Dual-Class Capital Structures: A Legal, Theoretical & Empirical Buy-Side Analysis

Christopher C. McKinnon

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DUAL-CLASS CAPITAL STRUCTURES:
A LEGAL, THEORETICAL & EMPIRICAL
BUY-SIDE ANALYSIS

Christopher C. McKinnon*

“The advantage of a dual-class share structure is that it protects entrepreneurial management from the demands of ordinary shareholders. The disadvantage of a dual-class share structure is that it protects entrepreneurial management from the demands of shareholders.”†

Issuing dual classes of stock has become hotly debated since two major events transpired in 2014: (1) Facebook acquired WhatsApp for $19 billion and (2) Alibaba chose to list its shares on the New York Stock Exchange (NYSE) instead of the Hong Kong Exchange. Because dual-class managers, like those at Facebook and Alibaba, retain a controlling voting block, their decisions are immune from activist investors or others who disagree with corporate actions. This protection allowed Mark Zuckerberg to acquire WhatsApp at an enormous price that stockholders may have resisted, and it is why Alibaba chose to list on the NYSE even though its stockholders may have found the Hong Kong Exchange to be a more natural fit. This Comment seeks to determine whether the one-man decisional structures at Facebook and Alibaba—accomplished through dual classes of stock—allow such managers to undertake, what the market perceives to be, value-destroying transactions more often than their single-class counterparts.

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* J.D. and Lawrence Lederman Fellow in Law & Economics, 2015, New York University School of Law; B.A., 2012, Business Economics, University of California, Santa Barbara. Thank you to Professor Lewis Steinberg for sparking my interest in this topic and to Professors Stacy Dick and Jennifer Arlen for providing helpful comments throughout the development of this Comment. I would also like to thank Matthew Silberman for assistance with statistical calculations.

† Andrew Hill, Enrolment Open for an MBA in Murdoch, FIN. TIMES (July 18, 2011, 9:34 PM), http://www.ft.com/cms/s/0/2fd9a9e8-8e-b176-11e0-9444-00144feab49a.html#axzz21YIKmzDt.
INTRODUCTION

Google, Facebook, and Alibaba are recent examples of high-profile companies to issue dual classes of stock in their initial public offerings (IPOs).1 Dual-class ownership structures give company insiders—including founders and management—superior voting rights (control) and lower cash flow rights (financial interest). Conversely, in such structures, public investors purchase an inferior class of stock with subordinated voting rights. For example, a typical dual-class structure would grant Class A stock with one vote per share to the public and reserve Class B stock with 10 votes per share for management.2

Starting with Google in 2004, a wave of large technology companies have utilized dual-class structures to obtain the capital inflows that result from an IPO while retaining the degree of control that typically exists during private venture financing.3 In general, there are relatively few dual-class companies in the U.S. today: about 6% of public companies maintain dual-class structures, collectively representing about 8% of total U.S. market capitalization.4 However, the recent trend towards utilizing dual-class structures indicates that over 11% of all companies that underwent IPOs between January 2010 and March 2012 issued dual classes of stock.5


5. Glover & Thamodaran, supra note 3, at 2.
The sell-side implications of these creative ownership structures are well documented: management’s increased voting power renders these firms “virtually immune from hostile takeovers.” Dual-class firms also tend to trade at a discount. This Comment does not focus on the sell-side or general valuation implications of dual-class ownership, as those areas have been thoroughly explored. Rather, this piece focuses primarily on buy-side transactions, or acquisitions. Acquisitions are extremely important to corporate value: they are one of the most expensive investments a firm makes and they have short- and long-term consequences. Such actions are also ripe opportunities for managers to engage in self-dealing by undertaking empire-building transactions that yield private benefits of control but destroy overall shareholder value over the long run. In fact, the majority of empirical literature reveals that acquisitions, on average, destroy value for shareholders over the long term.

In this Comment, Parts I and II examine the legal and theoretical concerns regarding dual-class ownership. Parts III and IV survey and analyze the relevant empirical studies published on this subject. Lastly, to contribute to the literature, Part V provides a unique empirical analysis of the abnormal returns to recent large-scale acquisitions made by dual- and single-class technology companies. As the recent uptick in dual-class IPOs is attributable, in part, to the growing technology industry, focusing exclusively on that sector is illustrative. This study sets out to determine whether dictatorship—exhibited by managers at dual-class technology companies in buy-side transactions—destroys value for ordinary shareholders.

7. See infra Part III.A; see also Ashton, supra note 3, at 868 (explaining that in an IPO the “value of the vote will be discounted and reflected in the price on which the buyer and seller have agreed”).
9. Tian Wen, You Can’t Sell Your Firm and Own it Too: Disallowing Dual-Class Stock Companies From Listing on the Securities Exchanges, 162 U. PA. L. REV. 1495, 1499 (2014) (explaining that “[w]hen voting rights are not proportional to the economic interests of the shareholders, controllers can easily obtain private benefits while imposing disproportionate costs on the broader shareholder base.”).
10. See infra note 74.
I. LEGAL REGULATIONS

A. Exchange Rules

Some jurisdictions permit companies to go public with dual classes of stock while others strictly forbid it. The main exchanges in the U.S.—NYSE and NASDAQ—allow companies to go public with differential voting rights.\[12\] Similarly, exchanges in Germany, Italy, Switzerland, Sweden, and Canada permit companies to issue dual classes of stock.\[13\] Other jurisdictions in Hong Kong, Singapore, Japan, India, Russia, and the U.K. forbid the practice.\[14\]

The U.S. Securities and Exchange Commission (SEC) regulates publicly traded securities. In 1988, the SEC proposed Rule 19c-4, which prohibited dual-class recapitalizations but permitted dual-class IPOs. It barred companies from “nullifying, restricting, or disparately reducing the per share voting rights of holders of an outstanding class . . . of common stock.”\[15\]

In 1990, however, the D.C. Circuit Court of Appeals invalidated Rule 19c-4 because it dealt with a matter of corporate governance beyond the scope of the SEC’s authority.\[16\] Regardless, the NYSE and Nasdaq agreed to abide by this rule through their internal guidelines. For example, the NYSE Listed Company Manual states: “Voting rights of existing shareholders . . . cannot be disparately reduced or restricted through any corporate action or issuance. Examples of such corporate actions [do not include new IPOs].”\[17\] Nasdaq has a nearly identical provision.\[18\] Thus, Rule 19c-4 lives on, being enforced by national exchanges themselves.

B. Fiduciary Duties

Even though high-vote shareholders enjoy increased flexibility in firm management, their decisions are nevertheless constrained by fiduciary duty principles. Two recent cases exemplify these fundamental principles.

First, In re Delphi Financial Group Shareholder Litigation (2012) illustrates that managers at dual-class firms owe fiduciary duties to minority shareholders in sell-side transactions. In that case, Delphi maintained dual

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12. See infra notes 17, 18.
classes of stock with controlling shareholder, Chairman, and CEO Robert Rosenkranz (and affiliates) owning 49.9% of the voting power and 12.9% of the cash flow rights of the company through super-voting stock. Delphi’s post-IPO charter prohibited disparate consideration between the two classes of stock in the event of a merger or acquisition. In 2011, another company approached Delphi with a merger bid, which the board of directors allowed Rosenkranz to negotiate on behalf of the company. Ultimately, Rosenkranz approved the merger on the condition that he receive a control premium ($53.875/share instead of $44.875/share) and that the company amend the charter to allow disparate consideration. The board had little choice but to approve the proposal.

Shareholders upset with Rosenkranz’s negotiated premium brought a lawsuit to block the merger. The Delaware Court of Chancery did not enjoin the transaction because it did not appear the company would receive a superior offer. However, it noted that Rosenkranz likely breached his fiduciary duties by obtaining a premium in violation of the charter, which could be remedied through a separate action for damages. Shareholders then sued Rosenkranz demanding disgorgement of the premium he received. That case recently settled for $49 million – 90% of the total $55 million premium Rosenkranz obtained.

Second, as mentioned in the survey of exchange rules above, dual-class companies cannot reduce the voting power of publically traded shares. This issue was litigated in In re Google, Inc. Class C Shareholder Litigation (2012). When Google went public in 2004, the company maintained dual classes of stock. Over time, Google issued so many shares that founders Larry Page and Sergey Brin came close to losing control of the company.

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20. Id. at *12.
21. Id. at *47 (“[T]he Board used Rosenkranz to negotiate the deal with [bidder] even after he disclosed his intention to demand additional compensation for his Class B shares as a condition of his supporting the Merger.”).
22. Id.
23. Id. at *4 (“Although the Delphi board was reluctant to recommend a differential for the Class B stock, it also recognized that the premium [bidder] was willing to pay over market was very large, and would probably be attractive to the stockholders.”).
24. Id. at *39.
25. Id. at *7.
26. Id. at *61.
holding just 56% of the company’s votes and 15% of the cash flow rights through super-voting stock. Page and Brin decided to issue a stock dividend of new non-voting Class C stock to all existing (Class A and Class B) shareholders, effectively accomplishing a two-for-one stock split and recapitalization. As noted above, Nasdaq (on which Google’s shares trade) prevents recapitalizations that reduce the voting power of a publicly traded class of stock, but the exchange considered this type of transaction technically permissible because it did not alter the ordinary shares’ one vote per share mechanism. The board of directors approved Page and Brin’s proposal because “[t]he only likely alternative to voting ‘yes’ would have been to resign and explain why [they] voted ‘no.’ Or they most likely would not have found their names on the board nomination list next year.”

Nevertheless, shareholders filed suit to enjoin the transaction, alleging Page and Brin breached their fiduciary duties. Because the new non-voting shares will likely trade at a discount to existing one-vote shares, stockholders alleged that management was unlawfully destroying shareholder value and blatantly engaging in self-dealing and entrenchment. The case recently settled, with Google agreeing to pay some percentage (based on a complex formula) of the discount the new non-voting class of stock receives one year after issuance if it is greater than 1%. As of January 30, 2015, non-voting Class C shares (GOOG) were trading at a 0.56% discount to ordinary one-vote Class A shares (GOOGL), which would not necessitate any payment from Google.

These cases illustrate the legal protections afforded to ordinary shareholders at dual-class firms in sell-side transactions and (effective) recapitalizations. Unlike these rare events, an acquisition is an expected and routine corporate action. As such, these transactions are sufficiently pro-

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29. Id.
30. Id.
31. See NASDAQ, supra note 18.
34. Section 2 (Definitions) and Section 3 (Terms of Settlement) of the Stipulation of Compromise and Settlement, In re Google, Inc. Class C S’holder Litig. (Oct. 28, 2013), http://www.sec.gov/Archives/edgar/data/1288776/000119312513418880/d618226dex991.htm.
35. GOOGL was trading at $537.55 while GOOG was trading at $534.52.
tected by the business judgment rule, allowing management to accomplish them with little interference from ordinary shareholders.36

C. Calls for Reform

After losing Alibaba to the NYSE in 2014, the Hong Kong Exchange is considering lifting its ban on dual-class stock offerings.37 The Hong Kong Exchange is reluctant to allow the issuance of stock in dual-class companies because, unlike the U.S., they do not have a class-action litigation system or increased reporting requirements that supplement exchange rules.38 The Exchange is currently undecided on whether it will change its rules, but it was clear that “[l]osing one or two listing candidates [like Alibaba] is not a big deal for Hong Kong, but losing a generation of companies from China’s new economy is.”39 Singapore is similarly considering loosening its restriction on dual-class IPOs.40

Although exchanges that forbid dual-class capitalization continue to consider removing their prohibitions, there have been some calls for the NYSE and Nasdaq to ban dual-class IPOs by prominent institutions such as the Council of Institutional Investors, Institutional Shareholder Services, and CalPERS.41 Exchanges are conflicted about definitively ruling one way or another, in part, because the economic literature on this topic is mixed.

II. Economic Theory of Dual-Class Ownership

The seminal theoretical analysis from Grossman and Hart (1988), concurred with by Harris and Raviv (1988), asserts, “[A] one share/one vote security structure is optimal” in terms of shareholder wealth maximization42 because it increases the chance that a value-increasing takeover by a rival would be consummated.43 Activist investors seeking to change corporate direction or methods cannot effectively threaten a proxy contest

36. In the rare event that a shareholder vote is required by law or exchange regulations, dual-class managers maintain a controlling voting block that can push a deal through despite opposition from a majority of the minority (by voting power) shareholders.


38. Id.


40. Id.

41. Glover & Thamodaran, supra note 3, at 1.


against a dual-class firm because management retains a controlling voting block. Thus, the potential benefits that activist investors could provide are not available to shareholders at dual-class firms. Some academics note, “[D]isproportionate voting common stock is the corporate law equivalent to price-fixing. It is one of a comparatively few transactions that must be proscribed in order for a market system to operate effectively.”

Academics assert that, all else equal, managers will consume more private benefits of control at firms where the opportunities to do so are greater. By hindering the market’s efficient functioning, managers at dual-class firms have the opportunity to waste corporate resources in pursuit of private benefits at the expense of overall firm value. Professor Bebchuk also explains that where there is a divergence between voting and cash flow rights, firms have a strong tendency, all else equal, to expand rather than contract. Unnecessary expansion destroys shareholder value. Thus, as management’s control-to-cash flow divergence becomes larger, firms are expected to engage in more value-destroying transactions. As a consequence, outside shareholders will likely raise the discount on firm valuation. Conversely, as voting and cash flow rights equalize, the incentives of management become more closely aligned with outside shareholders, leading to better investment decisions for shareholders and higher valuations overall.

Managers at dual-class companies are less diversified than ordinary shareholders, which may incentivize managerial entrenchment and diversification through inefficient empire-building acquisitions. Because high-vote shareholders bear less of the financial consequences of their decisions and are less likely to be ousted by dissatisfied shareholders, agency theory expects managers at dual-class firms to engage in value-destroying acquisitions that increase private benefits of control more frequently than single-

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44. Joel Seligman, *Equal Protection in Shareholder Voting Rights: The One Common Share, One Vote Controversy*, 54 Geo. Wash. L. Rev. 687, 721 (1986); see also Wen, supra note 9, at 1497 (noting that “decoupling voting rights from economic ownership is detrimental to shareholders because it allows companies to avoid the threat of market mechanisms that have traditionally served to keep management in check. In the long term, this decoupling is incompatible with principles of corporate governance . . .”).


46. Id. at 2.


50. Id. at 1.


52. Hossain, supra note 8, at 10.
class firms. However, the illiquid nature of super-voting stock and the close bond founders have to their companies may also lead them to act in their companies’ long-term interests.

Proponents of dual-class structures assert that management’s voting control enables such a firm to govern with minimal outside interference, allowing it to focus on sustained business growth and deliver shareholders higher returns in the long term. The economic literature also confirms that managing for the short term destroys long-term shareholder value in numerous ways:

First, companies delay or forgo value-creating investments to meet consensus earnings expectations. [Second,] managers exploit the discretion allowed by the accounting rules in the calculation of earnings by pushing revenues into the current period and deferring expenses to future periods.

One “strategy for eliminating the curse of short-termism is dual-class ownership . . . . [It] allows founders to control the company’s future without depending on what others think.”

Ultimately, when shareholders invest in a dual-class company, “[they are] betting on someone whose judgment [they] trust for the long term,” says Professor Eisenmann of Harvard Business School. At Google, Facebook, and Alibaba, for example, Page and Brin, Zuckerberg, and Jack Ma control the direction and strategy at their respective companies. Despite knowing these corporate insiders hold a disproportionate amount of control, investors purchase stock in dual-class companies, placing their faith and money in the hands of company founders, believing them to have superior intelligence and knowledge about the businesses they created.

In 1999, Bebchuk wrote, “Given the magnitude of the potential agency costs associated with [minority-controlled firms], a second important question concerns the actual costs associated with these firms.” Numerous empirical studies have since set out to determine the empirical effects of dual-class ownership.

53. Id.
54. Id.
59. See Wen, supra note 9, at 1499 (“When investors buy common stock in a company with dual-class stock, they are essentially betting on the management of the company to create value”).
60. Bebchuk, et al., supra note 47, at 28 (emphasis added).
III. EMPIRICAL EFFECTS ON FIRM VALUE

A. Value Destroying

The majority of empirical studies on this topic indicate that dual-class structures decrease firm value. Mikkelson and Partch (1994) studied dual-class recapitalizations between 1976–1987.61 They found that changing to a dual-class structure significantly decreases operating income, which is a “consequence of unbundling managers’ ownership of equity claims and control of votes.”62 In addition, Claessens et al. (2002) conducted an international analysis of companies where ownership is separated from control.63 They found that as the wedge between control and cash flow rights increases, firm valuation decreases, which is likely due to the positive incentive effects of cash flow rights.64 Another prominent study by Gompers, Ishii, and Metrick (2010) confirms that firm value is negatively associated with insiders’ level of voting rights and negatively associated with the degree of separation between voting and cash flow rights—both at economically and statistically significant levels.65

More recently, Investor Responsibility and Research Center (IRRC) and Institutional Shareholder Services (ISS) compared stock returns at dual- and single-class companies between 2002–2012.66 Contrary to the theoretical argument that dual-class firms may perform less well in the short term but reap higher long-term returns, in reality single-class firms outperformed dual-class firms over three-, five-, and ten-year timeframes while dual-class companies performed better only over a short-term, one-year timeframe—turning the conventional theory on its head.67

B. Value Creating

Some prominent academics have asserted that dual-class structures do not harm shareholder value. Fama and Jensen (1983) assert that alternate monitoring systems act to disincentive managerial self-dealing at firms where ownership is separated from control.68 In addition, DeAngelo and DeAngelo (1985) claim that if dual-class structures are inefficient organizational forms, one would expect their usage to decline over time as their

62. Id. at 198.
63. Stijn Claessens et al., Disentangling the Incentive and Entrenchment Effects of Large Shareholdings, J. Fin. 2741, 2743 (2002).
64. See id. at 2764.
67. See id.
deficiencies become more apparent, which has not occurred. These papers are primarily theoretical, however, and do not provide statistical data or analysis to support their assertions.

Two studies have empirically found that dual-class ownership increases firm value. Boehmer, Sanger and Varshney (1996) review a sample of dual-class IPOs and recapitalizations between 1985–1988. The results are mixed, revealing that companies going public with dual-class structures outperform their matched single-class counterparts in terms of stock returns and accounting performance but recapitalizing to a dual-class structure decreases firm value. The authors favor their IPO data, and conclude, “[B]y holding superior-voting shares without access to a liquid secondary market, [dual-class managers] commit[ ] to a long-term involvement with the firm.” In another study by Dimitrov and Jain (2006), the authors analyze dual-class recapitalizations from 1979–1998, finding that following the announcement of a dual-class recapitalization, companies experience “positive abnormal returns.”

IV. Buy-Side Empirical Analysis

A. Value Destroying

While some conflicting evidence exists regarding whether dual-class structures increase or decrease firm value on the whole, the analysis specifically pertaining to corporate acquisitions is more uniform but also more limited. Acquirers, on average, overpay for target companies. Moreover, recent studies indicate that losses to acquirer returns are more significant for dual-class firms compared to single-class firms.

Acquisition decisions are particularly relevant to dual-class agency problems because they tend to be among the firm’s most significant invest-
ments, which can lead to heightened conflicts of interest and significant discounts on firm valuation immediately following an acquisition announcement.\footnote{Masulis, et al., supra note 45, at 3.} Analyzing the market’s reaction around the announcement date is a critical test to determine whether investors believe management is pursuing a value-generating or value-destroying transaction.\footnote{Hans Caspar von der Crone & Evgeny Plasken, The Value of Dual-Class Shares in Switzerland 22 (2010) (unpublished manuscript) (on file with the University of Zurich), http://rwi.uzh.ch/////_of_Dual-Class_Shares.pdf.} If shareholders disapprove of a particular acquisition, they will likely express their dissatisfaction by pushing down stock price.\footnote{Masulis, et al., supra note 45, at 1.} Event-driven studies around acquisition announcements often compute the cumulative abnormal return (CAR) to reveal the market’s reaction to such events.

Masulis, Wang, and Xie (2008) examine how the separation of voting and cash flow rights affects returns around acquisition announcements using CAR analysis.\footnote{Masulis, et al., supra note 45, at 1.} Their sample is expansive, consisting of U.S. public company acquisitions for over $1 million and greater than 1% of the acquirer’s market value between 1994–2002.\footnote{Id. at 12–13. Specifically, the authors found 410 dual-class acquisitions meeting these criteria during that period; they then found a matching sample of 410 single-class acquisitions with which to compare results. Id. at 13, 41.} Masulis et al. calculate CARs on a five-day scale (-2, +2 from the announcement with t=0 being the announcement date).\footnote{Id. at 13.} A regression analysis revealed that as the divergence between voting rights and cash flow rights widens by one standard deviation, acquirers experience 1.037\% greater negative announcement period abnormal stock returns.\footnote{See id. at 14, 19.} The authors conclude, “[T]he market perceives managers with more voting rights relative to cash flow rights, on average, make worse acquisition decisions for shareholders.”\footnote{See id. at 3.}

In response to negative reactions from shareholders, single-class companies more readily withdraw proposed acquisitions.\footnote{See id.} Because managers at dual-class firms are less likely to be ousted by dissatisfied shareholders, they are less likely to forego a proposed transaction due to an unfavorable market reaction.\footnote{Id. at 15.} Masulis et al. analyze acquisition withdrawals for single-class companies, and their analysis “suggests that the more negatively the market reacts to the announcement of an acquisition, the more likely the acquisition is to be withdrawn.”\footnote{Id. at 16.} Conversely, dual-class “firms . . . are...
less responsive to the market’s assessment of an acquisition’s merits and are more likely to carry through deals that destroy shareholder value.”

Hossain (2014) confirms Masulis et al.’s findings on a larger sample between 1996-2009, evaluating 12,404 transactions. He finds that dual-class stock returns underperform their single-class counterparts around acquisition announcements. The five-day CAR(-2,+2) values reveal that dual-class acquisitions generate 1.24% lower returns than single-class acquisitions, with a mean dual-class CAR(-2,+2) of 0.58% and a mean single-class CAR(-2,+2) of 1.82%.

A similar market response has been found in other countries as well. Bigelli and Mengoli (2004) study 280 Italian acquisitions between 1989-1996. They find that a “worse market reaction characterizes acquiring firms where separation from ownership and control is higher.”

B. Value Creating

Contrary findings have been found in Switzerland, where dual-class ownership is more widespread: more than 20% of public firms utilize dual-class structures there. Using a Swiss sample of 145 firms between 2006-2008, Crone and Plasken (2010) find that, on average, dual-class acquisitions result in greater abnormal returns than single-class acquisitions. From their data, however, it is clear that single-class firms outperformed dual-class firms regarding acquisition decisions between 1994-2005.

Adhikari (2014) similarly finds that dual-class stocks outperform single-class stocks around acquisition announcements—but he does so using a U.S. sample. The author analyzes acquisitions accomplished within one year of going public by dual- and single-class companies between 1980-2008. Using this unique sample, the author finds that dual-class acquirers have significantly higher returns, suggesting that newly public

86. Id.
87. Hossain, supra note 8, at 10-11.
88. Id. at 17.
89. Id. at 14-15.
90. Comparability in international studies may be limited by differences in legal mergers and acquisitions regimes.
92. Id. at 377.
93. Crone & Plasken, supra note 76, at 4 (noting that dual-class firms accounted for “almost a half of all firms listed in Switzerland in the early 1990s and still account for about a fifth of firms on the market”).
94. Id. at 3.
95. Id. at 27, 31.
96. Id. at 37.
98. Id. at 25.
dual-class firms make better acquisition decisions than new single-class firms.99 Explaining this phenomenon, Adhikari observes that dual-class firms in their first year are more likely to acquire “innovative” targets, defined as those in an industry within the top one-third of citations per patent of four-digit Standard Industrial Classification (SIC) labeled companies (this includes the technology sector).100 Of those companies that made an acquisition within one year of going public, dual-class companies targeted innovative firms on 60.87% of transactions compared to just 52.68% of single-class acquirers.101

V. EMPIRICAL ANALYSIS OF LARGE TECHNOLOGY ACQUISITIONS

A. Sample & Methodology

Because technology companies are responsible for the recent popularity of dual-class ownership among U.S. public companies,102 this study examines technology acquisitions between 2006-2014. Further restricting the sample, only large-scale acquisitions valued over one billion dollars are considered. In this space, there have been seventeen large technology company acquisitions. This study evaluates those seventeen acquisitions, of which dual-class firms accomplished five and single-class firms accomplished twelve.103

99. Id. at 6.
100. Id. at 26.
101. Id.
102. See Surowiecki, supra note 11; see also Green & Levy, supra note 11.
103. (No.) Acquirer/Target (Price, Announcement Date):

<table>
<thead>
<tr>
<th>Dual Class Acquisitions—</th>
<th>Single Class Acquisitions—</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Facebook/WhatsApp ($19.00B, 2/19/14)</td>
<td>(1) Oracle/Hyperion ($3.30B, 3/1/07)</td>
</tr>
<tr>
<td>(2) Google/YouTube ($1.65B, 10/9/06)</td>
<td>(2) Oracle/BEA Syst. ($8.50B, 1/16/08)</td>
</tr>
<tr>
<td>(3) Google/DoubleClick ($3.10B, 4/13/07)</td>
<td>(3) Oracle/Sun Microsystems ($7.40B, 4/20/09)</td>
</tr>
<tr>
<td>(4) Google/Motorola Mobility ($12.50B, 8/15/11)</td>
<td>(4) Microsoft/aQuantive ($6.90B, 5/18/07)</td>
</tr>
<tr>
<td>(5) Google/Nest ($3.20B, 1/13/14)</td>
<td>(5) Microsoft/Skype ($8.50B, 5/10/11)</td>
</tr>
</tbody>
</table>

Like the studies referenced above, abnormal returns are calculated based on market residuals using the market return model.\textsuperscript{104} The Standard and Poor’s 500 Index (S&P 500) is used as a proxy for expected returns.\textsuperscript{105} Expected returns are compared with acquirers’ actual returns along five-day (CAR\textsubscript{-2,+2}), twenty-one-day (CAR\textsubscript{-10,+10}), and sixty-one-day (CAR\textsubscript{-30,+30}) windows around the event dates. An acquirer’s press release date for an acquisition is used as the event date (t=0). The difference in the daily percentage change between an acquirer’s opening and closing price and the market’s opening and closing price are then aggregated to yield the five-, twenty-one-, and sixty-one-day CAR values for each acquisition during the relevant period.\textsuperscript{106}

### B. Results

For this sample of acquisitions, the mean CAR values for dual-class and single-class companies around acquisition announcements are as follows:


106. Bigelli & Mengoli, supra note 91, at 386 (“The narrow window [(CAR\textsubscript{-2,+2})] should capture the information revealed by the public announcement, while the wide window [(CAR\textsubscript{-30,+30})] should capture any outflow of information that occurred in the 30 days before and after the announcement date.”). The 21-day (CAR\textsubscript{-10,+10}) window is included as an intermediate point of reference.
Dual-class acquisitions generate slightly higher—though statistically insignificant—short-term returns relative to single-class acquisitions over the five-day window but single-class firms noticeably outperform dual-class firms over the longer-term twenty-one-day and sixty-one-day windows. The CAR values collectively reveal a general trend that dual-class stock returns decline as the event window expands while single-class stock returns increase as the window expands.

FIGURE 1. SAMPLE RESULTS, LINEAR GRAPH

107. There are two significant critiques worth noting. First, only two dual-class companies satisfied the criteria of this study. The results may be reflective of the fact that qualifying single-class technology companies make better acquisitions than Facebook and Google, rather than the entire population of dual-class technology companies.

Second, the narrow timeframes used (ranging from 5 to 61 days) are too short to reflect long-term value. Generally, studies only look to the 5-day CAR values but some extend their analysis over 61 days. Acquisitions surely represent long-term growth prospects that cannot be sufficiently encapsulated by such short-term analysis. These relatively short timeframes, though, reflect the market’s perception of those long-term prospects of an announced acquisition. Tracking stock price changes over longer periods is often not helpful because of numerous intervening events (both company-specific and market-wide) that affect stock prices. If there is a difference between the short-term market reaction and the long-term growth prospects, the difference may be reflective of the market’s inability to accurately project long-term earnings. For example, Facebook’s acquisition of WhatsApp generated -11.34% abnormal returns for CAR\(_{(-30,+30)}\) but some have claimed that acquisition has the potential to be value generating a year later. See Josh Constine, A Year Later, $19 Billion for WhatsApp Doesn’t Sound so Crazy, TECHCRUNCH (Feb. 15, 2015), http://techcrunch.com/2015/02/19/crazy-like-a-facebook-fox/ (noting that Facebook’s position in the messaging market is now well solidified, and “[m]ore risky than Facebook not buying WhatsApp was what would happen if a competitor did. . . . Without it, Google has seemingly surrendered in the messaging war.”).
The mean returns for $\text{CAR}_{(-30,+30)}$ reveal the largest disparity between the two groups and also the greatest spread for all five-number summary statistics.

**Figure 2. Box Plot & Summary Statistics, $\text{CAR}_{(-30,+30)}$**

The difference between dual-class and single-class stock returns is not statistically significant for $\text{CAR}_{(-2,+2)}$ or $\text{CAR}_{(-10,+10)}$. The values for $\text{CAR}_{(-30,+30)}$ are significant at a 0.1 level of significance (90% confidence) for a two-tailed hypothesis test.\(^{108}\) The statistical analysis suggests that the values for $\text{CAR}_{(-30,+30)}$ would occur by chance 5.34% of the time. The statistical standard (although by no means a hard rule) is to reject the null hypothesis (that there is no difference between dual- and single-class stock returns) and claim statistical significance once that chance is equal to or below 5.00%. Therefore, these findings do show considerable statistical significance but it cannot be said with unequivocal certainty that the difference between dual-class and single-class stock returns did not occur by random chance.

**Conclusion**

The significantly higher returns to large technology acquisitions accomplished by single-class firms relative to dual-class firms reveal that single-class companies in this industry make better large-scale acquisition decisions for shareholders. Returns are lower for dual-class firms because managers with superior voting rights are willing and able to acquire riskier targets, which can destroy value for ordinary shareholders. In this analysis, value is measured in terms of market price, revealing only the returns to public shareholders and not the private benefits to high-vote shareholders. It would be rational for managers at dual-class firms to undertake acquisitions that decrease firm value only when the private benefits of control outweigh the loss to the firms’ overall market capitalization. This misalignment of incentives appears to manifest itself in this sample of large technology company acquisitions.

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\(^{108}\) Due to the small sample size, the central limit theorem does not necessarily apply. The statistical analysis assumes the population percentage change in returns for both groups (dual-class and single-class companies) are normally distributed. The values for $\text{CAR}_{(-30,+30)}$ are significant with 90% confidence, p-value of 0.0534.