge") between voting rights and cash flow rights, this capital structure allows insiders to raise capital without relinquishing effective control of the company (Bebchuk et al., 2000).

In the past few years, the policy debate over the desirability of this capital structure has intensified. On one hand, proponents of the dual-class structure argue that it encourages innovation by insulating management from short-term market pressures (Goshen & Hamdani, 2016; Jordan et al., 2016). On the other hand, opponents argue that the combination of weak ownership incentives and entrenchment results in agency problems (Bebchuk & Kastiel, 2019).

The regulatory debate over the use of dual-class stock is ongoing and, interestingly, developing in opposite directions. While this capital structure is historically permitted in the United States, institutional investors and index providers have recently expressed strong opposition to the use of dual-class structures (Solomon et al., 2020).[1] By contrast, jurisdictions that traditionally prohibited the use of dual-class stock have faced increasing market pressures to allow this capital structure. London's, Hong Kong's, and Singapore's stock exchanges have recently revised their listing rules to facilitate the use of dual-class shares (Reddy, 2021).

[1] In contrast to the rational apathy that characterizes retail shareholders, institutional investors, who hold most of the public float in the capital markets and thus play an important role in shareholder meetings, do exercise their voting rights (Solomon, 2017).

The current binary restrict-or-allow regulation of dual-class firms does not consider the size of the wedge between voting and cash flow rights. Indeed, while research regarding the effects of the dual- versus single-class structure and its policy implications is ongoing (Bauguess et al., 2012; Dimitrov & Jain, 2006; Lauterbach & Pajuste, 2015; Solomon, 2020), there is little research focusing on the size of the wedge and its implications. The studies that are available indicate that firm value decreases (Claessens et al., 2002; Masulis et al., 2009; Gompers et al., 2010) and governance risks and costs escalate (Bebchuk & Kastiel, 2019) as the wedge increases. These studies support the agency hypothesis that insiders endowed with voting rights in excess of their cash flow rights are more prone to pursue private benefits at the expense of outside shareholders.

Our paper seeks to fill the gap in the academic literature by providing policymakers with the missing empirical and analytical framework for evaluating whether a nuanced financial regulation of dual-class firms that considers the size of the wedge would be more effective.

We use a sample of dual-class firms publicly traded in the U.S. between 2012 and 2019 and measure the size of the wedge for each firm each year. The findings suggest that as the wedge grows, the firms are “older,” smaller, more profitable, and less leveraged.

We then examine the quality of financial information provided by companies as this disproportionate control is exerted. While the quality of earnings is considered a function of the firm’s fundamental performance and characteristics (Dechow et al., 2010), previous studies have found conflicting results as to the effect of the dual-class structure on the quality of information provided. Some studies suggest that controllers report accounting information for their self-interest, causing reported earnings to be less

credible (Francis et al., 2005; Jiraporn, 2005; Lobanova et al., 2019), while others provide evidence that because dual-class firms are under less pressure from the market for corporate control, they have fewer incentives to manipulate earnings and therefore the quality of their financial reports is higher (Chen, 2008; Li & Zaiats, 2017; Nguyen & Xu, 2010; Palas & Solomon, 2022; Solomon, 2020).

However, there is little research on the quality of financial reports across the wedge size spectrum, and the results are inconsistent. Francis et al. (2005) use the size of the wedge as an explanatory variable to distinguish between dual- and single-class firms. Their results indicate that the returns–earnings relation is less informative for dual-class companies. Forst et al. (2019) assess the quality of information provided by dual-class firms as measured by financial analysts' forecast accuracy and forecast dispersion. Their findings suggest that the wedge is negatively associated with forecast accuracy and positively associated with forecast dispersion, which suggests that as the wedge grows, the quality of information, and analysts' ability to utilize it, decrease. In contrast, Jordan et al. (2016) show a pattern of a negative relation between short-term market pressures and the wedge (not all tests were statistically significant), implying that as the wedge widens, firms are under less pressure from the market for corporate control and therefore have fewer incentives to manipulate earnings.

The research referred to above does not attempt to examine the financial data itself and its quality in conjunction with the size of the wedge. In this paper, we examine whether the quality of financial reports changes across the wedge size spectrum by using well-known proxy measures for information quality: earnings persistence, cash flow persistence, and the use of discretionary accruals (Ball et al., 2016; Bartov, et al., 2001; Dechow et al., 2010; Dechow et al., 1995; Lipe, 1986).

Given the heated regulatory debate over the dual-class structure and its implications for investor protection, our research is important to policymakers. It generates a more nuanced picture of this form of corporate control and provides analytical tools for evaluating the effectiveness of the current regulation of dual-class firms.

2. Basic characteristics of dual-class firms with respect to the wedge

The data were extracted from annual financial filings of 5,303 U.S. publicly traded firms[2] from 2012 to 2019 (a total of eight years). Dual-class firms were identified as those having more than one type of stock and unequal voting rights. These firms were then compared to the Council of Institutional Investors (2019) list, and any missing firms were added. The final sample included 248 firms with dual-class stock that reported their financial statements using the XBRL format.[3]

The main variable of interest in this paper is the size of the wedge. Dual-class firms included in the analysis have at least two outstanding classes of common stock and unequal voting rights that create a wedge between ownership and voting interests. The wedge was calculated for each class of common stock with super-voting rights as that class's percentage of total voting rights minus that class's percentage of total outstanding equity (based on the Council of Institutional Investors (2019) list). The wedge quantifies the degree of misalignment between voting and economic interests created by the dual-class structure.[4]

---

[2] We use FinDynamics' XBRL Analyst (https://findynamics.com/xbrlanalyst) to acquire the annual financial data. It is a plug-in for Microsoft Excel that enables access to a firm's XBRL tagged data from its SEC filing.

[3] For further explanation of how the data was extracted and analyzed, see Palas and Solomon (2022).

[4] A wedge of 100%, for example, would mean that the superior-voting class of shares controls all the voting power while representing none of the equity interest in a firm.

Previous research has found that more than half of dual-class companies are in the service and manufacturing industries (Palas & Solomon, 2022). There does not seem to be a vast difference in average wedge size by industries (based on their two-digit SIC code) and it ranges between 39-50%. Nonetheless, wedge size does vary among observations (a company may have between 1-8 observations), among companies, and over time.

Over the time period examined the companies' wedge increased by 4.89% on average. 41% of the companies had an average decrease in wedge size of 16%, while 59% of the companies increased their wedge size by an average of 20%.

We use six well-known main characteristics (Chen, 2008; Cremers et al., 2020; Francis et al., 2005; Jordan et al., 2016; Palas & Solomon, 2022) to analyze characteristics of the wedge: listing age, size, profitability, leverage, growth, and valuation.

Table 1

Characteristics correlation with wedge size.

Category	Variable	Mean	Median	Min	Max	Std. Dev.	Correlation[j]
Wedge		0.47	0.49	0.00	1.00	0.22	
Listing Age	Years Since IPO	18.12	17.00	1.00	68.00	13.36	0.02***
Size[a]	Sales Revenue	1,098	295	6	36,019	2,870	-0.06**
	Market Value	7,763	1,953	53	165,590	18,842	-0.01***
	Total Assets	7,748	1,761	90	208,869	20,806	-0.09***
Profitability	Profit Margin[b]	0.07	0.06	-1.29	1.87	0.21	0.04
	ROA[c]	0.01	0.01	-0.09	0.11	0.02	0.07***
	ROE[d]	0.04	0.03	-0.39	1.60	0.13	0.02
Leverage	Debt Percentage[e]	0.26	0.24	0.00	0.90	0.17	-0.06**
Growth	Revenue Change[f]	0.05	0.02	-0.50	1.47	0.15	-0.08***
	R & D Expense[g]	0.00	0.00	0.00	0.00	0.00	0.07***
Valuation	Price/Earnings [h]	81	66	-613	999	159	0.01
	Price/Book Value [i]	4.79	2.47	0.27	92	8	-0.11***

[a] Measured in millions of dollars.
[b] Net income in quarter *t* as a percentage of sales revenues in quarter *t*.
[c] Net income in quarter *t* as a percentage of total assets in quarter *t*.
[d] Net income in quarter *t* as a percentage of stockholders' equity in quarter *t*.

[e] Total debt in quarter *t* as a percentage of total assets in quarter *t*.
[f] Sales revenues in quarter *t* minus sales revenues in quarter *t*-1 divided by sales revenues in quarter *t*-1.
[g] R&D expenses in quarter *t* as a percentage of sales revenues in quarter *t*.
[h] Market value in quarter *t* divided by net income in quarter *t*.
[i] Market value in quarter *t* divided by total assets in quarter *t*.
[j] Correlation with wedge size. *,**,*** indicate significance at the 10 percent, 5 percent, and 1 percent levels, respectively, for the correlation specifications.

Table 1 shows that except for three measurements (profit margin, ROE, and price/earnings ratio), all measurements are significantly associated with the size of the wedge. We find that the larger the wedge, the "older" the firm—that is, the longer the length of time that has passed since the firm's IPO. This finding confirms the concern of Bebchuk & Kastiel (2019) that controllers of dual-class firms may increase the wedge by reducing their equity stake while retaining a lock on control as time passes after the IPO.

While dual-class firms were found to be larger and more leveraged than single-class firms (Francis et al., 2005; Gompers et al., 2010; Palas & Solomon, 2022), within dual-class firms the wedge is larger for smaller and less leveraged firms. Dual-class firms were found to be more profitable than single-class firms (Francis et al., 2005; Gompers et al., 2010; Palas & Solomon, 2022) and these findings are consistent as the wedge increases within dual-class firms. Growth and valuation measurements present conflicting results.

In further analysis, we include all twelve measurements as control variables when examining the association between the size of the wedge and the quality of reporting.

3. Quality of reporting

There is no agreement in the literature about the measure of "earnings quality"; we use three well-known proxies for financial information quality.

3.1 Earnings persistence

Earnings persistence fits well with the view of earnings as a summary metric of expected cash flows useful for equity valuation. Firms with more persistent earnings have more sustainable earnings/cash flow streams that will be a more useful input into DCF-based equity valuation (Dechow et al., 2010). Similarly to Dechow & Dichev (2002), we measure persistence as the regression of future earnings on current earnings. We use earnings per share (EPS), scaling earnings by the number of shares, as a proxy measure commonly used for earnings (Abarbanell & Bushee, 1997; Bradshaw, 2003; Dechow et al., 2010).

While there may be concern that EPS can be manipulated through stock repurchases (Almeida, 2019), EPS is still considered the most important performance target (Graham et al., 2005). In addition, manipulation through repurchases is often associated with real economic actions, which affect earnings as well as EPS (Cooper, Downes, and Rao 2018; Almeida 2019), and the repurchase effect seems to be discounted by the market (Hribar et al., 2006). It therefore seems unlikely that any single measure of performance can completely eliminate manipulation (Almeida, 2019).

The main regression equation is

$$EPS_{j,t} = \propto_0 + \propto_1 EPS_{j,t-1} + \propto_2 WEDGE_{j,t} + \propto_3 EPS_{j,t-1} * WEDGE_{j,t} + \propto_4 CONTROLS_{j,t} + e_{j.t} \quad (1)$$

$EPS_{j,t(t-1)}$ is firm *j*'s *EPS* for year *t*(*t*-1), and $WEDGE_{j,t}$ is measured as the size of the wedge for firm *j* in year *t*. The main variable of interest is the interaction variable, which answers the question *are earnings more persistent for firms with a greater wedge?* A positive $\propto_3$ suggests that the larger the wedge, the more persistent the

earnings. Twelve variables representing listing age, size, profitability, leverage, growth, and valuation (the variables presented in Table 1) were entered as controls.[5]

We use a linear model with panel data (a sample of firms over time) to determine the effect of the wedge on the relation between current and past earnings. We also include a fixed firm effect[6] (effects not reflected in the firm data) and a fixed year effect (events during a specific year that are unrelated to the firm, such as an economic crisis or national security event).

[5] In all regressions the correlation between the wedge and the controlling variables, although significant, was not high so we do not suspect a multicollinearity problem.

[6] We examined both random and fixed firm effects for all regressions and then applied the Hausman test to the data. The Hausman test allows us to determine which test, random or fixed, is more appropriate (Vogt, 2005). Based on the Hausman test we determined that the model presenting fixed effects is more appropriate.

Table 2
Tests of the relation between current earnings and past earnings and wedge size.

Variable	Model 1	Model 2	Model 3
Constant	0.24***	0.14*	
	(0.05)	(0.07)	
$EPS_{j,t-1}$[a]	0.47***	0.35***	0.05
	(0.06)	(0.06)	(0.07)
$WEDGE_{j,t}$[b]	-0.23**	-0.36***	-0.36
	(0.10)	(0.10)	(0.40)
$EPS_{j,t-1}$*$WEDGE_{j,t}$[c]	0.69***	0.71***	0.61***
	(0.12)	(0.12)	(0.17)
Control variables[d]		+	+
Fixed year effect		+	+
Fixed company effect			+
# of observations	1489	1489	1489
$\boldsymbol{R^2}$	0.48	0.55	0.68

***significant at 1%; **significant at 5%; *significant at 10%
The numbers in parentheses are the estimate's standard errors.
[a] Firm *j* earnings per share for year *t-1*.
[b] Firm *j* wedge for year *t*.
[c] The interaction between the two independent variables.
[d] 12 variables representing listing age, size, profitability, leverage, growth, and valuation
Listing age ($IPO_{j,t}$) denotes the number of years since IPO. Size is represented by three variables: $REV_{j,t}$ is the total revenues of firm *j* at year *t*, $MCAP_{j,t}$ is the market value of firm *j* at year *t*, $AST_{j,t}$ is the total assets of firm *j* at year *t*. Profitability is represented by three variables: $PRM_{j,t}$ is the profit margin (net income divided by revenues) of firm *j* at year *t*, $ROA_{j,t}$ is the return on assets (net income divided by total assets) of company *j* at year *t*, and $ROE_{j,t}$ is the return on equity (net income divided by total equity) of firm *j* at year *t*. Leverage is denoted by $DAS_{j,t}$, measured total debt as a percentage of total assets of firm *j* at year *t*. Growth includes two variables: Change in Revenues, measured as Sales Revenues in year *t* minus Sales Revenues in year *t*-1 divided by Sales Revenues in year *t*-1, and R&D expense, measured as R&D Expense in year *t* as a percentage of Sales Revenues in year *t* ($CRV_{j,t}$ and $R\&D_{j,t}$, respectively). Valuation also includes two variables for firm *j* at time *t*: Price to Earnings ratio ($P/E_{j,t}$) and Price to Book Value ratio ($P/B_{j,t}$).

For our analysis, we use three models in which the dependent variable is $EPS_{j,t}$.

In Model 1, the independent variables are only the previous period's earnings and the

current-period wedge. Model 2 includes all twelve control variables[7] and the year fixed effect. Model 3 includes, in addition to the control variables, firm fixed effects.

The results of all three models are presented in Table 2. The main variable of interest is the interaction between earnings persistence and the size of the wedge, $EPS_{j,t-1}$ *$WEDGE_{j,t}$. The coefficient for the main variable of interest is positive and highly significant for all three models, suggesting that the slope coefficient, relating the current period's earnings to the next period's earnings, is steeper, and therefore more informative, as the wedge grows.[8]

Although the results remain robust when fixed company effects are analyzed, the standard error of the wedge is much larger in model 3 (increasing from 0.1 to 0.4). This may be because there is very little variation of the wedge over time for each particular firm (on average the annual change in the size of the wedge is less than 2%).

The findings suggest that the larger the wedge, the higher the quality of information provided.

3.2 Cash Flow Persistence

While earnings persistence is often considered an indicator of earnings quality (Schipper & Vincent, 2003), its major weakness is its dependence on the firm's performance as well as the accounting measurement system. This weakness allows it to be susceptible to earnings manipulation in the short run. Cash flows tend to be more

[7] To ensure there are no multicollinearity issues, we tested the control variables Variance Inflation Factor (VIF) score. Most of the variables had a VIF score of less than 2, and only 4 variables had a VIF score of more than 5 but less than 10. The results of the main coefficients remained robust even after we removed those variables with higher VIF scores.

[8] We also tested the models using unscaled earnings. The results for all models were similar. For model 3 (with fixed company effects), the variable of interest (interaction with the wedge) remains highly significant.

closely related to how firms are valued (Foerster et al., 2017) and therefore may be used as a proxy for earnings quality (Nam et al., 2012).

We rerun all three models, but with cash flow per share CFS , calculated as total cash flows from operations divided by the number of shares, replacing all *EPS* variables.

Table 3

Tests of the relation between current cash flow and one year past cash flow and wedge size.

Variable	Model 1	Model 2	Model 3
Constant	9.43***	12.14***	
	(2.4)	(4.03)	
$CFS_{j,t-1}$ [a]	-0.05***	-0.05***	0.27***
	(0.01)	(0.01)	(0.08)
$WEDGE_{j,t}$ [b]	-8.73*	-8.95*	-31
	(4.6)	(4.8)	(30.8)
$CFS_{j,t-1} * WEDGE_{j,t}$ [c]	0.63***	0.61***	-0.66***
	(0.09)	(0.09)	(0.19)
Control variables [d]		+	+
Fixed year effect		+	+
Fixed company effect			+
# of observations	1247	1247	1247
$\boldsymbol{R^2}$	0.05	0.07	0.34

***significant at 1%; **significant at 5%; *significant at 10%
The numbers in parentheses are the estimate's standard errors.
[a] Firm *j* cash flow per share in year *t-1*.
[b] Firm *j* wedge for year *t*.
[c] The interaction between the two independent variables.
[d] 15 variables representing listing age, size, profitability, leverage, growth, and valuation
Listing age ($IPO_{j,t}$) denotes the number of years since IPO. Size is represented by three variables: $REV_{j,t}$ is the total revenues of firm *j* at year *t*, $MCAP_{j,t}$ is the market value of firm *j* at year *t*, $AST_{j,t}$ is the total assets of firm *j* at year *t*. Profitability is represented by three variables: $PRM_{j,t}$ is the profit margin (net income divided by revenues) of firm *j* at year *t*, $ROA_{j,t}$ is the return on assets (net income divided by total assets) of company *j* at year *t*, and $ROE_{j,t}$ is the return on equity (net income divided by total equity) of firm *j* at year *t*. Leverage is denoted by $DAS_{j,t}$, measured total debt as a percentage of total assets of firm *j* at year *t*. Growth includes two variables: Change in Revenues, measured as

Sales Revenues in year *t* minus Sales Revenues in year *t*-1 divided by Sales Revenues in year *t*-1, and R&D expense, measured as R&D Expense in year *t* as a percentage of Sales Revenues in year *t* ($CRV_{j,t}$ and $R\&D_{j,t}$, respectively). Valuation also includes two variables for firm *j* at time *t*: Price to Earnings ratio ($P/E_{j,t}$) and Price to Book Value ratio ($P/B_{j,t}$).

The findings in Table 3 indicate a significant cash flow persistence ($CFS_{j,t-1}$) relating this period's cash flows to those of the previous period over all models.[9] While cash flow is persistent and significant for model 3, it presents a positive relationship, which may suggest that the negative relationship (presented in the other models) is affected by firm-specific variables which cannot be observed. Theory and the literature do not provide a plausible explanation for why dual-class firms might have a negative (or positive) cash flow persistence. The $WEDGE_{j,t}$ coefficient is negative for all three models, however, it is significant only for models 1 and 2, implying that as the wedge increases next period's cash flows are lower.

The main variable of interest is the interaction between cash flow persistence and the size of the wedge, $CFS_{j,t-1}$ *$WEDGE_{j,t}$. The coefficient for the main variable of interest is highly significant for all models, suggesting that the slope coefficient, relating the current period's cash flows to the next period's cash flows is more informative, as the wedge grows. As can be expected the coefficient in model 3 changes signs similar to the cash flow persistence coefficient.[10]

[9] To ensure there are no multicollinearity issues, we tested the control variables VIF score. All variables had a VIF score of less than 5 (6 of those had a VIF score of less than 2). The results of the main coefficients remained robust even after we removed those variables with higher VIF scores.

[10] We also tested the models using unscaled cash flows. The results for all models were similar. For model 3 (with fixed company effects), the variable of interest (interaction with the wedge) remains highly significant.

The results suggest that as the size of the wedge increases, the current year's cash flows become more closely associated with future cash flows, and the quality of information provided to investors increases.

3.3 DCA

DCA measures accruals that are considered "unexpected" or "abnormal" relative to industry peers, that is, distortions induced by the application of accounting rules or earnings management. The general interpretation is that they represent a distortion that is of lower quality (Dechow et al., 2010). The study uses the modified Jones (1991) model, in which the firm's current working capital accruals, or DCA, are compared to industry peers.

Current accruals, measured as the change in noncash current assets less the change in operating current liabilities, are the sum of both discretionary and nondiscretionary accruals. To identify the nondiscretionary component, a regression of current accruals on change in sales is run on all firms in the same two-digit SIC code for each year. Using the estimates for the regression parameters, each firm's nondiscretionary current accruals are estimated. The regression residual is presumed to be dictated by the firm and industry conditions, due to the cross-sectional approach, and is considered to have been "managed."[11] Since there is no particular reason to suspect an unusual degree of income-increasing or income-decreasing accruals in the sample, the absolute values of the abnormal accruals are used to capture the extent of earnings management (Bartov et al., 2001; Jiraporn, 2005).

[11] When DCA is calculated each variable is deflated by the book value of total assets. For a detailed explanation of the procedure, see Teoh et al., 1998; Jiraporn 2005.

Table 4

Tests of the relation between level of DCA[a] and wedge size

Variable	Model 1	Model 2	Model 3
Constant	502,698	3,609,853***	
	(457,334)	(776,379)	
$WEDGE_{j,t}$[b]	-514,288	-632,112	-3,653,682
	(889,600)	(917,762)	(4,535,276)
Control variables[c]		+	+
Fixed year effect		+	+
Fixed company effect			+
# of observations	1483	1483	1483
$\boldsymbol{R^2}$	0.0002	0.05	0.17

***significant at 1%; **significant at 5%; *significant at 10%
The numbers in parentheses are the estimate's standard errors.
[a] DCA is the absolute measure of abnormal current working capital accruals relative to industry peers.
[b] Firm *j* wedge for year *t*.
[c]12 variables representing listing age, size, profitability, leverage, growth, and valuation
Listing age ($IPO_{j,t}$) denotes the number of years since IPO. Size is represented by three variables: $REV_{j,t}$ is the total revenues of firm *j* at year *t*, $MCAP_{j,t}$ is the market value of firm *j* at year *t*, $AST_{j,t}$ is the total assets of firm *j* at year *t*. Profitability is represented by three variables: $PRM_{j,t}$ is the profit margin (net income divided by revenues) of firm *j* at year *t*, $ROA_{j,t}$ is the return on assets (net income divided by total assets) of company *j* at year *t*, and $ROE_{j,t}$ is the return on equity (net income divided by total equity) of firm *j* at year *t*. Leverage is denoted by $DAS_{j,t}$, measured total debt as a percentage of total assets of firm *j* at year *t*. Growth includes two variables: Change in Revenues, measured as Sales Revenues in year *t* minus Sales Revenues in year *t*-1 divided by Sales Revenues in year *t*-1, and R&D expense, measured as R&D Expense in year *t* as a percentage of Sales Revenues in year *t* ($CRV_{j,t}$ and $R\&D_{j,t}$, respectively). Valuation also includes two variables for firm *j* at time *t*: Price to Earnings ratio ($P/E_{j,t}$) and Price to Book Value ratio ($P/B_{j,t}$).

Table 4 presents the regression results where the dependent variable is the absolute value of DCA. The wedge coefficient is negative for all three models (although not significant), suggesting that there does not seem to be any association between income management and the size of the wedge.

4. Conclusion

There is a growing body of research on the characteristics of dual-class firms, but the regulatory framework is controversial and binary—some jurisdictions permit the use of this capital structure while others prohibit it. This paper provides policymakers with analytical tools for evaluating the effectiveness of current financial regulation and assessing whether a nuanced regulation of dual-class firms, considering the size of the wedge, would be more effective.

We use a comprehensive sample of dual-class firms publicly traded in the U.S. between 2012 and 2019 and measure the size of the wedge for each firm each year. We find that as the wedge enlarges, dual-class firms tend to be "older," smaller, more profitable, and less leveraged.

We examine the quality of financial reporting in relation to the size of the wedge. Our measures indicate that a larger wedge does not indicate lower quality of reported earnings. While agency theory suggests that as the wedge size increases, the quality of financial reporting decreases, our findings indicate that the freedom from the market for corporate control resulting from a large wedge is stronger than agency costs. Management's insulation from market pressures seems to reduce motivation to manipulate earnings to achieve short-term goals in dual-class companies compared to their single-class counterparts (Chen, 2008; Li & Zaiats, 2017; Nguyen & Xu, 2010; Palas & Solomon, 2022; Solomon et al., 2020), thus increasing the informativeness of the financial reports. Our findings suggest that this effect of management's insulation from the market for corporate control continues beyond the dual- versus single-class distinction and is influenced by the size of the wedge for dual-class companies as well. When the gap between voting rights and cash flow rights is small, the company may still be vulnerable to a takeover, which may incentivize management to manipulate

earnings. However, as the wedge size increases, the threat of the market for corporate control and the motivation to manipulate earnings decrease, improving the informativeness of the financial reports.

While a larger wedge implies less pressure from the market for corporate control, it may also imply more pressure from the capital market, leading to better quality reporting. High-quality financial reports may allow for attracting second-class investors who agree to disproportionate control. Investors weigh the likely benefits of enabling founders of dual-class firms to pursue their idiosyncratic visions against agency costs (Goshen & Hamdani, 2016). If investors believe the founders have unique skills and visions for the company, they may agree to the allocation of super-voting rights to the founders. To be trustworthy, founders must provide investors with high-quality information (Palas & Solomon, 2022; Solomon et al., 2020). Moreover, since dual-class companies are repeat players in the capital market, they have strong incentives to maintain good reputations and the credibility of their financial reports even after their IPO (Mailath and Samuelson, 2006).

Our findings uncover important and counterintuitive evidence about the existence of a tradeoff between the dilution of voting rights and enhancement of the quality of information provided to investors. Given the regulatory controversy over the use of dual-class structures and the heated debate about their implications for investor protection, our results suggest that a regulatory framework distinguishing among dual-class firms based on the size of the wedge may not be more effective. As far as disclosure of financial information is concerned, since a larger wedge does not decrease the quality of reporting, the current regulation adopted by many jurisdictions that permits dual-class structures regardless of the size of the wedge seems to be effective.

References

Abarbanell, J. S., & Bushee, B. J. (1997). Fundamental Analysis, Future Earnings, and Stock Prices. *Journal of Accounting Research*, *35*(1), 1–24. https://doi.org/10.2307/2491464

Almeida, H. (2019). Is it Time to Get Rid of Earnings-Per-Share (EPS)? *Review of Corporate Finance Studies*, *8*(1), 174–206. https://doi.org/10.1093/rcfs/cfy010

Ball, R., Gerakos, J., Linnainmaa, J. T., & Nikolaev, V. (2016). Accruals, Cash Flows, and Operating Profitability in the Cross Section of Stock Returns. *Journal of Financial Economics*, *121*(1), 28–45. https://doi.org/10.1016/j.jfineco.2016.03.002

Bartov, E., Gul, F. A., & Tsui, J. S. L. (2001). Discretionary-Accruals Models and Audit Qualifications. *Journal of Accounting and Economics*, *30*, 421–452.

Bauguess, S. W., Slovin, M. B., & Sushka, M. E. (2012). Large Shareholder Diversification, Corporate Risk Taking, and the Benefits of Changing to Differential Voting Rights. *Journal of Banking and Finance*, *36*(4), 1244–1253.

Bebchuk, L. A., & Kastiel, K. (2019). The Perils of Small-Minority Controllers. *Georgetown Law Journal*, *107*, 1453–1514. https://doi.org/10.2139/ssrn.3128375

Bebchuk, L. A., Kraakman, R., & Triantis, G. G. (2000). Stock Pyramids, Cross-Ownership and Dual Class Equity: The Mechanisms and Agency Costs of Separating Control From Cash-Flow Rights. *Concentrated Corporate Ownership*, *R. Morck*, ed., 295–318.

Bradshaw, M. T. . (2003). A Discussion of 'Assessing the Relative Informativeness and Permanence of Pro Forma Earnings and GAAP Operating Earnings'. *Journal of Accounting and Economics*, *36*(1), 321–335.

Chen, F. (2008). *Capital Market Pressures and Earnings Management : Evidence from U.S. Dual-Class Firms*. PhD. Dissertation, Columbia University, NY.

Claessens, S., Djankov, S., Fan, J. P. H., & Lang, L. H. P. (2002). Disentangling the Incentive and Entrenchment Effects of Large Shareholdings. *The Journal of Finance*, *57*(6), 2741–2771.

Cooper, L. A., Downes, J. F., & Rao, R. P. (2018). Short Term Real Earnings Management Prior to Stock Repurchases. *Review of Quantitative Finance and Accounting*, *50*(1), 95–128. https://doi.org/10.1007/s11156-017-0624-2

Council of Institutional Investors. (2019). *Dual Class Companies List (Updated*

September 2019). https://www.cii.org/files/FINAL format Dual Class List 9-27-19.pdf

Council of Institutional Investors. (2022). *Newly Public Operating Companies Snapshot: 2021*. https://www.cii.org//Files/issues_and_advocacy/Dual Class post 6-25-19/2022_1_19 Dual-Class IPO Snapshot 2021_.pdf

Cremers, K. M., Lauterbach, B., & Pajuste, A. (2020). The Life-Cycle of Dual Class Firm Valuation October 2020. *ECGI Working Paper Series in Finance, 550/2018*(October).

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding Earnings Quality: A Review of the Proxies, their Determinants and their Consequences. *Journal of Accounting and Economics*, *50*(2–3), 344–401. https://doi.org/10.1016/j.jacceco.2010.09.001

Dechow, P. M., & Dichev, I. D. (2002). The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors. *Accounting Review*, *77*(SUPPL.), 35–59. https://doi.org/10.2308/accr.2002.77.s-1.61

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting Earnings Management. *The Accounting Review*, *70*(2), 193–225. https://doi.org/10.1002/9781119204763.ch4

Dimitrov, V., & Jain, P. C. (2006). Recapitalization of One Class of Common Stock into Dual-Class: Growth and Long-Run Stock Returns. *Journal of Corporate Finance*, *12*(2), 342–366.

Foerster, S., Tsagarelis, J., & Wang, G. (2017). Are Cash Flows Better Stock Return Predictors than Profits? *Financial Analysts Journal*, *73*(1), 73–99. https://doi.org/10.2469/faj.v73.n1.2

Forst, A., Hettler, B., & Barniv, R. R. (2019). Insider Ownership and Financial Analysts' Information Environment: Evidence From Dual-Class Firms. *Journal of Accounting, Auditing and Finance*, *34*(1), 30–53. https://doi.org/10.1177/0148558X16670048

Francis, J., Schipper, K., & Vincent, L. (2005). Earnings and Dividend Informativeness when Cash Flow Rights are Separated from Voting Rights. *Journal of Accounting and Economics*, *39*(2), 329–360. https://doi.org/10.1016/j.jacceco.2005.01.001

Gompers, P. A., Ishii, J., & Metrick, A. (2010). Extreme Governance: An Analysis of

Dual-Class Firms in the United States. *Review of Financial Studies*, *23*(3), 1051–1088.

Goshen, Z., & Hamdani, A. (2016). Corporate Control and Idiosyncratic Vision. *Yale Law Journal*, *125*(3), 560–617.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The Economic Implications of Corporate Financial Reporting. *Journal of Accounting and Economics*, *40*(1–3), 3–73. https://doi.org/10.1016/j.jacceco.2005.01.002

Hribar, P., Jenkins, N. T., & Johnson, W. B. (2006). Stock Repurchases as an Earnings Management Device. *Journal of Accounting and Economics*, *41*(1–2), 3–27. https://doi.org/10.1016/j.jacceco.2005.10.002

Jiraporn, P. (2005). An Empirical Analysis of Corporate Takeover Defences and Earnings Management: Evidence from the US. *Applied Financial Economics*, *15*(5), 293–303. https://doi.org/10.1080/0960310042000323607

Jones, J. J. (1991). Earnings Management During Import Relief Investigations. *Journal of Accounting Research*, *29*(2), 193–228. https://doi.org/10.2307/2491047

Jordan, B. D., Kim, S., & Liu, M. H. (2016). Growth Opportunities, Short-Term Market Pressure, and Dual-Class Share Structure. *Journal of Corporate Finance*, *41*, 304–328. https://doi.org/10.1016/j.jcorpfin.2016.10.003

Lauterbach, B., & Pajuste, A. (2015). The Long-Term Valuation Effects of Voluntary Dual Class Share Unifications. *Journal of Corporate Finance*, *31*, 171–185.

Li, T., & Zaiats, N. (2017). Information Environment and Earnings Management of Dual Class Firms Around the World. *Journal of Banking and Finance*, *74*, 1–23. https://doi.org/10.1016/j.jbankfin.2016.09.009

Lipe, R. C. (1986). The Information Contained in the Components of Earnings. *Journal of Accounting Research*, *24*(Supplement), 37–64. https://doi.org/10.2307/2490728

Lobanova, O., Barua, A., Mishra, S., & Prakash, A. J. (2019). Earnings Informativeness in Dual-Class Firms: An Empirical Investigation of the Earnings Quality and the Information Environment. *Review of Accounting and Finance*, *18*(3), 399–431. https://doi.org/10.1108/RAF-09-2017-0178

Mailath, George J., and Larry Samuelson. (2006). Repeated Games and Reputations: Long-Run Relationships. New York: Oxford University Press.

Masulis, R. W., Wang, C., & Xie, F. (2009). Agency Problems at Dual-Class Companies. *The Journal of Finance*, *64*(4), 1697–1727.

Nam, S., Brochet, F., & Ronen, J. (2012). The Predictive Value of Accruals and Consequences for Market Anomalies. *Journal of Accounting, Auditing & Finance*, *27*(2), 151–176. https://doi.org/0. l 177/0148558XI 1409149

Nguyen, V. T., & Xu, L. (2010). The Impact of Dual Class Structure on Earnings Management Activities. *Journal of Business Finance and Accounting*, *37*(3–4), 456–485. https://doi.org/10.1111/j.1468-5957.2010.02203.x

Palas, R., & Solomon, D. (2022). The Quality of Earnings Information in Dual-Class Firms : Persistence and Predictability. *Journal of Law, Finance, and Accounting*, *7*(1), 127–164. https://doi.org/10.1561/108.00000059

Reddy, B. (2021). *Founders without Limits: Dual-Class Stock and the Premium Tier of the London Stock Exchange*. Cambridge University Press.

Schipper, K., & Vincent, L. (2003). Earnings Quality. *Accounting Horizons*, *Supplement*, 97–110.

Solomon, D. (2017). The Voice : the Minority Shareholder's Perspective. *Nevada Law Journal*, *17*, 739–772.

Solomon, D. (2020). The Importance of Inferior Voting Rights in Dual-Class Firms. *BYU Law Review*, *2019*(2), 533–572.

Solomon, D., Palas, R., & Baranes, A. (2020). The Quality of Information Provided by Dual-Class Firms. *American Business Law Journal*, *57*(3), 443–486. https://doi.org/10.1111/ablj.12167

Vogt, W. P. (2005). *Dictionary of Statistics & Methodology: A Nontechnical Guide for the Social Sciences*. SAGE Publications.