

# Cash Savings in Dual Class Firms

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*We investigate the relation between the utilization of dual-class shares and the cash flow sensitivity of cash. Dual-class share structures are on the rise and are frequently used as an indicator of governance quality. Almeida, Campello, and Weisbach (2004) measure the cash flow sensitivity of cash as a gauge of savings from current-period cash flow. Our study contributes to both corporate governance and cash management domains by comparing the cash savings practices of dual-class share companies with those of single-class share companies. We discover that dual-class firms exhibit a higher cash flow sensitivity of cash, indicating that they tend to accumulate more cash from their cash flows.*

*Keywords: dual class shares, single class shares, cash flow sensitivity of cash, cash savings, cash holdings, corporate governance, cash management, cash policy, financial policies*

## INTRODUCTION

A firm's quality of governance affects financial policies, including the cash policy of the firm. Corporate governance affects how firms hold cash and spend cash. A weaker corporate governance may allow managers to spend without restrictions on acquisitions or capital expenditures that may not increase firm value (Harford, Mansi, and Maxwell (2008)). We investigate the relation between corporate governance and cash policy by studying the relation between corporate governance and *cash savings*. We use dual-class shares as a proxy for corporate governance and cash flow sensitivity of cash as a proxy for cash savings out of current period cash flow.

Almedia, Campello, and Weisbach (2004) study introduced the idea of cash flow sensitivity of cash as a measure of cash saving. They study the impact of financial constraints on cash saving behavior of firms. They find that financially constrained firms save more cash. Our findings suggest that corporate governance acts similarly to financial constraints. We find that firms using dual-class shares saved more cash from current period cash flows than firms using single-class shares.

The use of dual-class shares has been rising, especially among IPO firms (Field and Lowry (2022)). In an IPO, dual-class shares assist original owners in maintaining control by providing more votes per share.

In 2012, Facebook (now called META) went public with Class A at one vote per share and Class B at 10 votes per share. The insiders hold the Class B shares, preserving control on voting issues. This structure allows the original owners of Facebook to raise equity without losing control. Through the Class B stock, they maintain a majority of the votes.

Research from Masulis, Wang, and Xie (2009) suggests that managers tend to waste corporate resources at the expense of shareholders in firms that use dual-class shares to enhance insider control. Cash held by corporations with a dual-class structure provides less value to outside shareholders. Additionally, CEO compensation is higher, while funds spent on acquisitions and capital expenditures create less firm value. These findings mimic other firms with weak governance results. Additionally, Gompers, Ishii, and Metrick (2003) reported corporate governance concerns with the dual-class share structure. In an analysis of US firms from 1994 to 2002, Lin, Shi, Tsai, and Yu (2022) examine several factors of dual-class firms over their life cycle. The study finds that dual-class firms have an elevated operating net cash flow, cash acquisition/merger activity, and issue more debt while holding less cash for investment. Over the firm's life cycle, dual-class firms decrease cash holdings by 2.8% compared to a 5.88% decline in single-class firms. The use of a separate share to control the votes and board in a corporation suggests weak governance to the majority shareholder.

In 2005 China enacted a share reform where Chinese firms were required to convert non-tradable shares into shares available to all potential buyers. Owners of non-tradable shares were able to sell shares. Prior to the reform, non-tradable shareholders' cash sources were dividends or tunneling (Chen, Chen, Shipper, Xu, and Xue (2012)). This reform changed the cash management of the firm. In China when insiders-maintained control of the firm it was assumed the excess funds were for their own benefit. These firms also required more funds as external financing was more difficult to acquire under the perceived agency concerns. The study finds that after the share reform, the cash holdings declined by 11%. Firms also saved less under the new structure. The share reform actions in China illustrate that the type of firm control impacts cash allocations.

Shareholder protections may stem from the country's legal system or the firm's structure. Governance measures of shareholder strengths have been developed to identify countries with weak legal protections or firms with weak policies for shareholder input. The seminal work by La Porta, Lopez, Shleifer, and Vishny (1997 and 1998) reviewed multiple countries' legal protections of shareholders and corporate control. They find that there are variations in country protections for investors. In countries where there are weak external laws for shareholders, firms hold more cash, but it lowers the firm's value relative to the dividend-paying firms (Kalcheva and Lins, 2007). This is similar to Pinkowitz, Stulz, and Williamson (2004) findings where firms in countries with low legal protection for shareholders hold more cash but outside investors discount the cash value. Historically the US provides stronger legal support for shareholders than many countries. While the country may have shareholder interest as a priority, a firm may adopt weak governance policies or weak governance may develop over time. This study uses only US-based firms to eliminate any country governance interactions. Using dual-class shares from US firms as a proxy for weak governance simplifies the identification of corporations who have adopted a weak governance structure.

There are multiple factors used in research to identify firms with weak governance. Gompers, Ishii, and Metrick (2003) developed a government index (GIndex) that is a frequent research measure of the strength of shareholder governance. The index includes 24 provisions that may or may not be incorporated in a firm structure. Harford, Mansi, and Maxwell (2008) uses the GIndex as well as insider and institutional ownership, compensation to top management and the board to assign a weak governing structure to firms. All factors of weak governance do not react consistently. In their results, the Harford study found that the firms identified as weak by the GIndex held less cash, while the other factors did not indicate cash spending. Bebchuk, Cohen, and Ferrell (2009) developed the entrenchment index, looking at the size and independence of the board of directors. After evaluating multiple factors, they found six factors helped identify weak governance actions. Managers and owners may be very creative in developing methods of control.

One of the concerns of weak governance has been the use of cash. Dittmar and Mahrt-Smith (2007) suggest that poor corporate governance in US companies is linked to spending of cash holdings that reduces

operating performance. This follows Harford (1999), who finds that cash-flush firms are more likely to make acquisitions that are value-decreasing. Later, Harford, Mansi, and Maxwell (2008), suggest that U.S. firms with weak shareholder control spend funds without necessarily increasing firm value. While many studies focus on cash holdings or cash reserves that might be used for acquisitions or capital expenditures, Almeida, Campello, and Weisbach (2004) evaluated the cash flow sensitivity of cash or the tendency to save cash from cash flow. They find a positive link between cash savings to constrained manufacturing firms. The firms with access to cash, unconstrained firms, were not prone to cash savings. We posit that firms with dual-class shares would act as constrained firms by saving available cash. This is consistent with the actions under the share reform from China, where cash was held under the dual stock structure. When insiders had less control, the cash declined.

## **DATA AND METHODOLOGY**

In this study, we examine data spanning from 1990 to 2020. The dual-class ratings are sourced from two distinct datasets: ISS-Governance Data and ISS-Governance Legacy Data, whereas the accounting variables are obtained from COMPUSTAT.

The Governance data covers the period from 1990 through 2006, encompassing 13,998 firm-year observations with dual-class ratings for 3,997 unique firms (sorted by ticker symbol). On the other hand, the Governance Legacy data spans from 2007 through 2020, including 22,314 firm-year observations with dual class ratings for 3,869 unique firms from 2007 through 2020. Combining these two datasets results in a total of 36,312 firm-year observations involving 6,141 unique firms.

We merge the consolidated dual class data with COMPUSTAT using the ticker symbol and the year variable. Given the presence of missing years within the Governance data, we replace the missing year's dual-class ratings with the preceding year's dual-class rating. We allow firms to have up to two consecutive missing years between two observations. Any observations that do not merge are excluded from the analysis. Consequently, the final dataset comprises 29,150 firm-year observations with dual-class ratings, representing 4,237 unique firms.

In line with Almeida et al. (2004) and to enhance uniformity, we retain only the manufacturing firms (SIC code 2000-3999) from the merged data. We also exclude firms with cash holdings exceeding the book value of total assets, those with market capitalization below \$10 million (in 1990 dollars), and those with asset or sales growth exceeding 100%. Additionally, we eliminate observations with negative values for the book value of total assets or book value of equity.

Data from companies with missing values for the variables used in the regression were excluded from the analysis, except for capital expenditures and acquisitions. For these firms, missing values were imputed as zero, assuming no expenditure or acquisition occurred when values were missing. After these adjustments, the dataset includes 7,768 firm-year observations, consisting of 7,091 single-class ratings and 677 dual-class ratings, representing 1,071 unique firms during the years 1990 through 2020.

To investigate the cash flow sensitivity of cash in dual-class versus single-class firms, we adopt the methodology of Almeida, Campello, and Weisbach (2004). We conduct a regression analysis where we regress the change in cash holdings against the dual class (DualClass) dummy and control variables, as outlined below. In alignment with the approach of Almeida, Campello, and Weisbach (2004), we adopt both a baseline and an augmented regression model for our analysis as follows:

### **Baseline Regression Model**

In this model, we regress the change in cash holdings against the DualClass dummy and essential control variables, including assets and Tobin's Q. Additionally, we incorporate the DualClass dummy with the cash flow variable to evaluate a firm's inclination to accumulate cash. This model links firms with weaker corporate governance, as indicated by dual-class stock, to their propensity to retain cash, as represented by changes in cash flow. The relationship is expressed in Equation (1):

$$\Delta CashHoldings_{i,t} = \alpha_0 + \alpha_1 DualClass_{i,t-1} + \alpha_2 CashFlow_{i,t} + \alpha_3 (DualClass_{i,t-1} \times CashFlow_{i,t}) + \alpha_4 Assets_{i,t} + \alpha_5 Q_{i,t} + \varepsilon_{it} \quad (1)$$

### Augmented Regression Model

In this more comprehensive model, we introduce four additional control variables: change in net working capital (NWC), capital expenditures (Capex), acquisitions, and changes in short-term debt (ShortDebt). These variables significantly influence a firm's cash-saving practices, providing a more holistic view of a firm's cash management. This model is expressed in Equation (2):

$$\Delta CashHoldings_{i,t} = \alpha_0 + \alpha_1 DualClass_{i,t-1} + \alpha_2 CashFlow_{i,t} + \alpha_3 (DualClass_{i,t-1} \times CashFlow_{i,t}) + \alpha_4 Assets_{i,t} + \alpha_5 Q_{i,t} + \alpha_6 \Delta NWC_{i,t} + \alpha_7 Capex_{i,t} + \alpha_8 Acquisitions_{i,t} + \alpha_9 \Delta ShortDebt_{i,t} + \varepsilon_{it} \quad (2)$$

We conducted Hausman's (1978) specification test for the regression analysis and determined that a fixed-effect model is suitable. Furthermore, we employ White-Huber estimates to account for heteroskedasticity and within-period year correlations. Our primary variable of interest is the interaction term. A positive and significant coefficient in the interaction term would indicate that dual class firms accumulate more cash from their current-period cash flows, while a negative coefficient would suggest the opposite. The variables employed in the equations are detailed in Table 1.

**TABLE 1  
VARIABLE EXPLANATIONS**

Variable explanations
<i>Δcash</i> (Change in Cash): Cash from the current year minus cash from the prior year. Cash is defined as cash and cash equivalents divided by total assets.
<i>CashFlow</i> : Income before extraordinary items plus depreciation minus cash dividends.
<i>DualClass</i> : An indicator variable denoting whether a firm's stock ownership includes dual-class shares, with a one-year lag.
<i>Assets</i> : The natural logarithm of total assets adjusted to 1990 dollars.
<i>Q</i> : The ratio of the market value of assets to the book value of assets. The market value of assets is calculated as the sum of the market value of equity and the book value of liabilities.
<i>ΔNWC</i> (Change in Net Working Capital): Net working capital for the current year minus net working capital for the prior year. Net working capital is calculated as current assets minus current liabilities net of cash, divided by total assets.
<i>Capital Expenditure</i> : Capital expenditure divided by total assets.
<i>Acquisitions</i> : Acquisition expenditure divided by total assets.
<i>ΔShortDebt</i> (Change in Short-Term Debt): Current liabilities for the current year minus current liabilities for the prior year. Current liabilities are calculated as the book value of current liabilities divided by total assets.

The summary statistics for these variables are presented in Table 2, showcasing mean values, standard deviations, as well as the lower and upper quartile values for each variable considered in our analysis.

**TABLE 2**  
**SUMMARY STATISTICS**

Variables	Mean	Std. Dev.	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile
Cash	0.135	0.151	0.026	0.191
$\Delta$ Cash	-0.012	0.059	-0.026	0.011
CashFlow	0.081	0.102	0.050	0.124
Assets	7.110	1.620	6.020	8.160
Q	2.150	1.480	1.250	2.540
NWC	0.071	0.162	-0.032	0.160
$\Delta$ NWC	-0.004	0.068	-0.028	0.023
Capex	0.061	0.060	0.019	0.082
Acquisitions	0.026	0.063	0.000	0.022
ShortDebt	0.416	0.226	0.219	0.600
$\Delta$ shortDebt	-0.011	0.063	-0.030	0.017
DualClass	0.087	0.282	0.000	0.000
Number of observations	7,768			

This table presents summary statistics for the variables used in the analysis. The data spans the period from 1990 to 2020.  $\Delta$ Cash (Change in Cash) is cash from the current year minus cash from the prior year. Cash is defined as cash and cash equivalents divided by total assets. *CashFlow* is computed as income before extraordinary items plus depreciation minus cash dividends. *DualClass* is an indicator variable denoting whether a firm's stock ownership includes dual-class shares. *Assets* is the natural logarithm of total assets adjusted to 1990 dollars. *Q* is the ratio of the market value of assets to the book value of assets. The market value of assets is calculated as the sum of the market value of equity and the book value of liabilities.  $\Delta$ NWC (Change in Net Working Capital) is net working capital for the current year minus net working capital for the prior year. Net working capital is calculated as current assets minus current liabilities net of cash, divided by total assets. *Capex* is capital expenditure divided by total assets. *Acquisitions* is acquisition expenditure divided by total assets.  $\Delta$ ShortDebt (Change in Short-Term Debt) is current liabilities for the current year minus current liabilities for the prior year. Current liabilities are calculated as the book value of current liabilities divided by total assets.

By identifying weak governance firms as dual-class shares, corporations identified by other variables as operating under weak governance are included in the strong governance data group. This may skew the results. Since our findings are significant, we expect that if other variables were included to identify weak governing firms, the results for the dual-class firms would be more pronounced.

## RESULTS AND DISCUSSIONS

Table 3 displays the results on the regression. The result shows that the coefficient of the interaction term “dual class x cash flow” is positive and significant at the five percent level. This suggests that firms with dual-class stocks save more cash from their current year cash flow compared to firms that do not have dual-class stocks. This is consistent with the idea that managers of dual-class firms hold excess cash to reduce risks arising from investments and increase discretion, which conflicts with the goal of maximizing shareholders wealth (Opler, Pinkowitz, Stulz and Williamson (1999)). As the prior discussion suggests, firms holding excess cash under weak governance are more likely to destroy value. Managers are more likely to make imprudent investments when there is excess cash under weak corporate governance (Harford, 1999, Harford et al., 2008). Therefore, the increase in savings does not ensure future cash optimization.

Additionally, Almeida, Campello, and Weisbach (2004) suggest that access to external funds is also a key factor for managers' liquidity actions. Our result may track the constraint issue Chinese firms felt before the share reform (Chen, Chen, Shipper, Xu, and Xue (2012)). With strong insider control (dual class shares)

access to funds outside of the corporation may be more expensive and limited, or more constrained. This may increase the tendency to save available cash. Our analysis finds that firms with dual-class shares imitate the weak governance approach to cash as those identified by the multifactor GIndex.

**TABLE 3**  
**BASELINE REGRESSION RESULTS**

Variables	Coefficient (t)
DualClass	-0.0148 (-2.04)**
CashFlow	-0.0696 (-4.03)***
DualClass x CashFlow	0.1231 (2.34)**
Assets	-0.0054 (-2.89)***
Q	0.0024 (2.09)**
Constant	0.0274 (2.01)**
R-squared	0.011
Number of observations	7,768

This table presents the regression results for the baseline model. The data spans the period from 1990 to 2020. The dependent variable is “change in Cash”, calculated as cash from the current year minus cash from the prior year. Cash is defined as cash and cash equivalents divided by total assets. *CashFlow* is computed as income before extraordinary items plus depreciation minus cash dividends. *DualClass* is an indicator variable denoting whether a firm's stock ownership includes dual-class shares. *Assets* is the natural logarithm of total assets adjusted to 1990 dollars. *Q* is the ratio of the market value of assets to the book value of assets. The market value of assets is calculated as the sum of the market value of equity and the book value of liabilities. \*, \*\*, \*\*\* denote significance at 0.01, 0.05 and 0.1 level respectively.

Additionally, we include the results when we interact the dual class indicator with other variables, namely the change in net working capital, capital expenditures, acquisitions, and short-term debt. The intent is to examine whether dual-class firms differ from single-class firms concerning these items. Table 4 displays the result of this expanded regression. The interaction terms are statistically significant at the 5% significance level for cash flow and capital expenditures and at a 10% significance level for the change in net working capital. This suggests that dual-class firms, in addition to saving more from their cash flow, have lower net working capital, lower capital expenditures, and higher amount of acquisitions. These are consistent outcomes of other weak governance studies.

**TABLE 4**  
**EXPANDED REGRESSION RESULTS**

Variables	Coefficient (t)
DualClass	-0.0039 (-0.82)
CashFlow	0.0297 (2.89)***
DualClass x CashFlow	0.0766 (2.22)**
Assets	-0.0002 (-0.23)
Q	-0.0002 (-0.33)
$\Delta$ NWC	-0.1062 (-7.48)***
Capex	-0.0709 (-4.92)***
Acquisitions	-0.0477 (-2.66)***
$\Delta$ Shortdebt	0.7310 (28.02)***
Constant	0.0012 (0.15)
R-squared	0.612
Number of observations	7,768

This table presents the regression results for the expanded model. The data spans the period from 1990 to 2020. The dependent variable is “change in cash”, calculated as cash from the current year minus cash from the prior year. Cash is defined as cash and cash equivalents divided by total assets. *CashFlow* is computed as income before extraordinary items plus depreciation minus cash dividends. *DualClass* is an indicator variable denoting whether a firm's stock ownership includes dual-class shares. *Assets* is the natural logarithm of total assets adjusted to 1990 dollars. *Q* is the ratio of the market value of assets to the book value of assets. The market value of assets is calculated as the sum of the market value of equity and the book value of liabilities.  $\Delta$ NWC (Change in Net Working Capital) is net working capital for the current year minus net working capital for the prior year. Net working capital is calculated as current assets minus current liabilities net of cash, divided by total assets. *Capex* is capital expenditure divided by total assets. *Acquisitions* is acquisition expenditure divided by total assets.  $\Delta$ ShortDebt (Change in Short-Term Debt) is current liabilities for the current year minus current liabilities for the prior year. Current liabilities are calculated as the book value of current liabilities divided by total assets. \*, \*\*, \*\*\* denote significance at 0.01, 0.05 and 0.1 level.

## CONCLUSION

Using a single accessible marker, dual-class shares, we identify firms with weak corporate governance. After years of decline, the dual-class share as a form of insider control has been increasing. This study identifies around 677 dual-class ratings and juxtaposes their cash savings behavior with approximately 7,091 single-class ratings for 1,071 distinct firms. While cash utilization under weak governance has been documented by prior research, our analysis bridges the gap by focusing on cash management practices in firms employing dual-class shares.

We find that the tendency to save mirrors the actions of constrained firms. Dual-class firms save cash like those with limited external access to funds. The results suggest US firms with a weak governance structure, as identified by dual-class shares, have a higher propensity to save cash.

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