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The Current-Owner Bias in Corporate Governance

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Abstract

Academics studying public firms' choice of governance arrangements have largely assumed that stock prices accurately reflect the effect of these arrangements on firm value. As a result, firms going public generally have an incentive to seek arrangements that maximize shareholder value, and states seeking incorporations have an incentive to offer such arrangements. Oddly, this literature has ignored the considerable evidence that stock prices are frequently "noisy" -- deviating significantly from fundamental value. This Article systematically analyzes the effect of noisy stock prices on firms' choice of governance arrangements. It demonstrates that stock price noisiness leads firms to seek -- and states to offer -- arrangements with a *current-owner bias* -- that is, arrangements favoring both insiders and current public shareholders at the expense of future public shareholders and long-term corporate value. Current-owner bias can explain many features of (and gaps in) state corporate law as well as the governance arrangements chosen by public firms. The problem of current-owner bias also has important normative implications for the desirability of the market for corporate charters, the proper relationship between mandatory federal securities regulation and state corporate law, and the wisdom of recent proposals to "empower" firms to choose their own securities regime.

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I. Introduction

Over the last several decades there has been a vigorous debate over the desirability of permitting firms to choose the corporate law rules that govern the internal affairs of the corporation – the relationships among executives, the board, and shareholders. A number of commentators, including Frank Easterbrook, Daniel Fischel, Roberta Romano, and Ralph Winter, have argued that competition among states for corporate charters is a “race-to-the-top” that leads to optimal corporate law rules. Others, including Lucian Bebchuk and William Cary, have disputed this view, suggesting that such competition leads to a “race-to-the-bottom,” at least with respect to those issues where insiders’ and shareholders’ interests sharply diverge.

In the last decade a similar debate has erupted over whether firms – which are currently governed by the securities regime applicable to the exchange on which their stock trades -- should be permitted to choose their own securities regime. Stephen Choi, Andrew Guzman, and Roberta Romano have argued that empowering firms in this manner will lead to securities rules that are better tailored to each firm. Others, such as Merritt Fox, have argued that firms should not be able to opt out of the U.S. securities laws.

In advancing their arguments, commentators on both sides of these debates have assumed that stock markets are efficient: prices reflect all public information bearing on intrinsic firm value, including information about a firm’s chosen governance arrangements. In such an efficient market, participants in these debates agree, firms generally

have an incentive to offer public investors desirable governance arrangements – those that maximize long-term firm value.¹

Because even commentators favoring mandatory rules in both corporate and securities law have started from the premise of efficient markets, debates over the desirability of mandatory corporate and securities law have tended to focus on whether “market failures” – such as information asymmetry, negative externalities, or network effects – justify constraints on firms’ choice of governance arrangements. “Race-to-the-bottom” commentators argue that these market failures are large enough to make constraints on competition desirable; “race-to-the-top” commentators dispute this view.

Surprisingly, this debate has ignored the mounting evidence of an even larger problem -- that stock prices are frequently noisy and can deviate considerably from underlying firm value. Indeed, many legal academics in these debates rely – either implicitly or explicitly -- on twenty-five year old notions of market efficiency that have since been rejected by the very economists who most aggressively proselytized them. As a result, academics have paid little attention to the governance arrangements that are likely to emerge when, as is usually the case, markets are not always efficient.

¹ To focus the analysis, I assume that social welfare is coterminous with long-term firm value, which I define as the expected (discounted) value of the cash flowing to shareholders and managers. In other words, I implicitly assume that the decisions affected by corporate and securities laws do not generate uncompensated externalities on any other parties (such as employees, creditors, and the government). However, none of the analysis or conclusions I offer rests on this assumption. Indeed, relaxing this assumption would only strengthen my conclusion that corporate governance arrangements chosen by firms are likely to be sub-optimal.

The purpose of this Article is to systematically examine the effect of noisy stock prices on the governance arrangements chosen by public firms. The Article shows that noisy securities markets are likely to give rise to governance arrangements with a *current-owner bias* -- ones that favor insiders and current public shareholders at the expense of future public shareholders and long-term firm value. In particular, it shows that in noisy securities markets, firms are likely to offer governance arrangements that (1) inefficiently benefit insiders at the expense of public shareholders and (2) encourage managers to exploit and amplify stock price noisiness to transfer value from future shareholders to current shareholders, even at the expense of long-term shareholder value. Moreover, the Article demonstrates, these distortions are likely to emerge even in perfectly efficient markets, as long as there is sufficient likelihood the market will become noisy in the future. The Article also shows that the severity of these distortions is likely to be higher in noisier markets and in markets with shorter shareholding periods.

Current-owner bias can explain many features of state corporate law, firms' choices within these laws, as well as the nature of the federal governments' periodic interventions in corporate governance through the securities laws. The analysis also has important normative implications for the desirability of the market for corporate charters, the proper relationship between securities regulation and corporate law, and the wisdom of permitting firms to choose their own securities regime.

The remainder of this Article proceeds as follows. Part II considers the governance arrangements likely to be adopted when – as most of

the literature on regulatory competition and corporate governance assumes -- the stock market is efficient and, therefore, can accurately price governance provisions. It begins by describing the range of choices U.S. firms have in designing their governance arrangements. Because a firm operating in the U.S. can incorporate anywhere in the world, it can effectively choose among the corporate laws of 50 states and many foreign countries, each of which offers its own unique set of corporate law rules. Within the chosen jurisdiction's corporate laws, firms can opt for more or less shareholder protection (relative to the jurisdiction's default rule) through provisions in their corporate charters. Finally, subject to the jurisdiction's corporate laws and their corporate charters, firms' boards have considerable discretion in designing additional governance arrangements, such as the firm's disclosure and managerial compensation policies.² Part II then explains that, when stock markets can price the terms of governance provisions, firms generally have an incentive to offer arrangements -- through the choice of jurisdiction for incorporation, the design of charter provisions, and board governance policies -- that maximize long-term firm value. Part II concludes by briefly summarizing the current debate over regulatory competition, which focuses on the possibility that various market failures that can give rise to sub-optimal governance arrangements even in an efficient market -- such as asymmetric

² Publicly traded firms are also subject to the rules of the stock exchange on which they trade. Firms going public can also choose the exchange on which they'll list, but for many years, under the guidance of the SEC, there has been little difference between the rules of the various US exchanges. Thus I will generally treat the stock exchange rules, like the securities laws, as fixed and beyond the control of public firms.

information, negative externalities on non-shareholder constituencies, and network effects – even when markets are perfectly efficient.

Part III explains that the premise of efficient markets is unrealistic. I begin by presenting considerable evidence that stock prices often stray – for years -- from fundamental value and that arbitrage is of limited effectiveness in curbing such deviations. I then explain why stock prices deviate substantially and persistently from fundamental value. Thus, I argue, it is more realistic to assume that stock markets are or can become quite noisy than to assume that stock markets are and will always remain perfectly efficient.

Parts IV and V consider the distortions that can arise in firms' choice of governance arrangements when markets are noisy. Part IV shows that, in noisy markets, insiders desire – and states seeking chartering business are likely to provide -- *insider-biased* governance arrangements – ones that inefficiently favor insiders at the expense of public shareholders and maximize long-term corporate value. Part IV identifies two types of insider-biased arrangements: (1) entrenchment-facilitating arrangements – ones that make it easier for managers to prevent shareholders from replacing them; and (2) extraction-facilitating arrangements – ones that make it easier for managers to extract rents. Moreover, these types of arrangements are likely to arise even if initial investors are perfectly rational and can accurately price all the firm's governance provisions. The reason is as follows: to the extent they expect to later sell their shares in a noisy market at a price that does not fully reflect the value to future public shareholders of these arrangements, initial investors do not capture all the benefit of insider-restraining governance provisions. Thus, they will be

unwilling to pay the full value of these provisions when buying shares from the firm, and insiders, who would bear the full cost of insider-restraining provisions, may have inadequate incentive to offer them. As a result, insiders will seek – and states desiring incorporations will offer – governance arrangements that inadequately protect shareholders.

Part IV offers evidence consistent with both types of insider bias in U.S. corporate law and public firms' choice of governance arrangements, including (a) the failure of state corporate law to evolve mandatory disclosure requirements and insider trading restrictions for public firms (deficiencies which were eventually remedied by mandatory securities laws beginning in the 1930s); (b) U.S. corporate law giving more power to boards than the corporate laws of other jurisdictions; (c) insiders' preference for incorporating (or re-incorporating) in states that are the most pro-management; and (d) the frequent adoption of value-reducing anti-takeover provisions and other management-favoring charter provisions by firms going public.

Part V identifies the second type of distortion that can arise in firms' choice of governance arrangements when markets are noisy: that firms have an incentive to offer – and states have an incentive to permit -- *current-shareholder-biased* governance arrangements -- one that permit -- and even encourage -- managers to exploit the noisiness of securities prices in order to boost the short-term stock price, even at the expense of long-term corporate value. To the extent initial investors intend to sell their shares in the short-run, they will actually pay *more* for the shares of a firm with such governance arrangements than shares of firms with arrangements that prevent managers from wasting corporate

value manipulating the stock price. Thus, insiders have an incentive to seek – and states have an incentive to permit – such arrangements.

Part V also presents evidence consistent with this distortion, including (1) asymmetric state fiduciary laws that protect current shareholders but not buyers, thereby permitting managers to generate positive noise but discouraging them from generating negative noise; (2) the lack of disclosure requirements, and restrictions on insider trading and stock-manipulation in corporate law, which increase insiders' ability and incentive to generate positive noise, and (3) boards' systematic use of various governance arrangements – such as auditing systems, compensation arrangements and payout policies that benefit current shareholders at the expense of future shareholders and long-term corporate value.

Part VI [to be completed] shows that corporate law's current-owner bias can explain much of the federal government's intervention in corporate governance through the securities laws – from the enactment of the securities laws in the 1930s to the Sarbanes Oxley Act in 2002. I show that the protections offered by the securities laws are generally designed to counter current-owner bias law by (1) increasing protection of public shareholders generally and (2) reducing managers' ability to generate positive noise in order to transfer value from future public shareholders to current public shareholders. These features include, among other things, the extension of fiduciary protection to buyers and to short sellers, the mandatory disclosure of information, including bad news, and, recently with SOX, constraints on firms' auditing and compensation arrangements.

Part VII [to be completed] considers the implications of the Article's analysis for the desirability of the market for incorporation, the role of federal securities regulation, and the wisdom of permitting firms to choose their own securities regime. The analysis suggests that when markets are often noisy, the case for unfettered market competition – in either corporate charters or securities regulation -- is weakened considerably. The analysis also suggests that the securities laws should not necessarily, as some commentators have argued, abandon substantive corporate governance to corporate law and focus on disclosure. Rather, the securities law can play an important role in countering the current-owner bias of corporate law by protecting future shareholders, and increasing the overall level of protection to investors. And the analysis suggests that the securities law's most recent intrusion into substantive corporate governance – for example, by forcing managers to return bonuses and stock exchange gains generated in the wake of certain financial manipulation – may well have a sound policy basis.

Before proceeding, I wish to make clear that I am not claiming current-owner bias causes future shareholders to “lose money” trading in the stock market. Indeed, the distortions I identify could arise even in a world where – because of negative noise --- future shareholders make greater trading profits than current shareholders. What I do claim is that current-owner bias shifts value from future shareholders in a way that can reduce aggregate corporate value – the present value of the cash flowing to the firm's future and current shareholders and its managers.

II. Governance Arrangements in Efficient Markets

This Part discusses the types of arrangements that are likely to be adopted by a firm when, as most of the corporate governance literature assumes, markets are efficient: that is, stock prices accurately reflect all publicly available information about a firm, including its governance arrangements. Section A explains that corporations have considerable flexibility in designing their own governance rules. Section B shows that, in an efficient market, those taking the firm public generally have an incentive to choose governance arrangements that maximize long-term corporate value. Section C briefly describes the debate over regulatory competition, which focuses on the possibility of presence of various “market failures” – such as network effects and negative externalities on non-shareholder constituencies – can lead to sub-optimal arrangements even when markets are perfectly efficient.

A. The Contractual Nature of Corporate Arrangements

Those crafting a firm’s governance arrangements – the firm’s founders, its controlling shareholder, or current owners -- (in short, the firm’s “insiders”) have considerable discretion in choosing those arrangements. Insiders could incorporate the firm in any U.S. state or in a foreign country, giving them over 50 different corporate laws to choose from.³ Once the state (or country) of incorporation is chosen, insiders are likely to have considerable flexibility, through the use of charter provisions, to modify or opt out of some of that jurisdiction’s corporate law rules.

³ Many companies listed on U.S. stock exchanges are incorporated in other countries, including [get data on fraction of U.S. listed firms incorporated overseas and the most common countries of incorporation].

Finally, mandatory corporate law and the firm's charter and bylaws typically give directors broad discretion in crafting important governance-related instruments, such as managers' compensation packages and payout policy. By "governance arrangements", I mean the collection of state corporate law rules, charter provisions, and board policies that constrain (or are designed not to constrain) the behavior of a firm's managers.

To be sure, corporate law is not the only source of rules affecting the governance of public companies. As we will discuss in more detail later, public companies trading in the U.S. are subject to the rules of the stock exchange on which they trade and, more importantly, federal securities laws. The point I wish to make here, however, is that *corporate law* gives designers substantial discretion in choosing a firm's governance arrangements.

1. Choice of Corporate Law

State corporate law governs, among other things, the relationship between shareholders and the board, as well as the duties and obligations of directors and officers to the firm and its shareholders.

Under the common-law internal affairs doctrine, the corporate laws governing a particular firm are determined by the state in which the firm is incorporated.⁴ And firms may incorporate in a state (or country) other than the one where they are located. Thus, for example, the founders of a

⁴ Some states, such as California, have corporate law provisions that regulate corporations doing business in the state even if they are not incorporated there. See Section 2115. Generally, however, under the internal affairs doctrine the corporation is governed solely by the corporate laws of the state in which it is incorporated.

Boston-based firm may choose to be governed by Delaware corporate law by incorporating in the State of Delaware, or choose to be governed by Bermuda law by incorporating in the country of Bermuda.⁵

Even after it is initially incorporated, a firm can change the corporate law to which it is subject by reincorporating in another state or jurisdiction. Unlike initial incorporation, which is effected by the person or persons organizing the firm, a reincorporation requires approval by the board and a majority of the firm's shareholders. Reincorporation is thus more complicated and expensive than initial incorporation. Nevertheless, a large number of firms reincorporate at least once, which makes clear that the barriers to reincorporation are far from insurmountable.⁶

2. Design of Corporate Charter

Once a firm has chosen the state (or country) of incorporation, it still retains considerable flexibility in choosing the corporate law rules to which it is subject. Certain elements of state corporate law are mandatory – which is why the choice of state of incorporation can be important. For example, California requires many corporations to maintain cumulative voting for directors; Delaware does not.⁷

⁵ Tyco was for a long time incorporated in Bermuda. In fact, a number of publicly traded companies in the U.S. are incorporated outside the U.S. and therefore subject to the corporate laws of those jurisdictions. See *supra* note x.

⁶ Reincorporation can be accomplished a number of ways, including by merging the firm into a shell corporation incorporated in a different jurisdiction.

⁷ See *CGCL §708*. Apart from certain exceptions, only corporations listed on the NYSE or AMEX, or that have over 800 shareholders and securities quoted ("designated as qualified for trading") on Nasdaq may eliminate cumulative voting by an express

However, much of state corporate law is “enabling,” allowing shareholders to “opt out” of default arrangements provided in the statute and the case law. Firms generally opt out of arrangements through provisions in their corporate charters. For example, although as a default rule under Delaware law officers may be subject to personal liability for breaching the duty of care, firms may opt out of this rule through a charter provision.⁸ However, firms could also use their corporate charters to adopt provisions that are less favorable to the board, such as (in Delaware) cumulative voting. Thus, by opting out through a charter provision, firms can choose to make their governance provisions either more or less restrictive.

Moreover, firms are not bound forever to their initial corporate charter. As in the case of re-incorporation, corporate charter amendments can be made with the approval of the board and a majority of the firm’s shareholders. Again, as in the case of state of incorporation, this makes changing the corporate charter more difficult than putting provisions into the initial charter, which can be done by the firm’s incorporators. But such changes are not prohibitively expensive, and charter amendments are not uncommon. For example, after Delaware introduced a law allowing firms to reduce director liability through the terms of their charter, over 90% of publicly traded firms amended their charters to adopt this liability-reducing provision.

provision in the articles of incorporation. CGCL §301.5. Delaware permits cumulative voting if provided for in the certificate of incorporation but does not require it. See *DGCL* §214.

⁸ See *DGCL* 102(b)(7).

3. Firms' Considerable Residual Discretion

Even the most “regulatory” state corporate law gives the board wide discretion in crafting other governance arrangements – such as the composition of the board (the number of independent directors, the degree of independence required), oversight mechanisms (including auditing systems), compensation arrangements and disclosure – as long as they exceed the minimum standards imposed by the stock exchanges and the securities laws). For example, the firm can separate or unify the position of CEO and board chair, adopt a more open or less open disclosure policy, and choose from an infinite menu of compensation arrangements. Subject to securities laws and accounting rules, which I will discuss in more detail Part VI, the firm could provide more or less internal controls, or choose different ways of disclosing accounting results.

B. Governance Arrangements in Efficient Markets

Having seen that corporate participants have considerable discretion in choosing corporate arrangements, we now turn to consider the types of arrangements firms are likely to choose when the markets in which the firm’s shares trade are efficient. After describing an “efficient” market, I explain that firms in efficient markets will generally offer value-maximizing arrangements.⁹ I also describe a variety of “market failures” that can arise in such markets and may lead to sub-optimal governance arrangements.

⁹ The analysis is based on a simple formal model found in the Appendix.

1. An “Efficient” Market

The traditional finance paradigm, and one which has been widely adopted in the literature on corporate governance and regulatory competition, is that financial markets are efficient. In an efficient market, stock prices reflect the trading of fully rational investors. Accordingly, these prices are the best possible estimate, based on publicly available information, of the shares’ fundamental value: the discounted sum of expected future cash flows.¹⁰ Put simply, “prices are right” given publicly available information.¹¹

Efficient market believers do not claim that *all* traders are fully rational. Rather, they claim that, even if there are irrational traders, fully rational traders will quickly exploit any deviation from the fundamental value caused by irrational trading. For example, suppose that the fundamental value of a share of XYZ company is \$20. And suppose further that overly optimistic irrational traders bid the stock price up to \$25. Efficient markets theorists would argue that rational traders, sensing an opportunity to profit, will sell the stock short, and the pressure from their selling – or some other mechanism -- will force the stock back to its fundamental value. As a result, prices will not deviate for long, if at all, from their fundamental value (as indicated by public information).

Nor do efficient market believers generally claim that *all* information bearing on the value of the stock is reflected in the stock price. Rather their

¹⁰ In the lingo of financial economists, such a market would be considered “semi-strong efficient”. See ____.

¹¹ See Barberis and Thaler (2001)

claim is that all *public* information is reflected in the stock price. Insiders may have private information about the value of the stock that is not reflected in the stock price. For example, public information may indicate that the fundamental value of XYZ's shares is \$20. However, managers may have inside information indicating the stock's fundamental value is only \$15. Efficient market theorists would not expect XYZ's shares to trade at its true fundamental value (\$15), but rather at \$20, the fundamental value suggested by public information. However, once the inside information emerged, efficient market believers would expect the stock price to quickly drop to \$15 per share.

2. Insiders' Choice of Arrangements

In an efficient market, those taking a firm public (whom we can call "insiders") generally have an incentive to offer any arrangement that increases corporate value because, to the extent this arrangement's effect on corporate value is correctly priced by the market, insiders will be able to capture the full benefit to both current and future shareholders of this arrangement. Thus, even if the arrangement reduces insiders' private benefits, they will, on balance, be better off providing the arrangement.

Similarly, insiders will have an incentive not to use inefficient arrangements that reduce firm value even if they increase insiders' private benefits. To the extent this arrangement's effect on corporate value is correctly priced by the market, insiders will bear the full cost to both current and future shareholders of this arrangement. Thus, even if the arrangement boosts insiders' private benefits, they will, on balance, be better off not providing the arrangement.

Consider the following example. Suppose that the insiders of XYZ Corporation own 100 of its 100 shares. They intend to sell the shares to *initial* public shareholders. Some (or all) of these public shareholders may later sell their stock to *future* public shareholders in the “short-run.” However, some (or all) of them may hold their shares until the “long-run.” In the long-run XYZ will distribute its earnings to investors, after insiders have taken some of the firm’s value through private benefits. This long-run distribution takes place after any trading between *initial* and *future* public shareholders (if any) has occurred.

Now, suppose that governance arrangement X would increase firm value by \$20 and reduce insiders’ private benefits by \$80. As a result, arrangement X would increase the expected value of the cash flowing to XYZ’s public shareholders in the long-run by \$100 (or \$1 dollar per share).

First, consider *future* public shareholders’ willingness to pay for XYZ’s shares. If investors rationally process all public information bearing on the value of corporate governance arrangements, including the existence (or non-existence) of arrangement X, future shareholders buying XYZ’s shares will pay an extra \$1 per share if arrangement X is in place.

Now consider *initial* public shareholders. *Initial* shareholders may either hold the XYZ share until liquidation or sell it to *future* public shareholders. If *initial* shareholders know they will hold the share indefinitely, they will value the arrangement X at \$1 per share, for that is the amount by which X increases the expected value of the shares. If, on the other hand, *initial* shareholders know that they will sell the share to a *future* shareholder, they know that arrangement X will increase the *future* shareholder’s reservation price by \$1 per share, enabling them to sell each

share for \$1 more. Thus, whether *initial* public shareholders expect to hold the share indefinitely or sell it to *future* investors, they will value arrangement X at \$1 per share. As a result, *initial* investors, like *future* investors, will pay \$1 more per share if the firm has adopted X.

Finally, consider insiders. Including arrangement X will reduce insiders' private benefit by \$80 but enable insiders to sell ABC's share for \$100 more (\$1 more per share x 100 shares) to initial shareholders. Thus, insiders gain \$20 by including X – which is the efficiency benefit of arrangement X. As this example shows, in an efficient market where governance arrangements are properly priced, insiders internalize the net benefit of any governance arrangement and thus have an incentive to offer any arrangement that is value-increasing.

It should also be easy to see that, in an efficient market, insiders will internalize the net cost of any inefficient governance arrangement and therefore have an incentive to avoid such arrangements.

C. The Current Debate Over Regulatory Competition

Over the last several decades there has been a vigorous debate over the desirability of permitting firms to choose the corporate law rules that govern the internal affairs of the corporation – the relationships among executives, the board, and shareholders. A number of commentators, including Frank Easterbrook, Daniel Fischel, Roberta Romano, and Ralph Winter, have argued that competition among states for corporate charters is a “race-to-the-top” that leads to optimal corporate law rules. Others, including Lucian Bebchuk and William Cary, have disputed this view,

suggesting that such competition leads to a race-to-the-bottom, at least with respect to those issues where insiders' and shareholders' interests sharply diverge.

In the last decade a similar debate has begun over whether firms – which are currently governed by the securities regime applicable to the exchange on which their stock trades -- should be permitted to choose their own securities regime. Stephen Choi, Andrew Guzman, and Roberta Romano have argued that empowering firms in this manner will lead to securities rules that are better tailored to each firm. Others, such as Merritt Fox, have argued that firms should not be able to opt out of the U.S. securities laws.

In advancing their arguments, commentators on both sides of these debates have assumed that stock markets are efficient: prices reflect all public information bearing on intrinsic firm value, including information about a firm's chosen governance arrangements. In such an efficient market, as we have seen, firms generally have an incentive to offer public investors desirable governance arrangements – those that maximize long-term firm value.

The debate has focused on the possibility of certain “market failures” that can lead to the adoption of sub-optimal arrangements even in the presence of perfectly efficient stock markets. These failures can arise from the existence of information asymmetry between managers and initial investors,¹² network effects and positive externalities, and negative externalities on non-shareholder constituencies, such as creditors and

¹² See Bebchuk, *Asymmetric Information and Corporate Governance Arrangements*, 2002.

workers.¹³ The “race-to-the-bottom” view holds that these market imperfections are likely to be significant. Unsurprisingly, the “race-to-the-top” view argues that they are unimportant.

Whatever the detrimental effect of these market imperfections on governance arrangements, however, this effect is likely to be dwarfed by the effect caused by the presence of significant noise in the securities markets, the subject to which we now turn.

¹³ See Bebchuk, *Federalism and the Corporation*, 1992

III. The Reality of Noisy Securities Markets

We saw in Part II that in efficient markets – markets where stock prices reflect shares’ fundamental value – those taking firms public generally have an incentive to adopt arrangements that increase long-term corporate value. Participants in the debate over regulatory competition have largely accepted the premise of efficient markets, and have focused on the possibility that certain market failures – such as network effects and negative externalities on non-shareholder constituencies – might lead to suboptimal outcome and require government intervention in the form of mandatory rules.

However, there is mounting evidence that the underlying premise in this debate – that stock prices are efficient – is untenable and that securities markets are often “noisy” – deviating considerably from fundamental values. As Parts IV and V will show, in the presence of noisy markets governance arrangements are likely to deviate from optimal outcomes even in the absence of the market failures that have already been identified. And while there is little evidence of these other market failures, there is considerable evidence that stock prices are often noisy. This Part describes some of the evidence that markets are frequently inefficient and explains why noise is likely to arise and persist.

My purpose here is not to comprehensively review all the data suggesting, and explanations for, market inefficiency. Such a project is beyond the scope of the paper.¹⁴ Rather, my goal is to convince the reader that, given the evidence that stock prices can be noisy over considerable

¹⁴ For contributions to, and reviews of the burgeoning literature on market inefficiency, see Barberis and Thaler; Shleifer (2000)

periods of time, it is worth reconsidering the fundamental premise that has underlay most of the debate over regulatory competition – and to consider how the possibility of noise in securities markets is likely to affect corporate governance arrangements, the subject I begin to take up in Part IV.

The remainder of this Part proceeds as follows. Section A highlights some of the considerable evidence that markets are often quite inefficient. In Section B, I explain why stock market noise is likely to arise and persist.

A. Noisy Stock Prices: Evidence

This Section presents some of the different types of evidence that prices often deviate from fundamental value. It first describes direct evidence that the market cannot always properly price the discounted value of expected cash flows. It then describes some indirect evidence of stock price inefficiency – namely, investors and managers’ fixation on accounting results, even at the expense of long-term corporate value.

A survey of all the evidence is beyond the scope of this paper.¹⁵ My goal here, again, is simply to convince the reader of this claim: that initial investors may reasonably believe that, at some point, the price of the stock will deviate from its fundamental value.

¹⁵ For such surveys, see Andrei Shleifer, *Inefficient Markets* (2000); David Hirshleifer, *Investor Psychology and Asset Pricing*, 56 *J. Fin.* 1533-1597 (2001).

1. Clearly Irrational Pricing

Finding direct evidence of market efficiency or inefficiency is difficult. In order to show that a stock's price equals or deviates from the expected value of its discounted future cash flows, one needs to properly estimate this value. There is no "correct" model for valuing discounted future cash flows. Therefore, it is difficult to provide irrefutable evidence of proper pricing or mispricing. Despite this obstacle, researchers have been able to identify numerous cases of incontrovertible mispricing. I provide two frequently cited examples of mispricing, one of which persisted for years: (1) parent company stock trading at less than the market value of its interest in a partially-owned subsidiary; and (2) Siamese twin stocks - stocks with identical cash flows -- trading at different prices.

There are of course, other examples of "micro" (firm-level) mispricing and noise, such as stock price increases following the addition of the stock to a market index, as well as "macro" (market-level) examples, such as the (still unexplained) 30% drop in the U.S. stock market in 1987 and stock market bubbles in the U.S. and elsewhere. The advantage of these micro-level examples, however, is that they present clear and undeniable evidence that markets can - and do - misprice securities - often for years at a stretch.

a. Carve-outs

In March 2000, 3Com sold 5% of its wholly owned subsidiary Palm Inc. in an IPO. 3Com retained the remaining 95%. After the IPO, a holder of a share of 3Com indirectly owned 1.5 shares of Palm. At the same time, 3Com announced its intention to spin off its entire 95% interest in Palm within 9 months: at the spin-off, a holder of one share of 3Com would receive 1.5 shares of Palm.

At the close of trading on the first day after the IPO, Palm shares had been bid up to \$95, putting a lower bound on the value of 3Com at \$142 per share ($1.5 \times \95). 3Com had many other assets so, if Palm shares were worth \$95 per share, 3Com would be worth much more than \$142. In fact, 3Com's stock price at the close of trading of the Palm IPO was \$81. This pricing implied a market valuation of 3Com's substantial businesses outside of Palm (and its cash and securities worth \$10 per share) of $-\$61$ per share. The market was clearly mispricing Palm or 3COM or both, and the mispricing lasted several weeks.

One might wish to dismiss this as an isolated example. But it is only one of many examples of internet carve-outs trading at an irrational price.¹⁶ One might also argue that these mispricing occurred during the

¹⁶ See Owen Lamont and Richard Thaler, Can the Market Add and Subtract? Mispricing in Tech Stock Carveouts, 111 J. Pol. Econ. 227-268 (2003); Cornell, B., Liu, Q., 2000. The parent company puzzle: when is the whole worth less than one of its parts? Working Paper No. 7-00, UCLA, Anderson School; Mitchell, M., Pulvino, T., Stafford, E., 2001. Limited arbitrage in equity markets, Working paper, Harvard Business School; Schill, M.J., Zhou, C., 1999. Pricing an emerging industry: evidence from internet subsidiary carve-outs. Riverside Working paper, University of California.

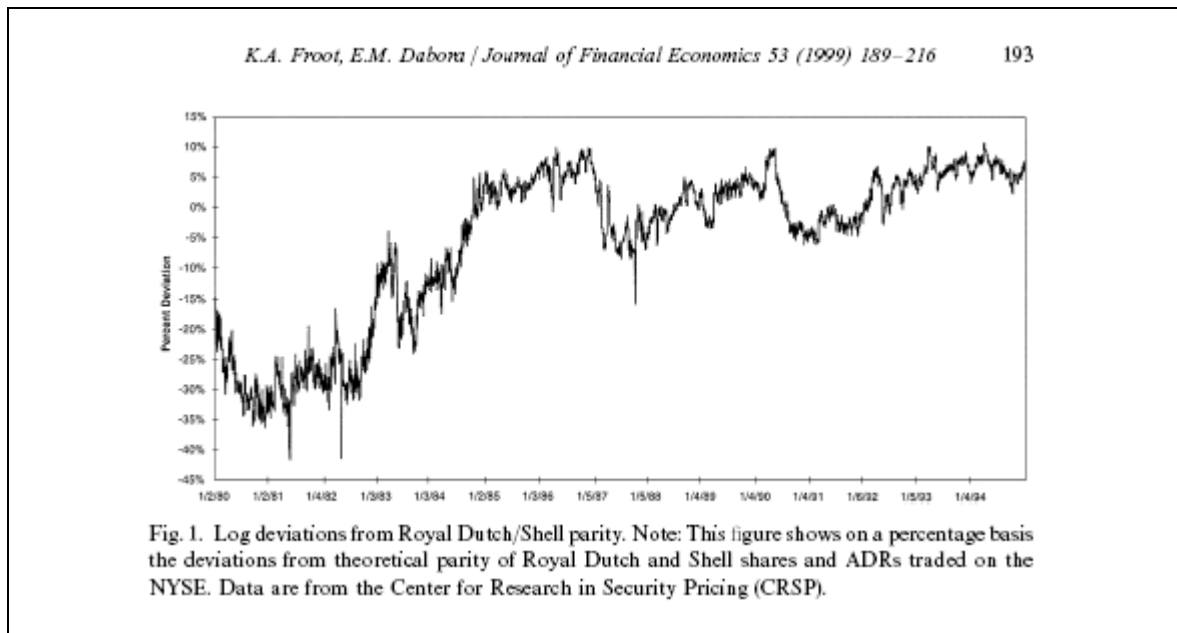
“Tech bubble” and lasted only several weeks. However, as the next example makes clear, there were clear mispricings long before the Tech bubble, some of which lasted years or even decades.

b. Siamese Twins

Economists have noticed that “Siamese Twin” stocks – stocks with identical cash flow rights that trade on different exchanges – tend to trade at different prices for many years. One of the most famous sets of twins was Royal Dutch and Shell Transport.¹⁷ In 1907, Royal Dutch and Shell Transport, at the time completely independent public companies, agreed to contribute all of their assets to a newly created entity, in which Royal Dutch would own 60% of the equity and Shell Transport 40%. Shares of Royal Dutch, which are primarily traded in the United States and in the Netherlands, represent a claim to 60 percent of the total cash flow of the two companies, while Shell, which trades primarily in the United Kingdom, is a claim to the remaining 40 percent. If prices equal fundamental value, the market value of Royal Dutch equity should always have been worth 1.5 times the market value of Shell equity. Yet it has not been.

¹⁷ Other examples include Unilever and Smith/Kline Beecham.

Figure 1, taken from an article by Froot and Dabora, shows the ratio of Royal Dutch equity value to Shell equity value relative to the efficient markets benchmark of 1.5. It provides strong evidence of a persistent inefficiency. Moreover, the deviations have not been insignificant. Royal Dutch has sometimes been 35 percent underpriced relative to parity, and



sometimes 15 percent overpriced.¹⁸

2. Fixation on Accounting Results

Indirect evidence of market mispricing comes from investors' and managers' obsessions with accounting – as opposed to actual -- results. In an efficient market, investors would value shares based on the expected

¹⁸ Froot, K. and Dabora, E., 1999. How are stock prices affected by the location of trade? *Journal of Financial Economics* 53, pp. 189–216

discounted value of the cash flowing to shareholders over time. Changes in earnings that are driven by changes in a company's accounting treatment of various income and expense items rather than changes in the underlying cash flows should not affect stock prices; nor, of course, should changes in earnings driven by changes in accounting rules.

Yet, firms frequently seek to "dress up" their results by changing accounting treatments, delay or accelerate "real" (cash-flow-affecting) transactions around accounting rule transitions, and have spent millions of dollars and considerable amounts of political capital attempting to block changes in accounting rules that would reduce reported earnings.

a. Window-Dressing

Accounting earnings reported on firms' financial statements do not reflect the company's actual net cash flow. Rather, they are constructed by taking cash flow amounts and adjusting them in ways designed to better reflect the firm's future cash flow prospects. There is evidence that firms choose income-increasing accounting methods (e.g., purchase versus pooling in acquisitions) or report high accounting adjustments (accruals) to improve reported earnings.¹⁹

In a perfectly efficient market where investors focus on expected cash flows, such window dressing activities would be ignored and not undertaken in the first instance. But in a noisy market (including markets

¹⁹ See, e.g., Sloan (1996); Chan et al (2000); Xie (2001). Pincus and Wasley (1994). Hand et al. (1990).

where investors misprice identically valued stocks for decades), one would expect managers to engage in such activities if they believed that it could, notwithstanding their irrelevance to future cash flow, it could affect the stock. Indeed, there is evidence that the market does not perfectly adjust to changes in accounting treatment.²⁰

b. Accounting-Driven Real Activities

Managers use of window-dressing, while demonstrating that investors can be misled by changes in accounting treatment, does not prove they believe that markets are very inefficient. After all, window dressing is cheap, imposing no real economic costs on the company besides transaction costs. Thus, managers might be willing to engage in window dressing even if the market is only slightly inefficient.

But there is considerable evidence that managers accelerate, delay, initiate, and terminate real cash-flow-affecting transactions in response to changes in accounting rules, and change the economic structure of transactions in order to obtain better accounting results. For example, managers structure mergers not to maximize cash flow to shareholders but rather to generate the best accounting effects. It is well known that, when give a choice, managers prefer mergers involving the pooling-of-interests rather than purchase accounting method because pooling allows firms to report higher earnings. In fact, there is evidence that bidders pay

²⁰ See, e.g., Biddle and Ricks, 1988; Hand, 1995); Chen and Schoderbek (2000).

substantially higher purchase premia in order to use the pooling-of-interests method.²¹

In a perfectly efficient market where investors focus on expected cash flows, managers would not reduce expected cash flow to shareholders in order to be able to report higher accounting earnings. But in a noisy market, one would expect managers to engage in such activities if they believed that it could, notwithstanding their negative effect on future cash flow, it could affect the stock. Indeed, there is evidence consistent with the stock market valuing pooling-of-interest firms more highly for a given level of earnings.²²

c. Options Expensing

One of the best illustrations of managers' fixation on earnings results is the multi-year battle they fought (and ultimately lost) to prevent the FASB from requiring options to be expensed. Until recently, firms were permitted *not* to expense certain employee options: those whose (1) strike price is fixed and not below the grant-date market price and (2) expiration date is fixed. During the last decade, reformers have attempted to require firms to expense all employee options, but managers have played a major role in blocking these attempts. In the mid-1990s, the FASB

²¹ [add cites from Hirshleifer, et al]

²² Jennings et al. (1996) and Vincent (1997) Hopkins et al. (2000) find that analysts' stock-price valuations are lower when the purchase method of accounting is used.

sought to have all stock-based compensation accounted for on a rational and consistent basis – that is, expensed in line with the current treatment of indexed and performance-conditioned options. Heated resistance forced the FASB to stop short of requiring firms to adopt this method. Instead, the FASB required companies that fail to expense options to disclose the cost of options granted employees in footnotes to the firm’s financial statements. Following the corporate governance scandals beginning in late 2001, reformers renewed their efforts, and eventually prevailed. Throughout, managers have displayed considerable resolve in fighting any move toward expensing options, investing a considerable amount of time, effort, and political capital to avoid such an outcome.

Executives claim to have fought vehemently on the grounds that expensing options reduces reported earnings, leads to a decline in share prices, and thus hurts shareholders. Because option pay now involves substantial sums of money, the effect of expensing on bottom-line earnings would be quite significant. In 1992, expensing options would have reduced earnings by approximately 2 to 3 percent. In 2001, however, expensing would have reduced the earnings of the S&P 500 by 21 percent. In the case of some firms, such as Cisco, expensing options would in fact have converted reported profits into losses.

The value of employee options must already be reported in the footnotes to firms’ financial statements, and thus is already available to the market. Managers have argued, however, that the market pays little attention to these footnotes, focusing instead on reported earnings. In their view, moving the information from the footnotes to the income statement itself will alter investors’ perception of the company’s earnings, cause

stock prices to fall, and force companies to cut back on their desirable use of options.

In an efficient market, stock prices reflect investors' best estimate of expected cash flows, and the accounting treatment of options, especially whether the expense is reported in a footnote or as a line item above, should not affect the stock price. Managers' behavior would thus be irrational. But in a noisy market, their behavior made sense. As Lucian Bebchuk and I have argued elsewhere, to the extent investors focus on earnings and not footnotes, the non-expensing of options served their own interests in favorable compensation arrangements by obscuring the costs associated with their option-heavy compensation.

However, I believe that there was more to the struggle than simply managers' self interest in camouflaging their pay. The managers were likely correct: expensing options (moving the cost of options from the footnotes to body of the page) would have lowered stock prices. It was not only managers who fought expensing: they were joined in their struggle by venture capitalists. The venture capitalists reaped no benefit from camouflaging managers' pay. Rather, their sole interest was in increasing the price at which they could take their portfolio firms public. The venture capitalists who were afraid that, if stock options were expensed, high tech startups that relied heavily on option compensation would not be able to go public with as high a valuation. Thus, some of those attempting to block expensing believed that a change in the accounting rules would affect stock prices.

B. Noisy Stock Prices: Explanation

Why did Royal Dutch and Shell trade at different prices? Why was Palm trading at \$95 when one could buy 1.5 shares plus other assets for less than \$90? Why does the accounting treatment of stock options matter? The reasons are as follows: (1) many investors form imperfect (and often irrational) estimates of a stock's value; causing the stock deviate from fundamental value and, (2) for various reasons I shall describe, these deviations cannot be corrected by "rational" investor arbitrage.

1. Heterogenous Valuations

When analyzing securities pricing, economists and legal academics have often assumed that all investors are risk neutral and place the same value on a stock.²³ Under this assumption, investors' demand curve for the stock is essentially horizontal: there is infinite demand for the stock at or below the market price, and one could buy all the firm's traded shares for slightly more than the market price.²⁴ In economists' terms, the demand for a firm's shares is presumed to be inelastic.

However, over the last 20 years empirical studies have made it increasingly clear what has long been obvious to lay observers and market

²³ See, e.g., Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 Harv. L. Rev. 1161, 1165-68 (1981).

²⁴ See sources cited in Fried, *Insider Signaling and Insider Trading* (2000), at 434.

participants -- that investors place different values on the same stock.²⁵ Indeed, the high levels of (costly) trading activity makes no sense unless people have sharply different views about the stock. In the presence of heterogeneous beliefs, the demand curve for stock slopes downward. The highest-valuing investor is willing to hold the stock even if it were to trade at a price much higher than the current market price. At lower prices, more and more investors are willing to own the shares. If the demand curve for a given stock slopes downward, the stock will trade at a price reflecting the subjective valuation of the firm's lowest-valuing (or "marginal") shareholder.²⁶

There are a number of possible explanations for the dispersion of reservation values - or "shareholder heterogeneity." Shareholders may have different transaction costs or varying tax situations.²⁷ But more importantly, shareholders with access to the same information about a stock may form heterogeneous expectations about its future performance, either because they ignore some information, they do not process the information rationally, or the available information is equally consistent with many possible

²⁵ For contributions to the empirical finance literature on the elasticity of supply and demand for publicly traded shares, see generally Laurie Simon Bagwell, *Shareholder Heterogeneity: Evidence and Implications*, 81 AM. ECON. REV. 218 (1991); Claudio Loderer et al., *The Price Elasticity of Demand for Common Stock*, 46 J. FIN. 621 (1991); Kevin S. Nathan & Terrence B. O'Keefe, *The Rise in Takeover Premiums: An Exploratory Study*, 23 J. FIN. ECON. 101 (1989); David T. Brown & Michael D. Ryngaert, *The Determinants of Tendering Rates in Interfirm and Self-Tender Offers*, 65 J. BUS. 529, 530 (1992); Lawrence Harris & Eitan Gurel, *Price and Volume Effects Associated with Changes in the S&P 500 List: New Evidence for the Existence of Price Pressures*, 41 J. FIN. 815 (1986); Andrei Shleifer, *Do Demand Curves for Stocks Slope Down?*, 41 J. FIN. 579 (1986).

²⁶ See sources cited in Fried, *Insider Signaling*, *supra* note , at 434-35.

²⁷ See Lakonishok and Vermaelen, *supra* note, at 459; Gay, Kale, and Noe, *supra* note, at 63-66. There is evidence that differences in public shareholders' tax costs from tendering make tendering on an after-tax basis worthwhile for some shareholders but not for others. See Brown and Ryngaert, *supra* note, at 530.

valuations.²⁸ Whatever the source(s) of shareholder heterogeneity, the important point is that the trading price is determined by the reservation value of the marginal shareholder.

2. Investor “Irrationality”

Given that the marginal shareholder’s subjective estimate of the value of the stock determines its trading price, it is important to understand how the marginal shareholder forms this estimate. If the marginal shareholder is always “rational” – uses all publicly available information to form the best possible estimate of the stock – then the stock prices will be efficient – they will reflect all public information bearing on the value of the stock. If, on the other hand, the marginal shareholder is sometimes “irrational”, the price could deviate from the fundamental value of the stock.

It is by now well documented that many investors are subject to various types of cognitive biases and limitations and are therefore not fully “rational” in their financial decision-making.²⁹ Among other things, investors fail to update their beliefs based on new information (“anchoring”); over-rely on evidence that is salient (or “available”); and suffer from “hindsight bias.” There is considerable evidence, for example, the market often reacts to news coverage of firms even though the underlying facts were made public months ago.³⁰ Given the prevalence of

²⁸ See Stout (1988); Booth (1993)

²⁹ David Hirshleifer, *Investor Psychology and Asset Pricing*, 56 J. Fin. 1533-1597 (2001).[see sources cited in Ribstein]

³⁰ See Huberman and Regev (2001)

these and other biases – one cannot presume that the marginal investor in a firm’s stock is always is one of the few (if any) investors who can rationally process all publicly available information about a stock’s value.³¹

To be sure, when “irrational” investor trading leads the stock price to deviate from fundamental value, “rational” investors arguably have an incentive to enter the market and either buy or sell short the stock to try to profit from the deviation. If this price-correcting mechanism worked perfectly, the stock price would deviate at most minimally from fundamental value. However, as I explain below, there are many reasons why rational investors cannot be expected to always enter the market and correct deviations from fundamental.

3. Limits of Arbitrage

The fact that many investors are irrational is not, by itself, sufficient to cause stock prices to deviate substantially from their actual value. As long as other investors are rational, these investors can exploit the mispricing that results from the trading of irrational (or “noise”) investors. If noise investors bid up the price of the stock, “rational” investors might sell the stock short, pushing down the price. If noise investors bid the stock price down, “smart” investors would buy it up. But, as economists have come to realize, there are many reasons why arbitrage cannot be expected to always fully correct deviations from fundamental value.

³¹ Why do such investors continue to trade, either because cannot adequately assess their own performance, or because trading (like buying a lottery ticket or playing poker in Las Vegas) provides psychic benefits that exceed the expected financial loss. See Stout, *Stock Markets as Casinos*;

a. Short-Selling Restrictions

Arbitrageurs often have difficulty profiting from situations where irrational traders bid the price above the stock's fundamental value. In particular, arbitrageurs will often find it difficult or impossible to sell stock short.

To begin, the securities laws place various restrictions on traders' ability to engage in short sales. For example, short-sales are not permitted for ___ days following an IPO, and after that period the securities laws permit short sales only on an up-tick. Economists often point to this restriction as a reason why arbitrage cannot be expected to work perfectly.³²

However, it is unlikely that these securities rules impose as big a constraint on short-selling as the fact that the supply of shortable shares is often limited, and the lender can demand return of the borrowed stock at any time. To short a stock, one must borrow the stock through a broker. And the broker can lend stock only if one of the broker's customers owns the stock and is willing to lend it out. In many cases, brokers do not have stock to lend to short sellers. The dearth of shortable shares is apparently the reason why Palm shares remained mispriced for several weeks.³³

Moreover, even if the broker has stock to lend, these shares are not on indefinite loan. The lender has the right to demand return of the shares at any time. Thus, even if a short-seller's prediction that the stock price will decline turns out to be correct in the long run, the short-seller can be

³² See sources cited in Fn 17 of Bolton.

³³ See Lamont and Thaler (2003)

forced to close his position in the short run at a price higher than the short sale, inflicting a substantial loss.

b. Risk Aversion

All arbitrage opportunities involve risk. Most securities do not have a perfect substitute (another security that provides identical cash flow rights). In the absence of a perfect substitute, there is always the possibility that an ex ante “rational” arbitrage opportunity will turn out to lose money – even in an efficient market. For example, arbitrageurs may correctly believe that company A is undervalued and that company B, in the same industry, is overvalued. An arbitrageur might consider buying A and shorting B. Such a strategy would, it appears insulate the arbitrageur from the risk of sector-wide or market-wide price shocks. However, there is a possibility that, even though, on an expected value basis this strategy is profitable, it is possible that the price of B will rise and A will fall. This risk, which would arise even in a completely efficient market, can be called “fundamental” risk. There is also a “short-selling” risk that, although B falls in the long-run, it rises in the short-run and the arbitrageur is forced to unwind the short position at a loss. Finally, when markets are inefficient, there is an additional “noise risk” because of the possibility that that stock prices will move for reasons other than changes in the fundamental stock of the stock.

Indeed, noise makes it risky even to arbitrage between two securities that are perfect substitutes and trade at different prices. Even though there is no fundamental risk, such mispricing may persist for a long time, or even indefinitely, during which time the arbitrageur may be forced to

unwind the position at a loss. Indeed, as I explained in Section A, there have been so-called “riskless arbitrage” opportunities – such as Siamese Twin Stocks -- where the mispricing has persisted for years. Whatever irrationality is causing one share to be undervalued relative to the other could also cause that share to become *even more* undervalued in the short term. The graph shows that this danger is very real: an arbitrageur buying a 10 percent undervalued Royal Dutch share in March 1983 would have seen it drop still further in value over the next six months.

Interestingly, Long-Term Capital Management (the hedge fund founded by several Nobel-prize winning economists and famous Wall Street Investment bankers) tried to profit from the Royal Dutch/Shell “anomaly” by buying the relatively undervalued share and shorting the other. Since one share is a perfect substitute for the other, fundamental risk was eliminated. However, there was still noise trader risk, as investors in LTCM learned the hard way: at the time the hedge fund failed, the mispricing gap had increased, and LTCM was forced to unwind the position at a loss of several hundred million dollars.

Arbitrageurs may be less risk-averse than the average investor but they are unlikely to be completely risk-neutral. Instead, they, like the rest of us, can be expected to be risk-averse (they have a diminishing marginal utility for money). Given risk aversion, arbitrageurs will forego opportunities that do not offer enough potential gain to compensate for the risk. And, as I will explain in more detail below, arbitrageurs’ risk

aversion is likely to be exacerbated by their dependence on institutions and other investors for capital.

c. “Separation of Brains and Capital”

Arbitrageurs usually do not have at their disposal unlimited amounts of capital. They must rely on others – such as pension fund managers and wealthy individuals to provide them with the billions of dollars needed to fully exploit these gaps. And these investors are themselves subject to risk-aversion, cognitive biases and (in most cases) agency problems, which might limit their ability or willingness to channel very large sums of money to hedge funds and other arbitrageurs, as well as their ability and willingness to supply capital to these funds even if they lose money in the short-term. In fact, money managers put only a fraction of their assets in hedge funds that engage in this type of arbitrage, and typically spread these investments among several funds. When returns are poor, they withdraw funds and give them to other managers or shift to other types of investments. This reinforces arbitrageurs’ incentive to avoid bets that are likely to pay off only in the long-term.

C. Toward Rethinking the Desirability of Regulatory Competition

Despite the evidence that stock prices do not reflect fundamental value, participants in the debate have continued to assume that the governance arrangements of firms going public are perfectly priced by the market. In a sense, the debate has suffered from intellectual path-dependence. It is

thus worth examining how regulatory competition fares when markets are noisy. As we will see, noisy leads to two distortions: (1) insider-biased rules and (2) rules favoring current over future shareholders.

IV. Insider Bias in Corporate Governance

We have seen that stock prices often deviate from fundamental value. This Part and Part V will now show that, to the extent market prices deviate from fundamental value, insiders have an incentive to adopt arrangements biased toward themselves and initial investors at the expense of future public investors and long-term corporate value. Thus, firms going public are likely to seek – and states wishing to attract or retain incorporations are likely to provide – corporate laws that are tilted toward insiders and initial shareholders. Moreover, within the menu of choices offered by a particular jurisdiction’s corporate law, insiders are likely to opt, through charter amendments, for those rules that are most favorable to themselves and initial investors. Finally, within the discretion provided by the chosen corporate law and charter provisions, the firm is likely to adopt policies that shift value from future investors to current investors and insiders.

This Part shows that noisy markets lead to governance arrangements with an insider bias and provides evidence consistent with this distortion. Section A shows that, taking the frequency and magnitude of noise as given, insiders have an incentive to systematically underprovide arrangements that protect public shareholders from insider entrenchment and opportunism. Section B provides evidence consistent with governance arrangements tending to excessively entrench insiders. Section C provides evidence consistent with corporate law insufficiently protecting public shareholders from other forms of managerial opportunism.

In Part V, I will show that, because the level of noise is not exogenous but rather a function of corporate investment, payout, and disclosure policies, insiders have an incentive to adopt inefficient arrangements that permit and even encourage managers to increase noise and inflate the stock price for the benefit of current public shareholders.

Before proceeding, I wish to re-emphasize that I am not claiming that these distortions cause future public shareholders to systematically lose trading with insiders and current shareholders – that is, they buy stock for more than its intrinsic value and sell stock for its intrinsic value. When markets are noisy, whether or not future public shareholders lose depend not only on the intrinsic value of the stock but also on the amount of noise present when they buy and sell shares. Thus, it is possible that any given future shareholder, or even all future shareholders, gain at the expense of current shareholders. Rather, my claim here is rather that the total corporate value – the expected value of the cash flow to shareholders and managers - would be higher if these distortions were not present.

A. Insider Bias

We saw in Part II that, if markets are efficient, compensation designers have an incentive to adopt efficient insider-restraining arrangements – ones that increase long-term shareholder value and to avoid inefficient arrangements – ones that reduce long term shareholder value. The reason is that, whether the initial shareholders intend to sell in the short term or hold their shares for the long-term, they will capture the full benefit of such arrangements. Thus, the insiders designing such arrangements have an incentive to offer them whenever the resulting cost

to insiders are less than this benefit to shareholder – that is, whenever the arrangements are efficient.

However, if markets are noisy, and the value of arrangements is not perfectly reflected in the short-term stock price, firms may have insufficient incentive to adopt efficient insider-restraining arrangements. I divide such arrangements into two categories: entrenchment-reducing arrangements (ones that reduce managers' ability to insulate themselves from shareholder removal) and extraction-reducing arrangements (ones that reduce managers' ability to extract rents).

Consider an extract-reducing provision, such as restrictions on self-dealing, that would increase firm value but reduce insiders' benefits. For example, suppose that arrangement X will, in the long-run, increase intrinsic value (V) by \$10 but reduce insiders' private benefit (B) by \$8 by preventing managers from engaging in value-reducing self-dealing transactions. In an efficient market, such an arrangement would increase the short-term trading price of the stock by \$10. Whether initial shareholders expect to sell in the short-term or hold their shares indefinitely, they would be willing to pay an extra \$10 for arrangement X. Insiders would therefore offer the arrangement because, on balance, insiders would capture a benefit of \$2.

However, suppose that, in an inefficient market, such an arrangement would increase the short-term stock price by only \$5. Although such an arrangement is efficient, whether it is adopted will now depend on current public shareholders' expected holding period. If current shareholders expect to hold their shares for the long-term, they will pay managers \$10 for the provision, and managers will offer it. But if initial shareholders expect to sell in the short-term, they will pay only \$5

for X, and insiders won't. If initial shareholders believe the probability of short-term selling is p , they will attach a value to the provision of $p\$5 + (1-p)\10 . Thus, if for example, p is 50%, initial shareholders will value X at \$7.50 and, because X reduces insiders' wealth by \$8, insiders will not have an incentive to adopt it.

Note that, if initial shareholders end up holding their stock, they will directly lose from the failure to adopt efficient arrangement. But ex ante they were unwilling to pay enough for the provision because of the possibility that they would sell at a price not reflecting the value of the provision.

Similarly, consider an inefficient arrangement that increases managers' private benefits but reduces firm value. For example, suppose that arrangement Y will, in the long-run, reduce intrinsic value (V) by \$10 but increase insiders' private benefit (B) by \$8 because the reduced risk of takeovers will allow managers to increase their pay and engage in inefficient empire building. In an efficient market, such an arrangement would reduce the short-term trading price of the stock by \$10. Whether initial shareholders expect to sell in the short-term or hold their shares indefinitely, they would be willing to pay \$10 less for arrangement Y. Insiders would therefore not adopt the arrangement because, on balance, insiders would lose \$2.

However, suppose that, in an inefficient market, such an arrangement would reduce the short-term stock price by only \$5. Although such an arrangement is inefficient, whether it is adopted will now depend on current public shareholders' expected holding period. If current shareholders expect to hold their shares for the long-term, they will pay managers \$10 less than they would absent Y, and managers will

decline to offer it. But if initial shareholders expect to sell in the short-term, they will pay only \$5 less for Y, and insiders have an incentive to offer it. If initial shareholders believe the probability of short-term selling is p , they will attach a value to the provision of $-[p\$5 + (1-p)\$10]$. Thus, if for example, p is 50%, initial shareholders will value Y at $-\$7.50$ and, because Y increases insiders' wealth by \$8, insiders will have an incentive to adopt it.

Note that, if initial shareholders end up holding their stock, they will directly lose from the arrangement Y. But ex ante they were unwilling to pay enough to insiders to exclude the provision because of the possibility that they would sell at a price not reflecting the value of the provision.

Importantly, that this does not mean, on balance, that future shareholders are buying stock at a price above its actual value. To the extent the stock deviates from fundamental value, the price might still be too low even absent X or with arrangement Y. In such a case, buyers might be acquiring the stock at a bargain price, despite the lack of protection.

My sole claim is that, when markets are not efficient, adding X (or not including Y) confers an uncompensated externality on future shareholders at the expense of initial shareholders and insiders, and there may be insufficient incentive for compensation designers to offer that arrangement. Put differently, the market price does not fully adjust to reflect these arrangements.

Note that my analysis assumes that initial shareholders are fully rational and can price protections that are offered them. The identified distortion arises solely because of the possibility that these shareholders will subsequently sell their shares when the market is noisy. One might

question the assumption that these initial shareholders are fully rational. However, the assumption that the initial shareholders are rational is not necessary for the analysis. Indeed, if initial shareholders – like future shareholders – cannot price protective provisions – then the distortion is likely to be even greater.

The foregoing analysis leads to several predictions. Public firms will seek arrangements that underprotect public shareholders from insider entrenchment and insider opportunism. Similarly, public firms seek to avoid – and states competing for incorporations do not require – various arrangements that would protect common shareholders from entrenchment and insider opportunism. States competing for incorporations will therefore tend to offer laws that underprotect public shareholders; non-federal systems, in which there is less chartering competition, are thus likely to provide better protection for public shareholders.

Importantly, the analysis does not suggest that, in noisy markets, firms will provide no protection to public shareholders from insiders. Rather, it predicts that – as long as there is some possibility that initial shareholders will sell their shares at a time when the market is noisy – insiders will seek to excessively entrench themselves and offer sub-optimal protection to public shareholders from self-dealing, and states seeking to attract or retain incorporations will respond by accommodating them. The analysis also predicts that, the more noisy the market, and the shorter are share holding periods, the more likely it is that (1) firms will seek – and jurisdictions will provide – arrangements that entrench managers and facilitate self-dealing; and (2) jurisdictions will tend to fail to require – and insiders will not voluntarily adopt – arrangements that constrain insiders

from opportunistic behavior. Indeed, as we will see in Sections B and C, corporate governance arrangements tilt toward insiders taking firms public tend to use their discretion to increase rather than decrease the level of entrenchment and to increase rather than decrease their ability to engage in self-dealing.

B. Corporate Governance and Insider Entrenchment

Given noisy markets, one would predict that insiders would seek – and states would compete to offer – governance arrangements that tend to entrench management at shareholders’ expense. This leads to a number of predictions: (1) U.S. corporate law will be more manager-entrenching than the laws of similar countries, such as the UK, where there is no regulatory competition; (2) in the U.S., public firms will tend to incorporate in states with the most manager-entrenching rules; (3) and firms going public will tend to use the flexibility of their state’s corporate law rules to increase, rather than decrease, managerial entrenchment. As we will see, there is evidence consistent with all three predictions.

1. U.S. v. U.K. Corporate Law

To the extent U.S. states care about attracting incorporations, they will tend to compete by offering rules that serve the interests of insiders and initial shareholders. Thus, we would expect that, in the U.S., state corporate law would be more manager-entrenching than the corporate laws of countries where there is no competition over charters. Indeed, U.S.

corporate law tends to allocate less power to shareholders than the corporate laws of other jurisdictions.³⁴

Below, I compare U.S. corporate law to the laws of the U.K., which, like the U.S., has many public companies with widely dispersed shareholders, among two important dimensions: (1) the ability of shareholders to vote out managers and (2) the ability of shareholders to tender their shares to a hostile acquirer.

As indicated in Part II, each U.S. state has its own corporate code. For brevity, I will focus on the law of Delaware--the most important corporate jurisdiction - which governs the internal affairs of majority of public companies. However, what I say below about Delaware is generally true for all corporate codes in the U.S.

a. Shareholder Voting Power

Under Delaware law, shareholders are entitled to vote for directors at any annual meeting and under certain other circumstances. However, most public firms have charters that provide for staggered boards, which allows shareholders to replace only 1/3 of the board each year, and other limitations on shareholder voting. And the default rule (which is never opted out of) is that the board of directors must approve any change in the corporation's charter.

To be sure, these rules are only default rules, and can be modified by terms in the corporation's charter. Delaware law thus permits insiders to

³⁴ See Hansmann, Kraakman, Kanda, Rock, Hertig, et al, *The Anatomy of Corporate Law*

create arrangements that give shareholders more power. However, as I will explain shortly, firms never take advantage of this flexibility to increase shareholder power. Rather, the flexibility provided by Delaware corporate law is generally used, where possible, to reduce shareholder power.

Like their U.S. counterparts, U.K. governance arrangements are set by corporate statute and, to the extent that the statute permits, by companies' basic constitutional documents, which in the United Kingdom are called the memorandum and the articles of association. Like the U.S., shareholders are provided certain voting rights.

Unlike in the U.S., insiders cannot limit shareholders' ability to replace directors by classifying the board or through other provisions in the corporate charter. Under a mandatory feature of U.K. law, shareholders may at any time replace all the directors with a majority of the votes cast in a special meeting called for this purpose.

Moreover, to the extent a UK firm's constitutional document provided any other limits, shareholders can unilaterally change those documents. By statute, changes in the memorandum or the articles of association can be made by a "special resolution" that requires a supermajority approval of seventy-five percent of the votes cast at a shareholder meeting. And shareholders have the power to bring to a shareholder vote such special resolutions at the annual shareholder meeting.

In addition, shareholders holding ten percent or more of the company's shares have the power to call a *special shareholder meeting* and may bring a proposal to amend the memorandum or articles of association to a vote in such a special meeting. Thus, at any time shareholders

holding at least ten percent of a company's shares can call for a shareholder vote to change the corporation's constitution to facilitate the removal of directors.

Finally, the ability of shareholders to unilaterally change these documents is not merely a default rule that can be altered by contract. Under U.K. law, the memorandum or articles of association may not eliminate or limit the power to change these basic documents by special resolution.

b. Tender Offers

Under Delaware law, target managers are essentially permitted to "just say no" to a hostile bid and adopt (or fail to redeem) a poison pill, which almost always has the effect of deterring the hostile bidder from acquiring target shares. Shareholders do not have the right to force managers to redeem the pill. Thus, managers can block a hostile takeover. Some states – seeking to attract or retain incorporations -- make hostile takeovers even more difficult than Delaware.

In the U.K. City Code prevents management from blocking takeover bids and thus provides shareholders with the power to decide whether to accept such bids. Moreover, UK shareholders have the right, by vote, to force the board to implement a particular decision. Thus, even if the City Code permitted a poison pill, shareholders could use this other right to force the board to redeem the pill.

2. Tendency to Incorporate in More Manager-Entrenching States

There is considerable evidence that public firms tend to seek states that offer stronger anti-takeover protection in their corporation states. For example, firms are more likely to be incorporated in their home states if that state has adopted anti-takeover provisions,³⁵ and if the state gives the firm flexibility in opting out of its rules (which, as I discuss below), insiders use to further relax constraints on managerial entrenchment.

3. One-way opt outs

Once incorporated in a particular state and subject to its corporate law rules, a firm has flexibility to alter some of these rules, usually through a provision in the corporate charter. The Delaware Code makes clear that the allocation of power between managers and shareholders can be modified by provisions in the certificate of incorporation.³⁶ In principle, veto power could be taken away from the board. For example, shareholders could be empowered to change the state of incorporation or amend the certificate of incorporation.

However, in public companies, one does not see opt-outs that tend to empower shareholders. Rather, most opting out tends to reinforce managers' power by, for example, classifying the board, reducing the

³⁵ See Subramanian (2002) and Bebchuk and Cohen (2003)

³⁶ See DGCL 141(a).

shareholder approval threshold for mergers and eliminating cumulative voting.³⁷

4. Implications

The facts that (a) corporate law in the U.S., where there is some competition for charters, is more manager-entrenching than U.K. law; (b) within the U.S., firms tend to incorporate in states offering more entrenching provisions; and (c) firms tend to use charter provisions to further reduce constraints on managerial entrenchment certainly do not prove, of course, the existence of current-owner bias in U.S. corporate governance arrangement.

It is theoretically possible that competition in the U.S. has led to a “race-to-the-top” with respect to manager-entrenching rules: that the optimal rules are ones that are more manager-entrenching than those offered in the U.K; that, within the U.S., states offering more manager-entrenching rules provide better laws than other states; and that it is rarely if ever optimal to reduce managerial power through charter provisions. One cannot ascertain from the fact that US corporate law is *more* manager-entrenching than UK corporate law and these other patterns that U.S. corporate governance is *too* manager-entrenching. My only claim is that the relative entrenching nature of US corporate law compared to foreign corporate law (and in particular UK law), and insiders tendency to choose states and charter provisions that increase managerial entrenchment, is

³⁷ See Kahan (2005)

consistent with there being current-owner bias in U.S. corporate governance arrangements.

C. Corporate Law and Insider Dealing

The analysis in Section A suggests that corporate governance arrangements will be biased toward insiders. Section B presented evidence that U.S. corporate governance arrangements tend to entrench managers. As Lucian Bebchuk and I have argued elsewhere, the managerial entrenchment resulting from these governance arrangements enables managers to extract rents, particularly in the form of excess and performance-decoupled compensation.³⁸

In addition, as this Section shows, corporate governance arrangements have tended to facilitate other forms of managerial self-dealing in public firms. This is easiest to see by focusing on the huge gaps in state corporate law that led Congress to enact the disclosure requirements and anti-fraud provisions of the securities laws in 1933. Before the securities laws were enacted, corporate law did not require firms to disclose financial or other information (such as self-dealing transactions or compensation) to shareholders; nor did it prohibit insiders from engaging in insider trading or stock manipulation. There is considerable evidence that disclosure requirements and restrictions on insider trading and stock price manipulation prevent managers from inefficiently transferring value from public shareholders. The failure of corporate law to require disclosure or prohibit insider trading and stock

³⁸ See Bebchuk and Fried, *Pay Without Performance: The Unfulfilled Promise of Executive Compensation* (2004); [add cites]

manipulation was the likely to be inefficient. However, the failure of corporate law to develop such rules is consistent with an insider bias in corporate law and voluntary governance arrangements.

I am not claiming that corporate law rules were intentionally designed to facilitate insider dealing in public companies. Rather, my argument is that corporate law, which began developing before the rise of modern public markets when most companies were private and closely held, failed to evolve efficient provisions to deal with public companies. And that this failure occurred because insiders had no incentive to lobby the legislature to enact such provisions because, in the presence of noisy markets, initial investors would not have paid a sufficiently higher price for the stock to make these restrictions worthwhile.

1. Lack of Disclosure Requirements

In the U.S. and most developed securities markets, we take it for granted that firms must frequently disclose detailed financial information and update markets when there has been a material change.³⁹ Firms must disclose financial results, executive compensation, related-party transactions, and the like. Firms going public have even more stringent disclosure requirements.

Mandatory disclosure requirements can protect public shareholders and increase firm value, in part by making it harder for insiders to divert

³⁹ See Allen Ferrell, *The Case for Mandatory Disclosure in Securities Regulation Around the World* (2004), 1.

value.⁴⁰ Indeed, there is considerable evidence that some form of mandatory disclosure is efficient. The U.S. approach has been widely adopted abroad among developed countries, and many developing countries are considering adopting their or strengthening such requirements.⁴¹ Recent studies have shown a positive relationship between liquidity and share value and mandatory disclosure requirements.⁴²

But it is important to remember that these requirements arise under federal securities laws enacted in 1933. Prior to 1933, most publicly traded firms were not required by either corporate or securities law to disclose such information.⁴³ Even though there was an active public market for over 30 years, none of the state corporate laws imposed a requirement that managers disclose any information about the firm to shareholders.

Corporate law arose when almost all corporations were privately held. Such companies tended to have few shareholders, each of whom owned a relatively large stake. Moreover, these shareholders usually had some connection – personal or employment – to the firm and those controlling it. Thus, it was relatively easy for them to monitor insiders for potentially illegal self-dealing transactions – and they had an incentive to do it.

In the close corporation, it may well have been efficient not to require periodic disclosure by the firm to its shareholders of such things as

⁴⁰ See Ferrell (2004), 12-14.

⁴¹ See Hansmann and Kraakman, *End of History for Corporate Law* (2004)

⁴² See, e.g. Ferrell (2004).; Kraakman et al 2004, at 195; LaPorta et al (2003); even Ribstein (2005), at 134 says mandatory disclosure is desirable.

⁴³ The stock exchanges imposed some modest requirements. The NYSE adopted the most rigorous in 1910 under pressure from the US government. Other exchanges, however, did not impose such a requirement. See Ferrell (2004), at 29.

its financial condition, executive compensation, and related party transactions. Shareholders either knew this information because they worked in the firm or, if they suspected self-dealing, could access it through the corporate law statutes that permit shareholders access to the books and records of the corporation.

However, even if the corporate law disclosure rules that evolved were efficient for monitoring insider self-dealing in private companies, these same rules are unlikely to be efficient for public corporations owned by tens of thousands of small shareholders, very few of whom know anything about the working of the business and its transactions, and each of whom owns stock in dozens of companies. These shareholders have neither the incentive nor the ability to acquire detailed information about the activities of the insiders of the firms whose shares they hold.

To be sure, as I indicated earlier, under state corporate law an individual shareholder can seek to examine the books and records of the firm. But such examinations, which are likely to require litigation and whose expense is born by the individual shareholders, are hardly a substitute for periodic disclosure. Among other things, shareholders cannot investigate potential wrongdoing unless they know about it, and they are unlikely to know about it unless information that might hint at the wrongdoing is easily available.

Why then, did state corporate law not require mandatory disclosure for public firms? There are a number of possible explanations consistent with the existence of efficient markets – such as economy of scale, network externalities, and third party effects, as well as fear of providing important information to competitors. Indeed, economy of scale and network externalities might explain why individual states had not

previously adopted the full blown disclosure requirements imposed in the 1930s.

While these market failures may explain why individual states did not adopt full blown securities regulations systems on the scale of those enacted by Congress and refined by the SEC, they cannot explain why states did not adopt even the most basic and limited disclosure requirements – such as disclosure of particular transactions and executive compensation. For example, many states did not require executives to disclose to shareholders self-dealing transactions, the names of directors.

On the other hand, current owner bias can explain the lack of such requirements. Because mandatory disclosure would reduce managers' profits, and, in a noisy market, not necessarily increase the proceeds of the sale of stock to investors by a commensurate amount, they would not have an incentive to push for such a rule, or offer mandatory disclosure requirement in their charters. Thus, initial shareholders, if they were fully rational would not have pushed for such protections. Indeed, on balance they might have benefited from inadequate disclosure and paid less for the shares of a firm with such disclosure rules.

2. Lack of Insider trading and manipulation restrictions

Like mandatory disclosure requirements, we take insider trading restrictions for granted. Under the federal securities law, it has been illegal for decades for corporate insiders to trade on nonpublic material information.

Most commentators believe that insider trading law protects public investors. Although these insider trading restrictions are far from water

tight, and managers continue to make billions of dollars trading on inside information,⁴⁴ they nevertheless substantially reduce managers' ability to transfer value from public shareholders and their incentive to distort corporate decision-making in order to increase their insider trading profits.

Indeed, there is considerable evidence that at least some restrictions on insider trading are desirable. Like mandatory disclosure, insider trading restrictions increase liquidity and make markets more attractive to investors, leading other markets to adopt U.S. style rules.

It is therefore easy to forget that, before the federal government intervened through the securities laws, U.S. corporate law generally permitted managers to engage in insider trading. Under the corporate laws of most states, it has been not illegal for managers to trade on inside information, and, until the federal securities laws, managers of public firms engaged in widespread insider trading.

⁴⁴ See Fried (1998).

V. Bias Toward Current Shareholders

A. The Distortion

Part IV argued that when stock prices are not always efficient, insiders have an incentive to offer sub-optimal level of protection to both initial and future shareholders, and provided evidence consistent with this insider bias. We now turn to consider the distortions in governance arrangement that arise when managers can influence the amount of noise. As we will see, when managers have the ability to create positive noise, firms will seek – and states seeking incorporations will provide -- arrangements that permit and even encourage managers to generate positive noise, while discouraging managers from generating negative noise.

Given that demand curves for stock slope downward, and the market price reflects the subjective valuation of the marginal shareholder, managers can boost the stock price by increasing the subjective valuation of the marginal shareholder. Roughly speaking, there are two ways of doing this: (1) increasing the dispersion of subjective estimates of shareholders (informational manipulation) or (2) eliminating the lowest-valuing shareholder by buying back his stock (mechanical manipulation). As we will see, corporate governance arrangements are structured to encourage managers to do both, and managers in fact do both.

Noise-amplifying arrangements benefit both insiders and initial shareholders when they seek to unload their shares. The more positive noise managers can be expected to generate, the higher short-term prices

are expected to be, and the higher the price both insiders and initial shareholders will receive for their shares. Thus, unlike in the case of insider-biased arrangements that under-protect both initial and future shareholders, noise-generating arrangements actually benefit initial investors. As a result, they may be more willing to pay for the shares of such companies than for the shares of companies without such arrangements. Thus, even if noise-generating arrangements did not offer an ex post benefit to insiders, they would still have an incentive to offer them ex ante.

Consider the following example. Suppose that arrangement Y will prevent managers from inefficient noise-generation. In particular, Y prevents the managers from wasting \$2 of intrinsic value (reducing V by \$2) to generate positive noise that would increase the short-run trading price by \$2. Suppose further that Y would have no effect on managers' private benefit (B). To the extent that the initial shareholders intend to hold their shares indefinitely, they will actually pay insiders \$2 *more* for arrangement Y. But to the extent initial shareholders intend to sell their shares in the short-run, they will pay \$2 *less* if the firm adopts arrangement Y. Initial shareholders are indifferent if the likelihood of short-term selling is 50%. If initial shareholders' likelihood of selling exceeds 50%, they will pay for less for the shares if the firm offers the efficient arrangement.

B. Evidence:

This Section describes two some of the evidence that is consistent with a current-shareholder bias in corporate law and corporate governance arrangements: (1) state law fiduciary duties, which offer more protection

to current shareholders than future shareholders and permit managers to waste corporate value to create noise; and (2) the compensation and payout arrangements adopted by the board, which incentivize and enable managers to generate positive noise.

1. State Law Fiduciary Duties

a. Asymmetric Treatment of Current and Future Shareholders

Under basic principles of corporate law, officers and directors are considered to owe a fiduciary duty to (at most) current shareholders, and not to those buying their shares. Thus, under state corporate law, insiders do not owe a fiduciary duty to those buying the firms shares, even if they inflate the stock price by making statements designed to increase positive noise. As a result, they cannot easily sue, under state law, for misleading buyers about the value of the stock.

This gap has been closed by the federal securities laws, which courts have used to extend fiduciary protection to buyers, allowing buyers to sue managers for fraud.⁴⁵ But such protection results from federal securities law and, before federal securities law was enacted, buyers had no such protection because corporate law did not offer any.

⁴⁵ Federal insider-trading caselaw hold that directors and other corporate insiders have a duty to disclose non-public material information when selling their shares to parties who are not yet shareholders.

On the other hand, state corporate law attempts to protect current shareholders from insiders' seeking to buy stock at a low price through such devices as a freeze-out merger. In addition to federal securities law protections, there are elaborate protections and doctrines under state corporate law (such as the entire fairness doctrine in Delaware law⁴⁶) to force insiders attempting to buy stock from current shareholders through a merger to reveal good inside information. Thus, as a matter of state corporate fiduciary law, there is less protection offered to future shareholders than there is to current shareholders, which is consistent with state corporate law tending to encourage managers to create positive noise.

b. Corporate Law's Permissive Approach to Value-Wasting Manipulation

In addition to providing more fiduciary protection to current shareholders than to future shareholders, state corporate fiduciary law also permits managers to create positive noise at the expense of long-term corporate value. Consider *Kamin v. American Express*, a mid-1970s case that is used in almost every corporate law casebooks to teach law students about the "business judgment rule." *Kamin v. Amex* involved a shareholders' derivative complaint against the directors of Amex, who had approved a transaction that (a) increased the firm's reported earnings and (b) reduced its intrinsic value. American Express had purchased shares of stock in another company (Donaldson, Lufken & Jenrette ("DLJ")). These DLJ shares subsequently declined substantially in value. The board

⁴⁶ See *Weinberger v. UOP* (1983).

considered two alternative transactions: (1) selling the DLJ stock at a loss; or (2) distributing the DLJ stock as a dividend.

Transaction (1), the sale of DLJ stock, would give rise to a capital loss, allowing Amex to obtain a capital loss deduction. This deduction, in turn, would have reduced Amex's taxable income and saved Amex around \$8 million in taxes, thereby boosting Amex's net assets (and intrinsic value). However, the sale of the stock would also give rise to a loss that, for accounting purposes, would have been charged to income, and therefore reduce Amex's reported earnings for the year. Transaction 2, the dividend, would have no effect on Amex's tax obligation or its reported earnings.

The board chose Transaction 2. The plaintiffs in the case contended the directors should have sold the DLJ shares at a loss rather than distributing them to the American Express stockholders. The board's rationale for the dividend was that the sale of the DLJ stock would have reduced reported earnings and therefore adversely affected the stock price. Faced with a transaction that reduced the intrinsic value of the corporation by \$8 million in order to avoid reporting a loss in the company's published financial statements, the court granted the defendants' motions to dismiss the complaint under the "business judgment rule." Although this case was decided in a New York court, there is little doubt that most state courts interpreting their corporate laws would follow this approach. Indeed, there has never been a case in which officers or directors have been held liable for violating fiduciary duties for wasting corporate assets in order to

prop up the stock price.⁴⁷

2. Board-Adopted Arrangements

We just saw that corporate law fiduciary duties protect future shareholders less than current shareholders and permit managers to create noise even at the expense of long-term corporate value. However, if *Kamen v. Amex* were an isolated example, and managers generally did not act in ways to create noise and transfer value from future shareholders to current shareholders, one could not conclude that corporate governance arrangements were inefficiently tilted against future public shareholders. However, *Kamen v. Amex* was not an isolated example. Boards have used their ability, within limits set by federal securities law, to adopt compensation arrangements and payout policies that encourage and enable managers to generate positive noise and thereby systematically favor current public shareholder over future shareholders.

a. Compensation Arrangements

Boards of U.S. public companies have designed compensation policies to reward managers for generating positive noise and boosting the short-term stock price even at the expense of long-term corporate value. A board seeking to reward managers for the creation of long-term corporate value and to discourage them from generating short-term price spikes would (a) require managers to hold most of their equity compensation for the long-run; (b) limit the ability of managers to time their stock sales and;

⁴⁷ See Franklin Gewirtz (2003).

(c) force managers to return bonuses based on manipulated earnings and the proceeds of stock sales that followed the release of inflated earnings results. In fact, boards have rarely take any of these steps. Managers are permitted to unwind their equity positions on a regular basis, sell stock in secret, often at the time of their choosing, and keep bonuses and the proceeds of stock sales based on inflated earnings. Not surprisingly, this has incentivized managers to create noise by inflating earnings, to the benefit of initial shareholders and at the expense of future shareholders and long-term corporate value.⁴⁸

As noted earlier, corporate law has not restricted managers' ability to sell on inside information. Until the securities laws were enacted in the 1930s, executives could freely sell their stock while aware of bad news that would shortly emerge. And boards permitted them to do so.

The securities law now make it illegal for executives to trade on "material" inside information. However, these laws do not prevent managers from using private information to trade significant profits when trading in their firm's shares.¹⁷ Managers are able to put together many kinds of inside information. Even when no single piece of data is sufficiently concrete and important to be legally "material," knowledge of all those individual pieces of information and how they fit together often

⁴⁸ See Bolton et al. 2005. They present a model in which the ability of managers to manipulate prices and unwind their equity and initial investors results from an "optimal contract" between these investors and managers. This work is very much in the spirit of their approach, except that I focus not only on firms' choice of compensation policy, but also on their state (country) of incorporation, their charter provisions, and their payout policy. Bolton also do not consider the implications of their analysis for the market for corporate charters, the optimal shape of securities laws, and the debate over whether investors should choose their own securities regime. Moreover, Bolton argues that these contracts arise only in speculative markets. I claim that markets are always noisy.

enables managers to form a better overall understanding of the firm's situation.

In addition, managers can often trade on legally material information and get away with it. The SEC, which is responsible for enforcing insider trading laws, has a relatively small enforcement budget. The agency can afford to pursue only those cases that are easily won – cases usually involving abnormally heavy trading by executives several days before an important news announcement. As a result, many executives can use even their “material” inside information without much fear of detection. This may help explain the body of evidence indicating that managers are able to make considerable abnormal profits – that is, higher than market returns – when trading in company stock.

Boards could easily reduce managers' ability to sell shares based on inside information. One approach would require that stock sales be carried out gradually, over a specified period according to a prearranged plan. Managers required to sell company stock under such a plan could not easily exploit their access to inside information. Executives and directors of public companies have been well aware of this possible approach – and its potential benefits for shareholders – for at least several years: in 2000, the SEC adopted Rule 10b5-1, which creates a safe harbor for insider trading liability for managers trading according to such a plan, as long as they do not adopt the plan while aware of material inside information. Since then, many law firms have advised their public company clients to use such so-called 10b5-1 plans. However, few (if any) firms have required executives to sell their shares according to a prearranged plan.

Alternatively, as I proposed in earlier work, executives could be required to disclose their intended trades publicly and in advance. Under such a pretrading disclosure requirement, the announcement of an unusually large sale would signal the possibility that the executive knows bad news about the firm. This would drive the price down, reducing executives' ability to make a profit by trading on inside information.

Why haven't boards taken these steps? Executives who are free to unload shares or options may have incentives to jack up short-term stock prices by running the firm in a way that improves short-term results at the expense of long-term value. They may also seek to provide the market with an overly positive picture of short-term results and long-term prospects. In short, the ability to dump shares gives managers an incentives to create positive noise.

Indeed, a growing body of empirical work supports the view that managers' freedom to unload options and shares has provided them with incentives to create such noise. Several studies find evidence that managers whose compensation is more directly tied to share prices are more likely to manipulate earnings. The empirical evidence also suggests that managers engage in earnings manipulation and fraud in order to unload shares at a higher price.

Messod Beneish found that managers of firms whose earnings were overstated sold at a high rate before the overstatement was corrected. Scott Summers and John Sweeney found that firms that fraudulently misstate their earnings have a higher level of insider selling activity – measured by number of transactions, number of shares sold, or the dollar amount of shares sold. Shane Johnson, Harley Ryan, and Yisong Tian found that executives at firms that committed fraud exercised significantly larger

fractions of their vested options than other executives. This pattern indicates that it is not the mere holding of options and shares – but rather the freedom to unload them in the short run – that produces incentives to engage in misreporting.

Finally, there is evidence that executives' freedom to unload holdings has provided incentives to improve financial results in ways that reduce shareholder value. Merle Erickson, Michelle Hanlon, and Edward Maydew studied firms that restated their financial statements following SEC allegations of accounting fraud during the years 1996 to 2002. They found that these firms collectively paid an extra \$320 million in taxes – but only after they had overstated their earnings by \$3.36 billion, which in turn allowed managers to sell their shares at a higher price.

In the future, the Sarbanes-Oxley Act will reduce executives' incentive to inflate short-term stock prices. In addition to making it more difficult to misreport, the Act also seeks to prevent executives from being able to profit by doing so. Under the act, the CEO and CFO of a firm required to restate earnings under certain conditions must give back to the company any bonus or other incentive or equity-based compensation received during the 12 months following the filing of the misleading financial statement, or any profits realized from the sale of stock they received within that 12-month period. What is interesting, however, is that boards have never imposed such a requirement themselves. The analysis I offer suggests why: such requirements would reduce managers' incentives to create positive noise, and potentially reduce the value of initial investors' shares.

b. Payout policy.

Boards have also used payout policy to shift value from future shareholders to current shareholders. As indicated in Part II, there is considerable evidence that investors hold different views about the value of publicly traded stock. In the presence of such heterogeneous beliefs, the demand curve for stock slopes downward. The highest-valuing investor would be willing to hold the stock even if it were to trade at a price much higher than the current market price. At lower prices, more and more investors would be willing to own the shares. If the demand curve for a given stock slopes downward, the stock will trade at a price reflecting the subjective valuation of the firm's lowest-valuing (or "marginal") shareholder.

When the demand curve for stock slopes downward, managers can use repurchases to create positive noise through mechanical manipulation. Given an upward-sloping supply curve, a stock buyback repurchases shares from those whose reservation values are below the repurchase price, leaving shares in the hands of those whose reservation values are higher. The shareholders remaining after the repurchase will, therefore, tend to have higher reservation values than the pre-repurchase shareholders.⁴⁹ Most importantly, the post-repurchase marginal shareholder -- the shareholder with the lowest reservation value after the repurchase -- should have a higher reservation value than that of the pre-

⁴⁹ See Booth, *supra* note x, at 1089 (observing that open market share repurchases put upward pressure on the price by eliminating the lowest-valuing shareholders).

repurchase marginal shareholder.⁵⁰ Everything else equal, a repurchase should increase the trading price of the stock through this “price pressure” effect.

Thus, managers wishing to unload their own shares at a higher price have an incentive to use repurchases to exert upward pressure on the price, and this benefits not only themselves but also current shareholders selling their shares.

In fact, the use of repurchases rather than dividends to distribute cash has increased significantly over the last 20 years. The use of repurchases to exert price pressure not only transfers value from future shareholders to current shareholders but can also reduce long-term corporate value. For example, managers seeking to boost the stock price before selling shares might repurchase shares with funds that can generate more value invested in the firm even when the stock is overpriced.

⁵⁰ Cf. Bagwell, *supra* note, at 72-73 (describing evidence that Dutch auction RTOs change the marginal shareholder).

VI. Securities Law as Response to Market Failure
[to be added]

VII. Normative Implications [to be added]

Appendix

This Appendix contains a simple model that can be used to illustrate the arrangements a firm's insiders are likely to choose under various assumptions about stock price noisiness.

A. Setup

There are three players:

(1) Manager of ABC Corporation ("M"), who designs the firm's governance arrangements, sells ABC's single share to initial shareholder (IS), and continues to run ABC until it is liquidated and ABC's value (V), which is partly a function of its governance arrangements, is distributed to M and its shareholder.

(2) Initial Shareholder (IS), a rational and fully informed investor who buys shares from Manager, and either sells their share before ABC is liquidated or holds their share until ABC is liquidated; and

(3) Future Shareholder, ("FS") who stands ready to buy Initial Shareholder's single share should Initial Shareholder wish to sell.

The sequence of events is as follows:

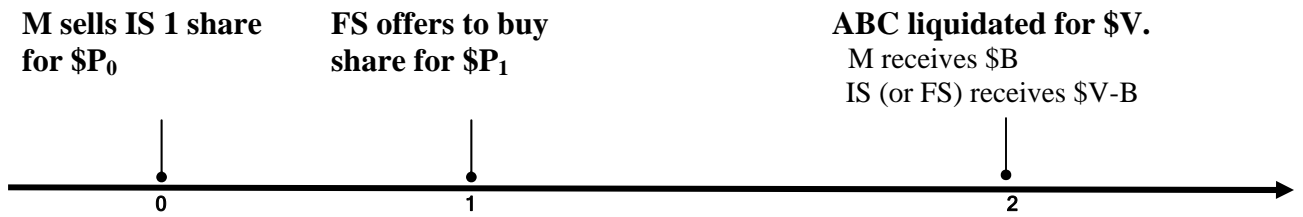


FIGURE 1. SEQUENCE OF EVENTS

Period 0. Manager (M) owns 1 share of ABC Corporation (ABC) and, after designing ABC's governance arrangements, sells that share to Initial Shareholder (IS) for a price $\$P_0$. Assume that IS is rational and fully informed and is willing to pay an amount equal to the expected value of the cash flowing to them qua shareholder.⁵¹

Period 1. Future shareholder (FS) offers to buy ABC's 1 share for $\$P_1$. IS either sells share for $\$P_1$ or retains share until Period 2. Designate the probability that IS sells as "p." Assume that the decision to sell is exogenous (e.g., it might depend on IS' liquidity needs).

Period 2. ABC is liquidated and its total value ($\$V$) is distributed. Manager receives private benefits of $\$B$. The sole shareholder (IS or FS) receives the residual, $\$V-B$.

⁵¹ I ignore the time value of money and risk.

A. Analysis

1. Initial Shareholders' Reservation Value

Given that the probability that IS sells the share in Period 1 is “p,” that the share will yield $\$(V-B)$ in Period 2, and that IS is rational and fully informed, it follows that IS will pay for the single ABC share

$$P_0 = p P_1 + (1-p)(V-B). \quad (1)$$

2. Managers' Objective

In Period 0, M has an incentive to offer arrangements that maximize the sum of the proceeds of the stock sold to IS and his private benefit. Thus, M's objective is to maximize $P_0 + B$. Substituting from (1),

$$\text{M's objective is to maximize } p(P_1 + B) + (1-p)(V) \quad (2)$$

3. Managers' Objective in Efficient Market

In an efficient market,

$$P_1 = V - B. \quad (3)$$

Substituting (3) into (2) implies that

M's objective is to maximize V (4)

Thus, in adopting governance arrangements, Manager has an incentive to offer those arrangements that maximize total value when the market is perfectly efficient.

4. Managers' Objective in Noisy Market

Noisy prices. I will now modify the model to take into account the possibility of noisy prices. Suppose that, in a noisy market, stock prices are a weighted average of intrinsic value (V-B) and a noise variable "N", such that

$$P_1 = (1-\alpha)(V-B) + \alpha N \quad (5)$$

Where $0 \leq \alpha \leq 1$ and corresponds to the noisiness of stock prices. (Alternatively, α can be thought of as the likelihood that the stock price in Period 1 will be completely noisy). Assume for now that both α and N are exogenous.

Substituting (5) into (2) implies that Manager's objective is to

$$\text{Maximize } (1-\alpha p)V + \alpha p(B+N) \quad (6)$$

Remark: Unlike in an efficient market, when Manager's objective is to maximize V, his objective in a noisy market is to maximize the weighted average of V and B+N, where the weighting depends on αp , the degree (or likelihood) of noise multiplied by the probability that initial shareholders

will sell shares in Period 1. If there is no noise, or initial shareholders will not sell in the short-run, Manager's objective collapses to that in an efficient market: maximize V . As αp increases, that is, as markets become noisier and the probability of short-term selling increases, the importance of $B+N$ to Manager increases.

5. Incentive to Adopt Value-Increasing Arrangements

As we will now see, Manager will have an incentive to forego certain value-increasing arrangements when those arrangements would reduce his private benefits, B .

Consider arrangement X that will increase V by ΔV_x and reduce B by ΔB_x .

Manager will have an incentive to offer arrangement X to initial shareholders if and only if

$$(1-\alpha p) \Delta V_x + \alpha p \Delta B_x > 0 \text{ or if}$$

$$\Delta V_x > [\alpha p / (1 - \alpha p)] \Delta B_x \tag{7}$$

Thus, the firm will not offer an efficient arrangement X when

$$0 < \Delta V_x < [\alpha p / (1 - \alpha p)] \Delta B_x \tag{8}$$

As α and p (and ΔB) increase, the likelihood that the firm will offer efficient arrangement X decreases.

6. Incentive to Forego Efficient Noise-Suppressing Arrangements

Suppose that now N (but for simplicity, not α) can be manipulated. And consider an arrangement that would prevent managers from engaging in value-wasting (V -reducing) noise generation. Specifically, consider arrangement Y that will increase V by ΔV_y and reduce N by ΔN_y .

From (6) it follows that M has an incentive to offer arrangement Y if

$$(1-\alpha p) \Delta V_y + \alpha p \Delta N_y > 0$$

or iff

$$\Delta V_y > -[\alpha p / (1-\alpha p)] \Delta N_y \quad (8)$$

Thus, M will not offer an efficient arrangement Y whenever

$$0 < \Delta V_y < -[\alpha p / (1-\alpha p)] \Delta N_y \quad (9)$$

It is easy to see that Manager has a greater incentive to forego efficient arrangements that prevent him from making noise arrangements as α , p , and ΔN_y increase.