Corporate Control and Credible Commitment[*]

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Abstract

The separation of control and ownership – the ability of a small group effectively to control a company though holding a minority of its cash flow rights – is common throughout the world, but also is commonly decried. The control group, it is thought, will use its position to consume excessive amounts of project returns, and this injures minority shareholders in two ways: there is less money and the controllers are not maximizing firm value. To the contrary, we argue here that there is an optimal share of the firm that compensates the control group for monitoring managers and otherwise exerting effort to implement projects while inducing investors to fund the firm's projects. This result assumes that a controlling group can credibly commit not to consume more than its efficient share of firm cash flow. When potential entrepreneurs cannot solve this credibility problem, some ex ante efficient firms fail to form because their potential principals cannot raise money at a price that does not reflect inefficient levels of private benefits of control. The ability of controllers to commit is increasing in the accuracy of judicial review of controlled transactions. Private contracting, we argue, would materially improve judicial accuracy. Our principal normative recommendation therefore is to demote corporate fiduciary law from mandatory to a set of defaults. Many developing countries, however, lack an effective legal system, but their public corporations nonetheless commonly have a controlling shareholder and minority shareholders. We explore various non-legal methods by which this shareholder credibly commits to a cap on private benefits of control,

[*] In December 2011, the authors prepared a report on behalf of an Israeli company for filing with an Israeli Law Reform Commission concerning proposed amendments to the Israel corporate law that would affect the corporate governance duties of companies that exerted control over other companies in which the controlling shareholder held a minority equity stake. Certain of the thoughts we expressed in that Report were a highly inchoate version of the ideas developed below.

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although we also show that these methods are less efficient than contracting in a mature legal system would be.

1. Introduction

Controlling shareholders, long no more than shadowy characters in the background of the corporate governance debate, now figure prominently.[1] Outside the United States, controlling shareholders *are* corporate governance.[2] They are ubiquitous both in jurisdictions that have poor shareholder protection and in jurisdictions, such as Sweden and other northern European countries, which have good shareholder protection (Gilson 2006). Commentary now recognizes that controlling shareholders, denoted here as "controllers", also are a significant feature of the U. S. corporate governance landscape. Families with large block holdings are commonplace, though less widespread than outside the U.S. (Anderson & Reeb 2003), and newly public U.S. companies increasingly preserve control in a founders' group. From the beginning of 2010 through the end of March 2011, 20 companies went to the market with dual class common stock and other structural features that allow the controlling shareholders to retain control with a less than equivalent equity investment.[3] Facebook is the most vivid current example, but those with only a slightly longer memory will recall Zygna, Groupon and Google.

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[1] In a "controlled company", a cohesive group has decision control over corporate actions, even when the group does not have majority voting control. The only "block" in a controlled company is the controlling group. Common examples are control exerted through a pyramid corporate structure or a dual class common stock structure.

[2] As examples, "In emerging economies, business groups are responsible for the vast majority of sales, assets, and value added. A business group is in essence a leverage device: firms within the group band together to fund investments and startups and to share production, R&D, and marketing knowledge. The group also enables a single entrepreneur to control vast knowledge-creating resources with a fraction of the capital that would be needed by a stand-alone entity.", (Siegel and Choudhury 2012); "… a series of recent studies on ownership structure reveals that in most markets a large number of listed companies do not have a widely dispersed ownership structure. In general, they have one or more large shareholders that can be categorized as families, states and other industrial and financial companies". See Isakov and Weisskopf (2012). In the US, approximately 35% of the S&P is family controlled. Anderson and Reeb (2003).

[3] See IRRC Institute (2012). For example, in 2012, there were 114 controlled firms in the S&P 1500. See also Harvard Law School Forum (2012).

The controlled companies we analyze must access the capital market to fund projects. It is becoming increasingly common for new companies to finance with outside debt[4], but our companies are assumed to raise equity for two reasons. First, the policy concern that controlled companies raise is the potential for exploitation of minority shareholders. Selling equity to the public provides both capital and shareholders to exploit, and where the controller has less equity than control, a greater incentive to do so. (Classens, Djankov & Lang 2000) Second, new controlled companies sometimes cannot raise debt. Because creditors enforce their claims by attaching and selling debtor assets, a firm cannot borrow unless it has assets that have value on secondary markets. The main asset in some startups, such as tech companies, is human capital, which cannot be sold. Also, secondary markets seem not to work well in some developing economies, with which we also are concerned.

Controlled companies that raise equity must solve two moral hazard problems. The first problem is to persuade the capital market that the controllers will work hard. Because controllers bear the costs of conceiving and implementing projects but must share gains with investors, the controllers may choose suboptimal effort levels. The second problem is to persuade the capital market that the controllers will not divert private benefits of control – transfers from the company that go only to the controller and so reduce the minority's share of the company's profits.

Controllers solve the first problem by contracting with investors over the division of project returns. The controllers' retained share must satisfy two constraints: In expectation (a) the firm can recover project costs; (b) The controllers' share above cost is large enough to make working efficiently pay controllers more than would shirking.[5] When these constraints are satisfied, outside investors will assume that controllers maximize expected project returns.

[4] See Robb and Robinson (2014).

[5] A third constraint is that the controllers retain enough of the firm to ensure control. We assume that the share that satisfies the two constraints above satisfies this constraint as well in order to avoid an unnecessary analysis of possible voting games.

The second moral hazard problem is the focus of this paper because it is much harder for controllers to solve, for three reasons. First, when shareholders are atomized they will not monitor controllers. Second, monitoring would be difficult in any event because controller actions and project returns often are private information and controllers would be expected to make private benefits unobservable by the minority. The third reason is that requires elaboration. Controllers often take their shares through business practices that can be efficient but are subject to abuse. For example, the controllers of Company A may sell goods to Company B at sub-market prices because they hold a larger stake in B than in A. The controllers of A may appoint themselves its managers and pay themselves above market wages. Similarly, controllers may borrow from or lend to Company A at below, or above, market interest rates.[6] These transactions have two features. The transaction genres themselves may be efficient. For example, insiders may charge their firm less for debt than the market because the insiders are better informed and control firm actions. On the other hand, the transactions can be distorted in difficult to detect ways. Thus, it may be hard for an outsider to distinguish between an efficient and an exploitative transfer price.

Controllers would like to make credible promises to limit private benefits of control to the efficient level (we develop the efficient level of private benefits in Parts 2 and 3). This is because, given the three reasons just set out, potential investors will realize that taking private benefits of control may be advantageous to the controller.[7] The investors' best response is to demand more of the firm than is necessary to satisfy the cost and incentive constraints required to ensure optimal controller effort. These demands increase the company's cost of equity capital and so reduce the gain from owning the firm. As a result, some efficient but costly projects may not be pursued. The controllers' basic financing problem thus is to make credible commitments to potential investors concerning the future level of private benefits. It is widely believed that their efforts are not fully successful.[8]

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[6] Tareq, et al (2014) has an extensive description of how controllers compensate themselves through related party transactions.

[7] Part 3 below proves that, under plausible assumptions, controllers always will take more private benefits than they promised investors if they can. This result is consistent with the data.

[8] Tareq, et al, supra note 6, claim: "Using these controlling mechanisms controlling shareholders can gain control of a company with minimum cash flow right. This discrepancy

Many jurisdictions, including the United States, approach the commitment problem indirectly, by regulating with the fiduciary duty of loyalty the transactions through which controllers can divert private benefits. In the United States, this law does not prohibit controlled transactions but puts the burden on controllers to show that the terms of a challenged transaction are "entirely fair" to the minority. Entire fairness is the most rigorous of all corporate law standards of judicial review[9], and courts will void a transaction or give the minority damages if the controllers cannot satisfy it. With only limited exceptions, the duty of loyalty, and its associated strict judicial review, is mandatory.[10] Effective judicial review improves the controllers'

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between control and cash flow right motivate controlling shareholders to expropriate minority shareholder assets through related party transactions." For other examples, "The conventional wisdom in the financial literature is that business groups are primarily expropriation devices for their controlling shareholders.", and "The prevailing hypothesis in the corporate governance literature … is that business groups function as expropriation devices and will wither as a country embraces the rule of law." See Siegel and Choudhury (2012) at 1795, 1796; "The literature also highlights the consequences of dominant shareholder agency risk for minority shareholders through the nefarious impact of control concentration on equity values." See Aslan and Kumar (2012) at 2257-58. Consistent with these views, the stock of controlled firms sells at material discounts.

[9] Under entire fairness review, the court does not exhibit the usual strong deference to director approval. Rather, the court exercises its own judgment concerning whether the terms of the transaction being reviewed would be seen in a similar arm's length transaction. . Indeed, the standard doctrinal rhetoric in Delaware accords controlling shareholders no deference at all. Thus, then Chancellor Strine's treatment of Conrad Black in Hollinger v. Hollinger International, Inc., 858 A.2d 342 (Del. Ch. 2004), is more distinctive in the Chancellor's broad denial that a contractually designed control structure gives a controlling shareholder any special treatment under Delaware law than in his condemnation of the techniques Black used to funnel money to himself and his confederates.

[10] The Delaware Supreme Court stated, in *Paramount Communications, Inc. v, QVC Network, Inc.*, 637 A.2d 34, 51 (1994): "To the extent that a contract, or a provision of it, purports to require a board to act or not act in such a fashion as to limit the exercise of fiduciary duties, it is invalid and unenforceable…. Paramount directors could not contract away their fiduciary obligations." Delaware General Corporation Law section 122(17) authorizes an ordinary public company, by contract or in its charter, to alter the application of one component of the duty of loyalty – the corporate opportunity doctrine – but the duty of loyalty is otherwise mandatory. In contrast, Delaware law permits limited liability companies and limited partnerships to contract to modify, limit or even eliminate fiduciary duties. As of 2012, 85 Delaware LLCs and LPs have gone public. These are primarily master limited partnerships in the resource industry, but they include some private equity vehicles. The great majority of these entities have taken advantage of Delaware's invitation to contract, and tailored the scope of corporate fiduciary duties to their circumstances. See Manesh (2012). Enriques (2014) surveys the approaches of European countries to restricting private benefits of control, including a recent

ability to credibly commit to a ceiling on private benefits because the courts will enforce a legally imposed limit.[11]

Judicial review, however, can improve but will not fully solve the controllers' commitment problem for two reasons. First, the problem is to convince investors that controllers will not take more than the efficient share they promised to the capital market. Fairness review does not focus courts on that number: rather, it asks courts to evaluate the distributional properties of transactions ex post without regard to efficiency benefits. As a consequence, such review may generate a number that can be greater or lesser than the ex ante promised number. Potential investors likely optimize against the court's number rather than the firm's unreliable number. Capital structure contracts – i.e., contracts that divide the company's future value – may be assumed efficiently to harmonize cost and incentive needs. Judicially generated numbers do not deserve that presumption with respect to private benefits. Hence, relying on judicial review alone to satisfy the controllers' commitment problem may not solve it, and may yield inefficient results as well. Second, even partially effective judicial review requires capable courts, a requirement that is difficult to satisfy in many countries, with the shortfall increasing in the ineffectiveness of the courts.

This analysis is the basis for our principal normative recommendation, which is to open up the contracting space so that controlled companies can contract with investors not only over shares of the firm, which can be done today, but also over private benefits of control – the extent to which company profits can be divided other than by shares owned –which cannot be done today. Controller contracts with investors could supply courts with rich contextual descriptions of the transactions through which the controllers will be paid so courts can more easily distinguish legitimate transfers from tunneling and so reduce the cost of

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European Commission proposal to harmonize the treatment of related party transactions within the European Union.

[11] Reputation can also facilitate commitment but we do not focus on reputation here because controlled companies commonly are only intermittent capital market users. Hence, potential investors will realize that they seldom could punish cheating controllers by offering unfavorable terms on future deals. We discuss in Part 5 the role of reputation in facilitating credible commitment in countries without effective judicial systems.

equity capital, as well as allow efficient levels of private benefits that can increase future profits. The contractual solution has not been tried seriously because it is difficult to contract over or around fiduciary duties. Extent legal rules give courts the ability to exercise unrestrained judicial review. Thus, we suggest that fiduciary duties should be demoted from mandatory rules to defaults.

Turning to the prior literature, several authors show that controllers take shares of project returns as private benefits but the literature seldom considers the problem that occupies us: how to facilitate controller commitment to the capital structures they offer the market. Rather, prior papers document the existence of payments to controllers, specify how they are made and commonly conclude that the payments are improper.[12] The sparse theoretical literature sometimes does not distinguish between pecuniary and nonpecuniary transfers. For example, Aghion and Bolton, in a seminal paper, analyze an entrepreneur's *nonpecuniary* gains, and show that entrepreneur control is efficient when "the entrepreneur's objectives are perfectly in line with the social objectives" (Aghion and Bolton (1992) at 473, 481). The paper does not show how entrepreneur objectives come to be aligned with social objectives or what should be done when private and social goals are misaligned. Burkart, Gromb and Panunzi consider an owner and a manager who owns no shares. The manager would like to choose a project that maximizes his private payoff while large block shareholders have an incentive to monitor the manager to ensure that he chooses the project that maximizes their payoff. Extensive monitoring, however, curbs the manager's initiative, and so reduces the probability that he will discover good projects. The paper concludes: "The paper's key idea is that a dispersed ownership structure commits shareholders not to exercise effective control. Consequently, ownership concentration involves a trade-off between control and initiative." (Burkart, Gromb and Panunzi (1997) at 693, 719). In their model, the manager rather than the shareholder owners consumes private benefits from project returns, so the paper does not study how controllers commit to shareholders with respect to private benefits. Goshen and Hamdani (2013) argue that entrepreneurs create controlled companies in order to protect their ability to pursue business strategies. This motivation is consistent

[12]See authorities cited note 8, supra, and, e.g., Nenova (2003); Dyck and Zingales (2004); Atanasov, Black, and Ciccotello (2011); Farrar and Watson (2012).

with the entrepreneurs diverting private benefits from the return their preferred strategy yields. These authors do not study how the entrepreneurs commit not to take too many private benefits.

Perhaps the paper closest to ours is Urtiaga and Sáez (2013). In their model, projects are self-financed and the controller has a choice whether to take a project that precludes private benefits or a project that permits them. Both projects have the same expected return so the goal is to induce the controller to take the project that maximizes the sum of public and private benefits. The paper's solution is a contract that permits the minority, if controllers choose the private benefits project and it fails, either to put their shares to the controller or to buy shares from him. This is an imaginative way to reduce private benefits but, we argue, the state should not want to deter them altogether because they can be efficient. Rather, the concern is how to facilitate controller commitment not to divert private benefits in amounts that are inconsistent with the controllers' capital structure promise. Utriaga and Saez do not study this problem. [13] Finally, a paper that is unusual in recognizing the concern that we analyze remarks: "From a theoretical point of view, it is not clear which of the two effects [monitoring gain from concentration; diversion of profits by the control group] prevails in companies with a large shareholder." (Isakov and Weisskopf (2012) at 2). We argue below that monitoring (and other types of effort) can be induced with the correct choice of capital structure, provided that the control group can commit to the structure.

Part 2 below sets out a simple agency finance model that shows how an appropriate division of the firm between the controllers and the equity investors solves the controllers' ex ante moral hazard problem. Part 3 formalizes the controllers' ex post problem, of committing not to divert more private benefits than promised (zero in the limit), and shows that judicial review, even if focused directly on recovering diverted funds, will not solve the problem completely. Part

[13] Muravyev (2014) shows that a reform of Russian corporate law that permitted nonvoting shareholders (in a dual class structure) to veto changes to their class rights increased the value of the shares. This reform is consistent with our normative suggestions, but we are concerned more broadly with how to prevent controllers from changing the original capital structure deal by tunneling.

4 shows how allowing controllers and investors to contract over fiduciary duties would make judicial review more effective and so increase the controllers' ability to commit. The idea here is to apply new contract theory, which shows that parties use contracts to send informative and reliable signals to the court of their ex ante intentions. Part 5 introduces the question how controllers credibly commit to limit diversion in countries with ineffective courts. The presence of weak courts raises an interesting and important question: If courts are ineffective so that judicial review, applying fiduciary duty alone or aided by contract, cannot deter controller overreaching, why do minority shareholders exist at all? (Gilson 2007). We suggest, as a possible answer, that there is an industrial organization of controller behavior. As an example, related party transactions that create large transfers to controlling shareholders often are observable simply because of their size. Our analysis implies that controllers may credibly commit to capping transfers to themselves by, for example, foregoing vertical relationships with companies in which the controllers have an interest or otherwise committing to limit the terms of those transactions in a fashion that is observable. This would reduce the potential for transfer pricing arrangements that unduly favor controlling shareholders even in the absence of an effective court system. The analysis here is positive: contract apparently would dominate these structural solutions. Part 6 concludes.

2. A Moral Hazard Model[14]

2.1 The model

T^0: A set of risk neutral entrepreneurs, the "controllers", conceive a project that costs k to implement. The controllers are liquidity constrained and so must raise k in a competitive capital market populated by risk neutral investors. An unsuccessful project returns zero; a successful project generates a positive return v where $v \in U[v_l, v_h]$.[15] Hence, the expected value of a successful project is $v_s = \frac{v_h - v_l}{2}$. The probability of success is increasing in the controllers' effort. The success probability is p_l if the controllers exert low effort and is p_h if they exert

[14] Part 2 applies a standard agency cost model to the problem of motivating the owners of less than all of a firm's return to choose efficient effort levels.

[15] We assume that value is uniformly distributed between v_l and v_h.

high effort: $p_l < p_h$. The term high effort includes the provision of services or inputs that are most efficiently provided by the controller. The project's expected value v_s is common knowledge but the realized return, v*, is private information that a law suit may uncover.

T^1: The controllers offer the expected return v_o to equity investors in the form of stock. The controllers retain v_e ($v_e + v_o = v_s$). Hence, the investors own $v_o/v_s = \tau$ of the firm and the controllers own $v_e/v_s = (1 - \tau)$. We later show how the controllers choose τ. For now, we assume that shareholders are atomized so that the controllers have formal (and in this model real) control.[16]

T^2: The controllers (a) begin to implement their project and (b) create a technology that permits them to capture project returns beyond their equity share. For example, the controllers may structure inter-company trades partly to benefit themselves.[17]

T^3: The issue is whether controllers can commit not to divert returns so we assume that returns exist (i.e., the project succeeds). The controllers then decide whether to report the realized return v* or a lower return v_r. The controllers' realize $(1 - \tau)v^*$ if they report truthfully and $(1 - \tau)v_r + v^* - v_r$ if they underreport. Their net diversion gain thus is $\tau(v^* - v_r)$. For example, if v* = 100, and τ = .4, the controllers realize 60 if they report v* and 60 + .4(100 – 80) = 68 if they report a v_r of 80. The investors realize τ of the reported return: .4 x 80 = 32, which is 20% less than their promised share.[18]

T^4: The investor/shareholders can observe at positive cost a signal, x_i, that correlates with the realized return: $i \varepsilon \{l, h\}$. The signal is bad news (i = l) or good news (i = h). Bad news indicates that the project returned less than expected; good news indicates that the product returned more than expected. Hence, the informed shareholder who observes the signal x_l believes that the realized value is

[16] In the U.S., shareholders are in fact concentrated record owners, who hold their shares as fiduciaries for the beneficial owners. Mutual funds are an important example of such equity intermediation. Because the record owner intermediaries are not proactive, the standard atomized shareholder assumption does not affect the analysis. See Gilson & Gordon (2013).

[17] We show in Part 3 that controllers will use such structures to cheat.

[18] If the investors successfully sue, the controllers must return the cheating gain (8 in the example). Law suits may deter cheating because it is costly to divert. We analyze law suits in Part 3.

$v(x_l) = \frac{v_s - vl}{2}$. If the shareholder receives the signal x_h, he believes the realized value is $v(x_h) = \frac{v_h - v_s}{2}$. The informed shareholder may take an action, described below, if he suspects that the firm underreports: that is, $v_r < v(x_i)$.

2.2 Analysis: The controllers' ex ante incentive and the firm's cost of capital[19]

The controllers can exert high effort and realize $p_h v_e$, the expected value of their share in the firm. Alternatively, they can exert low effort and realize a lower expected value on their stake, but they can receive a private benefit y in the form of the opportunity cost of the effort saved (shirking, including the failure to provide specialized inputs). Thus, y is the private value of exerting suboptimal effort. The controllers exert high effort if $p_h v_e > p_l v_e + y$, or if $v_e > \frac{y}{\Delta p}$. The project has positive expected value only if the controllers work hard:

$$p_h v_s - k > 0$$

$$p_l v_s - k + y < 0$$

The shirking private benefit and the probabilities are not verifiable (and may not be observable).

The controllers exert low effort unless their incentive constraint is satisfied. Therefore, the maximum that the controllers can promise to potential equity investors is

$$(1)\ z = p_h(v_s - \frac{y}{\Delta p})$$

The right hand side term is the project's expected return conditional on the controllers exerting high effort, but reduced by the incentive payment. The project cost is k so the project is fundable if $z \geq k$. We assume for now that this inequality is satisfied.[20]

[19] We assume here that controllers report the return truthfully. This assumption is relaxed when we analyze cheating.

[20] When $z < k$, the controllers may hire an independent monitor. If the monitoring cost is q and there is a competitive monitoring market, controllers can promise the monitor $p_h m = q$,

In a competitive capital market, investors earn zero profits.[21] Thus, if investors contribute k, they expect to get k back, which includes the market return. This implies that the promised return to investors, v_o, solves $k = p_h v_o + (1 - p_h)0$. The investors thus are promised $\tau = (k/p_h)/v_s = \frac{v_o}{v_s}$ of the firm. The controllers expect to earn $p_h v_e = p_h(v_s - v_o)$. They receive the expected surplus because v_o is the expected value of k. The controllers' cost of capital is

$$(2)\ \frac{v_o}{k} - 1$$

To summarize, the controllers will choose the ex ante efficient investment level if they realize the incentive payment $y/\Delta p$ – the private benefit – paid out of a successful project. The project is fundable if the total expected project return conditional on the controllers exerting optimal effort, *less* the private benefit incentive payment, equals or exceeds the share of the firm the controllers must promise to outsiders in order for them to contribute the project's cost.[22] Because the controllers retain a positive share of the firm, v_e, they are entitled to a positive share of project returns.[23] We next consider how judicial review – the court's effort

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where m is the monitoring price. Let the monitor reduce the controllers' private benefit to $y_m < y$. Then the controllers could fund their project if $p_h\left(v_s - \frac{y_m}{\Delta p}\right) \geq k + q$. The independent monitoring solution has more theoretical than actual appeal because monitoring markets seem scarce. The text thus restricts analysis to the case where the incentive payment is the only instrument for inducing optimal effort.

[21] In standard finance terms, investors earn market returns for the risk they undertake.

[22] In this simple model, the equity claim also can be characterized as debt, where the controllers would promise to repay v_o or enter bankruptcy. The choice between debt and equity would matter in more complex models, but it is not necessary for the issues we analyze to use such models.

[23] There is little data studying the relation between the payments to controllers and firm value or financing choices. Some recent studies are suggestive, however. A study of family controlled Indian business groups found that the center efficiently allocated resources from low growth areas to high growth areas. V. Ravi Anshuman and Niredita Sinha, "Power Struggles, Tunneling Incentives and Investment Efficiency in Diversified Business Groups", Working Paper (2012). Allocating resources efficiently is an aspect of efficient managing. Another study of Indian firms found that business groups with controlling shareholders functioned efficiently and grew as corporate governance regulation in India improved ("We exonerate many of the firms implicated in the literature's well-known finding that Indian business groups are typically expropriators: instead, we find that they are honest actors engaged in value creation". Seigel and Choudhury, supra note 2, at 1766). Mahoney asked whether the value of US public utilities declined when the Public Utility Holding Company Act banned pyramid structures; the utilities

to enforce controller fiduciary duties – affects the controllers' incentive to take more than their contracted share.

3. Cheating and judicial review

3.1 The privately optimal level of private benefits

The controllers' privately optimal level of private benefits is positive for three reasons.[24] First, the minority is entitled to the share τ of the project's return. Recalling that the return is private information, controllers have an incentive to reduce τ by reporting v_r rather than v^*: that is, to underreport. Second, because penalties are not permitted, investors who discover cheating are entitled only to return of the amount of the private benefit; there is no direct financial sanction. Third, the probability that excess private benefits are discovered is less than one

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previously had been held in pyramid form. He found that, before the Act, controllers transferred material resources to themselves, but the evidence "is consistent with the hypothesis that the utility pyramids were beneficial to their members at all levels of the pyramid and that the dissolution of the holding companies was expected to harm public shareholders." Paul G. Mahoney, "The Public Utility Pyramids", 41 J. Legal Studies 37, 56 (2012). A recent study found in a very different framework – shareholders choose the firm's capital structure and the compensation contract and the managers' compensation is limited to a wage and an ownership stake – that the optimal managerial input into production is increasing in the stake. Empirically, "increasing CEO ownership by one standard deviation, from 14.3% to 20%, implies an increase in firm value equal to $662 million on average." Jeffrey L. Coles, Michael L. Lemmon, J. Felix Meschke, "Structural models and endogeneity in corporate finance: The link between managerial ownership and corporate performance", 103 J. Financial Econ. 149, 150 (2012). Another study (using Canadian firms) found that family members received higher performance related compensation in dual class firms than in single firms with a concentrated family ownership structure. The difference applied to executives in general. The controllers of the dual class firms owned significantly fewer cash flow rights than the concentrated owners of single class firms. These results are consistent with our model, in which paying money and owning stock can be substitutes. See Ben Amoako-Adu, Vishaal Baulkaran, Brian Smith, "Executive compensation in firms with concentrated control: The impact of dual class structure and family management, "17 J. Corporate Finance 1580 (2011). Another study found "a consistently negative correlation between firm value and blockholder dispersion, as well as between firm value and the total ownership stake of blockholders." The authors also noted: "Our results for blockholder size and presence suggest there may be room for private benefits of control by blockholders, possibly at the expense of other stakeholders." Sander J.J. Konjin, Roman Kraussl, Andre Lucas, "Blockholder dispersion and firm value", 17 J. Corporate Finance 1330, 1338 (2011).

[24] There apparently is a premise in the literature that better legal enforcement of existing law can drive cheating to zero. As far as we know, we are the first to show that this premise is incorrect: substantive and structural reform are necessary.

because (a) courts are imperfect investigators and (b) investors may not purchase the costly signal of the project return x_i, and thus may not sue. Part 3.3 below focuses on the last factor. This Part focuses on the others. Regarding factor (a), several causes work against judicial accuracy. Long legal delays cause evidence and witness memories to decay; witnesses also may become unavailable. Some legal systems have a limited ability to find facts. For example, there may be limited or no discovery procedures. Judges and lawyers also may lack commercial expertise. And because firms have an incentive to conceal, any court is more likely to find that a firm took less than it did rather than more.

The three reasons just set out – private information, no financial sanction and imperfect detection – imply that controllers will divert almost everything unless diverting project returns somehow is costly to them.[25] In fact, diversion costs are positive and fall in two categories. The first is the cost of taking an excess share of project returns. An example is helpful here. Let the controllers of companies A and B believe that it is efficient for these companies to trade. There is an optimal transfer price. The controllers, however, may also plan to take more than their share of the company's profits by "taxing" these intra-corporate trades through terms favorable to the controller. The consequent distortion cost is minimized when controllers take only what their ownership position (and the level of private benefits the minority expects) entitles them to take. Cheating controllers incur higher distortion costs because they take more. In addition, controllers may distort the trading mechanism itself in order to conceal private benefits diversion.

The second set of costs is incurred only if cheating controllers are discovered. These costs are increasing in the maturity of the capital and labor markets in which firms function. A minority can sell, or threaten to sell, stock when controllers are found to take unanticipated private benefits. The prospect or reality of minority exit signals to the market that controllers probably cheated. This reduces the firm's stock price, which has three important effects. First, a fall in price directly reduces the value of the controllers' ownership stake. Second, a lower stock price may indirectly reduce that stake. In many companies, a major portion of key employees' compensation is variable. The employee receives

[25] We assume that reputational sanctions are ineffective because controlled companies, especially in developing economies, enter equity markets infrequently.

options or restricted stock, and is motivated to work by the prospect of increases in share values. Perceived excess private benefits reduce share values, and so reduce the incentives that these variable compensation contracts would otherwise create. The consequent fall in employee motivation may materially reduce the value of the firm.[26] Third, employees also may quit when controllers appropriate a portion of the variable portion of the employees' compensation contract, in itself a misappropriation but now at the expense of employees rather than minority shareholders.

We next show that these costs, though real, cannot drive the misreporting parameter to zero. This result rests on three further assumptions:

A1: Distortion costs (category one) and discovery costs (category two) are increasing in the amount of the controllers' private benefits.

A2: In any legal system, judicial accuracy also is increasing in the amount of the controllers' private benefits because it is harder to conceal a large diversion than a small diversion.[27]

A3: There is a discovery probability below which unanticipated diversion goes undetected and above which it is discovered. The cutoff probability is partly a function of the applicable legal system. For example, if the controllers report half the realized return, the cutoff probability is lower under an accurate court than under an inaccurate court.

Controllers who misreport take $\tau(v^* - v_r) = y$. Denoting the distortion cost c(y) and the discovery cost s(y), the controllers choose y to maximize their expected cheating gain E(y):

$$(3)\ E(y) = f(y)_{a(i)}y + (1 - f(y)_{a(i)})(-s(y)) - c(y)$$

[26] Asker, et al (2014) show that managers care about the current value of the company's stock.

[27] Formally, the probability that a court will discover misreporting is a function of the amount the controllers take, y, and the competence of the relevant judiciary, a. Holding competence constant, (the controllers can function only under one system), we assume regarding the probability of discovery that $\frac{\delta f(y|a)}{\delta y} > 0$. In words, if y > y', then (1 – f(y|a)) strictly dominates (1 – f(y'|a)) in the sense of first order stochastic dominance.

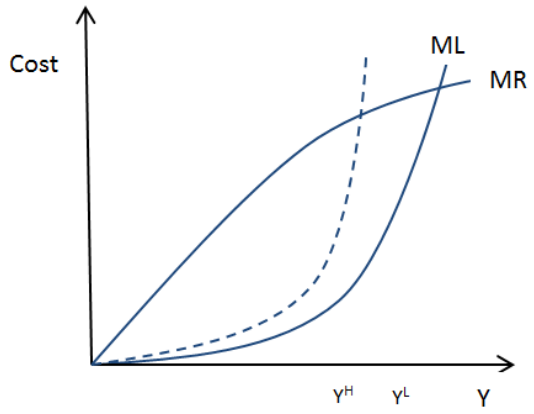
The first term is the expected value of cheating successfully; the second term is the expected cost if the court finds cheating; and the third term is the necessary cost of cheating. The cutoff probability is $f(y)_{a(i)}$, where a(i) indexes the accuracy of the reviewing court: i ε [L, H].

The solution to the controllers' maximization problem implies that controllers always divert more private benefits than they promised to the market, but take less as courts become more accurate. To understand this result intuitively, realize that the controllers' expected gain from misreporting increases in the amount of private benefits the controllers divert, but the distortion costs, the discovery costs and the discovery probability also increase in the amount the controllers divert. As a consequence, controllers misreport – y is positive – but do not take everything.[28] This result is consistent with the existence of controlled companies in countries with weak legal systems. Controllers cheat – take more private benefits then promised – less under accurate courts because assumption A(3) implies that $f(y)_{a(H)} < f(y)_{a(L)}$. In words, holding constant the amount controllers take, the more accurate the reviewing court, the lower is the cutoff probability below which private benefit consumption goes undetected. Therefore, the expected cheating gain is falling in judicial accuracy. Figure 1 illustrates this conclusion:

[28] We argue that the function E(y) is strictly concave. Costs in the model are assumed to be quadratic: $s(y) = ½(ys^2)$ and $c(y) = ½(yc^2)$. With subscripts omitted for convenience, the first derivative of the first term in Equation (3) is f'(y)y + f(y); the second derivative is f''(y) + 2f(y). Because f(y) is falling as y increases (the probability of being found out increases in y), both derivatives are negative. The first derivative of c(y) is yc and the second derivative is c. Both derivatives are positive so there are convex costs, but the last term is preceded by a minus so that term also is negative. For convenience, we let (1 – f(y)) = g(y). Then the middle term is g(y)(s(y). The first derivative is g'(y)(s(y) + g(y)s'(y) and the second derivative is g''(y)s(y) + 2g'(y)s'(y) + g(y)s''(y). Our disclosure cost assumption implies that all three terms are positive, but the entire expression is preceded by a minus sign so this term is negative as well. Because the second derivatives of all three terms in Equation (3) are negative, the function is strictly concave. Hence, it has a unique maximum at y, where $0 < y < v^*$. Corner solutions are theoretically possible, but for y to equal 0, the cheating costs and discovery probability would have to be unrealistically high; and for y to equal v*, the cheating costs and discovery probability would have to be unrealistically low. Therefore, the likely result, which is consistent with the data, is that controllers take money but leave some returns for the public shareholders.

Figure 1

Expected Cheating Gain is Falling in Judicial Accuracy



The controller's gain from misreporting is plotted on the horizontal axis and the cost of cheating is plotted on the vertical axis. The marginal cost curves represent the expected cost of cheating, which is increasing in the amount the controllers divert. Because the gain is $y= \tau(v^* - v_r)$ and τ and v^* are fixed ex post, the controllers' strategy is progressively to reduce v_r, thereby progressively increasing the misreporting gain y, until the expected marginal gain from a further reduction equals the expected marginal cost.

The solid curve reflects a relatively inaccurate court. Controllers who anticipate being reviewed by this court take the cheating gain of y^L. The dashed marginal cost curve in the Figure represents a more accurate court. The expected cost of cheating is higher when the more accurate court reviews transactions because it is more likely to find cheating at any level of private benefit diversion. Controllers who anticipate review by this court will capture the lower gain y^H. The controllers thus divert fewer private benefits under accurate courts. The shareholders' loss from misreporting is just the controllers' gain, or $\tau(v^* - v_r)$.

3.2. Cheating and the cost of capital

The analysis in Part 2 above assumed that controllers do not divert excess private benefits. On this assumption, investors contribute the project cost k to the

controllers in return for τ of the firm, which equals k in expectation. Part 3.1 showed that controllers commonly cheat, however,: diverting some fraction of project returns is the norm. Rational equity investors expect cheating and so realize that controllers likely will return less than the investors' promised share. Shareholders have some purchase on the cheating parameter because they know the project's expected value v_s and the controllers' corporate structure. For example, diverting funds is easier in a pyramid structure with intercompany supply transactions than in a conglomerate structure where there are limited intercompany transactions.[29] The potential investors best response to excess private benefits requires controllers to offer them $\tau_r > \tau$ of the firm in return for contributing the project's cost k.[30] Recalling that τ equaled $(v_o/k)/v_s$ and that k and v_s are fixed in expectation, that $t_r > \tau$ implies that the investors' expected return must increase to some $v_{o(r)} > v_o$. The controllers' cost of capital becomes

$$(4)\ \frac{v_{o(r)}}{k} - 1.$$

Equation (4) is larger than Equation (2): actual controllers, who will cheat, face a higher cost of capital than the controllers in our initial model.

Controllers diverting more private benefits than promised is inefficient in two ways. First, cheating is costly but has no positive incentive effect. Second, controllers may have to give investors so much of the project – pay such a high capital cost – that their project is no longer attractive to the controller even though it has positive NPV. The latter cost creates an incentive for controllers to commit not to divert excess private benefits. As the analysis here shows, judicial review as presently practiced (without allowing contracting over private benefits of control) is an imperfect commitment device, whose effectiveness falls as the applicable judicial system worsens. Parts 4 and 5 below consider other commitment methods. Before reaching them, we explore the concern that investors may rationally remain uninformed about cheating.

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[29] Part 5's discussion of cheating without good courts extends this analysis.

[30] Assume that potential investors expect controllers to report some fraction β of the project's return. Recalling that the expected return is v_s, investors will demand the share of the firm t_r where t_r solves $t_r(\beta v_s) = \tau v_s$. Hence, $t_r = \tau/\beta$ which is greater than τ because β is less than one.

3.3 Will investors sue?

Minority shareholders will not sue unless they act as market monitors: that is, they purchase the signal of project returns x by incurring monitoring costs and sue if the disjunction between it and the reported value v_r is substantial. The assumption that shareholders monitor in this way may seem implausible. Shareholders in the model are atomized; the cost to each such shareholder of buying the signal and then possibly suing likely would exceed the gain. Hence, an individual shareholder would monitor controllers only if he could buy enough stock at the artificially depressed price v_r so that his gain from causing the price to rise to v* would justify the costs. Other shareholders are unlikely to sell at v_r, however. These potential sellers know that the monitoring shareholder cannot make a gain unless the firm's true value is above v_r. Because the distribution is uniform, the sellers would estimate the true value to be $v_t = \frac{v_h - v_r}{2}$ and refuse to sell. But if the informed shareholder offers to buy at v_t, potential sellers estimate the true value at $\frac{v_h - v_t}{2}$. Hence, a monitor cannot buy shares at a price below v_h, but at this price he must expect to incur a loss. Therefore, no shareholder likely would assemble a large enough block to justify buying the signal and then suing.[31]

This simple market micro-structure argument fails if the relevant capital market contains liquidity traders, who are willing to incur a loss on selling shares. A minority shareholder may be able to assemble a block from these traders and then sue if he observes a bad signal. The litigation deterrent thus necessarily is weak, even under good courts, unless the relevant capital market also is deep.[32]

4. Contract and commitment

[31] This is a straight forward application of the standard no trade theorem. In the U.S., contingency fee lawyers can initiate a class action against controllers on behalf of all minority shareholders and therefore serve to aggregate the incentives of the class of minority shareholders though each owns little stock. This possibility is becoming more difficult in the U.S. and seldom exists elsewhere.

[32] In practice, large minority shareholders on occasion play this role. For example, a Tweedy Brown mutual fund played a central role in the successful challenge to private benefits diversion by Conrad Black, the controller of Hollinger Inc. (see Hollinger International, Inc. v. Black, 858 A.2d 342 (Del.Ch. 2004).

4.1 Contract Forms

Parts 2 and 3 derive three results: (i) Potential investors can expect controllers to maximize expected project returns because the controllers retain enough of their firm to make maximization worthwhile; (ii) Potential investors also can expect controllers to cheat by misreporting returns and diverting the concealed sums to themselves; the controllers' incentive to cheat is decreasing in the effectiveness of judicial review and the size of the informal sanctions the market can impose on controllers whose cheating is discovered; (iii) Rational investors protect themselves against cheating by demanding a larger fraction of the firm than otherwise would be necessary to compensate them for funding the firm's project and incentivizing the controllers. Controllers thus internalize much of the cheating cost, but society also bears costs when controllers forego positive value projects because the difficulty of credibly committing causes investors to overestimate how much the controller expects to divert. As a consequence, controllers would like to commit to potential investors not to cheat and society would like to increase the controllers' commitment ability. The state can pursue two complementary strategies: (a) It can improve court effectiveness by, for example, creating expert corporate courts where these do not exist; (b) Holding judicial effectiveness constant, the state can open up the contracting space, which would improve the ability of a court to recover the parties' ex ante intentions and so better distinguish between controlled transactions that implement the controllers' commitment and those that vitiate it.[33] Elsewhere, we have argued that the state can improve judicial effectiveness by creating an expert corporate court when such a court does not exist.[34] We argue here that the state can help even effective courts by permitting parties to contract over fiduciary duties.

In the common view, enforceable contracts facilitate relation specific investment by enforcing the parties' promises, such as the promise to pay for a conforming tender. Contracting also helps courts discern the parties' promises, so

[33] Gilson, Sable and Scott (forthcoming 2014 Cornell Law Review) and Schwartz and Watson (2013) argue that contract has two functions: to enforce promises and to communicate sufficient context to courts so that courts know what the promises actually were.

[34] See Gilson and Schwartz (2013).

that a court can effectively compare what was promised to what was delivered. Contracts play this second role by describing the context in which parties make promises and the parties' goals in making them. Contractual descriptions and role recitals are especially reliable signals of the parties' intentions because both sides must agree to them. For example, a buyer would not accept a contract that described the widgets the seller was to make and the buyer's plans for those widgets unless the buyer actually wanted the widgets to implement the plans. Relevant here, controllers often consume project returns, both for good and bad reasons, through the related transactions they create and pursue. The signaling role that contract could play is reliably to identify the diversion technologies the controllers plan to use and the magnitudes of the private benefits those technologies permit controllers to realize. Controllers in the legal regime we advocate thus would promise investors τ of the firm and describe how the controllers plan to consume $1 - \tau$ of a successful project. Potential investors would not supply funds unless they believed that the combination of court and contract would restrict the controllers to that $1 - \tau$ share. Thus, the contracting process, by increasing the information available to the court and reducing the price of acquiring it, allows more effective judicial review, and hence more credible commitment by the controller, than fiduciary duty reviews under a fairness standard.[35]

The controllers' diversion technology can take five forms:

(a) Compensation that exceeds the market wage for the position at issue.

(b) Loans at below market rates or that are permissive regarding forgiveness.

(c) Related party transactions (tunneling): (i) asset sales to or asset purchases from another controlled entity at nonmarket prices; (ii) other interested party transactions, such as granting an exclusive territory to a controlled entity when exclusivity is not the market norm, when it is not the most efficient counterparty, or on better terms than the market would dictate.

[35] Enriques (2014) stresses the informational barriers to effective fairness review standing alone.

(d) Taking business opportunities that would otherwise by pursued by the controlled company.

(e) Amenities that are acquired with company money, such as corporate jets, country club memberships and corporate meetings held in desirable locations.[36]

Structure importantly determines which method controllers use. For example, controllers of the top firm in a pyramid may use related party transactions while controllers in a dual class stock structure may use direct compensation. The availability of such structures differs among jurisdictions. (Gilson, 2006).[37]

Contracts could describe, and commit controllers to, particular volumes and pricing levels for related party transactions such that in expectation controllers would take no more than $1 - \tau$ of their firm. For example, the controllers of firm A could commit that asset sales to or asset purchases from controlled firm B would aggregate no more than $X annually, and at prices within one standard deviation from market value. Similarly, controllers could agree to cap compensation to a control group that also holds management positions at a level that exceeds a comparable company market basket of salaries by no more than a specified percentage.[38] Controllers also could promise that their company would satisfy no more than a specified portion of the company's procurement needs through purchases from controlled entities. The price of these transactions could then be compared to the price in specified markets to ensure that the prices in the controlled sales did not exceed market prices by more than a specified amount (reflecting, perhaps, the difference between an implicit obligation to provide all of the company's needs for that input and the spot market price for it). Intra-

[36]Such perks appear to be used in situations where they enhance managerial productivity (e.g., a corporate jet when factories or mines are hard to reach). See Rajan and Wulf (2006).

[37] Hwa-Jin Kim (2014) argues that leveraging control by means of a transparent dual class structure facilitates monitoring of private benefit levels compared to an opaque complex circular ownership structure as commonplace in Korean chaebols,

[38]Corporate salaries today are partly a function of a comparison between what a company pays and what a comparable set of companies pays.

corporate group loans could be regulated similarly.[39] Alternatively, controllers could commit to limiting their outside business activities to specified areas.[40] When an express share is not specified, the court could evaluate controller behavior by aggregating the sums that these contractually designated transactions involve. Also, contractual disclosure of the diversion technology would channel the court's inquiry and therefore make performance more observable and verifiable; it could better compare the level of diversion the controllers specified to the level they actually took.[41] We would expect the range and effectiveness of contracting techniques would improve through experience were they to be allowed.

This leads to our final point concerning the contracting techniques that likely would be associated with a default fiduciary duty regime. Contract creation costs and asymmetric information commonly would cause fiduciary agreements to be incomplete in important respects. Therefore, contracts likely would combine explicit rules with standards: particularized commitments with promises to cabin controller transfers within "reasonable" limits, that would be determined by a court with the benefit of information drawn from the parties' experience under the contract and industry practice. As suggested above, contractual techniques, such as discursive descriptions of the contract's purpose and specifications of the applicable context –would permit a court to fill out a standard in accordance with the parties' intentions. The court, that is, could recover the parties' number – the

[39]The size of a company's airline fleet also could be contractually capped. Controller perks likely would decline, however, if controllers could contract directly for money.

[40]Line of business restrictions are common in lending agreements today.

[41]Simeon Djankov and his coauthors suggest that regulation of self-dealing transactions is best done by requiring extensive disclosure and then having deals be ratified, or not, by disinterested shareholders. See Djankov, et al (2008). This proposal raises two concerns. First, convening disinterested shareholder committees and providing them with financial and legal advice is costly and time consuming. This solution thus works well for large "single shot" transactions such as leveraged buyouts or the taking of a major corporate opportunity. The solution may be impractical for the routine transactions, described above, through which controllers pay themselves. Second, process-based proposals are a complement not a substitute for contracting. Process-based approvals also would require judicial review. Courts would have to police the controllers' disclosure and compare it to the firm's actual behavior. Contract thus would usefully complement this proposed reform as well by providing a better standard contained in the contract's terms under which courts can evaluate controller performance. Again the point is not to eliminate private benefits, but to allow controllers to credibly commit to their size.

private benefits level they chose ex ante – rather than a number that seems fair ex post. [42]

The use of standards in these ways to police ex post controller opportunism requires courts with skill and experience. Thus, our proposal to allow contracting over what is presently the subject of mandatory fiduciary duty rules presupposes competent – that is, smart and experienced – and independent judges.[43] Specialized courts like the Delaware Chancery Court and the Commercial Division of the Queen's Bench in the UK, as well as the courts of large commercial jurisdictions such as New York probably would perform well. The courts in other states or countries likely would do worse. Many US firms are incorporated in Delaware and commercial parties often choose to have their contracts governed by New York or United Kingdom law, and some specify venue in these jurisdictions to assure access to competent courts.[44] Hence, our recommendation to change fiduciary law to a set of defaults would be more productive in jurisdictions with effective courts than it would be elsewhere. Based on this analysis, we have argued elsewhere that the capacity of companies in EU member states that do not have courts sufficiently effective to allow controllers to credibly commit to the private benefits they offered the public would gain from an EU level commercial court that allowed controlled companies to opt into its jurisdiction (Gilson and Schwartz (2013)).

The little evidence that exists is consistent with our analysis. We argue that free contracting and effective courts are complements. The two sanctions for a contract breach are legal judgments and reputation. Thus, our analysis suggests that contracting also would complement reputation: that is, when firms can establish reputations in the credit market by repeat access, they would also write private benefit contracts. These contracts would complement the reputation

[42]The practice of contracting parties' sometimes to combine detailed specifications regulating behavior with standards is thoughtfully explored in Scott and Triantis (2006). See also Gilson, Sabel and Scott (2013) at 170, 184 and Schwartz and Watson (2013).

[43] Dammann (2014 at 497-98) argues that a corporate law composed of defaults works well in the U.S. because of the high quality of the courts, but would work less well elsewhere.

[44] Consistent with this analysis, companies incorporated in Delaware increasingly are including venue provisions in their articles or bylaws that require breach of fiduciary duty claims to be brought in Delaware courts. See Grundfest & Savelle 2013.

sanction because the contracts would reduce the costs to potential investors of learning whether the firm complied with its promised level of private benefits or exploited related party transactions more than promised, just as contracts would reduce the cost to courts of making these determinations. Hence, we predict that firms would use contract even when they can establish reputations.

Delaware recently permitted public companies to contract out of fiduciary duties if they used an LLC or LP rather than the traditional corporate form.[45] The public companies that use these corporate structures are more likely to be repeat players in the equity market than the common public company. Hence, the companies could establish capital market reputations. Nevertheless, the companies used contract to structure their relationships with investors, rather than simply relying on fiduciary duty as the default rule. This evidence suggests that controlled public companies also would use contract if they could.

4.2. Responses

A common response to our proposal to open up the contracting space for private benefits is that parties can contract over private benefits today. This response identifies two purported substitutes for direct contracting, of which the first is that contracts over private benefits can be recast as compensation contracts, which typically are not subject to judicial scrutiny under the entire fairness standard. Hence, there is no need for legal reform to allow private benefit contracts. The second objection is that one U.S. state – Nevada – apparently allows such contracting so that a controlling shareholder who wants to contract over private benefits can incorporate or reincorporate in Nevada. That few companies have done so again suggests that there is no need for the law to open up the contracting space.

The claim that a compensation contract can substitute for direct contracting over private benefits is misplaced. Initially, the possibility exists only for companies in which the controllers also can make themselves officers. Many controlled companies operate pyramids or hold stakes in other companies.

[45] See note 6, supra.

Controllers thus must write compensation contracts that govern the officers of these subordinate or outside companies. When controllers are badly motivated, they would write contracts with such outside officers that permitted the controllers to consume private benefits. Hence, the problems of how to motivate the controllers and how to prevent tunneling would remain.

Turning to companies in which a controller can make himself an officer, casting a contract in the form of compensation would not avoid enhanced judicial review if the contract expressly permits the controllers to consume private benefits. For example, let a compensation contract provide that in return for employment as CEO, a controlling shareholder's wholly owned company can sell products to the corporation at a specified price. Because the controller would be on both sides of this transaction, courts would ignore this formal subterfuge, and treat the contract like any other private benefit transaction.

To avoid this problem, a controller might write the compensation contract in general terms, with payoffs perhaps based on the corporation's performance rather than on the precise form of a related party transaction. To see why this solution would fail, recall that there are two moral hazard concerns: to motivate the controllers to work, and to prevent the controllers from underreporting returns and consuming the excess as private benefits. The controllers' capital structure promise solves the incentive concern. A contract that failed to address private benefits directly could not solve the tunneling concern. This is because the minority investors own a fraction of the firm. Thus, a compensation contract with a controller would not eliminate the controller's incentive to underreport project returns in order to reduce the payoff from that fraction that the minority would otherwise realize.

Rather, as we argued above, an effective contract over private benefits would respond directly to the underreporting concern. Such a contract likely would combine both precise terms and more general standards, with the standards providing the needed flexibility to respond to changes in the company's business environment while keeping the firm to its promises. (Gilson, Sabel & Scott 2013) In the event of disagreement, a court would then engage in contract interpretation of the standards, with the guidance provided by the drafters, rather than make a free-ranging inquiry into what is the entirely fair. And to summarize, a contract

that responds to the relevant problem, of misreporting returns and diverting the excess, would not take the form of a compensation contract.

The second response to our proposal holds that Nevada allows such contracts; hence, that large numbers of public corporations with controlling shareholders do not migrate to Nevada demonstrates either that corporations can contract over private benefits today, or that they do not want the opportunity. This view also is mistaken because Nevada law cannot substitute for making fiduciary duty a default rule rather than mandatory.

Nevada goes a great deal further than our proposal that close judicial scrutiny of private benefits be treated as a default rule subject to contractual adjustment. Rather, Nevada law provides that officers and directors are only liable for intentional misconduct, fraud or a knowing violation of law (Nev. Rev. Stat. Ann. § 78.138(7) (LexisNexis 2010; Barzuza 2012, p. 950). We argue that free contracting would complement effective judicial review. Nevada eliminates judicial review altogether. Thus, Nevada law shifts the problem confronting a contract drafter from identifying the specific elements of fiduciary duty that would be adjusted with respect to a particular contract over private benefits, to reconstructing the terms of fiduciary duty that, in effect, would survive the intended adjustment. Put another way, a controlled company that moved to Nevada would have to recreate in its contracts with investors the law of fiduciary obligation in order to specify, also in its contracts, the particular parts of that law that the company intended to modify. This would be a difficult and costly contracting task. In addition, the breadth of Nevada's invitation to eliminate fiduciary duties creates a signaling problem for controllers. Investors may read a controlled firm's move to Nevada as a message that the firm intends to consume private benefits without constraint. This is inconsistent with the signal the controllers want to send: that they will adhere to the capital structure that forms the firm and not dilute the minority's share. Hence, the controlled Nevada firm would have a signaling problem in addition to a contracting problem. These obstacles

suggest that the "they could have moved to Nevada" objection needs better support than it now has.[46]

5. Credible commitment under weak courts and thin capital markets.

5.1 Introduction

We argued above that permitting controllers to contract over the size and nature of related party transactions would complement duty of loyalty judicial review in preventing controllers from subverting the capital structures they bring to market. Such contracting would substitute for reputation because many controlled companies enter capital markets infrequently. Any contracting proposal presupposes capable and honest courts. Hence, an implication of our analysis is that where courts are not capable, and may not be honest, and where companies enter capital markets infrequently, controlled companies should not exist. Investors will assume that controllers who cannot credibly commit to cap private benefit consumption will take everything, and the investors' best response is not to supply capital. Apparently to the contrary, controlled companies also exist in countries without effective courts or active capital markets. (See, e.g., La Porta, et al 1999). The shares of these companies trade at much larger discounts than the shares of controlled companies in more advanced legal systems, however, and the discounts differ among countries. (Nenova 2003; Dyck & Zingales, 2004) These facts raise two questions: (i) Why do controlled companies have any equity investors at all? (ii) How can the ability of controlled companies to commit to capital structures be improved in relatively ineffective legal systems? Part 5 addresses the first question, and here we write on a clean slate: the literature has not considered the nonlegal ways that controllers use to commit not to consume private benefits.

[46] Cremers & Sepe (2014) note that performance of companies changing their state of incorporation from Delaware to Nevada show an increase in performance, in their view because this allows the shareholders, by choosing a state that restricts shareholders rights, to credibly commit to a long-term view of performance. The difficulty with this result is that shifting state of incorporation requires a shareholder vote. If shareholders are willing to vote to reduce their rights as a commitment device, however, there is no need to shift state of incorporation because under Delaware law the rights of shareholders can be adjusted as desired through charter amendments so long as the shareholders will vote for them.

We consider two commitment categories: reputation-based commitment and structural commitment. The first captures the most familiar enforcement mechanism for implicit contracts; the second is more novel, showing how the characteristics of a company's industry, its business structure and its strategy can function as endogenous implicit enforcement mechanisms. The two categories are not exhaustive. Rather, we wish to open the issue of the diversity of possible implicit commitment techniques and how they may function, and to encourage further effort to understand these arrangements. Effective legal systems and related institutions take significant time to develop (Rodrik (2008); Dammann and Hansmann (2008) (collecting studies). It thus is important in the meantime to better understand what works under the "Rule of Not-Law."[47]

5.2 Reputation-based mechanisms

Reputation facilitates commitment in financing contexts when the capital market can punish agents who break their promises by withdrawing, or setting onerous terms for, future funding. Hence, a stand-alone firm that enters the capital market infrequently cannot establish a reputation. Firms in developing countries respond by establishing conglomerate structures: the several entities that make up the structure enter the capital market at various times, and this permits the market to punish later entrants if earlier entrants behave badly. The "center" thus has an incentive to behave well. In the traditional view, entrepreneurs form conglomerates when an internal capital market will allocate capital more efficiently than an external market because the internal market has lower information costs. (Williamson 1981 at 1537, 1555-60). We add here an additional reason for the prominence of this industrial structure to exist in developing economies: the conglomerate form can facilitate capturing economies of scale in establishing good reputations.

5.2.1. How conglomerates function

[47] In this respect, our work is consistent with the emphasis of a literature exemplified by Masahiko Aoki and Avner Grief that institutions should be assessed in the context of the particular circumstances and countries in which they evolved. (Aoki (2001); Grief (2006).

The controllers commonly raise equity to get the business going. Particular firms within the corporate group likely also will need equity to initiate their projects. The larger the conglomerate, the more likely it is for parts of it to require external finance. As a consequence, the capital market can punish controllers for eroding the public's share of an early project by withholding or increasing the cost of funding for other parts of the corporate enterprise. In sum, while stand-alone controlled firms may access the capital market infrequently, the conglomerate structure itself, by increasing the number of businesses that may return to the capital market for financing, creates an incentive for its controllers to establish reputations for keeping promises. This reputation-based explanation implies that the fraction of conglomerates should be lower in developed countries than in developing countries and that there should be less rent extraction in developing country conglomerates than is commonly thought. Both implications are supported by the literature. See Khanna & Yafeh 2007) and Siegel and Choudbury (2012).We thus suggest that the conglomerate's internal capital market may allocate capital among operating units – from those generating positive cash flow to those that need additional capital for investments – more efficiently than an external capital market unsupported by effective legal institutions for reasons different than commonly claimed. The reputation-based scale economies explanation for developing country conglomerates based on repeat play access to the external capital market by units of the conglomerate thus links the conglomerate's operation of its internal capital market to the conglomerate's recourse to the external capital market. The result is to make the external capital market a more feasible source of equity capital. Indeed, coming full circle, in this setting an organizational structure that makes resort to the external capital market more likely operates itself as a credible commitment.

That a company's ability to make reputation-based credible commitments increases with scale can be generalized beyond equity issues. A corporation can also send signals of its commitment to capital market integrity through its product market operations. Firms have incentives, when contract enforcement is weak, to exploit the sunk cost investments of suppliers and customers by renegotiating prices or terms. Firms that eschew such behavior can establish a good capital market reputation as well as a good product market reputation. This is because investors who supply equity capital to a controlled firm, in effect, are making a sunk cost investment in the firm. Potential investors may reason that a firm that fails to exploit in the product market context will not exploit in the capital market context. Therefore, the more diverse the range of businesses in which the company

participates, the more signals of cooperative behavior the company can send and the greater the extent to which scale and scope economies associated with reputation can be captured (Gilson 2007; Khanna and Yafeh (2007)).

5.2.2*State ownership*

The problem of how a controlling shareholder can credibly commit to a capital structure is even more starkly posed when the controller is a state controlled corporation. Because a state cannot limit its sovereign powers in a fashion that restricts its extraction of rents, the state should have great difficulty raising minority capital. How they do so is an important question because state ownership is common in many countries. We very briefly consider two examples of this puzzle, highlighted both by the magnitude of the companies and the value of the minority stakes: Chinese public corporations[48] and state-controlled oil companies. Our analysis of these government firms is consistent with our claims that conglomerate firms can form good capital market reputations by having sub-entities enter the market at different times and by behaving well in product markets.

The largest corporations in China have both a controlling shareholder and public minority shareholders.[49] China does not have an effective legal system that protects minority shareholders. Nonetheless, the Chinese state controls a large number of firms that function in various markets. Thus, investors can expect a large number of state controlled firms to come to the capital market over time,

[48]We focus on China because of the size of its state-controlled sector. The same analysis may apply in countries where state control plays a smaller but yet substantial role. Lin and Cabrelli (2014) describe the unsatisfactory legal protections for Chinese minority shareholders. See also Pargendler (2012) (surveying state ownership).

[49]Lin and Milhaupt describe the Chinese ownership structure. "More than two-thirds of Chinese companies in the Global Fortune 500 are state-owned enterprises. Excluding banks and insurance companies, 40% controlling stakes in the largest and most important of the firms are owned ostensibly on behalf of the Chinese people by a central holding company known as the State-Owned Assets Supervision and Administration Commission (SASAC), which has been described as 'the world's largest controlling shareholder.' Though elite firms such as Sinopec or China Mobile are listed on stock exchanges in Shanghai, Hong Kong or other world financial capitals, they are nested within vertically integrated groups. Their majority shareholder is the "core" company of the group – which is itself 100% owned by SASAC." Lin and Milhaupt (2013) (quote from Boston Consulting Group (2007)).

either in IPOs or in later offerings.[50] Potential investors, particular foreign investors, thus will have numerous opportunities to punish state firms for the defalcations of earlier state firms. Also, investors can observe how the state firms function in product and service markets.

Pargendler, et al (2013) consider minority shareholders in state controlled companies in a particular context: state-controlled oil companies. They report that state controlled oil companies are stunningly important: they control some 90 percent of the world's oil reserves and 75 percent of oil and gas production. Some, like Brazil's Petrobas and Norway's Statoil, have significant minority shareholders. The sheer size of the domestic and foreign policy importance of these companies heightens the concern when the controlling shareholder is a government: the controlling shareholder also controls the judicial mechanisms that are so important in allowing credible commitment in private companies. Our analysis suggests that investors will treat state controlled oil companies less favorably than they treat Chinese public firms. This is because the oil companies are stand alone firms, not conglomerates, and so cannot use the conglomerate methods of establishing reputations. This view is consistent with the Pargendler analysis. Petrobas, for example, is the single most discounted firm (measured by price-to-book ratio) among the world's 100 largest corporations.

5.3 Structure-based explanations

In Part 5.2 we considered techniques and ownership structures that facilitate commitment when there is a low likelihood of repeat play between individual controllers and capital market participants. The common theme among the examples was that increasing the number of parties on both the sell side (by

[50] This analysis takes seriously the notion that Chinese state owned companies are markedly different along this dimension than Chinese companies in which the state does not hold a controlling equity stake. Recent research argues that the difference may be superficial. (Milhaput & Zheng, forthcoming 2015). If so, then the discussion in the text generalizes to all Chinese publicly held companies. It is also the case that the government has a much wider range of techniques by which to divert private benefits – for example, by manipulation of tax rates – than do companies controlled by private parties. Because potential minority shareholders are aware of the range of techniques, the argument in the text applies to these peculiarly governmental diversion techniques as well: government manipulation of tax rates will affect the value associated with future issuances of equity by state-controlled companies.

conglomerate organization) and the buy side (the market as counterparty rather than a single buyer) would cause controllers to expect that the capital market would punish the controllers through refusals to finance subordinate controlled firms or by increasing the cost of capital, and so make commitment credible. In this Part, we shift from focusing on the expectation of future dealings to make a capital structure commitment credible to the potential for the character of the company's business to play that role. The analysis below argues that rather than creating commitment ability by making product market investments, especially those that require repeat play to pay off, controllers also can effectively bond their commitment through the corporate structures they choose. Some corporate structures facilitate while others impede the extraction of excess transfers – a pre-commitment rather than a direct bonding strategy. In effect, this approach represents the industrial organization of capital structure commitments.

5.3.1 Absence of vertical integration.

Tunneling – transactions between a controlled company and other companies in which the controlling shareholder has a larger equity stake (see, e.g., Atanasov, et al (2011)) – is the most commonly highlighted form of minority expropriation. (Enriques 2014). Related party transactions, particularly in a vertical supply chain, are especially suited to such expropriation because it is not otherwise easy to transfer large amounts of money to a controlling shareholder (or companies she controls). As a result, interested transactions and other forms of tunneling are attractive because they provide a large volume of transactions that involve the appearance of a legitimate transfer of funds to a controlling shareholder from the controlled corporation. Thus, the absence of vertical integration, by limiting the possibility of intragroup dealings, can serve as a credible signal that controller rent extraction will be limited. Such a signal depends on industrial organization rather than on reputation or the legal system (Gilson, 2007 at 1658). The empirical evidence on the extent of vertical integration in emerging market conglomerates is interesting; there is substantial variance both among countries and among companies within the same countries (Khanna and Yafeh 2007).

However, the literature does not generally distinguish between conglomerates with and without intra-group supply relationships.

A similar industrial organization analysis may help explain the recent pattern of founding entrepreneurs retaining control of large web oriented companies by going public with dual class structures – for example, Google, Facebook and Zynga.[51] Such companies have no supply chain relationships with their controlling shareholders. As a result, it may be easy for the minority to observe asset transfers to the controlling shareholder. The nature of the controlled company's business and the technique used to leverage control thus may function as a credible commitment not to erode the minority's share. (Hwa-Jin Kim 2014).

5.4. Treatment of minority shareholders as a signal in the product market.

In 5.2.1 we noted that controlled companies in jurisdictions with both bad shareholder protection and bad commercial law may use their behavior in product markets to send a signal of their integrity to capital markets. A reverse form of such a signal also exists: A firm may use its treatment of minority shareholders to signal to product markets that the firm is a reliable supplier or customer. (Gilson 2007 at 648-649). The treatment of minority shareholders sometimes is observable by a company's potential product market trading partners at a low cost, perhaps because such exploitation will be covered by the local newspapers.[52] Fair treatment of minority shareholders may then evidence the corporation's integrity, including its commitment to performing its contractual obligations, a signal that is credible because it is costly. The presence of minority shareholders then can be explained not only by the need for capital at the time of the initial public offering or in the future, but as a way of developing a general good reputation that will be valuable in the product market. From this perspective, minority shareholders play the role of reputational canaries; they cheaply but credibly convey to potential traders that the corporation is an honest trading partner.

[51]See Chasen 2012. (During 2011, 20 companies went pubic in the U.S. with dual class, up from 19 in 2010.).

[52]See Dyck, et al (2008) (treating newspapers as a corporate governance constraint).

To be sure, this brief account of the relation between minority shareholder treatment and possible product market response is incomplete. For example, how do potential traders know what the acceptable level of transfer is, so they can know when the canary is gasping? Any reputation-based account of exchange requires a shared understanding of what constitutes appropriate performance. The difference here is that using minority shareholders as a signal of commitment to contractual performance at least provides an enforcement mechanism.[53] Mistreatment of minority shareholders will be punished in the product market, where the company is a repeat player.[54]

5.5. Shareholder Composition

The composition of the minority shareholder base also may serve to make credible a controlling shareholder commitment to a capital structure. We offer two examples, which operate by using shareholders as monitors. In the first example, customers of or suppliers to the controlled corporation hold significant investments in the corporation, in effect endogenizing the controlled corporation constituencies. Their ownership creates an incentive for them to restrict controllers to agreed upon shares because transferring assets out of the corporation may affect the corporation's performance, which will be observable. These shareholders' dual roles as customers or suppliers and investors give the shareholders the information and the ability to enforce controller promises through the shareholders commercial

[53]Corporate governance also can be affected by conditions in the corporation's product market in ways that can restrict the extent to which a controlling shareholder can invade the public's share. The more intense is product market competition in the controlled company's industry, the less freedom controllers have to divert needed resources from the company. Recent empirical evidence is consistent with this analysis. Guadalupe and Perez Gonzalez (2010) report that increases in the intensity of competition lead to a statistically and economically significant reduction in both the level of private benefits of control and their dispersion among companies. Other studies report similar results with respect to corporate governance generally. See, e.g., Chou, et al (2011) (corporate governance has a significant effect on firm value only when product market competition is weak); Classens and Yurtoglu (2013) (corporate governance problems are less severe when competition is already high in factor markets). Because we are concerned here with how controllers can credibly commit to the capital structure they bring to market, we do not pursue this issue here.

[54]For empirical evidence in developed markets that listed companies that commit financial fraud (i.e., mistreat shareholders) are punished in the product market, see Karpoff, et al (2008). The product market role of minority shareholders is critically assessed in Kang (2011).

relationship. A similar analysis has been applied to the vertical kieretsu structure in Japan (Gilson and Roe 1993).[55]

The second example of the potential role of minority blockholders arises from increased institutional equity ownership as a result of growing retirement savings.[56] Here the Chilean experience is illustrative. On the one hand, Chilean public companies typically have a controlling shareholder. On the other, the five Chilean private pension funds that arose out of the 1981 pension reform are major shareholders with sufficient shares in the aggregate to elect a director in many corporations, facilitated by both a legal requirement of cumulative voting and explicit authorization of the funds to cooperate for purposes of director election. (OECD 2011). In countries like Chile, where pension fund exit is constrained by market liquidity, voice may have an impact even in the face of a controlling shareholder.

5.6. Political Economy

A final structural support for the credibility of controller promises comes from the government rather than market participants – a political economy analysis. Suppose that having a stock market is for developing countries a badge of modernity that does not demand a complete economic justification. The government wants a stock market, the controlling shareholder goes along by issuing minority equity and paying the implicit tax associated with a higher cost of capital, and citizens invest because external investment opportunities are limited by regulation. While this account also lacks an explicit limit on excessive transfer payments to controllers, the government may be able to enforce informally a ceiling that will come to be known to participants in the capital market.[57] This

[55] Note 18 above suggested that controllers may retain independent monitors to police tunneling, but the note also remarked that the solution had only theoretical appeal because markets for monitors seem not to exist. The analysis here suggests that those markets may exist indirectly, in the monitoring roles customers and suppliers can provide. If this is so, the prices charged to or paid from these parties may partly reflect their monitoring cost.

[56] Gilson & Gordon (2013) document the large holdings of institutional investors in the U.S., and tie those holdings to the rise of activist shareholders.

[57] In the case of China, see Liebman and Milhaupt (2008). Private benefit acquisition in China is described and decried in Shan (2012).

form of informal enforcement is generally understood to have been how the Japanese Ministry of Finance enforced the obligations of main banks to bail out failing borrowers despite the absence of any formal obligation to do so Aoki, et al (1994 at 31-32).

6. Conclusion

The principals of a controlled company that enters the equity market to raise funds must solve two moral hazard problems. The first is to persuade potential investors that the controllers will work hard. This problem, we show, is relatively easy to solve. The controllers retain a share of the firm large enough to compensate them for exerting optimal effort. Out of the remainder, the controllers offer shares to the public whose value, in expectation, equals the cost of the firm's project. The second moral hazard problem is more difficult: to persuade potential investors that the controllers will not take more of the firm than they agreed to retain. We show here that (a) because atomized investors will not monitor corporate officers and because the investors often lack information, the controllers always have an incentive to take more than their share; and (b) judicial review under the duty of loyalty cannot eliminate private benefit consumption altogether, even when courts are competent and honest.

In the rational expectations world we analyze, controllers bear the costs of an imperfect solution to the second moral hazard problem. Investors anticipate tunneling and demand more of the firm than would equal expected project costs. This reduces controller returns and may make the pursuit of some positive value projects unprofitable. Therefore, controllers would like to commit not to take more of the firm than the share they promised to retain. Judicial review facilitates such commitment but, as said, is not fully effective. The normative problem we address thus is how to improve further the ability of controllers to credibly commit to the corporate structures they propose to the market.

Controllers often realize their share of the firm through related party transactions. Delaware law subjects transactions through which controllers may divert private benefits to an entire fairness test. The test requires only that the terms of such a transaction be within a range of reasonableness, which leaves room

for a controlling shareholder to acquire a significant share of project returns. On the other hand, the law does put a limit on their size. This unaided judicial review is not the best solution to the controllers' commitment concern for two reasons. Regarding the first, the transactions in which controllers engage may be efficient – the inter-corporate transfer – but are subject to abuse. As a consequence of the courts' inability always to distinguish accurately the efficiency aspects from the private benefit aspects, judicial review may over or under deter controller actions. Second, the goal of judicial review should be to restrict controllers to the capital structure share they proposed to investors. In contrast, courts under entire fairness review attempt to replicate the market solution – i.e, the market price and terms – for related party transactions. There is no reason to think that the fair number so generated approximates the efficient capital structure number. This analysis supports our principal normative recommendation, which is to help courts by opening up the contracting space. Though expert application of a legal standard can be effective, existing law prevents parties from adjusting or explicating that standard through contract. This is so although a contract over how controllers commit to a capital structure, by setting the context and refining the standard to fit the transaction, could improve the performance of the reviewing court. Fiduciary duty and the corresponding entire fairness standard are, with few exceptions, mandatory. We thus propose that the governing standard be made a default rule, leaving parties free to improve on the standard when possible. The result, by improving judicial review, would be to increase the controllers' ability credibly to commit to the shares they agreed to take.

Our view apparently predicts that controlled companies will be rare in developing economies because of their weak legal systems. Absent a controlling shareholder's ability to commit to a capital structure, adverse selection should crowd out minority shareholders in these countries. To the contrary, public corporations with controlling shareholders are common in jurisdictions that lack an effective judicial system, primarily but not exclusively developing countries. We review a variety of reputational and structural techniques that are partial substitutes for an effective judiciary over the lengthy time necessary for the development of good courts. There is no reason to believe, however, that these substitutes are as efficient as the combination of contract and good courts would be. This qualification resolves the conflict between our prediction and that of the law and finance literature; it explains both the existence of controlling shareholders and the empirical evidence of the large minority share discounts in countries without an effective judiciary. Alternative mechanisms allow the market to calculate the size, often substantial, of the discount. The size of the discount frames the importance of better understanding how credible controller commitments can be supported.

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