

# CONCENTRATED OWNERSHIP AND LONG-TERM SHAREHOLDER VALUE

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*Corporate ownership structure with a controlling shareholder is widespread around the world. Conventional accounts of concentrated ownership warn against controlling shareholders' abusive exercise of control and extraction of "private benefits" at the expense of minority shareholders. These accounts, however, are in sharp contrast with the success achieved by many firms with concentrated ownership and the resurgent popularity of dual class structure (which separates voting rights from rights to profits) with uncontested control, as evidenced by Google, Facebook, and many others. This Article attempts to reconcile the empirical evidence with the existing theory by demonstrating how a moderate amount of private benefits of control can actually enhance long-term value by inducing commitment and investment by the controlling shareholder. On the downside, because private benefits of control are less sensitive to firm performance, they can undermine the controlling shareholder's incentive to maximize firm value. On the upside, because private benefits of control are non-transferrable (they are "private" and illiquid), they create a lock-in effect, making the controlling shareholder more likely to stay with the firm for the long-term and care about the firm's long-term reputation and performance. The analysis renders a number of implications. For instance, this Article shows that achieving the optimal balance may require a formal separation of voting rights from rights to profits, as is done in a dual class structure. This can explain why certain founders are taking their companies public with a dual class structure even though such structure is considered to be inefficient and can lead to lower proceeds from equity sale. It also renders a normative argument that, instead of a categorical ban, a more nuanced approach towards such mechanisms, such as heightened judicial scrutiny, could be superior.*

## INTRODUCTION

In 2004, when Google was proposing to sell its stock to the public for the first time, the company adopted an unconventional ownership structure. The founders, Sergey Brin and Larry Page, together with CEO Eric Schmidt, would own Class B shares, which had ten votes per share, but the public was being offered to purchase Class A shares, which had only one vote per

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share.<sup>1</sup> Given the number of Class A shares being offered, the effect was to give Brin, Page, and Schmidt, more than 66% of the voting rights even though they would own less than 32% of the outstanding stock.<sup>2</sup> When the potential investors expressed concern over giving so little control right to the public, the founders wrote and circulated a lengthy letter, titled “Letter from the Founders.”<sup>3</sup> The letter emphasized that giving uncontested control to the founders under the dual class structure<sup>4</sup> would allow the company to focus on the “long-term” goals and to maximize the “long-term” interests of the shareholders.<sup>5</sup> While it is unclear how much effect the letter had in assuaging the investors’ concerns, the company successfully sold its Class A shares and

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<sup>1</sup> See Google Inc., Registration Statement (Form S-1), 3, (Apr. 29, 2004). Apart from the differential voting rights, other rights, such as the right to receive dividends or liquidate distributions, are the same between the two classes. See Google Certificate of Incorporation, Article IV. In early 2014, Google distributed Class C shares, with no voting rights, to Class A shareholders, thereby creating three different classes of common stock. See Google Inc., Registration Statement (Form 8-A) (Mar. 26, 2014); Google Inc., Registration of Certain Classes of Securities Pursuant to Section 12(b) OR (g) (Form 8-A), 2, (Mar. 26, 2014). Finally, in 2015, the company reorganized, with Alphabet, Inc. as the holding company and Google as one of the operating subsidiaries. Through the reorganization, previous Google shares converted into Alphabet shares, but with the same triple class structure. See Alphabet, Inc., Agreement Plan and Merger (Form 8-K), Ex. 2.1, (Oct. 2, 2015); Google Inc., Current Report Pursuant to Section 13 or 15(d) (Form 8-K), 2, (Oct. 2, 2015). Over the years, the company went through several share ownership changes, and the voting power of the trio has decreased to about 58%. See Alphabet Inc., Proxy Statement Pursuant to Section 14(A), 22, (Schedule 14A) (Apr. 29, 2016).

<sup>2</sup> See Google Inc., Registration Statement, *supra* note 1. The 32% ownership refers to the founders’ cash flow rights. Because all three classes of common stock are entitled to the same dividend and other distribution rights, if the firm were to pay out \$100 in dividends, the founders would receive \$32. However, because they own Class B high voting shares, they have more than 66% of the votes.

<sup>3</sup> See *id.*

<sup>4</sup> See *id.* The term “dual class stock” denotes a formal separation of cash-flow rights (or rights to profits) from control rights (or voting rights), usually within the same common stock. Although many companies issue both common and preferred stock, often with differential voting rights, this is not considered an example of “dual class” structure since preferred and common stockholders also differ, for example, in terms of their dividend and liquidation rights.

<sup>5</sup> *Id.* The letter further states that “if opportunities arise that might cause [them] to sacrifice short term results but are in the best long term interest of [the] shareholders, we will take those opportunities.” *Id.* (emphasis original). With respect to the dual class structure, “similar structures are common in the media business and has had a profound importance there . . . . [M]edia observers have pointed out that dual class ownership has allowed these companies to concentrate on their core, long term interest in serious news coverage, despite fluctuations in quarterly results. Berkshire Hathaway has implemented a dual class structure for similar reasons. From the point of view of long term success in advancing a company’s core values, we believe [the dual class] structure has clearly been an advantage . . . . We are convinced that everyone associated with Google . . . will benefit from [the dual class] structure.” *Id.* at 6, 8; see also Steven Davidoff Solomon, *Shareholders Vote with Their Dollars to Have Less of a Say*, N.Y. TIMES, Nov. 4, 2015 (“Many defend dual-class stock because it may insulate a company from pressure to take short-term actions at the behest of shareholders. It also allows the founders to take a long-term approach and invest in the company in a way that may not produce immediate results. And finally, defenders point out that institutional investors are often conflicted in their desires, and that dual-class stock allows more deliberate consideration of shareholder issues.”).

raised more than \$1.67 billion.<sup>6</sup> More importantly, though, Google's initial public offering seems to have changed the market's perception of dual class stock. Since 2004, other companies began to follow Google's footsteps and, by 2015, about 14 percent of all companies that went public have done so with a dual class structure.<sup>7</sup> The list includes well-known companies, such as Facebook, Fitbit, Groupon, LinkedIn, Shake Shack, Yelp, and Zynga.<sup>8</sup> Most recently, in early 2017, Snap Inc., the parent company of a popular disappearing-message application company Snapchat, has taken a step further by offering to sell to the public common stock with no votes, allowing the company's two founders to have complete control over the company.<sup>9</sup>

When we look beyond the initial public offerings with dual class stock, we see that the concentrated ownership structure is quite prevalent throughout the world.<sup>10</sup> According to one study, more than two-thirds of all publicly traded companies in East Asia have a controlling shareholder, many of whom employ pyramidal structure and cross ownership that, like dual class stock, allow the controlling shareholder to retain a larger share of, or even absolute, control.<sup>11</sup> Concentrated ownership is also widespread in European

<sup>6</sup> See Cynthia L. Webb, *Google's IPO: Grate Expectations*, WASH. POST, (Aug. 19, 2004), <http://www.washingtonpost.com/wp-dyn/articles/A14939-2004Aug19.html>; see also Paul La Monica, *Google jumps 18% in debut*, CNN MONEY, (Aug. 19, 2004), <http://money.cnn.com/2004/08/19/technology/goog>. Class A shares were offered at \$85 per share, and on the first day of trading, the share price jumped by about 18% to close at \$100.34 per share, giving the company an equity market capitalization of over \$23 billion. *Id.*

<sup>7</sup> See Solomon, *supra* note 5 (noting that in 2015 alone, more than 13.5% of all IPOs have a dual class structure, compared to just 1% in 2005); see also 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, 1498 (2015) (noting the popularity of dual class stock initial public offerings); Lucian A. Bebchuk & Kobi Kastiel, *The Untenable Case for Perpetual Dual-Class Stock*, 103 VA. L. REV. 585, 597 (2016) (documenting the prevalence of dual class stock initial public offerings and concerns over control lock-in).

<sup>8</sup> See Wen, *supra* note 7, at 1497, 1510; see also Bebchuk & Kastiel, *supra* note 7, at 591; Davidoff Solomon, *supra* note 5.

<sup>9</sup> See Snap Inc., Registration Statement (Form S-1) (Feb. 2, 2017); see also Maureen Farrell, *In Snap IPO, New Investors to Get Zero Votes, While Founders Keep Control*, WALL ST. J. (Jan. 16, 2017), <https://www.wsj.com/articles/in-snap-ipo-new-investors-to-get-zero-votes-while-founders-keep-control-1484568034> (noting that the two founders, Evan Spiegel and Bobby Murphy, were expected to hold more than 70% of the voting power despite owning roughly 45% of the stock). In response, several institutional shareholders, including BlackRock, Vanguard, and CalPERS, have drafted corporate governance principles, voicing opposition against dual class structure. See Joann S. Lublin, *Big Investor Group to Push for End to Dual-Class Shares*, WALL ST. J. (Jan. 30, 2017), <https://www.wsj.com/articles/big-investor-group-to-push-for-end-to-dual-class-shares-1485817380> (noting that Snap's proposed dual class structure has fueled opposition by institutional shareholders); see also Investor Stewardship Group, *Corporate Governance Principles for US Listed Companies*, <https://www.isgframework.org/corporate-governance-principles> (arguing that shareholders should get voting rights that are in proportion to their economic interest).

<sup>10</sup> See Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Shleifer, *Corporate Ownership Around the World*, 54 J. FIN. 471, 471-72 (1999); see also Ronald Gilson, *Controlling Shareholders and Corporate Governance: Complicating the Comparative Taxonomy*, 119 HARV. L. REV. 1641, 1643 (2006).

<sup>11</sup> See Stijn Claessens, Simeon Djankov & Larry Lang, *The Separation of Ownership and Control in East Asian Corporations*, 58 J. FIN. ECON. 81, 82 (2000). As an example of a

countries, some (such as Sweden) with relatively strong protection for minority shareholders and others (such as Italy) with relatively poor investor protection.<sup>12</sup> Even in the US, older, more established companies such as Berkshire Hathaway, Ford, Microsoft, the New York Times, Viacom, and Wal-Mart, have controlling shareholders, some with dual class stock and some without. If we added to this list the companies that went public over the past fifteen years with a dual class structure, we could clearly identify that concentrated ownership structure has become an important corporate governance issue even in the United States.

When analyzing corporate ownership structure, corporate law and finance scholars have typically treated the presence of a controlling shareholder as a source (or symptom) of bad corporate governance and a result of bad corporate law. Controlling shareholders are known to abuse their power and extract “private benefits of control” to the detriment of the minority shareholders. Examples include entering into conflicts-of-interest transactions, misusing corporate resources for personal ends, expropriating corporate opportunities, pursuing pet projects, and building conglomerate empires. Not surprisingly, much of the existing scholarship espouses the goal of curbing the extraction of private benefits and protecting the minority shareholders from abusive controlling shareholders. Particularly with respect to legal instruments that enhance a controlling shareholder’s power, such as dual class stock, stock pyramids, and cross ownership, proposals have been made to ban those legal instruments altogether or substantially limit their use.<sup>13</sup>

Notwithstanding the pervasive concern, not only is the concentrated ownership structure prevalent, but also companies with controlling shareholders are often quite successful. Companies such as BMW, Ikea, Fiat,

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pyramidal structure, suppose shareholder A owns 51% of company B, which owns 51% of company C. Even though shareholder A is entitled to about 26% ( $\approx 51\% \times 51\%$ ) of company C’s distribution, she retains complete control over company C. Using such a structure, the Li-Ka Shing family of Hong Kong owns 34% of the voting rights but only 2.5% of the cash-flow rights of Hong Kong Electric, the thirteenth largest publicly traded company in Hong Kong. *Id.* at 97. An important reason why firms outside the U.S. employ pyramidal structures and cross ownership is that, in many jurisdictions, dual class structure is prohibited. See Bebchuk & Kastiel, *supra* note 7, at 12–14.

<sup>12</sup> See La Porta et al., *supra* note 10; Gilson, note 10.

<sup>13</sup> Regulation over dual class stock has an interesting history in the U.S. In 1988, the SEC adopted a rule (Rule 19c-4) prohibiting companies with dual class stock from listing on a national exchange, but the rule was vacated by the Court of Appeals for the D.C. Circuit. See *Bus. Roundtable v. SEC*, 905 F.2d 406, 417 (D.C. Cir. 1990) (holding that the SEC exceeded its authority). The discussion over whether to allow dual class stock has recently been revived due to its popularity among companies that undergo initial public offerings. In Europe, the High Level Group of Company Law Experts recently recommended that the European Commission adopt the “proportionality principle” that prohibits separation of voting from cash-flow rights. See INSTITUTIONAL SHAREHOLDER SERVICES ET AL., REPORT ON THE PROPORTIONALITY PRINCIPLE IN THE EUROPEAN UNION (2007). See generally Lucian Bebchuk, Reiner Kraakman, & George Triantis, *Stock Pyramids, Cross-Ownership, and Dual Class Equity: The Mechanisms and Agency Costs of Separating Control from Cash-Flow Rights*, in CONCENTRATED CORP. OWNERSHIP 445 (Randall K. Morck, 2000) (analyzing the problems associated with “radial” separation of control and cash-flow rights).

Lego, LVMH, and Samsung as well as companies like Amazon, Facebook, and Google excel in offering products and services that are well-received by consumers and generate healthy cash flows and profits for their shareholders.<sup>14</sup> All of these companies have a shareholder (or a small group of shareholders) with de facto or de jure control. If the presence of a controlling shareholder leads to extraction of private benefits at the expense of the firm and the minority shareholders, how do we explain the prevalence of, and the success achieved by many firms with, concentrated ownership? In particular, how do we evaluate the claim, as emphasized by the Google founders, that having a concentrated ownership structure (with uncontested control) allows a firm to focus on the “long-term” goals for the ultimate benefit of the firm and for all shareholders? How do we explain the recent, rising trend of firms going public with a dual class structure when they presumably have a strong incentive to adopt the optimal corporate governance regime?<sup>15</sup>

This Article attempts to solve these puzzles by more closely examining the costs and benefits of concentrated ownership. This Article, in particular, focuses on the argument that having a controlling shareholder allows the firm to take a “long-term” perspective and to maximize the “long-term” value for the shareholders.<sup>16</sup> To better evaluate this claim, this Article adopts

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<sup>14</sup> For instance, over a ten-year period, from early 2007 through early 2017, Google A stock made a return of approximately 260% while the S&P 500 index rose by a little more than 60%. Similarly, over a five-year period, from early 2012 through early 2017, Facebook’s Class A stock outperformed S&P 500 and made a return of approximately 298% while the S&P 500 rose about 86%. See Google Finance, Alphabet Inc. (GOOGL), <https://finance.google.com/finance?q=NASDAQ:GOOGL> (last visited Nov. 22, 2017); Google Finance, Facebook (FB), <https://finance.google.com/finance?q=NASDAQ:FB> (last visited Nov. 22, 2017); Google Finance, S&P 500 (SPX), <https://finance.google.com/finance?q=NASDAQ:SPX> (last visited Nov. 22, 2017). In 2015, Amazon surpassed Wal-Mart as the most valuable retailer in the U.S. See Jodi Kantor & David Streitfeld, *Inside Amazon: Wrestling Big Ideas in a Bruising Workplace*, N.Y. TIMES (Aug. 15, 2015), <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html> (noting the success of Amazon in retail competition and the concerns over its competitive workplace environment).

<sup>15</sup> This is an important puzzle that has vexed scholars and practitioners for some time. The basic idea is that when dual class structure is inefficient, it leads to lower proceeds or a lower ownership share for the founder, thereby making the founder internalize the inefficiency. Professor Gilson argues that “there is no longer a persuasive case to be made for restricting . . . the initial offering of [securities with dual class, because] the stock’s limited voting rights are reflected in a reduced price, so that the company’s owners at the time it goes public . . . bear the cost. Shareholders are not fooled and there is no reason to expect that third parties will be adversely affected.” Ronald Gilson, *Evaluating Dual Class Common Stock: The Relevance of Substitutes*, 73 VA. L. REV. 807, 808–09 (1987). Professors Daines and Klausner argue that the idea of firms adopting efficient governance arrangements at the IPO cannot comfortably coexist with the hypothesis that anti-takeover provisions, including dual class stock, are inefficient. See also Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protection in IPOs*, 17 J.L. ECON. & ORG. 83 (2001). For a discussion with a numerical example, see *infra* section I.

<sup>16</sup> While other scholars have analyzed various aspects of concentrated ownership, this Article is the first to analytically examine the relationship between concentrated ownership and long-term shareholder value. See Bebchuk et al., *supra* note 13; Ronald Gilson & Jeffrey Gordon, *Controlling Shareholders*, 152 U. PA. L. REV. 785 (2003); Gilson, *supra* note 10; Ronald Gilson & Alan Schwartz, *Corporate Control and Credible Commitment*, 43 INT’L REV. L. & ECON. 119 (2015); Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyn-*

an analytical framework that examines how a controlling shareholder, on the one hand, affects the firm's performance (both long-term and short-term) and, on the other hand, affects the division of its return through the extraction of private benefits. For the former, a controlling shareholder can get actively involved with the firm's research and development to produce and sell high-quality products and enhance the firm's reputation in the product market. A controlling shareholder's close monitoring of the top management can also improve the firm's performance. For the latter, a controlling shareholder can influence how the fruits of enhancing the firm's performance are divided among shareholders. Rather than making a pro rata distribution to all shareholders, she can divert that cash flow through various means, such as transactions with a controlled company or investments in pet projects.<sup>17</sup> The first type of actions affects the size of the pie while the latter affects how a portion of that pie will be captured by the controlling shareholder as private benefits of control. This Article argues that these two types of actions are often intricately linked with each other.

There are two incentive challenges that the controlling shareholder and the firm face: short-term incentive alignment and long-term commitment. In terms of incentive alignment, a controlling shareholder must retain enough ownership shares (or enough "skin in the game") to have the necessary incentive to maximize the firm's bottom line. A strong incentive alignment also leads to a reduction in private benefits of control. If a substantial fraction of a controlling shareholder's return is based on private benefits that are insensitive to the firm's earnings, she will care less about improving the firm's performance. On the flip side, however, when the controlling share-

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*cratic Vision*, 125 YALE L. J. 560 (2016). Finance scholars have empirically documented the relationship between poor legal protection of minority shareholders with ownership concentration and control premia (proxy for the size of private benefits of control). See Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer & Robert Vishny, *Legal Determinants of External Finance*, 52 J. FIN. 1131 (1997); Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, & Robert Vishny, *Investor Protection and Corporate Governance*, 58 J. FIN. ECON. 3 (2000); Alexander Dyck & Luigi Zingales, *Private Benefits of Control: An International Comparison*, 59 J. FIN. 537 (2004). More recently, the debate over short-term versus long-term divergence has been about whether to insulate management from activist shareholders. See, e.g., Lucian Bebchuk, *The Myth that Insulating Boards Serves Long-Term Value*, 113 COLUM. L. REV. 1637 (2013); Lucian Bebchuk, Alon Brav & Wei Jiang, *The Long-Term Effects of Hedge Fund Activism*, 115 COLUM. L. REV. 1085 (2015); Jesse Fried, *The Uneasy Case for Favoring Long-term Shareholders*, 124 YALE L.J. 1554 (2015). The focus of this Article is on controlling shareholders. While there are many differences, one important difference is that a manager ordinarily cannot "sell" her office and capture the value of her future compensation whereas a controlling shareholder, through stock sale, can realize the value of future cash flows. Concerns about losing future benefits of compensation and other perquisites can lead to managerial entrenchment to the detriment of the shareholders.

<sup>17</sup> Private benefits can be pecuniary or non-pecuniary. Examples of non-pecuniary benefits include carrying on a family legacy, acquiring political clout by running a large enterprise, building a conglomerate empire, and pursuing pet projects. Similar to pecuniary private benefits, non-pecuniary private benefits can also induce long-term commitment from the controller. When such benefits do not impose costs on minority shareholders, these benefits can induce long-term commitment from the controlling shareholder without imposing the deadweight losses on the firm that are associated with pecuniary benefits.

holder's return comprises consists mostly of financial returns and little or no private benefits, it becomes easier for her to sever her relationship with the firm by either liquidating her position through the financial market or by selling her control block to a third party, possibly for a handsome profit.<sup>18</sup> Such exit options reduce the controlling shareholder's incentive to stay with the firm and invest for the long-term. When more of her return is based on non-transferrable private benefits of control, severing her relationship with the firm implies losing all future private benefits. Unless she receives a large premium for her control block (and a large premium functions as a road-block against a successful sale), she will be unable to capture the value of future private benefits. In short, the larger the private benefits of control, the more likely that the controller will be locked in with the firm for the long-term and care about the firm's long-run performance. The main thesis of this Article is that when these two challenges point in opposite directions, there will often be an optimal level of ownership share and amount of private benefits of control that the controlling shareholder extracts in maximizing the long-term value of the firm.

To illustrate the main thesis with a simple example, imagine a shareholder who owns a fraction (say 10%) of a firm's stock and has de facto control over the firm, either because her holding is sufficiently large and other shareholders are dispersed, or because she owns more than 50% of the voting power through ownership of stock with higher voting rights, for example, through dual class stock. She can also serve as the company's executive officer. Each year, she can spend substantial amounts of time and energy towards improving the firm's performance, for example by overseeing and directing research and development for better product or by instituting better human resource management to hire, retain, and incentivize managerial talent. Suppose these actions are not readily observable from the market and the results of her efforts (for instance, on long-term research and development) would take some time before coming to fruition. At the same time, she can also direct the firm to make sizable donations and provide logistical support to a local university, her alma mater. Though the donations and the support are of no benefit to the firm, they satisfy her personal desire, and she argues that they are good for the firm's image among the local residents. Undertaking more research and development and improving governance benefit all shareholders by improving the firm's earnings while spending corporate resources to support her alma mater produces benefits that are private to her at the expense of the minority shareholders.

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<sup>18</sup> Unlike executives whose compensation is based on a contract, a controlling shareholder's return is based on the distributions from the company. Google's founders, for instance, receive \$1 of annual compensation for serving as Alphabet's directors. See Alphabet Inc.'s Definitive Proxy Statement, *supra* note 1 at 38. Another important difference is that while the executives are contractually obligated to stay with the company for several years, there is no such lock-in arrangement for the controlling shareholders.

Now, consider varying her control stake and attendant private benefits of control. As her fraction of ownership rises, say from 10% to 30%, her interest becomes more aligned with the firm's performance, and she becomes less inclined to make the expenditures (including the donations and logistical support to her alma mater) that do not improve the firm's earnings. This is the upside of aligning control with cash-flow rights. At the same time, however, as the private benefits shrink, it becomes easier for her to realize the full value of her ownership stake through market or third-party sale. With little or no private benefits, the value of her ownership stake is determined (almost) entirely by the firm's future earnings, which is reflected in the share price. This makes it easier for her to realize the value of her shares through third party or market sale in the short-term. When private benefits are significant, by contrast, the market value of her shares will be substantially lower than the value she places on them, which includes the value of future private benefits (including helping her alma mater), and she becomes unwilling to sell her block unless she receives a large premium to compensate her for the loss of private benefits.<sup>19</sup> The non-transferable and illiquid nature of the private benefits, in short, makes it more difficult for her to realize the full value of her shares through third party or market sale and makes her more likely to retain her ownership for the long-term. Such commitment or lock-in, in turn, leads her to care more about the firm's long-term reputation and performance.<sup>20</sup> For instance, if she were to make a costly investment today on more focused research and development, the benefit of which will be reaped only in the distant future, she would be more inclined to make such investments. She would similarly be unwilling to take actions that boost the firm's short-term earnings but harm the firm's long-term reputation. This is the upside of private benefits of control. At optimum, she should retain ownership of a large enough block (say 20%) that causes her to care sufficiently about the firm's earnings but also enables her to capture some private benefits that enhance her long-term commitment to the firm.

Once we recognize the long-term commitment aspect of private benefits of control, the analysis renders several positive and normative implications. One set of implications is on legal devices—such as dual class stock, pyramidal structure, and cross ownership—that formally separate the cash-

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<sup>19</sup> See *infra* Appendix for more detailed analysis. As will be shown in more detail in the Appendix, the analysis assumes that the controller owns substantially less than 100% of the cash-flow rights due to the necessity of equity financing. This is the case with most companies with concentrated ownership. If the controller's ownership is close to 100%, liquidating that ownership through the market will be prohibitively difficult.

<sup>20</sup> The role played by corporate reputation in disciplining firms and managements is extensively documented. See generally PAUL MILGROM & JOHN ROBERTS, *ECONOMICS, ORGANIZATION AND MANAGEMENT* 259–69 (1992). Recent, well-known examples include the reputational damage that British Petroleum suffered after the Deep Water Horizon explosion and subsequent pollution; General Motors, following the discovery of ignition switch malfunction; Volkswagen, after the emission gauge manipulation scandal; and Chipotle, after an E. coli outbreak. See also *infra* note 45 on the story of Market Basket.



flow rights (rights to profits) from control rights (voting rights). Under certain conditions, a formal separation of cash-flow rights from control rights may become necessary in achieving the optimal tradeoff. For instance, when the cash-flow ownership retained by the founder is too low, the founder may be unable to exercise effective control. Low ownership can also make the firm a target of hostile takeover or outside shareholder activism, which, in turn, can lead to the loss of control by the founder. In either case, the founder will be unable to realize any private benefits of control and this can undermine the long-term commitment. Wary of such possibilities, the founder would want to create a dual class structure and more securely retain control rights over the firm in order to achieve long-term commitment and to provide sufficient investment incentive.<sup>21</sup> This can explain why some firms are willing to adopt a dual class structure when they go public for the first time, as evidenced by recent initial public offerings in the US. It also leads to a normative argument that, instead of an unconditional prohibition against such devices, a more balanced approach could be desirable. This Article offers the possibility of applying a heightened judicial scrutiny (similar to that applied against anti-takeover devices under *Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946 (Del. 1985) and *Revlon, Inc. v. MacAndrews & Forbes Holdings*, 506 A.2d 173 (Del. 1986))<sup>22</sup> against transactions that are under-

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<sup>21</sup> An important reason why Google has been able to undertake numerous investments (such as the development of self-driving automobiles), many of which are considered long shots, is that the controlling shareholders (Brin, Page, and Schmitt) have effectively shielded the firm from possible hostile takeover and, more importantly, from outside shareholder activism through the dual class structure. Some dual class stock, including that of Google, has a mandatory conversion provision that automatically converts a high-voting stock into a low-voting stock when the holder of the high-voting stock sells the stock to a third party. See Google Inc., Amended and Restated Certificate of Incorporation of Google Inc., (Form 8-K), Article IV (Aug. 27, 2003) <https://www.sec.gov/Archives/edgar/data/1288776/000119312504073639/dex301.htm>. Mandatory conversion further enhances the long-term commitment, particularly because it renders third-party block sale unattractive for the controller. For instance, when the controller, who owns 20% of the cash-flow rights but 50% of the voting rights through dual class stock, attempts to sell the control block to a third party, she will no longer be able to receive a large control premium. At the same time, mandatory conversion can, at least, partially alleviate the problem of inefficient sales of control, for example, by preventing the sale of a control block to a buyer with an even larger private benefits extraction. See *infra* Part III-A and Appendix Part C for more analysis.

<sup>22</sup> In hostile takeover scenarios, where a buyer makes an unsolicited bid directly to the shareholders and bypasses the target's board, even when the executives and the directors do not have any explicit conflicts of interest with the transaction, the courts and the investors become wary of their "entrenchment" motive to perpetuate their control. In response, the courts have developed over the years and applied two tests of heightened scrutiny, instead of the deferential business judgment rule, to the anti-takeover devices. The first is the "proportionality" test under *Unocal*, 493 A.2d at 955 that requires the defensive measure to be "reasonable in relation to the threat posed" against the corporate policy. The second is the impartiality test, under *Revlon, Inc.*, 506 A.2d at 182–85 that requires the board to hold an impartial "auction" to maximize the return for the shareholders. As explained in *Paramount Commc'n, Inc. v. QVC Network, Inc.*, 637 A.2d 34, 38–40, 43–45 (Del. 1993), the *Revlon* duty applies when the company initiates a bidding process, when there is a change of control, or when the company's breakup (as in a bust-up takeover) is inevitable.

taken by controlling shareholders with extreme separation of control from cash-flow rights.

Another set of implications is on sale-of-control and freeze-out transactions. Once the long-term incentive problem has been resolved, change-in-control, if it occurs at all, will take place through negotiated sale with a third party involving a (substantial) control premium and not through market sale.<sup>23</sup> The fact that a third party has to pay a (substantial) control premium implies that there could be an inefficient lock-in of control, where a more efficient buyer is unable to acquire the control block from a less efficient controller.<sup>24</sup> Hence, private benefits of control are a double-edged sword: while inducing better long-term commitment by a controller, they can also function as a roadblock against efficient control change. Furthermore, given that the private benefits impose an efficiency loss, the controlling shareholder will have an incentive to cash out (or “freeze out”) the minority shareholders: there are gains from trade, generated by the efficiency loss, between the controlling shareholder and the minority shareholders. Compared to sale-of-control transactions, where the new buyer can extract even more private benefits of control, freeze-out transactions are generally more efficient (from the perspective of the firm) since, once the firm is wholly owned, inefficient private benefit extraction will be eliminated. Also, unlike sale-of-control transactions where the company could be sold to a less efficient buyer, freeze-out transactions do not involve any change in control. This leads to a normative argument that the existing law’s relative leniency towards sale-of-control transactions should be re-examined.<sup>25</sup> In that light,

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<sup>23</sup> In the European Union, the adoption of a mandatory bid rule in 2004 (and its implementation by individual member states over the next few years) has significantly changed the legal architecture over control sales. The mandatory bid rule requires a bidder who attempts to acquire (or a group of entities who “act in concert” to acquire) “control” over a target company to also make an “equitable price” offer to the rest of the target shareholders. Notwithstanding the consistency that the European Commission attempted to achieve through the rule, the actual implementation within individual member states has been varied. The reason for this variation stems from, at least, three important sources. First, the rule itself grants each member state latitude in defining terms such as “control,” “equitable price,” and “acting in concert.” Some member states define “control” as having more than 30% of the vote while others have set a threshold closer to 50%. With any definition of control, a bidder may still be able to obtain de facto control without triggering the mandatory bid rule by negotiating a block sale that gives her voting power that is slightly below the threshold. Second, the supervisory authority within each member state is entitled to grant exceptions on a case-by-case basis. Third, the mandatory bid rule does not apply in certain circumstances. For instance, when a bidder attempts to acquire control of A, which, in turn, has control over B, the bidder does not have an obligation to make an “equitable price” bid to the minority shareholders of B. See THOMAS GR. PAPADOPOULOS, *EU LAW AND THE HARMONIZATION OF TAKEOVERS IN THE INTERNAL MARKET*, 111–150 (2010). See generally EUROPEAN COMMISSION, *APPLICATION OF DIRECTIVE 2004/25/EC ON TAKEOVER BIDS* (June 28, 2012). The mandatory bid rule has also been called the equal opportunity rule. See *infra* Appendix Part C and the accompanying notes on the analysis and comparison of the equal opportunity rule and the market rule.

<sup>24</sup> The reason for this control premium is that private benefits function as a transactional tax on third party sale. See *infra* Part II and Appendix Part C for more detailed analysis.

<sup>25</sup> Under the current Delaware regime, a controlling shareholder is generally free to sell her control block to a third party (see, for example, under Del. Code tit. 8 § 159) except when

this Article suggests the possibility of imposing a stronger duty on the controlling shareholder to investigate whether the interested buyer will engage in behavior that is harmful to the firm.

This Article is organized as follows. Part I presents a brief overview of the existing scholarship on concentrated ownership and highlights this Article's contributions. Part II presents the main thesis of this Article: private benefits of control carry both positive and negative implications for long-term shareholder value. One particular aspect of private benefits of control that is currently under-appreciated is the long-term commitment benefit that arises from private benefits being non-transferrable and illiquid. Part III builds on the main thesis to lay out several implications, both positive and normative. Positive implications include: (1) circumstances under which a founder may formally separate cash-flow rights from control so as to alleviate the long-term commitment problem; (2) why control transfer will take place largely through a bloc sale with a large premium; and (3) how reliance on debt financing can improve long-term shareholder value. Normative implications for the legal policy include: (1) heightened judicial scrutiny over governance issues in corporations with formal separation of cash-flow rights from control, rather than a complete ban; (2) how the courts can be more vigilant against private benefit extraction done through day-to-day operations; and (3) why control sale is more likely to be value-destroying than freeze-outs and why we may need to rethink the current approach towards these two types of transactions. The last Part concludes. In the technical appendix, the main thesis and the implications are presented in more detail with the help of repeated game theory. Given that the argument about "long-term" shareholder value invokes a dynamic aspect of firm value, it is natural to apply repeated game theoretic analysis.<sup>26</sup> The analysis examines the firm's (and controlling shareholder's) repeated interaction with both consumers and minority shareholders, in the product and the financial markets, respectively.

## I. EXISTING SCHOLARSHIP ON CONCENTRATED OWNERSHIP AND THIS ARTICLE'S CONTRIBUTIONS

Numerous scholars have documented the prevalence of concentrated ownership structure around the world and, primarily, negative effect such ownership has on firm value. A study by Professors La Porta, Lopez-de-Silanes, and Shleifer, for instance, examines the ownership structures of 20 largest publicly traded corporations in 27 wealthy countries and finds that relatively few of the firms were widely held.<sup>27</sup> Instead, they are typically

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the controller has reason to believe that the buyer will "loot" the company. See *infra* Part III.B and Appendix Part C for more detailed analysis.

<sup>26</sup> This is the first paper to present a repeated game theory analysis on concentrated ownership and long-term shareholder value. Notwithstanding its importance, due to its technical nature, the numerical example is relegated to the technical appendix.

<sup>27</sup> See La Porta, Lopez-de-Silanes & Shleifer, *supra* note 10.

controlled by families or governments, with the controlling shareholder having voting (and other control) rights that exceed their cash-flow rights. The study also finds that the controlling shareholders actively participated in the management of the firms.<sup>28</sup> A couple of empirical studies, by Professors Claessens, Djankov, Fan, and Lang, focus on East Asian companies. Using the dataset of 1,301 publicly traded companies from eight East Asian economies, the studies show that nearly two-thirds of the companies have controlling shareholders.<sup>29</sup> They also find that there often is a formal separation of cash-flow rights from control rights, via dual class stock, pyramid structures, and cross-holdings, and that the firm value generally increases as the cash-flow ownership of the controlling shareholder increases.<sup>30</sup> Finally, an empirical study by Professor Dyck and Zingales attempts to more directly measure the size of controlling shareholders' private benefits of control by looking at the control premia, based on an examination of 393 change-of-control transactions in 39 countries.<sup>31</sup> The study estimates the private benefits, as proxied by control premia, to be, on average, about 14 percent of the firm's value, ranging from as low as negative 4 percent to as high as 65 percent.<sup>32</sup>

At the same time, studies have shown that the effect of concentrated ownership on firm performance is not monotonic, in the sense that higher ownership doesn't always produce better performance. Professors Morck, Shleifer, and Vishny, for instance, have shown that there is a complicated relationship between the size of ownership and firm performance.<sup>33</sup> They examined directors' ownership of firms and show that as the ownership rises, firm performance (measured by Tobin's Q) initially rises, then falls, and then rises again.<sup>34</sup> The result suggests that the initial increase in firm ownership incentivizes the directors while the medium range increase reduces value by allowing the directors to extract more private benefits. In the study by Professors Claessens, Djankov, Fan, and Lang, the authors point out that, while the general trend is downward, the firm value can actually increase as the controlling shareholder's stake increases.<sup>35</sup> In a more focused study that looks at the structure of executive compensation, Professors Bertrand and

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<sup>28</sup> See *id.*

<sup>29</sup> See *id.*

<sup>30</sup> See Claessens, Djankov & Lang, *supra* note 11; Stijn Claessens, Simeon Djankov, Joseph Fan & Larry Lang, *Disentangling the Incentive and Entrenchment Effects of Large Shareholders*, 57 J. FIN. 2741 (2002).

<sup>31</sup> See Dyck & Zingales, *supra* note 16; see also Tatiana Nenova, *The Value of Corporate Voting Rights and Control: A Cross-Country Analysis*, 68 J. FIN. ECON. 325 (2003) (estimating the value of control block and shows that it ranges from about half of firm value (in the case of South Korea) to close to zero (in Finland) and that the legal environment, as measured by either common-law origin or civil-law origin, explains about 68% of the cross-country variation).

<sup>32</sup> See *id.*

<sup>33</sup> See Randall Morck, Andrei Shleifer & Robert Vishny, *Management Ownership and Market Valuation*, 20 J. FIN. ECON. 293 (1988).

<sup>34</sup> See *id.*

<sup>35</sup> Claessens, Djankov, Fan & Lang, *supra* note 31, at 2754-55. For instance, according to their data, the average market-to-book ratio (a proxy for Tobin's Q) is substantially higher

Mullainathan show that a firm with a block or controlling shareholder provides top executive compensation that is better tailored and less dependent upon external factors, such as general increase or decrease in market prices.<sup>36</sup> The study supports the hypothesis that a controlling shareholder is better able to manage the agency relationship between the managers and the shareholders.

Among the legal scholars, Professors Lucian Bebchuk, Reinier Kraakman, and George Triantis have cautioned against allowing legal devices (dual class stock, stock pyramids, and cross ownership) that enable controlling shareholders to extract large amounts of private benefits of control.<sup>37</sup> Professors Goshen and Hamdani have more recently argued that while concentrated ownership leads to extraction of private benefits of control, which is harmful to the minority shareholders, it also empowers the controller to realize “idiosyncratic” value (or the controlling shareholder’s “vision”) that ultimately benefits all shareholders.<sup>38</sup> Other scholars have noted the potential benefits of concentrated ownership. Professors Gordon and Gilson have argued that private benefits of control may be necessary to compensate the controlling shareholder to make value-increasing actions, such as close monitoring of management or investment that increases the firm’s cash-flow.<sup>39</sup> Professors Gilson and Schwartz have gone even further to argue that private benefits of control can align the incentives of the controller and the corporation, and that allowing the controller and the corporation to contract over private benefits (and to opt out of fiduciary duty) is desirable.<sup>40</sup>

Despite the dangers of separating control rights from cash-flow rights, Professors Daines and Klausner show that many firms adopt “inefficient” governance arrangements, including dual-class stock, even at the time of their initial public offerings.<sup>41</sup> This is an important puzzle that has vexed scholars and practitioners for some time. The idea is that an inefficient corporate governance structure will be reflected in a lower initial price offering, which leads to lower proceeds and/or lower ownership share for the founder, an outcome that the founder would want to avoid. Suppose a founder who

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when the controlling shareholder owns 36% to 40% of the stock than when the ownership is between 41 and 45%.

<sup>36</sup> See Marianne Bertrand & Sendhil Mullainathan, *Are CEOs Rewarded for Luck? The Ones without Principals Are*, 116 *Q. J. Econ.* 901, 929 (2001).

<sup>37</sup> See Bebchuk, Kraakman, and Triantis, *supra* note 13.

<sup>38</sup> See Goshen & Hamdani, *supra* note 16.

<sup>39</sup> See Gilson & Gordon, *supra* note 16; Gilson, *supra* note 10.

<sup>40</sup> Gilson & Schwartz, *supra* note 16, at 120–21, 125. Gilson and Schwartz advocate demoting mandatory fiduciary duties to a default status. *See id.* at 121.

<sup>41</sup> Daines & Klausner, *supra* note 15, at 83–113. Many of the initial public offerings with dual-class stock were backed by venture capitalists, who presumably have an even stronger incentive to maximize firm share prices. *See id.* at 85. Claessens, Djankov, and Lang show an inverse relationship between separation of control and ownership rights of the largest shareholder (usually controlling shareholder) and a firm’s value, as measured by the market-to-book ratio. For instance, companies with separation in the range of 11% to 15% have higher average valuation than companies with separation of 1% to 10%. *See* Claessens, Djankov, Fan & Lang, *supra* note 31, at 2755–56.

owns 100% of the equity needs to raise \$600 by selling stock to the public. Suppose the firm does not have a dual-class stock structure and is valued at \$1,000, and the founder sells 60% of the company to raise \$600 while retaining 40% that is worth \$400. Now suppose the founder adopts a dual-class stock structure, which allows her to extract  $\$x$  of private benefits of control but will reduce the total firm value to \$800. In this case, the founder will have to sell 75% of the company to raise \$600 ( $= 0.75 \times \$800$ ), while retaining 25% which is worth \$200 ( $= 0.25 \times \$800$ ). When comparing these two choices, the founder will take the latter route only if  $\$200 + \$x$  is larger than \$400. When the extraction of private benefits is inefficient (i.e.  $\$x < \$200$ ), the founder will not adopt the dual-class stock structure. The puzzle thus raises an important issue as to whether such arrangements are really “inefficient” or the founders are actually maximizing the firm value at the initial public offering.

This Article contributes to the literature on this subject by focusing on the role played by private benefits of control in enhancing long-term commitment and long-term value maximization. This is an important issue that the defenders of concentrated ownership and dual-class stock have focused on but has largely escaped analytical scrutiny in the literature.<sup>42</sup> This Article addresses (1) why compensating the controlling shareholder through private benefits of control (rather than through pecuniary compensation) may be necessary;<sup>43</sup> and (2) why firms are adopting seemingly “inefficient” corporate governance arrangements, including dual-class stock structure, at the initial public offering considering that such arrangements will decrease the proceeds from stock sale. Minimizing or eliminating private benefits of control could undermine the controlling shareholder’s long-term commitment by making short-term exit more attractive. The latter effect can lead the controlling shareholder to focus more on boosting short-term earnings (e.g. through under-investment) and neglect the firm’s long-term value, including the firm’s reputation in the product market. At the same time, extraction of private benefits of control not only leads to a welfare loss but also to an inefficient lock-in. This Article examines both the positive and negative aspects of private benefits of control while emphasizing the role played by private benefits of control in enhancing long-term shareholder value maximization.

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<sup>42</sup> A careful analysis of the argument requires us to think about what it means for a firm to engage in long-term interactions (with consumers and investors) and the potential divergence between short-term and long-term values. This analysis requires an examination of the interactions in a more dynamic (or repeated) setting by applying the concepts of repeated game theory.

<sup>43</sup> In response to Professors Gilson and Gordon, Professors Goshen and Hamdani argue that instead of allowing the controller to extract private benefits of control, the firm should rely on a more efficient compensation package to induce the controller to undertake value-increasing actions; Goshen and Hamdani also cast doubt on the existing “optimal-reward” theory. See Goshen & Hamdani, *supra* note 16, at 573–75, 585.

## II. THE MAIN THESIS

The main contributions of this Article can be divided into two tracks: one methodological and the other substantive. The methodological point is to emphasize the fact that when thinking about the concentrated ownership structure in corporations, we need to think about how a controlling shareholder simultaneously affects the firm's overall performance and diverts some of the return for personal purposes (private benefits). The first dimension leads us to more carefully examine the firm's (and the controlling shareholder's) interactions in the product market, while the latter focuses on the controlling shareholder's interactions with the minority shareholders in the financial market. This Article argues that these two dimensions are intricately related to each other, and jointly analyzing the interactions allows us to think more carefully about the potential divergence between short-term and long-term value maximization. On the substantive front, this Article reveals that there are two incentive challenges: (1) aligning the controller's return with that of the firm's cash-flows, and (2) inducing the controller's long-term commitment to the firm. Allowing the controlling shareholder to extract more private benefits of control will worsen the first problem but better solve the second, and this leads to a trade-off. After more carefully laying out the main thesis, this Part will also discuss the implications, both positive and normative, including how the analysis can better explain the existing ownership structure and what changes may be necessary in the current legal structure.

A. *Private Benefits of Control and Long-Term Commitment*

As briefly surveyed in Part I, concentrated corporate ownership structures, where de facto or de jure control resides with a single shareholder (or a group of shareholders), are widespread around the world and have become more popular in the United States. In most cases, controlling shareholders do not remain passive. Often, as top executive officers or directors, they are actively involved with the operation and management of the firm, such as the research and development of a new product, marketing and sales, financing, and human resource management, including close monitoring of top management and hiring and retention of managerial talent.<sup>44</sup> An active involvement combined with a substantial ownership of the firm's cash-flows endows them with two important spheres of control: one in affecting the firm's revenue and profit by influencing the firm's operation, and the other in managing the relationship with the investors, including the minority share-

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<sup>44</sup> The founders of companies such as Google, Facebook, and Amazon are good examples of such active involvement. Even if they are not deeply involved in the day-to-day operations of the firm, their ownership stakes grant them important influence of control in managing agency problems between the shareholders and the managers. See generally Bertrand & Mulainathan, *supra* note 37.

holders, in the financial market. In terms of designing an optimal governance structure, the goal should be to provide the controlling shareholder with sufficient incentive to undertake necessary investment in maximizing the firm's revenue and profit and also in maximizing the return for all shareholders, particularly in the long-term.

Pursuing the dual objectives of maximizing the firm's cash-flows (size of the pie issue) and the returns for the investors (division of the pie issue) leads to tackling two distinct incentive hurdles: (1) aligning the controller's return with that of the firm and (2) making the controlling shareholder commit to the firm for the long-term. To better align the controller's return, more of the controller's return should be based on the firm's cash-flows than on private benefits of control. This is because private benefits are less sensitive to the changes in the firm's earnings. As the controller's return gets more aligned with the firm's cash flows, the controller becomes more willing to make costly investment to boost the firm's performance and less willing to extract private benefits. On the flip side, however, when the controller's return is mostly comprised of cash-flows and little or no private benefits of control, how much she values the shares (her private value) will approximate the market value of the stock (the share price). This, in turn, makes it easier for her to terminate the relationship with the firm by liquidating her position through either the financial market<sup>45</sup> or third-party block sale. The short-term exit options can reduce the controlling shareholder's incentive to commit to the firm for the long-term.

By contrast, when more of the controller's return is based on non-transferrable and illiquid private benefits of control, the exit options become less attractive and the controlling shareholder becomes more bound with the firm for the long-run. Because private benefits of control are non-transferrable

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<sup>45</sup> In the liquidation of an ownership block, it is important to consider two issues, the reporting requirement and the other on minimizing the adverse effect on price. With respect to the first, in the U.S., when a controller with more than 5% of voting equity registered under the Exchange Act, decides to buy or sell additional stock that leads to a "material change," which includes 1% or more change in beneficial ownership, the controller must file an amendment using Schedule 13D "promptly" with the SEC. *See* 73 P.L. 291, 48 Stat. 881, 73 Cong. Ch. 404 ("Securities and Exchange Act of 1934 §13(d)"); 15 U.S.C. § 78a (2012); 17 C.F.R. § 240.13d (2011). Although it is unclear what "promptly" entails, it is important that the controller files the Schedule 13D after the transaction has taken place. Hence, it is possible for a controlling shareholder to sell her shares at a relatively high market price through market trading before the other investors and the market discover that there has been a change in her ownership. Second, when the controller's holding is substantial, simply dumping her shares on the market will likely reduce price and proceeds. The problem is similar to the one faced by an activist hedge fund that wants to liquidate a large position that it accumulated. There are several techniques that the controller can employ to minimize or eliminate the adverse price impact. The first is selling through multiple venues and also selling small amounts over time. The second is arranging an anonymous, off-the-market block sale through an agent. An investment bank can drum up interest from potential buyers without revealing the identity of the seller. The third technique is trading through private venues, such as "dark pools," where the identity of the trader and, more importantly, the size of the buy or sell order are hidden. The fourth is hedging. By purchasing put options on the stock, a controller can gain when the stock price drops in response to a large sell order.



and are not reflected in the market value of the stock, selling her shares at the market price through market transaction becomes quite unattractive. Even for a negotiated third-party sale, a substantial control premium becomes necessary to compensate her for the loss of future private benefits; and the larger the requisite premium, the more difficult it is for the controlling shareholder to find a willing buyer. Furthermore, the difficulty of valuing private benefits (especially for the non-pecuniary benefits) will also hinder a successful sale to a third party. The downside of tolerating large private benefits of control, of course, is that the controlling shareholder will care less about boosting the firm's performance, since a bulk of her return can come from the private benefits that are less sensitive to the firm's earnings. Faced with these two opposing challenges, there will often be an optimal amount of private benefits of control that maximizes the long-term value of the firm. The optimal solution will trade off the downside of lower investment incentive with the upside of long-term commitment.

To better understand how private benefits of control can enhance the long-term commitment by a controlling shareholder, consider this simple example. Imagine a founder-controller who owns 20% of the stock and retains control (for instance, using dual class stock) over a firm. Suppose, initially, that she takes no private benefits of control and the total firm value is \$1,000, which represents the present value of all future cash-flows (profits). With no private benefits of control, the value of her shares is determined by the future cash-flows and her block is worth \$200 ( $= 0.2 \times \$1,000$ ). If there are 1,000 shares outstanding—with 800 shares trading in the market and 200 shares owned by the controller—the market value of each share would be \$1. With no private benefits of control, the controller can more easily realize the full value of her shares either through market trading or third-party sale. If she were to sell her shares in the market, she will be able to get something close to \$200.<sup>46</sup> Especially if there is a temporary uptick in the stock price, say, to \$1.20 per share, she would become willing to liquidate her position through market sale at the higher price. Furthermore, she also is willing to sell her shares when a potential buyer offers more than \$200. Imagine a third-party buyer comes along and expresses interest in purchasing her block. Suppose that the third-party buyer is more efficient and can improve the firm value to \$1,200. For her 20% block, then, the buyer would be willing to pay up to \$240 ( $= 0.2 \times \$1,200$ ). Since the controller needs to get at least \$200, there is a positive bargaining range and they can successfully consummate the transaction, say, at \$220.

By contrast, now suppose the controller, still owning 20% of the firm, extracts \$100 of private benefits of control. Let's assume that this extraction of private benefits reduces the total firm value by \$200, so that the firm value becomes \$800. The value the controller places on her 20% block is

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<sup>46</sup> For techniques that a block holder can use to liquidate her position at a relatively high price, see *supra* note 45.

\$260, consisting of \$100 of private benefits and \$160 ( $= 0.2 \times \$800$ ) of market value. Even though the extraction is inefficient—because it destroys \$200 of firm value for the gain of \$100—if she were given a choice, because her block is worth more (\$260 versus \$200), she would extract \$100 of private benefits. At the same time, the extraction creates a wedge between how much the block is worth to her and its market value. With \$800 of firm value, when there are 1,000 shares outstanding, the market value of each share is \$0.80. The divergence between her private value and the market value creates a strong disincentive for the controller to liquidate her position through market trading. If she were to sell her shares through the market, she would get only \$160 while parting with the shares that are worth \$260 to her. Even if there is a temporary uptick in the stock price, say to \$1.20, she still would not want to sell her shares since this will bring only \$240 ( $= \$1.20 \times 200$ ) in proceeds. The private benefits will also discourage her from selling her shares to a third party. If a third-party buyer, who can improve the firm value to \$1,200, were to appear and express interest in acquiring her control block, because the buyer values the 20% block at only \$240 while the block is worth \$260 to the controller, there is no price at which both parties can consummate a purchase-sale transaction.<sup>47</sup> In short, private benefits of control substantially reduce the controller's incentive to sell her shares through the market and make third-party sale less likely. This, in turn, creates a lock-in and long-term commitment effect for the controller.

Coming back to the main thesis, Figure 1 graphically illustrates the dual challenges faced by the controlling shareholder and the firm. The left-most two rectangles motivate the necessity of long-term commitment by the controlling shareholder. They show that when investment is unobservable by the market and realized quality is difficult to verify, long-term reputation becomes an important tool in providing the firm and the controller with the necessary investment incentive. For instance, if under-investment by the firm leads to a poor quality or defective product and the warranty-based remedy or the products liability regime are unavailable or insufficient, the market will subject the firm to non-legal, reputational sanctions, for instance, through a decrease in demand or even boycott.<sup>48</sup> An easy example is a tech-

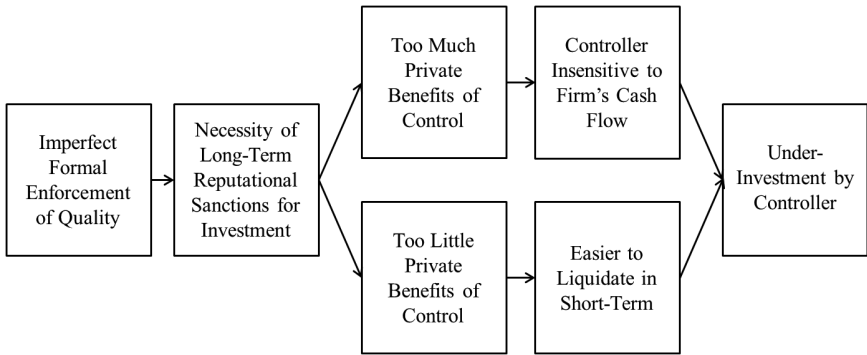
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<sup>47</sup> As will be seen shortly, this transactional tax is more effective in prohibiting an efficient buyer (with little or no private benefits) than buyers who are better at extracting private benefits of control. Therefore, another downside of allowing private benefits of control is inducing more inefficient, rather than efficient, transfers of control. See *infra* Part III.IIB.3 and Appendix Part C.3 for more detailed analysis.

<sup>48</sup> Reputational (or "relational") sanctions against firms are quite common, and the recent story of Market Basket, a New England grocery chain, is highly illustrative. The company, under the leadership of Arthur T. Demoulas (who controlled 49.5% of the stock), was well-known for providing low prices, great customer service, and high-quality jobs and careers for its 25,000 employees. When the board led by Arthur S. Demoulas (who controlled 50.5% of the stock) fired Arthur T. Demoulas with the goal of either selling the grocery chain or extracting more immediate profits, employees went on strike with strong support from customers, suppliers, and the local media. Shelves were not stocked, customers stopped shopping, and the company suffered a 92% drop in revenue in six weeks. The strike ended when the board

nology company that invests to bring new product, such as cell phones or laptop computers, to the market, where the quality of the product, such as how well the cell phone or the computer functions, is not readily contractible. The firm being subjected to long-term reputational sanctions, in turn, requires the long-term commitment by the controlling shareholder, who is closely involved with the management and operation of the company. If the controlling shareholder can easily sever her relationship with the firm, she will be able to escape the long-term reputational consequences. The easier the termination, the less effective the reputational sanctions are in disciplining the firm and providing investment incentive to the controlling shareholder.

FIGURE 1: A FLOW-CHART REPRESENTATION OF OPPOSING CHALLENGES



The upper part of the flow chart then shows the downside of allowing too much private benefits of control: when bulk of her return is in the form of private benefits, she has too little “skin in the game” and she cares little about maximizing the firm’s profits. The lower part of the flow chart, on the other hand, shows how too little private benefits of control can grant the controlling shareholder a more attractive exit option, which makes her less concerned about the firm’s long-term reputational consequences. In maximizing the firm’s long-term value, therefore, the firm would want to tolerate some amount of private benefits extracted by the controlling shareholder. The size of the private benefits cannot be too large so as to completely shield the controller from the firm’s performance. At the same time, the private benefits should not be too small so as to create more opportunities for the

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changed its course by reinstating Arthur T. Demoulas as the CEO and agreeing to let him take the company private. See Zeynep Ton, Thomas A. Kochan & Cate Reavis, *We Are Market Basket*, MIT SLOAN LEARNINGEDGE (Mar. 23, 2015), <https://mitsloan.mit.edu/LearningEdge/operations-management/wearemarketbasket/Pages/We-Are-Market-Basket.aspx>. Market Basket’s story is particularly relevant because the reputation of a major shareholder (Arthur T. Demoulas) was closely tied with the reputation of the firm (Market Basket). See *supra* note 20 for a brief discussion of the literature on firm reputation.

controller to lucratively terminate her relationship with the firm. Although the extraction of private benefits reduces the amount of cash-flows available for the minority shareholders, the compromise works as a second-best solution in a world where the first-best solution is not feasible.<sup>49</sup> When the proper balance is struck, all participants, including the consumers in the product market and the investors in the financial market, expect the controller to stay with the firm for the long-term, make necessary investments, and also to capture some private benefits of control.

Figure 2 captures the tradeoff generated by the private benefits of control by looking at how private benefits affect valuation.<sup>50</sup> The horizontal axis shows the amount of private benefits of control (PBC) captured by the controller. Note that, as we move to the right, the amount of PBC captured by the controller goes down. The vertical axis shows three values (in terms of present values) that vary with controller's PBC. The solid curve (labeled "Controller's Value with Investment") represents the controller's long-term value when she chooses value-enhancing investment. The long-dashed curve (labeled "Market Value of Controller's Ownership") plots the present value of all future cash flows that the controller is entitled to receive but excluding the private benefits of control. The curve, in other words, represents the proceeds the controlling shareholder can realize if she were to sell her shares in the market or through third-party block sale. Finally, the short-dashed curve (labeled "Controller's Value without Investment") plots the controlling shareholder's long-term value if she were to forgo making value-enhancing investment. All three curves are upward sloping partly because, holding everything else constant, as the controller's private benefits of control decreases (as we move towards right on the horizontal axis) because she has more "skin in the game," the deadweight loss from private value extraction goes down.<sup>51</sup>

Looking at the figure, foremost, note that the three values respond differently as the controlling shareholder's private benefits of control goes down, thereby producing different slopes. At any given level of private benefits, the controlling shareholder would want to choose the value (and the corresponding action) that is the highest so as to maximize her return from

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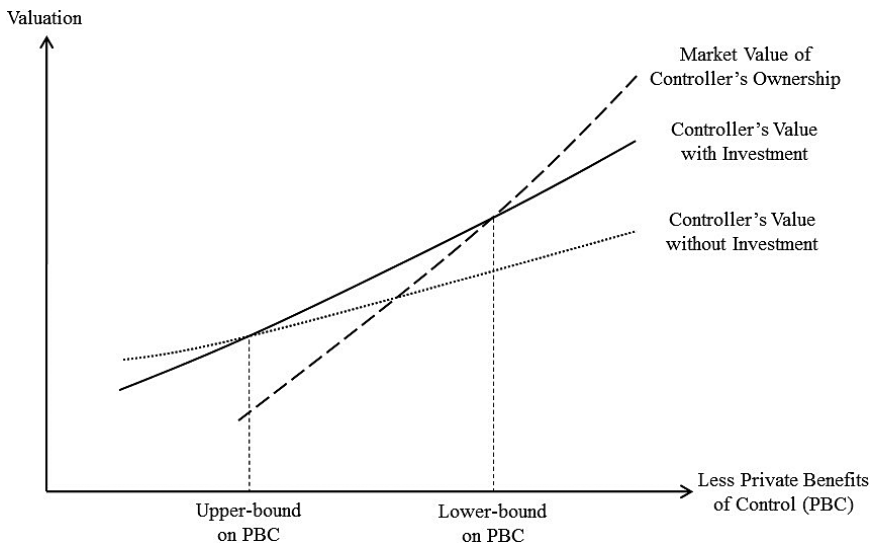
<sup>49</sup> If a complete, state-contingent contract that obligated the controlling shareholder to make all necessary investments and stipulated the consequences based on the realized quality of the product were possible, one could solve the investment and long-term commitment problem through contracts and no private benefits of control would be necessary. This Article assumes that such a solution is not feasible. This assumption is implicit in the literature. Incentive alignment problems related to instruments such as pay-for-performance or stock compensation are present because complete, state-contingent contracts are assumed not to be feasible.

<sup>50</sup> The figure is generated from the numerical example presented in the Appendix. See *infra* Table 4.

<sup>51</sup> One straightforward way of representing the controller's "skin in the game" is by looking at her ownership share ( $\alpha$ ). As the controller's ownership fraction ( $\alpha$ ) decreases, she will extract more private benefits of control, and the opposite will happen as the ownership fraction increases. Appendix presents a more theoretical analysis using the controller's ownership fraction as the choice variable. See *infra* Appendix Section B.

the corporation. When the controlling shareholder’s private benefits are high (when she has little skin in the game), because she receives little benefit from increasing the firm’s cash-flow and the bulk of her compensation is in the form of steady private benefits of control, she has little or no incentive to make costly, unobservable investment. This is represented by the fact that, to the left of the “Upper-bound on PBC” threshold, the short-dashed curve (“Controller’s Value without Investment”) lies higher than the solid curve (“Controller’s Value with Investment”). Furthermore, because so much of the firm’s value is being converted into private benefits of control (with deadweight loss), the market value of the ownership share would also be small: the long-dashed curve (“Market Value of Controller’s Ownership”) lies below the short-dashed curve. With large amounts of private benefits of control that are insensitive to the firm’s performance, she will choose not to make value-enhancing investment (for the long-term) and simply rely on private benefits to maximize her return.

FIGURE 2: EFFECT OF PRIVATE BENEFITS OF CONTROL ON VALUATION



When the controller has a much bigger skin in the game (and low private benefits), on the other hand, she will have a much bigger incentive to make the necessary, value-enhancing investment. However, because most or all of her returns come in transferrable, liquid form (with little or no private benefits of control), she will have more opportunities to liquidate her position through the market or through third-party sale, possibly at a substantial profit. From the figure, this is represented by the fact that, to the right of the “Lower-bound on PBC,” the “Market Value of Controller’s Ownership” curve (long-dashed line) is higher than the “Controller’s Value with Invest-

ment” curve (solid line).<sup>52</sup> The fact that the market value of her ownership share is higher than the controller’s private value creates a long-term commitment problem for the controller. Especially when the stock price moves in a favorable direction, she will face a strong temptation to sell her stakes through the market (or through a third party sale) rather than staying with the firm and investing for the long-term. If we want the controlling shareholder to remain with the firm for the long-term and make the necessary, value-enhancing investment; therefore, the firm needs to guarantee at least some level of private benefits of control. From the figure, we see that between the “Upper-bound on PBC” and “Lower-bound on PBC” thresholds, the solid line, which represents the controller’s long-term value with investment, is the highest. Between these two points, the private benefits of control are small enough for her to care about the firm’s performance but large enough so that she is not tempted to sever her ties with the firm in the short run but invest for the long-term.

### III. EXTENSIONS AND IMPLICATIONS

Having laid out the main thesis, this Part presents various extensions and implications, both positive and normative. Foremost, the thesis is useful in providing various positive descriptions, such as (1) circumstances under which we can expect to see formal separation of cash flow from control; (2) why transfer of control will more likely take the form of control sales with large premia; and (3) why many companies with concentrated ownership, especially outside the US, rely heavily on debt financing. Particularly with respect to the dual class stock, this Article provides a possible answer to the long-standing puzzle over why founders adopt “seemingly inefficient” governance structure at the time of the initial public offering when they (presumably) are aware that the inefficient structure will lead to lower proceeds from the equity offering. On the normative side, the Part argues that, rather than a complete ban, legal mechanisms, such as dual class, stock pyramids, and cross ownership, should be subjected to heightened judicial scrutiny and suggests a couple of possible ways of applying such scrutiny. With respect to control sales and freeze-outs (by controlling shareholders), this Article argues that freeze-outs will tend to be more efficient than control sales and the current, lenient attitude towards control sales should be re-examined.

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<sup>52</sup> Part of the divergence between the market value of the controller’s ownership and the controller’s value with investment comes from the fact that the investment cost is borne by the controlling shareholder in the form of the present value of future investment costs. Investment costs are borne by the controlling shareholder in large part because the investments are not readily observable (or contractible). See *infra* Appendix Section B.

### A. *Positive Implications*

The main thesis renders several implications that help us better understand the current corporate governance practices. Foremost, the tradeoff between monetary incentive alignment and long-term commitment will be most relevant in industries where investment is not easily observable, the realized quality is difficult to verify, or legal enforcement mechanisms, particularly in the product market, are weak. This roughly corresponds foremost to new industries where the underlying technology and the relevant investment are not readily visible to the investors and the consumers, and the final product or service quality is difficult to gauge. For instance, when a computer software company comes up with a new computer algorithm, it will be difficult for the consumers to understand whether the company is making the right type of investment in improving the software program or to verify the quality of the product.<sup>53</sup> With the lack of visibility, if the controlling shareholder lacks the long-term commitment, it may be tempting for the controlling shareholder to deviate by reducing short-term investment and liquidating her position through the market or third-party sale.<sup>54</sup> Similarly, in developing economies with weak legal protection for consumers, reputational sanctions will play an important role. This will, in turn, heighten the importance of binding the controlling shareholder to the firm for the long-run.

#### 1. *Dual Class Stock, Stock Pyramids, and Cross Ownership*

In terms of separating cash-flow rights from control rights, the analysis shows that, under certain conditions, formally unbundling the cash flow rights from the control rights, through dual class stock, pyramidal ownership

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<sup>53</sup> Google, for instance, faced concerns about whether the company was selling search results to advertisers. If Google were to have done so, it would have been difficult for the consumers to find out immediately. While selling the results would boost the company's short-term profits, it would lead to a substantial reduction in long-term value once the consumers become aware of such bias. This is an example of (1) short-term versus long-term divergence; and (2) the delay in consumers' verification of a company's actions. In such settings, enhancing the controllers' long-term commitment becomes an important problem. See Google Inc., Registration Statement (Form S-1), *supra* note 1. Facebook similarly has faced concerns over selling users' personal data and undermining their protection of privacy.

<sup>54</sup> Hewlett Packard's acquisition of Autonomy, a big-data software company, in 2012 is instructive. Autonomy was under the control of three founders when Hewlett Packard agreed to acquire 87% of the stock at \$10.3 billion valuation reflecting a 79% premium. Even after an extensive due diligence investigation, Hewlett Packard subsequently found and accused Autonomy's founders of accounting improprieties, misrepresentation, and gross mismanagement. Later, Hewlett Packard had to write off \$8.8 billion of Autonomy's value. Non-observability of investment and non-verifiability of quality can also be an issue in mature industries. In the media industry including newspapers companies and TV networks, it is quite difficult to gauge the level of investment made by firms, and there tends not to be a clear link between investment and media quality. This could explain the prevalent concentration of ownership among media companies, such as the *New York Times*, the *Wall Street Journal*, Fox, CBS, and others. See Solomon, *supra* note 5.

structure, or cross ownership, may become necessary. This can arise in, at least, two circumstances. First, the cash-flow ownership retained by the founder may simply be too low for her to exercise effective operational control. For instance, suppose the founder has to sell 80% of the equity to raise sufficient capital and this leads to a complete loss of control. Because the founder can no longer extract any private benefits of control and the founder's return comes (almost) exclusively in the form of transferrable cash-flow distributions, it becomes much easier for the founder to liquidate her holding. Second, low ownership can also lead to an involuntary loss of control. With only 20% ownership, for instance, the firm could become a target of hostile takeover or outside shareholder activism, which, in turn, will lead to a loss of private benefits for the founder. To restore control and long-term commitment, the founder may want to formally separate cash-flow rights from control rights, for instance, using dual class stock. The 20% cash-flow right can provide the founder with sufficient investment incentive while the control right (50% or more voting power) can solve the long-term commitment problem. The analysis, therefore, can help us better understand why certain firms adopt dual class structures in initial public offerings.

## 2. *Sale of Control Versus Freeze-Out*

The analysis also renders implications for the changes in ownership structure, including control sale and freeze-out transactions. With respect to the sale of control, once the long-term incentive problem has been tackled, because the value of the private benefits cannot be captured through market sale, a change in control will be done mostly through the sale of control block in a negotiated sale with a (substantial) control block premium.<sup>55</sup> Coming back to the numerical example used above, suppose a controller owns 20% of the stock, extracts \$100 of private benefits, and the market value of the firm is \$800. With \$100 of private benefits and \$160 of market value, 20% ownership is worth \$260 to her. She has very little incentive to sell her shares through the market since market trading will produce only \$160 of proceeds. Also, for her to sell her block to a third party, she will demand, at minimum, \$260, and the difference between \$16,0 and \$260 represents the control premium.<sup>56</sup> At the same time, the sizable private benefits of control can also lead to an inefficient lock-in, where a more efficient buyer (who can

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<sup>55</sup> See Dyck & Zingales, *supra* note 16, at 538–39, 589–90; see also Nenova, *supra* note 32, at 326.

<sup>56</sup> The difference between the market value and the personal value for the controlling shareholder stems from the private benefits of control. If control were to be used to better manage the firm and to increase its future cash flows and earnings, given that the additional cash flows will be shared pro rata by all shareholders, the market price would reflect such additional cash flow, and there would be no control premium. At least in theory, control premium must stem from being able to receive higher (than pro rata) cash flow (or other return) from the company. Private benefits of control is one salient example of such differential return. See Dyck & Zingales, *supra* note 16, at 538.



generate a higher stream of cash-flows) is unable to purchase the control block from the controlling shareholder. When the controlling shareholder demands \$260 for the control block, the new buyer with no private benefits of control must be able to produce \$1,300 of total firm value. If the additional firm value is only \$200, for instance, even though the new buyer is more efficient than the existing controller, control will not transfer to the buyer.

When we compare control sales with freeze-out transactions, this Article suggests that the former is more likely to be inefficient than the latter. In a control sale scenario, notwithstanding the possibility of facing a more efficient buyer, it is also possible that the new buyer is willing to pay a substantial premium because he can extract more private benefits of control. Coming back to the numerical example, suppose an interested buyer emerges who values the 20% block at \$300, which consists of \$140 of cash-flow based value and \$160 of private benefits of control.<sup>57</sup> Compared to the controller, the new buyer generates smaller cash-flow for the firm but bigger private benefits of control (with larger welfare loss). Even though the new buyer is less efficient in generating revenue for the firm, the controller would be willing to sell her control block, assuming that they can successfully negotiate a price between \$260 and \$300. By contrast, once the minority shareholders are cashed out in a freeze-out transaction, going forward, the controller will no longer have any incentive to extract private benefits of control that reduces firm value.<sup>58</sup>

### 3. *Debt Financing and Capital Structure*

Another set of implications is on the use of debt financing. In making the necessary tradeoff, debt financing can play, at least, two useful functions. First, given that the tradeoff will impose both the minimum and the maximum shares of ownership that the controlling shareholder must retain, when the financing needs are relatively large, relying on equity financing alone will lead the firm to deviate from the optimal range. In such a case, debt financing comes to the rescue and makes up the shortfall. For instance, when

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<sup>57</sup> Under this buyer's control, the firm value is \$700 (= \$140/0.2). Since the buyer is expected to extract \$160 of private benefits of control, the new buyer imposes an even bigger deadweight loss than the initial founder.

<sup>58</sup> This Article is not arguing that freeze-out transactions will always be efficient. Professor Coates has noted that a controlling shareholder can engage in inefficient behavior, such as underinvesting in positive net-present-value projects or shirking managerial responsibilities, to induce a temporary depression in the stock price so as to pay less consideration in a freeze out. See John C. Coates IV, *Fair Value As an a Voidable Rule of Corporate Law: Minority Discounts in Conflict Transactions*, 147 U. PA. L. REV. 1251, 1316–17 (1999); see also Guhan Subramanian, *Fixing Freezeouts*, 115 YALE L.J. 2, 30–48 (2005). By contrast, in a sale of control transaction, the controlling shareholder may have an opposite incentive to engage in inefficient actions (for example, reducing research and development or capital expenditure) to induce a temporary boost in the stock price, so as to induce a better consideration from the new buyer.

the target ownership ratio is between 20% and 50% and relying exclusively on equity financing requires the firm to sell more than 80% of equity, the firm will rely, in part, on debt financing to restore the balance. The firm would not want to rely too much on debt financing, however, since doing so can put the future stream of private benefits of control in jeopardy and potentially undermine the controlling shareholder's long-term commitment. For instance, when the firm's annual earnings before interest can vary between \$50 and \$100, the founder would not want to issue debt (or borrow) with an annual interest payment of more than \$50 since this could trigger a default and subsequent loss of control when the firm is either liquidated or reorganized with control passing over to the debt-holders. Fluctuations in earnings will impose a limit on how much debt financing the founder could rely on and will make equity financing necessary to raise the necessary capital.

The second advantage of using debt is that it can boost the controlling shareholder's incentive for unobservable investment by reducing the cash flow available for private benefits of control when the firm's performance is poor. If the firm's free cash-flow gets (almost) completely taken away through interest payments when the firm produces mediocre or poor earnings, because the controlling shareholder also loses her private benefits, her incentive to boost the firm's earnings get magnified since, by doing so, she realizes both additional financial returns and more private benefits. Coming back to the example where the firm's earnings before interest is between \$50 and \$100, if the firm were to issue debt with interest payment close to \$50, the firm eliminates the cash-flow available for private benefits of control when the firm's performance is poor. To the extent that the firm's earnings are affected by the controlling shareholder's behavior (e.g., investment), taking away her private benefits in low earnings state creates a bigger incentive for her to produce higher earnings. By boosting the firm's earnings closer to \$100, the controlling shareholder enjoys both higher cash-flow distributions and larger private benefits of control.<sup>59</sup> The advantages of using debt thus can explain why firms with controlling shareholders tend to rely heavily on debt financing, particularly outside the US.

### B. *Implications for Legal Policy*

This Article's main thesis also leads to several normative arguments, particularly with respect to the current legal regime. First, rather than a complete ban on legal mechanisms, such as dual class, stock pyramids, and cross

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<sup>59</sup> Convertible debt can also function as an incentive device. For instance, the Agnelli family, who controls the Italian automobile manufacturer Fiat, was required to accept debt that was convertible into equity when a certain financial performance metric was not met to raise \$3 billion from Italy's largest banks. The financial performance target was not met, the debt was converted into equity, and the family's ownership dropped from 30% to 22% while giving the banks more than 30% of ownership. The family, in response, had to inject \$355 million to increase its ownership back to 30%. See Gilson, *supra* note 10, at 1677-78.

ownership, this Part argues that these mechanisms should be subjected to heightened judicial scrutiny and suggests a several ways of applying such scrutiny, for example, by looking at the degree of separation and also the firm's long-term performance. Second, control sales and freeze-outs are more about monetizing future private benefits and private benefits of control are more extracted through the operation and management of the corporation. Third, comparing control sales with freeze-outs by controlling shareholders, this Part argues that freeze-outs will tend to be more efficient than control sales because (1) control sales can lead to a less efficient buyer acquiring the assets; (2) freeze-outs eliminate the future deadweight loss from extraction of private benefits of control. Building on these observations, the Part argues that the current, lenient attitude toward control sales should be re-examined and suggests several possible procedural protections against inefficient control sales.

### 1. *Legal Policy Over Dual Class Stock and Other Mechanisms*

As a normative matter, the analysis first suggests caution toward a complete ban against certain legal devices that separate control from cash-flows, such as dual class stock, pyramidal structure, and cross ownership. This Article argues, instead, for a more nuanced approach toward such mechanisms. For instance, ex post judicial examination can be used to see whether the controlling shareholder is extracting too many private benefits of control. To the extent that decisions made or dictated by a controlling shareholder have a higher probability of being for personal benefit rather than for the corporation as a whole and that there is a strict separation between control rights and cash-flow rights under dual class structure, one possibility is for the courts to apply a heightened standard (for example, negligence rather than gross negligence under the business judgment rule) in reviewing the transactions. This idea is similar to the heightened scrutiny, under *Unocal* and *Revlon*, applied against anti-takeover devices adopted by the target management with no express conflicts of interest.<sup>60</sup> That is, when a controlling shareholder makes or dictates a business decision, even though no explicit conflicts of interest may be present, the investors and the court can become more suspicious of the controller's pursuit of self-interest, just as the courts become more suspicious when a target management, with no visible conflicts of interest, adopts an anti-takeover device.

In the process of applying the heightened scrutiny, at least two factors should come into play. First is whether the separation of control from cash flow rights is extreme. A controlling shareholder (with 50% or more of the voting rights) with only 2% of the cash flow rights will act quite differently

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<sup>60</sup> See *supra* note 22 and accompanying text for a discussion of how courts apply more heightened scrutiny against the directors in hostile takeover situations, even though the directors do not have any visible conflicts of interest. Applying the negligence standard would be tantamount to lowering the business judgment rule deferential standard, as used in Delaware.

from a controlling shareholder with 15% cash flow rights. The heightened scrutiny should more likely apply in the first rather than the second case. Second, an emphasis should be put on the long-term return for the minority shareholders and for the firm as a whole. To the extent that the dual class stock can enhance the long-term commitment from the controlling shareholder and improve the firm's long-term return, whether the firm has in fact produced value in the long run should play an evidentiary role in determining whether the dual class structure is beneficial or harmful to the minority shareholders and to the firm as a whole. When a dual-class stock firm generates healthy earnings and makes sizable distributions to the stockholders (for example, when compared to other competitors in the same industry), this can be taken as an indication that the dual class structure, per se, is not destroying firm value. On the other hand, when a dual-class structure has led to poor performance in the long-run, it can be an indication that the dual-class instrument is facilitating an inefficient lock-in of control rather than promoting beneficial investment by the controlling shareholder.

## 2. *Methods of Private Benefit Extraction*

The analysis also shows that sale of control block and freeze-out transactions are more about capitalization of private benefits (or cashing out of future private benefits of control) and may not necessarily create additional welfare loss. Private benefit extraction is done primarily through operation and management of the corporation while sale of control transactions and freeze-outs are more instrumental in monetizing future private benefits of control for the controlling shareholder. An implication is that the courts should be more vigilant toward the controller's management of the company than either a control sale or a freeze-out. Currently, much more judicial effort has been spent on examining freeze-outs and, to a lesser extent, control sales, while much less attention has been paid to controlling shareholder's day-to-day management of the firm. While conflicts-of-interest (or self-dealing) transactions have been subject to the entire fairness review and careful judicial scrutiny, controlling shareholder's day-to-day operation or management, that does not carry a direct conflict with the minority shareholders, has received much more deferential business judgment rule protection.<sup>61</sup> The analysis argues for a readjustment in this approach. Rather than applying the business judgment rule to non-conflict transactions, we could consider ap-

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<sup>61</sup> In a freeze out in which a controlling shareholder buys out the minority shares, the controlling shareholder's interests are directly opposite to those of the minority shareholders. Due to such express conflict, there is a long line of cases in Delaware, starting from *Weinberger v. UOP*, 457 A.2d 701, 709 (Del. 1981) to *In re MFW Shareholders Litigation*, 67 A.3d 496, 535–36 (Del. Ch. 2013), *aff'd*, *Kahn v. M&F Worldwide Corp.*, 88 A.3d 635, 644 (Del. 2014), that imposes strong procedural requirements, such as an independent negotiating committee and majority of minority approval. In contrast, with respect to controller's day-to-day management, the relevant case law, which is much less extensive, has been generally permissive. See *Sinclair Oil Corp. v. Levni*, 280 A.2d 717, 720 (Del. 1971).

plying a more enhanced judicial scrutiny (similar to the *Unocal* or *Revlon* standards in hostile takeovers) when a controlling shareholder pushes through a major transaction. In that light, certain procedural safeguards, such as an independent committee approval combined with complete disclosure, can also be required to prevent the controlling shareholder from extracting too much private benefits of control.<sup>62</sup>

### 3. *Sale of Control Versus Freeze-Out*

Third, this Article suggests a recalibration of the existing judicial treatments of control block sales and freeze-out transactions. The current case law is much more lenient toward control block sales than freeze outs, granting substantial amount of freedom to the controlling shareholder in selling her control block while imposing procedural protections in case she attempts to take the company private by freezing out the minority shareholders.<sup>63</sup> The analysis demonstrates, however, that freeze-outs are more likely to produce efficiency benefits than control block sales.<sup>64</sup> Heightened focus on freeze-out transactions is understandable, since such transactions are much more likely to put the interests of controlling shareholder in direct conflict against those of minority shareholders. In a freeze-out, consideration to the minority

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<sup>62</sup> The procedural protection mechanisms will be similar to those used against a director's conflicts-of-interest transactions. For instance, under Del. Code Ann. tit. 8, § 144 (2016), when a director engages in a conflicts-of-interest transaction, the transaction becomes voidable unless the transaction is (1) approved by a committee of disinterested directors; (2) approved by the shareholders; or (3) proven to be entirely fair. When a director engages in a non-conflict transaction, however, the transaction will be subject to a review for duty of care, based on the business judgment rule. In contrast, a non-conflict transaction by a controlling shareholder could warrant more judicial scrutiny given that a controlling shareholder will have much stronger influence on the board than a single director who is not a controlling shareholder.

<sup>63</sup> With respect to freeze-out transactions, see *supra* note 50 for a brief discussion of how courts impose various procedural protections. With respect to sale of control transactions, under the existing U.S. corporate law, controlling shareholders do not have a duty to share the control premium with the minority shareholders, and nearly all courts have rejected the equal opportunity rule. See *Zetlin v. Hanson Holdings, Inc.*, 397 N.E.2d 387, 388 (N.Y. 1979); see also *Harris v. Carter*, 582 A.2d 222, 234–35 (Del. Ch. 1990). Some companies with dual class stock impose a mandatory conversion of high-voting stock into low-voting stock upon a third-party transfer (including a control block sale). See Google Inc., Fourth Amended and Restated Certificate of Incorporation of Google Inc. (Form 10-Q) (Jul. 24, 2012). Such mandatory conversion can partially alleviate the problem of inefficient control sale, since an inefficient buyer (with even bigger private benefits of control) would be less likely to purchase the control block. However, mandatory conversion can also exacerbate the lock-in problem for the current controller.

<sup>64</sup> Consider the numerical example presented above in which there was no price under which a control block sale could be accomplished. The controller owns 20% of the stock while extracting \$100 of private benefits of control. The firm value was \$800. Therefore, the market value of the remaining 80% of the stock is \$640 (=  $0.8 \times \$800$ ). If she were to freeze out the minority shareholders and take the firm private, she would no longer extract any private benefits of control (since she will only be stealing from herself), and the firm value would be \$1,000. Since the 20% block is worth \$160 for her, she would be willing to pay up to \$740 for the remaining 80%. Given that the market value of the 80% shares is \$640, there is a positive bargaining range.

shareholders comes directly out of controller's pocket, but in a control block sale the consideration comes from a third-party buyer. However, given that a sale of control transaction is more likely to entail a welfare loss, when the new buyer extracts more private benefits of control, more protection of minority shareholders in such transactions could be warranted.<sup>65</sup>

One possibility is to consider more procedural protections and more judicial scrutiny in the case of a control sale, for instance, by expanding the obligation on the controlling shareholder to investigate the buyer beyond the circumstances where the controlling shareholder reasonably suspects the buyer of "looting" the corporation.<sup>66</sup> Also, given that an inefficient control sale will lead to a further depression of the stock price, one could allow the minority shareholders to receive "fair value," based on the pre-announcement stock price, from either the controller or the new buyer. Another possibility is to allow the minority shareholders to challenge the transaction using the post-announcement drop in stock price as evidence of inefficiency (or, more precisely, as evidence of larger private benefits of control at the expense of minority shareholders by the new controller). After all, if the new buyer is expected to bring operational improvements to the company, stock price should react more favorably and this could be an indication that the control sale is welfare enhancing. Still other possibility is to import some of the procedural protection mechanisms used in freeze-out transactions to con-

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<sup>65</sup> As argued by Professors Bebchuk and Kahan, imposition of the equal opportunity rule (or tender offer rule), under which the minority shareholders get to share the control premium, will likely prevent inefficient control sales where the new buyer extracts more private benefits of control and imposes a larger welfare loss. See Lucian Bebchuk, *Efficient and Inefficient Sales of Corporate Control*, 109 Q. J. OF ECON., 957, 959–60 (1994); Marcel Kahan, *Sales of Corporate Control*, 9 J. L. ECON. & ORG., 368, 372–73 (1993). However, given that an equal opportunity rule could prevent an efficient control sale (where the new buyer generates higher cash-flows for the firm), mandating such a rule may not be desirable. The optimal rule could lie somewhere between the two extremes of the market rule and the equal opportunity rule. See also Guhan Subramanian, *Post-Siliconix Freeze-outs: Theory and Evidence*, 36 J. LEGAL STUD. 1, 4–5, 23–24 (2007) (finding that the consideration is higher when the controlling shareholder freezes out minority shareholders using a tender offer followed by a short-form merger than when a long-form merger is used, especially for non-Delaware targets). Delaware courts have substantially reduced the gap between these two transactional formats through recent cases. See *In re MFW S'holders Litig.*, 67 A.3d 496, 535–36 (Del. Ch. 2013); *accord Kahn v. M&F Worldwide Corp.*, 88 A.3d 635, 654 (Del. 2014).

<sup>66</sup> Under the current legal regime, sale of control transactions may lead to a remedy for the minority shareholders when the controlling shareholder has reason to suspect that the buyer will use control to "loot" the corporation. Most courts have ruled that when the circumstances known to the seller raise a reasonable suspicion that the buyer will loot the corporation, the seller must engage in an investigation, and if the investigation confirms the suspicion, the seller can no longer sell the controlling block to the buyer. See Einer Elhague, *The Triggering Function of Sale of Control Doctrine*, 59 U. CHI. L. REV. 1465, 1467–69. (1992). Partly because it is unclear what constitutes a reasonable suspicion, such a conditional protection for the minority shareholders could be insufficient to protect against a larger extraction of private benefits of control by the buyer. One possible reform may be to make the investigation duty unconditional.

trol sale transactions.<sup>67</sup> One option is to require a review by a set of independent directors to examine whether the buyer would undermine the long-term health of the company and, possibly allow the independent directors to block the proposed sale transaction.

#### CONCLUSION

Concentrated corporate ownership structure with a controlling shareholder is the norm around the world and has become more popular in the US, particularly through the resurgence of companies that use dual class stock in their initial public offerings. The previous literature has focused on deterring controlling shareholder's extraction of "private benefits of control" at the expense of the minority shareholders. While this is an important goal, this Article began by noting that there are empirical puzzles of (1) many companies with concentrated ownership being quite successful (both in the product market and financially); and (2) many companies going public with dual class stock (and unchallenged control) despite the presence and dangers of private benefits extraction. Furthermore, the previous literature has paid insufficient attention to the argument that having a controlling shareholder can allow the firm to focus better on "long-term" value maximization, the argument frequently invoked by the defenders of concentrated ownership and dual class structure.

To better understand the role played by concentrated ownership, this Article has directly wrestled with the long-term value maximization (or long-term focus) argument. Most notably, this Article has identified that because private benefits are illiquid and non-transferrable, they can promote long-term commitment by a controlling shareholder. While too much private benefits of control will undermine the controlling shareholder's incentive to maximize firm value, moderate amount of private benefits can allow the firm (and the controlling shareholder) to better solve the long-term commitment issue and to maximize the long-term shareholder value. By more carefully exploring the costs and benefits of private benefits, this Article has attempted to achieve a more nuanced understanding of the concentrated corporate ownership structure and, in the process, explain some of the puzzles of corporate ownership patterns. The analysis has also generated a set of recommendations for the existing corporate law, particularly on issues such as dual class stock, debt financing, control transfers, and freeze-outs.

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<sup>67</sup> See *supra* notes 62, 63, and the surrounding text for a discussion of the procedural protections that are used and are often required to protect minority shareholders who are cashed out in freeze-out transactions.

## APPENDIX: CONCENTRATED OWNERSHIP AND LONG-TERM COMMITMENT

This technical appendix demonstrates the main results in more detail with the help of a simple repeated-game theoretic example. Part A imagines a scenario where a founder, who initially owns 100% of the stock, decides what fraction of the equity and with what governance structure (e.g. dual or single class stock) to sell to the public to raise capital necessary for investment. The setup describes three players: (1) a firm with the founder; (2) a representative consumer, and (3) minority shareholders. In particular, the Part highlights the dual interaction: the firm wants to maximize its revenue by selling high quality product to consumers and also to commit to returning large amount of cash-flows to potential investors to meet the financing needs. Part B examines the implications of the two interactions and how the controlling shareholder's investment problem could be solved using moderate amounts of non-transferrable private benefits of control. Part C extends the basic analysis to different mechanisms and transactions, including dual class stock, debt financing, sale of control, and freeze-out of minority shareholders.

*A. The Setup*

Suppose there is a firm with a founder who owns 100% of the control and cash flow rights of the firm. The firm has no debt outstanding and needs to raise  $\$K = \$500$  amount of capital to develop and sell a new line of product (or service). We will first focus on equity financing of this project, in which the founder will sell  $1 - \alpha$  fraction of the equity to the public (and retain  $\alpha$  fraction for herself) to raise the necessary capital. We will turn to the possibility of debt financing later. Also, with respect to equity, the fraction  $\alpha$  represents the right to the firm's cash flows but not necessarily control. For instance, if the controlling shareholder owns 60% of the stock, she is entitled to receive 60% of any distribution made by the firm. While  $\alpha$  can be anywhere between 0% and 100%, the controller gets to exercise de facto control over the firm. This can be done in one of two ways. First, there could be a legal separation of voting and cash flow rights. For instance, through a dual class stock or pyramidal ownership structure, she could retain 50% or more of the firm's voting rights even though her cash flow rights is less than 50%. Second, she may have de facto control over the firm even if her voting right is (substantially) less than 50%. For instance, with 25% of cash flow and voting rights and no legal separation of control and cash flow rights, she may get to exercise de facto control over the firm when the other 75% of the stock is dispersed among individual shareholders.

Controlling shareholder's de facto control confers her two important powers: the first to (more directly) affect the underlying cash flow (or the revenue) of the firm and the second to convert some of the cash flow into private benefits for herself that is not shared with the rest of the sharehold-



ers. The controlling shareholder’s ability to affect the cash flow of the firm can come from many sources, such as being actively involved with the management and operation of the firm and closely monitoring and incentivizing the top management. Private benefit conversion can also take many forms, including related party transactions, pursuing negative net present value projects that benefit her primarily, and giving herself generous perquisites and other in-kind benefits. We describe these two factors more in detail in the context of the two markets that the firm and the controlling shareholder face: the product and the stock markets.

1. *The Product Market*

When the founder-controller successfully raises \$500 of capital and the project is implemented, the firm produces and delivers a single unit of good (product or service) to the market in period  $t \in \{0,1,2,3,\dots\}$ . To keep the analysis simple, we will assume that the firm sells to a single representative consumer in each period. Although the duration of time represented by the period ( $t$ ) is flexible, the most natural interpretation is a product or service cycle, in which the firm introduces, manufactures, and sells a new version of a product to the market. Real world examples include manufacturers introducing new versions or editions of cell phones, laptop computers, computer software, automobiles, and other consumer goods. We assume that all players value the present dollars more than the future dollars and that there also is an exogenous possibility that the firm (or the market) may no longer exist. Both of these factors can be reflected in a single discount factor. Let’s assume that \$1 in period  $t + 1$  is worth \$0.9 in period  $t$ , which implies that the discount factor is 0.9. By deduction, \$1 in period  $t + 2$  is worth \$0.81 in period  $t$ , \$1 in period  $t + 3$  is worth \$0.729 in period  $t$ , and so on.

Controller’s Unobservable Investment	Investment Cost to Controller	Buyer’s Valuation and Firm’s Revenue	Surplus
“Low”	\$0	\$50	\$50
“High”	\$10	\$100	\$90

TABLE 1: EFFECT OF CONTROLLING SHAREHOLDER’S UNOBSERVABLE INVESTMENT

With respect to the controller’s involvement, she can make unobservable investment in each period that affects the quality of the product sold to the representative consumer. The investment (with the respective monetized cost) can be on two levels: \$10 (“high”) or \$0 (“low”). If she invests \$10, the quality of the product will be “high” for certain, worth \$100 for the representative consumer, whereas if she spends none (“low” investment),

the quality of the product will be “low” for certain and will be worth only \$50 for the representative consumer.<sup>68</sup> Since \$10 of investment adds \$50 of value to the consumer (the difference between \$100 and \$50), from the efficiency (or welfare) perspective, the controlling shareholder should spend \$10 in investment to generate more surplus. That is, making \$10 investment to increase value by \$50 is efficient. However, we assume not only that the investment is unobservable but also the realized quality is non-contractible (or non-verifiable) so that the parties cannot contractually solve the incentive problem, for instance, through damages or warranty.<sup>69</sup> Also, to simplify the analysis, apart from the quality investment cost, which is personal to the controlling shareholder, we assume that the production cost is “normalized” to zero. Table 1 summarizes the transactional parameters.

With respect to the transaction in each period, assume that: (1) the firm makes a take-it-or-leave-it offer to the representative consumer; (2) the consumer accepts or rejects the offer; (3) after the consumer accepts the offer, the controller makes an unobservable investment; (4) a good is produced and delivered, and the quality is realized. Given that the realized quality is observable but not verifiable and that the controlling shareholder’s investment choice is not observable, the transacting parties cannot write a contract contingent on either variable. These assumptions have an important implication. If the game were to be played only once, the unique (Nash) equilibrium consists of the controlling shareholder choosing “low” investment of \$0 and the firm offering  $p = \$50$  and the consumer accepting that offer with the (consistent) belief that the controlling shareholder is choosing “low” investment. Even though the controlling shareholder’s choosing “high” investment of \$10 is more efficient, due to non-verifiability, the controlling shareholder (and the firm) is unable to commit to making “high” investment. The firm and the controlling shareholder, therefore, need to somehow solve this commitment problem through other means, such as reputational or relational mechanisms. We will come back to this commitment problem after discussing the financial market.

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<sup>68</sup> The example thus assumes that (1) there is a one-to-one correspondence between investment and realized quality; and (2) investment affects quality in that period but not the quality in future periods, that is investment quality is relatively short-term. The assumptions are made for convenience. See generally Scott Baker & Albert Choi, *Contract’s Role in Relational Contract*, 101 VA. L. REV. 559 (2015) (analyzing noisy quality realization and imposition of relational sanctions in equilibrium).

<sup>69</sup> If the realized quality is verifiable and contractible, relevant parties can solve the unobservable investment problem by setting sufficiently large damages (warranty) against the firm for providing low quality. See generally Albert Choi & George Triantis, *Completing Contracts in the Shadow of Costly Verification*, 37 J. LEGAL STUD. 503 (2008) (discussing the effect of verification costs on incentivizing firm investment).

## 2. *The Stock Market*

In addition to the product market with the consumers who purchase the firm's product, the firm and the controlling shareholder also interact with the financial market, particularly with the dispersed shareholders. We will assume that the financial market is sufficiently liquid, in the sense that at any moment in time ( $t \in \{0,1,2,3,\dots\}$ ), there is a sufficiently large volume of trading in the market. As we will see later, this will have an important implication on the controlling shareholder's incentive to retain her stock position. In terms of distributions from the firm, we assume that, at the end of each period, the net cash flow is distributed to the shareholders through two channels: some portion will be converted into private benefits of control that only benefit the controlling shareholder, and the remainder will be distributed pro rata to all shareholders. With respect to the first, we assume that for every  $\$b$  of private benefit that the controlling shareholder extracts, it costs the firm  $\$(b + b^2/10)$  in terms of profit loss, so that while the controlling shareholders gains by  $\$b$ , the firm loses by  $\$(b + b^2/10)$ . Note that (1) the deadweight loss (or welfare loss) is given by  $b^2/10$  and (2) the deadweight loss gets larger, the larger the size of the private benefit.

Of course, given that the controlling shareholder is entitled to receive  $\alpha$  fraction of the firm's distribution, at least part of the deadweight loss will be borne by the controlling shareholder. Intuitively, as the controlling shareholder's ownership falls (as  $\alpha$  decreases), she will care less about the deadweight loss and will extract more private benefits of control. Generally, when the firm has  $\$x$  of cash flow that can be distributed to the shareholders, the controlling shareholder will choose  $\$b$  so as to maximize the combination of her private benefit consumption and cash flow distribution she gets along with the other shareholders:  $\alpha \cdot (x - (b + b^2/10)) + b$ . As an example, suppose the firm realizes  $\$100$  of cash flow and the controlling shareholder owns 50% of the equity ( $\alpha = 0.5$ ). In that case, the controlling shareholder will extract  $\$5$  of private benefits of control and impose  $\$7.5$  of cost onto the firm so that her total return is  $\$51.25$  ( $= (0.5) \cdot (\$100 - (5 + 5^2/10)) + \$5$ ). On the other hand, if her ownership were only at 33%, she will extract  $\$10$  of private benefits, impose  $\$20$  of cost on the firm and receive a total distribution of  $\$36.67$  ( $= (0.33) \cdot (\$100 - (10 + 10^2/10)) + \$10$ ). Table 2 shows how the controlling shareholder's ownership ( $\alpha$ ) affects the size of private benefits of control extracted and the amount of distribution to all shareholders.

Controller's Ownership ( $\alpha$ )	Private Benefits of Control (\$ $b$ )	Deadweight Loss ( $\$b^2/10$ )	Distribution to All Shareholders
33%	\$10	\$10	\$80
50%	\$5	\$2.5	\$92.5
66%	\$2.5	\$0.63	\$96.87
100%	\$0	\$0	\$100

TABLE 2: RELATIONSHIP BETWEEN OWNERSHIP AND PRIVATE BENEFITS OF CONTROL

As the controlling shareholder's fraction of ownership ( $\alpha$ ) rises, both the size of the private benefits of control and the deadweight loss from such extraction decrease while the distribution to the shareholders increase. The last column shows the amount of distribution made (from the initial \$100 cash flow) to all the shareholders, including the controlling shareholder. If we look only at the distribution to the minority shareholders, when the controller owns either 33% or 100%, distribution will be zero, whereas in the case of 50% and 66%, minority shareholders will receive \$46.25 (= \$92.5/2) and \$32.29 (= \$96.87/3), respectively. Based on the distribution to the shareholders, we can also calculate the firm's market capitalization (and the stock price). Suppose the firm makes the identical distribution in each period. That is, in case the controlling shareholder owns 33% of the stock, shareholders get \$80 of distribution at the end of period  $t \in \{0,1,2,3,\dots\}$ . With the discount factor of 0.9, this implies that the firm's market capitalization should be \$800 (=  $\$80/(1 - 0.9)$ ). Similarly, when the controller retains 66% of the ownership, the firm's equity market capitalization becomes \$968.7 (=  $\$96.87/(1 - 0.9)$ ).<sup>70</sup> Not surprisingly, as the controlling shareholder's ownership rises and the firm makes more distribution to all the shareholders, the firm's equity becomes more valuable.

### B. Solving the Investment and Commitment Incentive Problems

Having examined both the product and the financial markets, we can now analyze the investment and commitment problem. There are two different types of (deviation) incentives we have to worry about and they point in opposite directions. On the one hand, the larger the ownership share (the larger  $\alpha$ ), the more of the benefits of (unobservable) investment the controlling shareholder internalizes, and higher the investment incentive for the

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<sup>70</sup> The respective valuations, \$800 and \$968.7, come from finding the solutions to the infinite series. For instance, if the shareholders expect to receive \$80 in each period, starting in period 0, the present value of that series of cash flow will be  $S = \$80 + (0.9) \times \$80 + (0.9)^2 \times \$80 + (0.9)^3 \times \$80 + \dots$ . When we multiply  $S$  by 0.9 and subtract from the first, we get  $(1 - 0.9) \times S = \$80$  which, in turn, gives us  $S = \$80/(1 - 0.9)$ .

controlling shareholder. On the other hand, with a sufficiently liquid stock market, the larger the equity ownership, the smaller the private benefits of control, and more likely that she will be able to reap the benefits of control by liquidating her position, thereby undermining her investment incentive. In short, once the financial market (with sufficient liquidity) is present, it offers another route through which the controlling shareholder can deviate by boosting short-term earnings (through under-investment) and liquidating her position.

1. *The Problem of Under-investment*

Foremost, since investment is unobservable and realized quality is not verifiable, to provide the firm and the controlling shareholder the necessary investment incentive, the representative consumer will have to use non-legal, reputational sanctions against the firm. An easy way of capturing the idea is to allow the representative consumer to “punish” the firm by lowering the willingness-to-pay for the product. Initially, at  $t = 0$ , the representative consumer “trusts” the firm to deliver high quality and is willing to pay up to \$100 for the product. If high quality is delivered, the firm maintains that “trust” with the consumer, i.e., the firm retains its good reputation. If the firm delivers low quality, the consumer never trusts the firm again and becomes willing to pay only up to \$50 for the product. That is, the firm’s reputation gets destroyed and the firm cannot regain its trust with the consumer. This type of punishment strategy is called the “grim-trigger” strategy and may, in many cases, be unduly harsh (or unrealistic). But, we’ll use this convention to simplify the analysis.

Controller’s Ownership ( $\alpha$ )	Private Benefits of Control (\$ $b$ )	Controller’s Return with \$100 Cash Flow	Controller’s Return with \$50 Cash Flow	Difference
33%	\$10	\$36.7	\$20	\$16.7
50%	\$5	\$51.3	\$26.3	\$25
66%	\$2.5	\$67.1	\$33.8	\$33.3
100%	\$0	\$100	\$50	\$50

TABLE 3: RELATIONSHIP BETWEEN OWNERSHIP AND RETURN ALIGNMENT

Once we allow for the reputational punishment, it is easy to see how such a mechanism can provide the investment incentive to the controlling shareholder. Because future cash flow is taken away when the controller makes low investment and delivers low quality product, if the reduction in cash flow is sufficiently large, the controller becomes unwilling to realize an immediate gain in cost savings (through low investment) at the expense of permanently lower cash flow in the future. At the same time, the effective-

ness of the incentive depends on the size of the controller's equity ownership. That is, the larger the ownership, the more likely that the controller will respond to such incentive. The reason has to do with the fact that as the controller's ownership share goes down, she becomes less responsive to changes in cash flow to the firm. As Table 3 shows, the larger the ownership share of the controller, the easier it is to provide the necessary investment incentive. While instructive, Table 3 only shows the difference in gross cash flows for the controller in a single period. To determine whether the investment incentive can be provided, we have to factor in the cost of investment and the fact that the reputational punishment will reduce the controller's return on a permanent basis. When we conduct the analysis, it can be shown that the controlling shareholder must be entitled to receive at least about 22.2% of the firm's distribution. That is, we need  $\alpha \geq 0.222$ .<sup>71</sup>

## 2. *The Problem of Short-term Liquidation*

While higher ownership share is generally better in aligning the controlling shareholder's interests with that of the firm (and of the minority shareholders), both in terms of providing the controller with more investment incentive and reducing private benefits of control, there also is a downside of such an interest alignment when there is a liquid financial market. With an actively trading equity market, the controlling shareholder may be able to liquidate her position, either (anonymously) through the market or through third-party sale, and cash out rather than staying with the firm for the long run. When such an exit option is sufficiently attractive, she may even be tempted to underinvest in quality and liquidate her position at a relatively high price before the financial and product markets become aware of the underinvestment.

To illustrate this point more concretely, suppose the controller owns 50% of the equity ( $\alpha = 0.5$ ). We saw previously that the controller has to

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<sup>71</sup> The basic idea here is to make sure that what the controller loses in terms of cash flow is larger than the immediate cost saving from under-investment. If the controller were to deviate and invest zero in the current period, she will realize an immediate cost saving of \$10. On the other hand, starting next period, her per-period return will go down from  $\alpha(\$100) - \$10$  to  $\alpha\$50$  forever. Note that the terms on private benefits are absent because the amount of private benefits extracted remains constant whether the firm earns \$50 or \$100 per period conditional on  $\alpha$  being larger than 0.218 in this numerical example, which is satisfied in equilibrium. If  $\alpha$  is less than 0.218, when the firm makes \$50 (in punishment phase), all the cash flow will be converted into private benefits and the controller's private benefits will be smaller than when the firm makes \$100. This makes the reputational punishment even more effective. While keeping the controller's stake constant, some of this additional punishment can be achieved by relying on debt financing. See *infra* Part VIII.A.3V.B. Given that this reputational punishment kicks in next period, the magnitude of punishment, in terms of present values, is  $(0.9) \frac{\alpha(\$100) - \$10 - \alpha(\$50)}{0.1} = 9(\alpha(\$50) - \$10)$ . Therefore, to make sure that the controller has sufficient investment incentive, we need  $9(\alpha(\$50) - \$10) \geq \$10$ . That is, the loss of future cash flows, in terms of present value, due to reputational punishment is larger than the immediate cost saving. When we simplify, we get  $\alpha \geq \frac{10}{45} \approx 0.222$ .

retain at least 22.2% of the equity to make the costly, unobservable investment, so 50% equity stake should be more than sufficient to satisfy that objective. With 50% ownership, as shown in Table 2, she will extract \$5 of private benefits of control and impose \$2.50 of deadweight loss, thereby reducing the firm's cash flow by \$7.50. Assuming that she will make the \$10 unobservable investment, the firm will generate \$100 of cash flow and distribute \$92.50 to all of its shareholders in each period. The controlling shareholder gets \$5 of private benefits of control and \$46.25 of distribution from the firm ( $= (0.5) \times \$92.50$ ) for the total, per-period return of \$51.25. After the \$10 cost of investment, her net return in each period is \$41.25, and the discount factor of 0.9 implies that the long-run value for the controlling shareholder is \$412.5 ( $= (\$5 + \$46.25 - \$10)/(1 - 0.9)$ ). Note that the controller's long-run return consists of three components: her private benefits of control (\$5), proportionate share of the distribution from the firm (\$46.25), and the cost of the unobservable investment (\$10). In terms of the market value, the discount factor of 0.9 also implies the equity market capitalization of \$925 ( $= \$92.5/(1 - 0.9)$ ).

Will the controller stay with the firm in the long run and make costly investment in each period? That depends on how easily she can sell her shares in the market. To make the analysis simple, suppose the controller can, at any time, sell her shares (anonymously) at the prevailing market price. Consider this deviation. After making the "low" investment of \$0, the firm sells the good to the representative consumer at \$100, and before the quality has been realized, she liquidates her position at \$462.50.<sup>72</sup> The market participants believe that the controlling shareholder is still making the costly investment and the firm will make a distribution of \$92.50 in each period so that the equity market capitalization stays at \$925. Compared to the value of \$412.5 that she expects to realize if she were to stay with the firm for the long run, under-investing in the quality and liquidating her position for \$462.50 before the quality realization is strictly more profitable for the controller. Even if she were to sell the shares at 10% discount, her return of \$416.25 ( $= (0.9) \times \$462.50$ ) is still larger than the long-run return from staying with the firm ( $\$462.5 > \$412.5$ ).<sup>73</sup> Of course, once the market par-

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<sup>72</sup> The sale by a large block holder of her entire position would likely produce a negative price movement in the market, some of which may be due to the market's inference about the block holder's information (in the example, possible under-investment). For different techniques that a controller can use to minimize adverse price movement, see *supra* note 45 and accompanying text.

<sup>73</sup> More precisely, if the market fully expects that the controlling shareholder has made "low" investment immediately before the sale, the market would be willing to pay only up to \$212.5 for her shares. Going forward, the financial market knows that the firm will be making \$50 of gross cash flow and that, after subtracting \$5 of private benefits of control and \$2.5 of deadweight loss, shareholders will receive a per-period distribution of \$42.5. Note here that there will be no further investment by the new controlling stockholder. The total market capitalization will be \$425, and the controller's share will be \$212.5. When the controlling shareholder can more successfully engage in anonymous selling, she is more likely to realize proceeds that are closer to \$412.5 than to \$212.5.

ticipants (both at the product and the financial markets) expect such deviation by the controlling shareholder, they will expect the controlling shareholder to choose “low” investment in each period. The representative consumer would be willing to pay only \$50 for the product while the market capitalization of the firm’s equity will be \$425 ( $= (\$50 - \$7.50)/(1 - 0.9)$ ). The reputational sanctions that were imposed through the product market get unraveled through the financial market.<sup>74</sup>

Can we somehow prevent this type of “financial” deviation by the controlling shareholder? The key lies in the fact that while the value based on the cash flow for the controlling shareholder is liquid (and, therefore, transferrable among investors), the value based on the private benefits of control is not. By selling her stake, the controller is able to realize the present value of all future distributions, but she will have to forego the present value of all of her future private benefits of control. The larger the private benefits of control, therefore, the more likely the controller will stay with the firm for the long run and not deviate through short-term underinvestment and equity liquidation. Furthermore, since the size of the private benefits of control is inversely related to the equity ownership position of the controller (inversely related to  $\alpha$ ), for the controller to commit to staying with the firm for the long run, she will have to retain the equity position that is relatively small. Given the parameters of the example, this implies that the maximum stake the controller can retain is 33% ( $\alpha = 1/3$ ). With 33% equity stake, the controller credibly signals to the market that she will stay with the firm for the long run and extracts \$10 of private benefits of control in each period. With additional \$10 of deadweight loss, the firm makes a distribution of \$80 in each period, leading to the market capitalization of \$800. As a matter of comparison, if the controller had to sell her equity position at 10% discount (as briefly examined above), the maximum ownership share rises to 50% ( $\alpha = 1/2$ ).

Table 4 presents the comparison between the present value of the controlling shareholder’s net return in case she stays with the firm for the long run and makes unobservable investment in each period and the market value of her shares, the value she could get in case she decides to sell all of her shares (anonymously) in the market.<sup>75</sup> The third column represents the for-

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<sup>74</sup> A different and somewhat more intuitive way to think about this problem is that once the controlling shareholder is no longer committed to the firm for the long term (through non-sellable private benefits of control), she will have more incentive to under-invest and boost short-term earnings. In this example, potential short versus long-term divergence arises because the controller’s investment is not observable (and the product quality is not verifiable), and the firm is subject to long-term reputational sanctions in the product market.

<sup>75</sup> The example assumes that when the controlling shareholder sells her shares in the market, she will be able to do so at the market price. This assumption was made to simplify the example. In many cases, she will not be able to get the full market price, either because her identity gets revealed to the market or due to the sheer volume of sale. To reflect such concerns, we can assume that she can liquidate her position only at some discount and let the discount increase as the controlling shareholder’s ownership fraction increases. This will increase the upper limit on controller’s ownership share.



mer and the fourth column represents the latter. As shown in the table, as the controlling shareholder’s ownership fraction ( $\alpha$ ) rises, because she internalizes more of the deadweight loss from private benefit extraction, the size of the private benefits decreases and the distribution to all shareholders rises, thereby increasing aggregate firm value and the market value of her shares. However, given that the cost of unobservable investment is personal to her and the private benefits of control is not reflected in the market price of the stock, the gap between the net long-term return she can realize if she were to stay with the firm for the long run and the market value of shares increases as her ownership share rises. When we compare the third and the fourth columns, the difference is zero when she owns 33% but rises to \$100 as her ownership share rises to 100%. If her ownership share were 100% and she were given a choice, therefore, she would rather liquidate her position at the market price (assuming that she does not have to face a steep discount) than stay with the firm for the long-run and make costly unobservable investments. When the size of the private benefits of control gets larger, since such benefits are not reflected in the market price of stock, the latter exit option becomes less attractive. In short, with an active stock market, private benefits of control can function as a strong inducement to the controlling shareholder to stay with the firm for the long run.

Controller’s Ownership ( $\alpha$ )	Private Benefits of Control (\$b)	Distribution to All Shareholders	Private Value of Controller’s Net Long Term Return	Market Value of Controller’s Shares
33%	\$10	\$80	\$267	\$267
50%	\$5	\$92.5	\$412.5	\$462.5
66%	\$2.5	\$96.9	\$564.3	\$639.3
100%	\$0	\$100	\$900	\$1000

TABLE 4: COMPARISON BETWEEN PRESENT VALUE OF CONTROLLER’S NET LONG-TERM RETURN AND MARKET VALUE OF CONTROLLER’S SHARES

### 3. *Satisfying the Financing Requirement*

The example has thus far shown that solving the underinvestment problem requires tackling the incentive problems at two different fronts: the controller has to retain enough skin in the game so as to sufficiently internalize the consequences of investment but, at the same time, must be guaranteed to realize some illiquid, non-transferrable private benefits of control to retain her sizable ownership position for the long run. With the parameters from the numerical example, the first constraint (investment incentive) dictated the controller to retain at least about 22% of the equity while the second

constraint (long-term commitment) required the controller's ownership stake to be no more than 33%: the lower-bound on ownership is at 22% while the upper bound is at 33%. Finally, subject to these two thresholds, the controller needs to make sure that equity financing can satisfy the initial investment needs. Can she satisfy both constraints (sell between 67% and 78% of equity) and raise the required financing needs of \$500? Given the parameters, the market would be willing to pay about \$500 for 73% equity. More importantly, with 27% ownership, going forward, the controlling shareholder will have sufficient incentive to make the costly investment (of \$10 per period), without any incentive to surreptitiously liquidate her position through the market. To see this more clearly, with 27% ownership of firm's cash-flow, in each period, the controller will extract about \$13.5 of private benefits of control and impose about \$18.3 of deadweight loss. Out of \$100 of revenue, therefore, the firm will distribute about \$68.2 to all of its shareholders, rendering the total market capitalization of about \$682 (=  $(\$100 - \$13.5 - \$18.3)/(1 - 0.9)$ ). Note that 73% of \$682 is just about \$500.<sup>76</sup> Finally, the long-term value of 27% stake for the controller is about \$219 (=  $((0.27) \times \$68.2 + \$13.5 - \$10)/(1 - 0.9)$ ).

### C. *Extending the Basic Analysis*

The previous part has demonstrated how the presence of illiquid private benefits of control can function as a commitment mechanism by the controlling shareholder to stay with the firm in the long run. For the purposes of demonstration, the example made various specific assumptions on the building blocks, such as cash flow, deadweight loss from private benefits of control, and the controlling shareholder's ability to liquidate her position through market trading. In reality, of course, some or all of these assumptions may prove to be too limiting. This section considers four extensions to the core thesis: (1) formal separation of control and cash flow rights through dual class stock and pyramidal ownership structure; (2) financing through issuance of debt or borrowing; (3) selling controlling block through non-market transaction; and (4) buying out the minority shareholders ("freeze-out" or "squeeze-out") when the controlling shareholder is no longer financially constrained.

#### 1. *Dual Class Stock, Pyramidal Ownership, and Cross Ownership*

The controlling shareholder so far has de facto control over the firm while retaining less than 100% of the cash-flow rights. De facto control al-

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<sup>76</sup> As the controlling shareholder's ownership share ( $\alpha$ ) rises from 0.22 to 0.33, the firm's total equity market capitalization increases from about \$518.7 to \$800. The market valuation of the minority shares ( $1 - \alpha$  fraction of total equity market capitalization) rises from about \$403.5 to about \$533.3. At about 27.2%, the equity market capitalization is equal to about \$686 and 72.8% of that is equal to about \$500.

lowed her to extract private benefits of control, which functioned as a commitment mechanism for the controlling shareholder to stay with the firm for the long-term. If the amount of ownership the founder has to sell to the market is substantially larger than 50%, so that, after the sale, the founder no longer has control over the firm, there will be no private benefits of control and the bonding mechanism will fall apart. In the example, the founder had to sell 73% of the equity to raise \$500 and finance the initial project. Conceivably, having only 27% of the equity ownership could lead to a (complete) loss of control. Furthermore, with only 27% ownership, the firm could become a target of hostile takeover or outside shareholder activism, in either case of which the founder will lose control. To prevent such scenarios, the founder would want to formally separate the control rights from cash-flow rights. In a dual class stock structure, for instance, the founder can retain more than 50% of the voting rights while retaining only 27% of the cash flow rights. The market expects the founder will extract private benefits of control through her control rights (\$13.5 in the example) but such illiquid private benefits will entice the founder-controller to stay with the firm for the long term and make the necessary unobservable investment. Pyramidal ownership structure will work in a similar way: by creating a vertical corporate structure, the founder can retain de facto control over the subsidiary while getting less than 50% of the cash flow rights. Dual class and pyramidal ownership structure, in short, can function as second-best mechanisms in solving the investment and short-term liquidation problems for the controlling shareholder.

## 2. *Debt Financing*

We have thus far exclusively focused on equity financing of the project. If we allow the founder to also issue debt, such additional flexibility can add more value for the firm and the controlling shareholder. Debt financing can produce value in (at least) two specific dimensions: (1) by making up the short-fall from equity financing; and (2) controlling the size of private benefits of control.<sup>77</sup> With respect to the first, from the example, the upper and the lower bounds on equity sale were at 78% and 66% and the founder was able to raise \$500 of necessary investment capital by selling 73% of the ownership. In more general cases, even if the founder were to sell the maximum allowable number of shares, the proceeds may be insufficient to meet the initial investment needs. To see this, let's examine a small variation on

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<sup>77</sup> A third situation in which debt financing can help is when optimal share ownership does not exist: there is no ownership share that solves both the underinvestment problem and the short-term liquidation problem. This happens when the maximum falls below the minimum equity ownership. In that case, debt financing can allow the founder to raise the necessary capital by either relaxing the maximum or the minimum, by either making up the shortfall or heightening the investment incentive for the controlling shareholder. Finally, there also is a tax advantage of issuing debt when equity distribution is subject to double taxation.

the example. Suppose we change the deadweight loss from private benefits extraction from  $\$(b + b^2/10)$  to  $\$(b + b^2/20)$ . Now, the controller can extract more private benefits, which, in turn, reduces the market value of stock. The reduction in market value will make it more difficult for the controller to meet the initial investment needs through equity financing. At the same time, because the controller takes more illiquid form of distribution, the controller's incentive to stay with the firm for the long-term also increases. It is fairly straightforward to show that the maximum fraction of equity the founder can sell to the market is 50%, and with 50% ownership by the controller, the equity market capitalization is \$850.<sup>78</sup> Unfortunately, however, since the market is willing to pay only \$425 for the 50% stake in the company, equity financing alone will not be able to satisfy the \$500 initial investment needs.

If the firm can also issue debt, however, we can bypass the maximum cap problem. Suppose the firm can issue perpetual, risk-free debt with a promise to make an annual interest payment of  $\beta$  forever. With the same discount factor of 0.9, the market valuation of such debt will be  $\beta/(1 - 0.9)$ .<sup>79</sup> Now, the founder can meet the initial investment requirements by issuing debt with the annual payment of  $\beta = 15$  and by selling 50% of the ownership ( $\alpha = 0.5$ ). With  $\beta = 15$ , investors will be willing to pay \$150 for the debt. In each period, out of \$100 of revenue, \$15 will be paid to the debt-holders, the controller will take \$10 as private benefits of control and impose  $\$5 (= \$10^2/20)$  of deadweight loss, and \$70 will go out to the stockholders. Since the minority shareholders are receiving 50% of the distribution, with the discount factor of 0.9, they would be willing to pay \$350 for the 50% share. In short, out of \$500 of capital investment needs, \$150 will be met through issuance of debt while the remainder, \$350, will be met through equity financing.

Debt financing can also reduce the size of the private benefits of control. The lower bound on equity ownership (22% from the example) is dictated by having to provide the controlling shareholder the requisite "skin in the game." In the process, the private benefits of control functioned as an obstacle: the larger the private benefits, the less likely the controller would care about increasing the firm's cash flow. One way of relaxing this constraint is by relying more on debt financing. From Table 3, when the control-

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<sup>78</sup> With 50% ownership share, out of \$100 of gross cash-flow, the controller will extract \$10 of private benefits of control, impose \$5 of deadweight loss, and distribute the remaining \$85 to all the shareholders. With the \$10 of investment cost, the controller receives \$42.5 of return in each period, producing the long-term value of \$425 for the controller ( $= ((0.5) \times (\$100 - \$10 - \$5) + \$10 - \$10)/(1 - 0.9)$ ). The value for the minority shareholders is also \$425 ( $= ((0.5) \times \$85)/(1 - 0.9)$ ). Note that, with 50% ownership, the controller's long-term value (with "high" investment) is equal to the market value of the controller's shares.

<sup>79</sup> For the sake of simplicity, we assume away the tax advantages, if any, of debt: in a non-integrated tax system, interest payments are subject to tax only at the investors' level while dividend payments (distributions to shareholders, in our example) are subject to tax at both the corporate and the shareholders' level.

ler retained 33% of the cash flow rights, she extracted \$10 of private benefits of control and imposed \$10 of deadweight loss on the firm, thereby reducing the firm's cash flow by \$20 to \$80 or \$30 when the firm's total cash flow was \$100 or \$50, respectively. The controller's respective return (with 33% equity) was \$26.7 and \$10, thereby producing \$16.7 of incentive. Now suppose the firm issues debt with  $\beta = 50$ , so that when the firm generates \$50 of cash flow, all of that will be used to satisfy the interest obligation, leaving nothing for the stockholders. When the firm generates \$100, the controller still extracts \$10 of private benefits of control and receives \$10 of distribution ( $= (0.33) \times (\$100 - \$50 - \$20) + \$10$ ). Hence, the difference in return for the controlling shareholder is now \$20, rather than \$16.7. This provides a bigger incentive to the controller to make the necessary investment. By selectively taking away cash flow from the firm, debt financing can provide better investment incentive to the controlling shareholder.

### 3. *Control Sales and Inefficient Lock-In*

Once the controlling shareholder retains the optimal share of cash flow rights, it is unlikely that she will sell her position through the market. After all, the point of letting her capture sizable private benefits of control is to induce her to stay with the firm for the long-term. Willingness to sell her shares, however, will change when there is a buyer who is willing to pay a substantial premium for her block. From the example where the founder sells 73% of equity to raise \$500 of initial capital, recall that the controlling shareholder is making \$10 of unobservable investment in each period and extracting about \$13.5 of private benefits of control, and the firm is distributing about \$68.2 to all of its shareholders. Hence, in each period, the controlling shareholder is realizing the net return of about \$21.9 ( $= (0.27) \times \$68.2 + \$13.5 - \$10$ ). With the discount factor of 0.9, the present value of annual return of \$21.9 becomes \$219 ( $= \$21.9/(1 - 0.9)$ ). If a buyer is willing to pay at least \$219 for her 27% block, she would be willing to sell. Since 27% of the firm's equity market capitalization of \$682 is about \$184, the price of \$219 represents a little more than 19% in terms of control premium. Presumably, the buyer would be willing to pay such a hefty premium because the buyer can either increase the cash flow of the firm and/or extract more private benefits of control. The former type of transaction will produce an efficiency gain, while in the latter type will be associated with an efficiency loss.<sup>80</sup>

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<sup>80</sup> Professor Bebchuk also noted the fact that a transaction could lead to an efficiency loss (when the new buyer extracts more private benefits of control). See Bebchuk, *supra* note 66. He also analyzes the market rule (under which the controller does not need to share any of the premium with the minority shareholders) and the equal opportunity rule (under which the controller must share the premium), and he shows that neither rule strictly dominates the other in terms of efficiency. The equal opportunity rule, for instance, is better at deterring inefficient sale but could also prevent an efficient transaction from being consummated. See also Kahan, *supra* note 66.

The fact that the controlling shareholder can command a hefty premium in selling her controlling block also implies that the control can be inefficiently locked in. This is a downside of encouraging the controlling shareholder to stay with the firm for the long run. Coming back to the example where the controlling shareholder owned 27% of the stock, with \$10 of unobservable investment, the firm was able to generate \$100 of revenue in each period. Out of the \$100 revenue, the controller took \$13.5 as private benefits, imposed \$18.2 as deadweight loss, and left \$68.2 as cash flow for all shareholders. Suppose a new buyer appears who can generate higher revenue for the firm, say  $x \geq 100$ , at the same investment cost of \$10, but without taking any private benefits of control ( $b = 0$ ). Given that the 27% block is worth \$219 for the controlling shareholder and that the new buyer is willing to pay up to  $(0.27) \times x / (1 - 0.9)$  for the controller's block, for the new buyer to successfully negotiate a transfer of control, we have to have  $x \geq 118.2$ . That is, the new buyer must be able to generate \$18.2 of additional revenue for the firm for there to be a successful transfer of control block.

Obviously, if the incremental revenue is less than \$18.2 but positive, the new buyer would be unable to purchase the controlling block, even though the new buyer is more efficient. The control block is inefficiently locked in. The gap is due to the fact that (1) the current controlling shareholder can extract private benefits of control and increase the value of her controlling block; and (2) the new buyer is unable to internalize the additional cash-flow benefits that flow to the other, minority shareholders. First, had the controlling shareholder not been able to extract any private benefit, 27% of stock would have been worth only \$170 after the cost of unobservable investment ( $= ((0.27) \times \$100 - \$10) / (1 - 0.9)$ ). With private benefit extraction, she has managed to increase the value to \$219. Furthermore, when the new buyer increases the cash-flow of the firm by  $\$(x - 100)$ , 73% of that additional increase will be captured by the minority shareholders. Had the new buyer been able to capture the entire increase in cash-flow, that would have been more than enough to allow an efficient transfer of control. In sum, the downside of incentivizing the controlling shareholder to stay long-term with the firm (for instance, through formal separation of cash-flow rights from control rights) and make unobservable investment is the potential, inefficient lock-in of the control.<sup>81</sup>

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<sup>81</sup> Creating a valuation gap (though inefficient) is not entirely bad from the target shareholders' perspective, however, since it could lead to better bargaining leverage against the prospective buyer by raising the controlling shareholder's (and the firm's) reservation value. Professors Grossman and Hart have argued that through separation of voting and cash-flow rights, the target firm can better extract the private benefits of the buyer and increase the acquisition price. See Sanford Grossman & Oliver Hart, *One Share-One Vote and the Market for Corporate Control*, 20 J. FIN. ECON. 175, 200-01 (1988).

#### 4. *Freeze Outs*

Rather than selling her controlling block to a third party buyer, the controller can purchase the rest of the outstanding shares and take the company private. This is called a “freeze-out” or a “squeeze-out” transaction. In the numerical example, the founder had to rely on issuing equity to finance the initial project. If the controlling shareholder has amassed enough capital after the initiation of the project, it will be in the interest of the controlling shareholder to freeze out the minority. From the example, when the controlling shareholder owned 27% of the equity, the control block was worth about \$219 ( $= ((0.27) \times \$68.2 + \$13.5 - \$10)/(1 - 0.9)$ ) for the controller while the rest of the equity (73%) had a market capitalization of about \$500 ( $= (0.73) \times \$68.2/(1 - 0.9)$ ). If the controlling shareholder were to own 100% of the equity, that 100% ownership will be worth \$900 ( $= (\$100 - \$10)/(1 - 0.9)$ ) for her. In other words, she would be willing to pay up to \$681 ( $= \$900 - \$219$ ) for the remaining 73% of equity. With 100% ownership, the sole owner no longer extracts any private benefits of control since she fully internalizes the deadweight loss from private benefit extraction. Also, note that, given that the sole owner will not have any incentive to liquidate her holdings in the short run, she will have the necessary incentive to undertake \$10 of unobservable investment in each period.

The respective values create a bargaining range for the controlling shareholder and the minority shareholders. Depending on the relative bargaining power, a successful freeze-out will take place at a price between \$500 and \$681. Two final points are worth a mention. First, the controlling shareholder will not pay the full cash flow value of \$730 ( $= (0.73) \times \$1,000$ ) for the remaining 73% since, even after becoming the sole owner, she will have to (and expects to) incur the cost of unobservable investment. This is the reason why the controlling shareholder is willing to pay only \$681, rather than \$730 (or \$781 for that matter), for the remaining shares. Hence, requiring the consideration to be close to the full cash flow value can undermine a successful freeze-out. Second, compared to a sale of control block, freeze-out mergers are generally efficiency enhancing. This is because, with a freeze-out of the minority shareholders, the controlling shareholder, after the freeze-out, no longer engages in private benefit extraction that engendered a deadweight loss. Once she becomes the sole owners of the corporation, she fully internalizes the cost associated with private benefit extraction. In contrast, sale of control can be either efficiency-enhancing or efficiency-reducing. It depends on whether the new buyer is willing to pay the control premium. If the source of higher reservation value (of the new buyer) is better operation and management of the corporation, sale of control block will be generally efficiency-enhancing. However, if the new buyer is willing to pay a large premium because he can extract more private benefits of control (and perhaps even at the expense of firm’s cash-flow), the control transfer will create further deadweight loss and decrease efficiency.

