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ABSTRACT

Blockholders and Corporate Governance*

This paper reviews the theoretical and empirical literature on the different channels through which blockholders (large shareholders) engage in corporate governance. In classical models, blockholders exert governance through direct intervention in a firm's operations, otherwise known as "voice." These theories have motivated empirical research on the determinants and consequences of activism. More recent models show that blockholders can govern through the alternative mechanism of "exit" – selling their shares if the manager underperforms. These theories give rise to new empirical studies on the two-way relationship between blockholders and financial markets, linking corporate finance with asset pricing. Blockholders may also worsen governance by extracting private benefits of control or pursuing objectives other than firm value maximization. I highlight the empirical challenges in identifying causal effects of and on blockholders, and the typical strategies attempted to achieve identification. I close with directions for future research.

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Keywords: activism, exit, governance, large shareholders, microstructure and voice

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1. INTRODUCTION

Berle and Means's (1932) seminal article highlighted the agency problems that arise from the separation of ownership and control. When a firm's managers are distinct from its ultimate owners, they have inadequate incentives to maximize its value. For example, they may exert insufficient effort, engage in wasteful investment, or extract excessive salaries and perks. The potential for such value erosion leads to a first-order role for corporate governance – mechanisms to ensure that managers act in shareholders' interest. The importance of firm-level governance for the economy as a whole has been highlighted by the recent financial crisis, which had substantial effects above and beyond the individual firms involved.

Since the source of agency problems is that managers have inadequate stakes in their firms, large shareholders – otherwise known as blockholders – can play a critical role in governance, because their sizable stakes give them incentives to bear the cost of monitoring managers. Blockholders are prevalent across companies and around the world. Holderness (2009) finds that 96% of U.S. firms contain at least one blockholder (defined as a shareholder who holds at least 5%); this ratio is the 15th highest out of the 22 countries that he studies. Thus, understanding the role that blockholders play in corporate governance is an important question.

Large shareholders can exert governance through two main mechanisms (see Hirschman (1970)). The first is direct intervention within a firm, otherwise known as *voice*. Examples include suggesting a strategic change via either a public shareholder proposal or a private letter to management, or voting against directors. While most of the early research on blockholder governance has focused on voice, a recent literature has analyzed a second governance mechanism – trading a firm's shares, otherwise known as *exit*, following the “Wall Street Rule,” or taking the “Wall Street Walk.” If the manager destroys value, blockholders can sell their shares, pushing

down the stock price and thus hurting the manager ex post. Ex ante, the threat of exit induces the manager to maximize value.

Blockholders may also exacerbate rather than solve agency problems. First, even if blockholders' actions maximize firm value ex post, their presence may reduce value ex ante: the threat of intervention may erode managerial initiative, and their mere presence may lower liquidity. Second, instead of maximizing firm value, they may extract *private benefits*. While blockholders may alleviate conflicts of interest between managers and investors, there may be conflicts of interest between the large shareholder and small shareholders. For example, blockholders may induce the firm to buy products from another company that they own at inflated prices.

This article will survey the three mechanisms through which large shareholders can affect firm value – improving it by governance through voice, improving it by governance through exit, or worsening it through extracting private benefits or other channels. I start by reviewing the theoretical literature, in particular highlighting empirical implications. While the two governance mechanisms share some predictions – for example, a larger stake generally improves governance through both voice and exit, and such governance in turn enhances firm value – they differ in many others. Most notably, voice theories yield implications for the causes and consequences of activism, while exit theories predict how blockholders affect financial markets and how their effectiveness depends on microstructure factors. I then move to the empirical evidence on the determinants and effects of blockholder structure.

In linking the theoretical and empirical literatures, I emphasize four challenges. First, identifying causal effects is difficult: instead of causing changes in firm outcomes, potential investors may predict changes in firm outcomes and acquire a block accordingly, or unobservable variables may jointly attract large shareholders and affect outcomes. Second, blockholders can exert governance through the *threat* of exit and voice, rather than only actual acts of exit and voice.

The absence of these actions does not imply the absence of governance – on the contrary, the threat of intervening or selling may be sufficient to induce the manager to maximize value, so that the actual act is not necessary. However, such threats are much harder for empiricists to observe. Third, there is no unambiguous definition of a blockholder. While the empirical literature typically defines a blockholder as a 5% shareholder, since this level triggers disclosure requirements in the U.S., theoretical models predict that monitoring increases continuously with block size (up to a point), rather than a discontinuity at 5%. Moreover, the percentage stake required for a blockholder to exert a given level of governance will differ across firms, and the dollar block size may be more relevant in some settings. Fourth, while most models consider a single blockholder or multiple symmetric blockholders, in reality blockholders are a diverse class comprising many different types of investor: hedge funds, mutual funds, pension funds, individuals, and corporations. These different investors may engage in different forms of governance, be affected by firm characteristics in different ways, and have different effects on firm outcomes. Considering blockholders as a homogenous entity may miss interesting relationships at a more granular level.

Far from reducing its attractiveness as a research area, these empirical challenges suggest that blockholder governance is a particularly fruitful topic, as they mean that many first-order questions – including an issue as fundamental as whether blockholders affect firm value – remain unanswered, and many theories remain untested. This article will close by highlighting open questions for future research, both theoretical and empirical. In particular, while early voice theories spawned an empirical literature on blockholders and corporate control (see Holderness (2003) for an excellent survey), recent exit theories suggest a different way of thinking about blockholder governance that gives rise to new areas for research – in particular, the link between governance (traditionally a corporate finance topic) and financial markets (traditionally an asset

pricing topic). (See Bond, Edmans, and Goldstein (2012) for a survey on the link between financial markets and corporate finance).

This article focuses on outside blockholders: large shareholders who are not the firm's officers.¹ The literature on inside blockholders is covered by reviews of the CEO compensation literature, such as Murphy (1999, 2013), Edmans and Gabaix (2009), and Frydman and Jenter (2010).

2. THE THEORY

2.1 Theories of Voice / Intervention

Intervention encompasses any action that an investor can undertake, that improves firm value but is personally costly to the investor. It can involve helping managers to create value, such as providing advice on strategic alternatives, or preventing managers from destroying value, such as blocking a wasteful merger or removing an underperforming executive. Regardless of the specific form, all intervention involves a free-rider problem: the blockholder bears all of the costs of intervention, but only enjoys a fraction of the benefits.

I first introduce notation to make the discussion more concrete; in addition, using consistent notation across models will highlight their shared themes. Let V (V^*) denote firm value without (with) the intervention, $G = V^* - V$ be the value created by intervention, and P be the price at which the blockholder can trade shares. (This price will typically depend on the number of shares that the blockholder trades, and whether she buys or sells). The blockholder's initial stake is given by α .

Shleifer and Vishny (1986) model the blockholder's free-rider problem. The blockholder engages in costly monitoring, which increases the probability that she uncovers a superior business

¹ Some empirical studies further distinguish between outside blockholders who are on the board of directors and those who are not.

strategy that creates a privately-known value G . If she finds an improvement, she can implement it through one of three channels of intervention. First, she can pay the cost of launching a takeover bid for $0.5 - \alpha$ shares to obtain majority control and implement the restructuring. She earns a return on her activism from two sources: her initial stake of α increases in value by αG , and she may also be able to buy the additional $0.5 - \alpha$ shares at a price P that is below the post-restructuring value V^* . This purchase is subject to the Grossman and Hart (1980) free-rider problem²: small shareholders will demand a price P that incorporates their expectation of the restructuring gains (and thus exceeds V). However, since small shareholders do not know the actual restructuring gains G (and thus post-restructuring value V^*), but must estimate it, P will typically be below V^* . The higher the blockholder's initial stake α , the higher her share of the restructuring gains αG (her first source of return), and so G need not be so high to induce her to bid. Since small shareholders expect fewer restructuring gains, they are willing to sell for a lower price P . This lower takeover premium further increases the blockholder's monitoring efforts to begin with.

Second, the blockholder can implement the new strategy after changing the board of directors via a proxy fight³ – proposing her own slate of directors and soliciting votes from other investors, for example, via a public campaign. A larger stake is again beneficial, through the standard free-rider argument: it gives the blockholder a sufficiently large share of the gains αG to offset the cost of the proxy fight.⁴ Third, she can implement the strategy by “jawboning”: informal negotiations

² The general free-rider problem in intervention is that the blockholder only earns a fraction α of the benefits of intervention (whether intervention involves launching a takeover bid or proxy fight, engaging with management, or any other channel) but bears all of the costs. The Grossman and Hart (1980) free-rider problem is specific to the takeover channel: small shareholders will not sell their shares to the acquirer for V , instead wishing to free-ride on the restructuring that the acquirer will undertake post-acquisition. They will only sell for V^* , reducing the blockholders' gains from taking over the firm. However, it does not apply to the other channels (e.g., jawboning or voting) which do not require the purchase of additional shares.

³ See Yermack (2010) for a review of the role in corporate governance of shareholder voting more generally.

⁴ See, e.g., Becker, Bergstresser, and Subrahmanian (2013) for details on the costs of launching a proxy fight. Gantchev (2013) builds a sequential decision model to estimate the costs of proxy fights and other stages of shareholder activism.

with firm management such as writing letters. This mechanism is less costly as it does not involve changing management, but the absence of a management change also means that it realizes only a fraction of the potential value creation $(1-\beta)G$, where $\beta > 0$. A higher α encourages the blockholder to pay the cost of a takeover, rather than jawboning, thus creating greater value as the full improvement G is achieved. In sum, Shleifer and Vishny (1986) predict that firm value is monotonically increasing in block size.

Since block size determines intervention incentives, Winton (1993), Noe (2002), and Edmans and Manso (2011) show that the number of blockholders affects the strength of voice by impacting block size. Splitting a block between multiple investors (e.g., so that N blockholders each hold α/N shares) weakens voice by exacerbating the free-rider problem: each individual shareholder has less incentive to intervene.

Even if a blockholder has a sufficiently large stake to justify the costs of intervening, she may still not do so. Kahn and Winton (1998) show that the blockholder may instead “cut and run”: not intervene (in which case the firm is worth V) and sell her shares. She will be able to sell for a price P that exceeds V , since the price incorporates a possibility of intervention, and thus profit from selling.⁵ (Unlike in “exit” theories, such selling has no beneficial impact on governance, as there is no managerial action.) The option to cut and run leads to a second driver of intervention in addition to block size: stock illiquidity, the cost at which the blockholder can trade her shares. Holding all else equal, greater illiquidity reduces the profitability of selling and thus encourages intervention. One source of illiquidity is price impact – a large trade moves the price because the market maker fears that the trader is informed (adverse selection). In turn, price impact can be reduced by the

⁵ Maug (2002) shows that this problem is particularly severe if insider trading is allowed. The manager will voluntarily tell the blockholder bad news, to encourage her to “cut and run” on this news rather than intervene.

presence of investors who trade for non-informational reasons, such as financing consumption.⁶ A second source is transaction costs, such as taxes, commissions, or shorting costs. A third is inventory holding costs, the market maker's cost of holding risky assets after buying from the blockholder.

Coffee (1991) and Bhidé (1993) verbally argued that greater liquidity is harmful to voice, as it facilitates cutting and running. This point was later modeled formally by Aghion, Bolton, and Tirole (2004) and others. It led academics and practitioners to advocate the Japanese model of illiquid stakes, to “lock in” shareholders for the long-term and induce them to govern through voice. These arguments have resurfaced in the recent financial crisis, as commentators argued that locked-in shareholders would have monitored firms more closely and prevented the crisis. The European Union implemented disclosure requirements for short positions in November 2012, and in September 2011 it recommended implementing a financial transaction tax in all 27 member states by 2014.

Maug (1998) overturned the above arguments by showing that liquidity can *encourage* intervention. As in Shleifer and Vishny (1986), the blockholder gains from intervention not only on her initial stake α , but also by buying additional shares for a price $P < V^*$; liquidity reduces the price that she must pay. In general, if block size α is exogenous, whether the costs of liquidity (encouraging “cutting and running”) dominates its benefits (encouraging “doubling down and intervening”) depends on parameter values. However, Maug shows that the blockholder will endogenously choose an initial stake α for which the benefits of liquidity outweigh the costs, and so liquidity is unambiguously beneficial.

⁶ Such needs are often referred to as “liquidity” needs, and these investors as “liquidity” investors. Note that these are different concepts from stock liquidity; while stock liquidity is enhanced by the presence of liquidity investors, it is also enhanced by other factors such as a reduction in transaction costs.

A second benefit of liquidity is identified by Faure-Grimaud and Gromb (2004). The value created by intervention may only manifest in the long term. The blockholder may be hit by a liquidity shock that forces her to sell in the short term at a price P that is less than V^* (because the full benefits of intervention have not yet materialized). Stock liquidity encourages trading by speculators (such as hedge funds), who have information on V^* through their own monitoring. Such trading pushes P closer towards V^* , and thus allows the blockholder to earn a return on her intervention even if she has to sell early.

A third benefit of liquidity is that it facilitates initial block formation. In Grossman and Hart (1980) and Shleifer and Vishny (1986), the free-rider problem exists because atomistic shareholders have full discretion on whether to sell, and thus will only sell for a price that includes the expected gains from restructuring. Kyle and Vila (1991) show that the presence of liquidity traders, who are forced to sell due to a liquidity shock, allows the raider to overcome the free-rider problem and obtain a block. In Kahn and Winton (1998) and Maug (1998), liquidity increases the informed trading profits that the blockholder can enjoy once she has acquired her stake. Fearing future losses to the blockholder, small shareholders are willing to sell at a discount when the blockholder acquires her initial stake, and so liquidity encourages block formation. In sum, voice theories reach different conclusions on whether liquidity hinders or helps intervention.

2.2 Theories of Exit / Trading

Many of the above forms of intervention are difficult to implement for some blockholders. First, certain blockholders' competitive advantage may lie in selecting stocks, rather than launching a proxy fight or providing strategic advice. Using the terminology of Dow and Gorton (1997), their expertise lies in gathering backward-looking, *retrospective* information to evaluate the current value of the firm (which depends on past decisions), but not forward-looking, *prospective* information

about optimal future investments. Second, even with expertise, successful intervention can be difficult. The firm can use corporate resources to support the board's recommended slate of directors in a proxy fight or oppose a takeover bid, e.g., through campaigning to shareholders. It can stagger board elections so that only a minority of positions can be voted on during a particular year. Third, particularly in the U.S., most blockholders hold small stakes. While Holderness (2009) reports that 96% of U.S. firms feature a shareholder who owns at least 5%, La Porta, Lopez-de-Silanes, and Shleifer (1999) note that only 20% (10%) of large (medium) U.S. firms feature a blockholder with at least 20%, which they estimate as the threshold required to exert control.⁷ Roe (1990) documents political and legal impediments to forming large blocks in the U.S. The theories in Section 2.1 show that low α reduces incentives to intervene. Even if the blockholder's incentives were sufficient (e.g., high G means that αG is high even if α is low), a low stake lowers her likelihood of success in a proxy fight (which requires winning a sufficient percentage of votes) or being able to "jawbone" managers into changing strategy (since managers' receptivity may depend on the threat of a proxy fight if they are non-compliant).

In the context of voice theories, the prevalence of small blockholders poses a puzzle – if they cannot intervene, why do they exist, given that holding an undiversified stake is costly from a risk perspective? Admati and Pfleiderer (2009) and Edmans (2009) show that, even if a blockholder cannot exercise voice, she can still exert governance through the alternative channel of exit. We now define V^* as the firm's long-run fundamental value after the manager has taken an action (e.g., effort or investment). The manager's objective function will typically place weight not only on V^* but also the short-term stock price P , for reasons discussed below. Thus, his incentives to improve

⁷ Since La Porta et al. study several countries, they use a small sample size within each country: "large firms" are the top 20 firms by market capitalization, and "medium firms" as the smallest 10 firms with a market capitalization of at least \$500 million. In personal correspondence, Cliff Holderness kindly reports a median block size of 8.9% in the U.S., using the dataset of Holderness (2009).

V^* will depend on the extent to which these improvements are reflected in P . The blockholder has private information on V^* ; by trading on this information, she makes the stock price more reflective of firm value.⁸ Put differently, if the manager destroys value and reduces V^* , the blockholder will sell her shares and drive the stock price down towards V^* , hurting the manager.⁹ Thus, the manager has greater incentives to maximize value in the first place; in Admati and Pfleiderer (2009), he typically exerts greater effort¹⁰, and in Edmans (2009), he invests in long-term projects. Note that exit theories do not require the blockholder to be cognizant of the impact of her trading on the manager's behavior for it to be effective. The blockholder could be motivated purely by the private desire to earn informed trading profits, but such self-interested actions have a social benefit by disciplining the manager.

A natural question is why blockholders have private information on V^* , and similarly why they have a special role in governing through exit, compared to other traders (e.g., speculators without a stake). Edmans (2009) microfounds the link between block size, information acquisition incentives, and informed trading. Regardless of her stake, the investor has the option to engage in costly monitoring to gather information about V^* . In the presence of short-sale constraints, a trader with a zero position has little incentive to acquire information, because if she receives a negative signal, she cannot trade on it. Up to a point, the larger her stake, the more she can sell upon a

⁸ While this governance mechanism is commonly referred to as “exit,” blockholder trading in both directions increases price informativeness. In Edmans and Manso (2011), the blockholder trades in both directions. In Admati and Pfleiderer (2009) and Edmans (2009), the blockholder either holds or sells in the core model, but the results are robust to allowing for blockholder purchases.

⁹ In Edmans (2009), exit involves breaking up a block and selling shares on the secondary market, so that the blockholder can camouflage with liquidity traders. In Admati and Pfleiderer (2009), the block remains intact and its sale is observable, but is sold to an uninformed market maker who does not know whether the blockholder has sold due to a liquidity shock rather than negative information. Negotiated block sales (studied, e.g., by Barclay and Holderness (1991)), where the block not only remains intact but is sold to an informed buyer who engages in substantial due diligence, are unlikely to be motivated by negative private information.

¹⁰ Interestingly, Admati and Pfleiderer (2009) show that, in some specifications of the model, the blockholder can exacerbate agency problems. If all investors can observe whether the manager has taken an action to increase firm value, but only the blockholder can observe the amount of value created by the action, the blockholder will sell her shares if the value increase is small. Such selling will reduce the stock price, and thus the manager's incentive to take the value-maximizing action to begin with.

negative signal and thus the greater the incentives to gather the signal to begin with. However, if α becomes too large, liquidity becomes a constraint: the blockholder cannot sell her entire stake upon a negative signal as the price impact will be too high. Thus, in contrast to some voice theories, the optimal block size is finite, consistent with the prevalence of small blockholders in the U.S.

Like voice, the effectiveness of exit depends not only on block size but also on liquidity – but, while voice theories have differing predictions, Edmans (2009) shows that liquidity (i.e., the volume of liquidity trader demand) enhances exit through three channels. First, holding private information constant, the blockholder trades more aggressively on her information. Second, holding block size constant, she gathers more private information since she can profit more from trading. Third, since liquidity allows her to sell more upon negative information, she acquires a greater initial block. One disadvantage of liquidity is that a given trade size has less impact on the stock price, because the blockholder’s informed trade is camouflaged with liquidity investors.¹¹ However, the overall effect of liquidity on price informativeness – and thus the manager’s incentives to maximize firm value – is positive. The first and second effects are also featured in Edmans and Manso (2011). Admati and Pfleiderer (2009) do not feature liquidity traders, but transaction costs reduce the effectiveness of governance through exit. Their model also predicts that liquidity improves governance, to the extent that illiquidity proxies for transaction costs.

A third determinant shared with the voice channel is the number of blockholders. However, here, the effect works in the opposite direction. While splitting a block reduces the effectiveness of voice by exacerbating the free-rider problem, Edmans and Manso (2011) show that the same coordination difficulties strengthen exit. The threat of selling one’s shares upon managerial

¹¹ In the Kyle (1985) model, where block size is irrelevant (due to the absence of short-sales constraints) and information is exogenous, the second and third benefits of liquidity do not apply. The first benefit of liquidity is fully offset by the disadvantage of liquidity, and so price informativeness is independent of liquidity. However, with endogenous information acquisition, liquidity is unambiguously beneficial for price informativeness (see also Edmans and Manso (2011) who do not feature short-sales constraints).

misbehavior only elicits value maximization ex ante if it is dynamically consistent. Once the manager has taken his action, blockholders cannot change it and are concerned only with maximizing their trading profits. As in Kyle (1985), a single blockholder will strategically limit her order to hide her private information. In contrast, multiple blockholders trade aggressively, as in a Cournot oligopoly (see also Holden and Subrahmanyam (1992)). Such trading impounds more information into P , so that it more closely reflects V^* and thus the manager's actions.

There are other determinants of the effectiveness of exit that are not shared with voice. The first is the manager's contract – in particular, the weight placed on P versus V^* . Short-term concerns may stem from a number of factors: takeover threat (Stein (1988)), termination threat (Edmans (2011)), concern for managerial reputation (Narayanan (1985), Scharfstein and Stein (1990)), the manager expecting to sell his shares before V^* is realized (Stein (1989)), the manager considering the interests of shareholders who expect to sell early (Miller and Rock (1985)), or the firm intending to issue equity (Stein (1996)).

A second determinant is the blockholder's own short-term concerns. In Edmans (2009) and Edmans and Manso (2011), the blockholder has full discretion on over when to sell, but in Admati and Pfleiderer (2009), she may suffer a liquidity shock that forces her to sell regardless of the manager's action. An increase in the frequency of this shock reduces the effectiveness of exit, as the blockholder may sell even if the manager is maximizing value. Goldman and Strobl (2013) study a blockholder who may be forced to liquidate her shares before V^* is realized. To increase the price at which any future liquidation will occur, she has incentives to refrain from disciplinary exit and instead buy additional shares. Such price manipulation is only possible if the firm's assets are complex, i.e., their value does not become public during the shareholder's tenure. Since the manager wishes to encourage price inflation, he chooses excessive investment complexity.

In Dasgupta and Piacentino (2013), the blockholder's short-term concerns arise from a different source: she is a mutual fund who cares about attracting investor flows. In this case, she may not sell her shares even if the manager has shirked. Selling will signal that her initial decision to buy the firm was misguided, lowering investors' perceptions of her ability and thus their inflows into the fund. Hence, the threat of exit is weaker.

Two other theories show how blockholder trading can exert governance, but through a different mechanism from affecting the incentives of an equity-aligned manager. Levit (2013) combines both exit and voice. Differing from prior theories, voice involves the blockholder communicating private information to guide the manager's action, in a cheap-talk framework. Since the manager cares about private benefits in addition to shareholder value, he may not follow the blockholder's recommendation. The option to exit improves the effectiveness of voice. If the blockholder can exit when the manager pursues private benefits rather than shareholder value, she becomes less misaligned with the manager. Thus, the manager is more willing to follow her recommendation. Exit improves governance even if the manager is unconcerned with P , as it enhances voice.

In contrast to Admati and Pfleiderer (2009) where there is no voice option, Levit shows that increasing the frequency of the blockholder's liquidity shocks can, interestingly, raise her effectiveness in exerting governance. The greater the frequency of liquidity shocks, the higher the stock price if the blockholder voluntarily exits, and thus the greater her willingness to exit if the manager pursues private benefits.

Khanna and Mathews (2012) build on Goldstein and Guembel (2008), where an uninformed speculator (with an initial stake of zero) may manipulate the stock price downwards by short-selling. Such sales will reduce the stock price, fooling the manager into thinking that his investment opportunities are poor and causing him to disinvest incorrectly; the speculator's short position

benefits from inducing this incorrect action. Khanna and Mathews show that a blockholder with a sufficient stake will have incentives to buy to counteract the speculator's bear raid. Even if such purchases incur trading losses, these are outweighed by the benefits of inducing the correct investment decision if α is sufficiently high. Interestingly, an increase in the blockholder's private information may weaken governance, as it may encourage her to trade on her information to maximize trading profits, rather than counteracting the bear raid.

2.3 Theories of the Costs of Blockholders

In addition to creating value through governing through voice or exit, blockholders can also reduce firm value. In Burkart, Gromb, and Panunzi (1997), as in other voice theories, intervention is ex-post desirable, since it ensures that the value-maximizing project is taken. However, the ex-ante threat of intervention reduces the manager's incentive to exert effort to find out about potential projects, because he fears that his desired project (which maximizes private benefits rather than firm value) will not be implemented. Thus, even in an intervention model, the optimal block size can be finite. A similar overmonitoring result arises in Pagano and Röell (1998), where a founding owner-manager chooses shareholder structure when going public. He wishes to maximize the sum of firm value plus his private benefits, net of monitoring costs borne by the new blockholder (as she will demand a price discount to offset these costs). However, when making her monitoring decision, the blockholder will trade off only the effect on firm value and the cost of monitoring, ignoring the fact that monitoring will reduce private benefits. Thus, the founder again chooses a lower block size.¹² Bolton and von Thadden (1998) identify a different cost of large blockholders: a greater block size α lowers the free float $1-\alpha$ and reduces liquidity.

¹² An important difference with Burkart, Gromb, and Panunzi (1997) is that, here, it remains the case that firm value is monotonically increasing in α , but a finite α arises because the founder is not maximizing firm value.

The above costs exist even though the blockholder maximizes firm value ex post. Moreover, the blockholder can lower firm value if she pursues her own private benefits – utility accruing to the blockholder that is not shared with minority investors. Note that private benefits need not be at the expense of other shareholders, as in the case of production synergies with another company controlled by the blockholder.¹³ However, some forms of private benefits may indeed reduce firm value. First, the blockholder may tunnel corporate resources away from the firm, for example through inducing it to engage in business relationships with her other companies at unfavorable terms. Second, her voting decisions may be conflicted: a labor union pension fund may vote for labor-friendly directors (Agrawal (2012)) or a mutual fund may side with underperforming management to preserve business ties (Davis and Kim (2007)). Third, her large stakes may cause her to be concerned about idiosyncratic risk (unlike other shareholders) and induce the firm to forgo risky, value-creating investments. Amihud and Lev (1981) and Lambert (1986) made this point in the context of managers' large stakes causing inefficient risk reduction.

Theorists have modeled the implications of private benefit extraction for blockholder structure. Zwiebel (1995) shows that, when blockholders can extract private benefits, the presence of a majority investor deters other blockholders from forming, as they will not be able to obtain private benefits of control given the presence of the majority shareholder. Thus, large shareholders “create their own space.” While shareholder structure is privately chosen by the blockholders themselves in Zwiebel (1995), in Bennedsen and Wolfenzon (2000), it is chosen by a founding entrepreneur when going public. He brings in outside blockholders to dilute his own power and commit to extracting few private benefits, thus allowing him to sell his equity at a higher price.

¹³ Barclay and Holderness (1992) find that block trades that occur at a premium to the post-announcement exchange price (thus implying private benefits of control) also lead to an increase in the stock price. This result suggests that private benefits are either not at the expense of shareholders, or are outweighed by the governance benefits.

3 THE EVIDENCE

We now turn to empirical evidence of the relationship between large shareholders and firm characteristics. Let F denote a firm characteristic such as profitability, and B either a blockholder action (e.g., the decision to intervene or trade) or a measure of blockholdings. Empiricists have used a variety of measures, such as the presence of a blockholder, the ownership of the largest blockholder, the number of blockholders, or the total ownership of all blockholders.

The theoretical literature generates two broad sets of empirical implications. The first ($I1$) is the effect of F on B : the firm characteristics that determine blockholder presence or actions. The second ($I2$) is the effect of B on F : the impact of blockholder presence or actions on firm outcomes, such as profitability. The two-way relationship between blockholders and firm variables highlights the first challenge to testing these theories: identifying causal effects is difficult. In addition to simultaneity, another problem is that omitted variables may jointly affect both F and B . Several strategies have been attempted to achieve identification. None is watertight, but each helps to partially move our priors towards understanding the determinants and consequences of blockholders. I will summarize two of the many potential strategies here.

The first approach, as with any endogeneity problem, is to find a source of exogenous variation in the independent variable of interest (B or F). For example, instrumenting for B , or using a natural experiment that provides exogenous variation in B , will help identify the effects of blockholders on firm outcomes ($I2$). However, finding exogenous variation in blockholders is particularly challenging, since many variables that affect B will also affect F directly. While Becker, Cronqvist, and Fahlenbrach (2011) instrument for individual blockholders, I am not aware of instruments for blockholders in general. Isolating exogenous variation in F , to identify the determinants of blockholder presence ($I1$), is similarly challenging. A related approach is to instrumenting for a firm characteristic that affects firm outcomes F , and to show that the effect

depends on B . This method will move us towards identifying the effect of B on F ($I2$), although it may be that B proxies for an omitted variable.

A second strategy used in the literature is to analyze the relationship between F (B) and lagged B (F). The use of lagged variables helps mitigate concerns of simultaneity bias, but does not eliminate it. For example, changes in B may occur in anticipation of future changes in F rather than causing it, and thus not identify $I2$. Furthermore, omitted variables may drive both B and future F , since their various determinants may be persistent. These remaining concerns can be further attenuated by an event-study approach that analyzes how firm value changes within a small window surrounding a blockholder action: it is unlikely that the blockholder took her action anticipating that firm value would improve in that specific window.¹⁴ However, this approach can only study blockholders' effects on firm value, rather than other outcomes (e.g. changes in profitability). To investigate the impact of blockholder voice on other firm outcomes, researchers can study how these outcomes differ depending on whether the activism was successful versus unsuccessful, or hostile versus non-hostile. However, this approach cannot be used to study the effects of entry or exit, and omitted variables and reverse causality remain important concerns.

Turning to II , linking F to the level of future blockholdings will not identify causality from F to blockholdings, because it may be that current blockholdings cause current F , and also cause future blockholdings since they are persistent. In contrast, it is less likely (although far from impossible) that a link between F and future *changes* in blockholdings (i.e., blockholder entry) or actions (i.e., selling or intervention) results from reverse causality, since such events are typically difficult to predict and non-persistent. However, we still have the problem that omitted variables may drive both F and the event.

¹⁴ Any anticipation of the event biases event-study returns towards zero.

In addition to endogeneity, which is a concern in almost all corporate finance settings, there are three further empirical challenges when testing blockholder theories. One is that the models emphasize that governance can occur through threats or actions that are typically unobservable to the empiricist. For example, in the voice model of Shleifer and Vishny (1986), “jawboning” may involve writing private letters to firm management; in exit theories, the mere threat of selling shares may be sufficient to induce the manager to maximize value. One solution is to survey blockholders on the governance mechanisms they use (McCahery, Sautner, and Starks (2011)); while a survey cannot identify the effect of these mechanisms, it can shed light on which channels blockholders employ in practice. A second is to obtain non-public sources of information on blockholder governance, such as private letters to management (Carleton, Nelson, and Weisbach (1998), Becht, Franks, Mayer, and Rossi (2009)).

A second challenge is that there is no unambiguous definition of a blockholder. In theory, a blockholder is any investor who has a sufficient incentive to monitor management. There are two sources of ambiguity when applying this concept empirically. The first is what type of investor will constitute a blockholder if she acquires a sufficient stake. While it seems relatively clear that an officer should not be classified as an outside blockholder, as she is unlikely to exert governance on management, it is unclear how to treat a non-officer director. Even some investors who are neither officers nor directors may not engage in governance, such as an Employee Share Ownership Plan (“ESOP”) or index fund. The second source of ambiguity is the required stake to be classified as a blockholder. In the U.S., a blockholder is typically defined as a 5% shareholder, but this definition arises because investors are required to file a Schedule 13 disclosure upon crossing a 5% threshold, rather than being motivated by theory. In theory models, monitoring incentives increase continuously with α (up to a point); there is no discontinuity at 5%. In practice, investors may cluster just below 5% to avoid disclosure, and thus be missed by Schedule 13 filings. In particular,

in a large firm, a small percentage block may translate into a large dollar block. If blockholder governance has a percentage, rather than dollar, effect on firm value, the relevant measure of block size is the dollar, rather than percentage, stake. (See Baker and Hall (2004) and Edmans, Gabaix, and Landier (2009) for this point in relation to the relevant measure of CEO incentives.) Some of the studies discussed below study institutional ownership using 13F filings (which identify large stakes below the 5% threshold), rather than 5% blockholders using Schedule 13 filings. However, there is no clear threshold stake that an institutional investor must own to be classified as a blockholder.

Moreover, even if we are willing to accept a discontinuous definition of a blockholder, e.g., define a blockholder as a shareholder who has incentives to exert a “given” level of monitoring, the threshold to induce this level of monitoring will likely vary across firms rather than being a blanket 5%. For example, the block required to induce intervention will be higher in firms in which intervention is particularly costly, and in which the CEO owns a higher stake and is thus more entrenched. Unless otherwise stated, the papers reviewed below study the U.S. and define a blockholder as a non-officer who owns a stake of at least 5%.

A third challenge is that blockholders are a heterogeneous class of many different types, each with their own determinants and consequences. Thus, even if we are clear on our definition on what constitutes a blockholder, studying these blockholders in aggregate may miss interesting relationships that exist with individual blockholder classes.

We first start by reviewing evidence consistent with the idea that blockholders affect firm outcomes. Such effects may result from voice, exit, or the costs of blockholders. I then move to specific evidence on each of the three mechanisms.

3.1 Evidence on Blockholders and Firm Outcomes

Perhaps the simplest piece of evidence in favor of blockholders exerting governance is their sheer prevalence: Holderness (2009) finds that the vast majority of firms around the world have either inside or outside blockholders. From a Darwinist perspective, if blockholders did not improve firm value, then dispersed ownership should be much more common.

A second piece of evidence is the importance of blockholder identity. If blockholders did not engage in governance, firm value would be unaffected by who owns a particular block. Barclay and Holderness (1991) find that trades of large blocks between investors (insiders or outsiders) lead to a 16% increase in market value. They interpret this result as the block being reallocated to a more effective monitor.¹⁵ Holderness and Sheehan (1988) show that trades of majority blocks owned by insiders or outsiders similarly raise stock prices. These results are consistent with blockholders governing through voice and/or exit, and the benefits of governance outweighing any costs associated with blockholders.

Another set of papers studies the correlation between blockholdings and specific firm outcomes, although it is typically difficult to assign causality. Holderness and Sheehan (1988) find that, compared to matched, diffusely-held firms, firms with majority blockholders exhibit insignificant differences in investment, accounting returns, Tobin's Q, leverage, and the frequency of corporate control transactions. McConnell and Servaes (1990) and Mehran (1995) document no correlation between outside block ownership and firm value.¹⁶ These results need not imply that blockholders have no effect on firm value: if block size is always chosen at the optimal level to maximize firm value, there should be no relationship when controlling for the joint determinants of blockholdings and firm value, as noted by Demsetz and Lehn (1985) in the context of managerial

¹⁵ As explained in Section 2.2, such a trade is likely not motivated by overvaluation as in "exit" theories, as the purchaser engages in extensive due diligence. However, it may lead to the block being transferred to a new owner who is more able to engage in disciplinary exit in the future. Similarly, since the seller is likely informed, it is unlikely that the stock price increase arises because the trade signals that the firm is undervalued.

¹⁶ Mehran (1995) also finds no link with return-on-assets.

ownership. However, since blockholdings are chosen by the blockholder herself rather than the firm, the empirically-observed block size is likely to be the one that maximizes the blockholder's payoff rather than firm value.¹⁷ Thus, private decisions will move the empirically observed block size to or from the firm value optimum and generate correlations with firm value. Wruck (1989) finds that increases in ownership concentration resulting from private sales of equity, which are unlikely to be motivated by information because the purchaser undertakes due diligence, lead to increases (decreases) in firm value for low (moderate) levels of initial concentration. This result is consistent with the concave relationship between block size and firm value predicted by the voice theory of Burkart, Gromb, and Panunzi (1997) and the exit theory of Edmans (2009).

Moving to international evidence on the correlation between outside block ownership and firm value, Lins (2003) studies 18 emerging markets and finds that Tobin's Q is positively related to the fraction of control rights held by non-management blockholders in aggregate. This correlation is particularly strong in countries with low investor protection, in which corporate governance is likely more important. Claessens, Djankov, Fan, and Lang (2002) analyze eight East Asian economies. When the largest blockholder is a widely held corporation or financial institution (and thus an outsider), the market-to-book ratio is increasing in her cash flow ownership and independent of the wedge between her control rights and cash flow ownership. In contrast, when the largest blockholder is a family or the state, valuations are negatively-related to this wedge. Their results suggest that the private benefits of control are low for outside blockholders, relative to insiders.

Turning to the predictions of multiple blockholder theories, Konijn, Kräussl and Lucas (2011) find a negative correlation between outside blockholder dispersion (proxied by the Herfindahl

¹⁷ The blockholder's objective function will differ from firm value for a number of reasons. First, the blockholder only captures α of firm value. Second, she benefits from trading profits, but such profits do not affect firm value as they are earned at the expense of small shareholders. Third, she may acquire too small a stake (from a governance perspective) to reduce the idiosyncratic risk she has to bear (Admati, Pfleiderer, and Zechner (1994)).

index) and firm value. Their results support single-blockholder models in which firm value is increasing in the ownership of the largest blockholder, but are inconsistent with the Edmans and Manso (2011) model where blockholder dispersion is desirable (up to a point) in situations where exit is an effective governance mechanism.

The insignificant results of Holderness and Sheehan (1988), McConnell and Servaes (1990), and Mehran (1995) may also arise because they study blockholders in aggregate. Cronqvist and Fahlenbrach (2009) disaggregate the data and study the importance of blockholder identity by identifying fixed effects for different classes of outside blockholders. They find significant blockholder fixed effects for various firm variables, such as investment and financial policies, accounting performance, and executive compensation. The effects are strongest for activists, pension funds, and corporations, and weakest for banks, money managers, and insurance companies. Since increases in (say) investment or leverage may be either good or bad for firm value, these results are consistent with voice, exit, or the costs of blockholders. While these results could stem either from blockholders causing a change in corporate policies through exerting governance, or selecting firms based on expected future changes in corporate policies, Becker, Cronqvist, and Fahlenbrach (2011) use the density of wealthy individuals in a firm's headquarter state as an instrument for individual blockholders. Blockholders increase firm performance and shareholder payouts, and reduce investment, cash holdings, executive pay, and liquidity. The negative impact on liquidity is consistent with the negative correlations between ownership concentration and liquidity found by Heflin and Shaw (2000) and Rubin (2007).

Some papers find a positive correlation between blockholders and long-term behavior. These results are consistent with the Edmans (2009) model of exit and investment, but could also be consistent with a voice theory in which myopia is the main agency problem. Dechow, Sloan, and Sweeney (1996) and Farber (2005) find that firms that fraudulently manipulate earnings have lower

outside blockholdings. Burns, Kedia, and Lipson (2010) study institutional ownership (rather than blockholdings) using 13F filings, and find that institutional ownership concentration, measured by the Herfindahl index, is negatively correlated with financial restatements. Baysinger, Kosnik, and Turk (1991) document a positive correlation between institutional ownership concentration and R&D, and Lee (2005) shows a positive link between total blockholder ownership and patents. Atanassov (2013) shows that the presence of an outside blockholder reduces the negative impact of anti-takeover legislation on patent citations. Aghion, van Reenen, and Zingales (2013) use S&P 500 index inclusion as an instrument for total institutional ownership and find a positive effect on citation-weighted patents.

3.2 Evidence Specific To Voice / Intervention

While the above results could be consistent with voice or exit, the survey of McCahery, Sautner, and Starks (2011) provides evidence on the specific channels of voice that blockholders employ. In order of frequency, they show that blockholders vote against management at the annual general meeting (AGM), initiate discussions with the executive board, contact the supervisory board to seek management changes, disclose that they voted against management, make shareholder proposals at the AGM, make critical speeches at the AGM, initiate lawsuits against managers, and publicly criticize executive board members. The second and third of these channels are examples of the “jawboning” analyzed by Shleifer and Vishny (1986).

A separate set of papers studies the effect of activist events on firm performance. An early literature found little evidence that activism by shareholders in general improves firm performance. Del Guercio and Hawkins (1999) show that shareholder proposals by active pension funds lead to asset sales, restructurings, and layoffs, but have no effect on stock or accounting performance.

Yermack's (2010) survey concludes that "the success of institutional investor activism to date appears limited."

However, the absence of significant results may arise not because activism does not create value, but because these studies cover blockholders whose expertise does not lie in activism, or who face barriers to activism. Diversification requirements hinder mutual funds from acquiring the large positions needed to exercise control,¹⁸ and "prudent man" rules constrain pension funds from acquiring stakes in troubled firms in need of intervention (Del Guercio (1996)). Even if not legally restricted, a blockholder may choose not to engage in activism due to a conflict of interest. For instance, a fund may lose its contract to manage the firm's pension plan if it opposes management.

Research focusing on blockholders that have both a particular expertise in activism and few barriers to intervention finds more significant effects. Holderness and Sheehan (1985) document that the market reacts more favorably to block acquisitions by six controversial raiders known to engage in activism as compared with a random sample of investors. Bradley, Brav, Goldstein, and Jiang (2010) show that activist institutions successfully force closed-end funds to open-end, creating value through the elimination of the closed-end fund discount. Moreover, activism attempts became particularly frequent after the 1992 proxy form that reduced the costs of communication among shareholders, demonstrating that coordination costs are an important determinant of intervention.

Recent papers focus on activist hedge funds. Hedge funds have few business ties or regulatory constraints that hinder activism, and high performance-based fees that induce intervention even if it is costly. While some hedge funds focus on stock picking, activist hedge funds have particular expertise in intervention. McCahery, Sautner, and Starks (2011) and Clifford

¹⁸ Under the Investment Company Act of 1940, a "diversified" mutual fund can, with respect to 75% of its portfolio, have no more than 5% invested in any one security and own no more than 10% of the voting rights in one company.

and Lindsey (2013) find that hedge funds are more willing to engage in activism than other institutions.

Brav, Jiang, Partnoy, and Thomas (2008) study the 13D filings of activist hedge funds. When acquiring a 5% stake in a public firm, a shareholder must file a Schedule 13, which can take one of two forms. If she intends to engage in intervention, she must file a 13D and state in Item 4 the form of intervention she intends to employ; if she intends to remain passive, she can file a 13G which is shorter and comes with fewer disclosure requirements.¹⁹ Brav et al. find that 13D filings lead to 7-8% abnormal returns in a (-20, 20) window, consistent with activism creating value. To support the hypothesis that the abnormal returns stem from activism rather than stock-picking (i.e., do not simply arise because the hedge fund's block acquisition signals that the stock was undervalued), they find that the abnormal return is 3.9% higher when the hedge fund uses hostile tactics than without. Moreover, if the hedge fund later exits (reduces its stake to below 5%) due to the failure of activism, the (-20, 20) return to the exit is 8% lower than the full sample of exits. In a similar vein, Clifford (2008) finds that 13D filings by hedge fund activists lead to larger event-study returns and improvements in return-on-assets than 13G filings, implying an additional return to activism over stock picking (before taking into account the costs of activism). Turning to operating performance, Brav et al. (2008) find that 13D filings lead to improvements in total payout, return-on-assets, and operating margins, and Brav, Jiang, and Kim (2013) document improvements in plant-level productivity using Census data.

Klein and Zur (2009) focus on confrontational activism and find that hedge fund targets earn 10.2% abnormal returns in a (-30, +30) window surrounding a 13D filing, compared to 5.1% for other activist targets. Greenwood and Schor (2009) show that the abnormal returns to 13D filings

¹⁹ Blockholders who intend to remain passive still have the option of filing a 13D, but are unlikely to do so due to the benefits of filing a 13G described in Edmans, Fang, and Zur (2013).

stem from activists' ability to force target firms into a takeover, one particular form of intervention. Both announcement and long-term returns to 13D filings are significant for targets that are ultimately acquired, but insignificant for targets that remain independent. Boyson and Mooradian (2011) show that hedge fund activism is associated with gains in long-term operating performance and short-term stock performance.

While the above studies focus on particular institutions that are most likely to be skilled at activism (activist hedge funds), Boyson and Mooradian (2012) study particular fund managers. They posit that hedge fund managers with past experience in the hedge fund's industry of specialization, or prior portfolio management experience at similar hedge funds, are likely skilled. Indeed, activism by such managers is associated with higher long-term stock returns, in contrast to Brav, Jiang, Partnoy, and Thomas (2008) who documented insignificant long-term stock returns (albeit significant event-study returns) for activist hedge funds in general. Boyson and Mooradian's analysis also highlights the importance of blockholder heterogeneity.

Moving away from hedge funds to blockholders in general, Helwege, Intintoli, and Zhang (2012) find that forced CEO turnover, a particular type of activism, is positively related to the presence of an outside blockholder in 1982-1994, but not 1995-2006. Chen, Harford, and Li (2007) find that independent long-term institutional investors are associated with superior M&A performance and the withdrawal of bad M&A bids, particularly if they have a large stake. They interpret their results as stemming from blockholder monitoring.

A quite separate reason why early studies (of overt activism by blockholders in general) need not imply that voice is ineffective is that blockholders may engage in activism in ways unobservable to the econometrician. Carleton, Nelson, and Weisbach (1998) study private letters written to management by TIAA-CREF, a major pension fund, attempting to enact corporate governance changes. TIAA-CREF reached agreements with the firm 95% of the time; over 70% of these cases

occurred without shareholder votes. This result indicates that looking at actual shareholder votes may miss a significant amount of activism. However, they find little evidence that such letters increase the short-term stock price, likely because they were usually private. Becht, Franks, Mayer, and Rossi (2009) study the Hermes Focus Fund, a U.K. pension fund that also specializes in activism. They find that “engagement rarely took a public form,” instead occurring through communications with executives, and sometimes other shareholders. Common objectives included selling non-core assets, replacing the CEO or Chairman, and increasing the cash payout to investors. When the fund’s engagement objectives were achieved, the mean abnormal $(-3,+3)$ returns were 5.3%, and these returns were higher for confrontational than collaborative engagements.

While these last two papers directly observe behind-the-scenes activism, Fos (2013) estimates it using a two-stage model that accounts for not only actual proxy contests but also the threat of such contests. The first stage is a binary choice model to predict the likelihood of a proxy contest and the second studies the effect of the threat of a proxy fight on firm outcomes. Using liquidity as an instrument (under the assumption that liquidity increases the likelihood of a proxy contest but does not affect firm outcomes), he shows that an increase in the threat of a proxy fight causes firms to increase leverage dividends, and CEO turnover, and reduce R&D, capital expenditure, and executive compensation. Thus, the mere threat of intervention plays a disciplinary role. He studies all proxy fights, rather than only proxy fights by blockholders.

Turning from the effects of activism to the determinants of activism, Norli, Ostergaard, and Schindele (2013) use decimalization to show that liquidity increases the frequency of proxy fights and shareholder proposals. Moreover, as predicted by Maug (1998), investors acquire additional shares in advance of engaging in activism. While they study two actual acts of intervention, Edmans, Fang, and Zur (2013) use a 13D filing to measure the threat of activism. Using the

decimalization of the major U.S. stock exchanges in 2001 as an exogenous shock to liquidity, they show that liquidity has a positive causal effect on the likelihood of activist hedge funds filing a 13D.

Brav et al. (2008) find that activist hedge funds are more likely to target firms with high operating cash flows, high return-on-assets, low total payout, and high executive compensation. Such firms likely suffer from the agency costs of free cash flow (Jensen (1986)), thus increasing the gains from blockholder intervention. These results are consistent with the theory of Maug (1998), in which a block only forms to begin with if the gains from intervention are sufficiently high relative to the cost. Brav et al. (2008) and Becker, Cronqvist, and Fahlenbrach (2011) find that blockholders target smaller firms, where it is easier to acquire a significant percentage stake. Evidence on targets' prior stock price performance is more mixed. While Klein and Zur (2009) find that targets of confrontational activism in the U.S. previously outperformed the market, Becht et al. show that targets of the U.K. Hermes Focus Fund previously underperformed.

3.3 Evidence Specific To Exit / Trading

The survey by McCahery, Sautner, and Starks (2011) finds that exit is the number one governance mechanism employed by blockholders. 80% of institutions respond to dissatisfaction with firm performance by selling shares, a greater fraction than any of the channels of voice listed in Section 3.2.

One piece of evidence loosely consistent with exit is the existence of multiple blockholders. Such a structure is suboptimal for voice due to free-rider problems, but improves the efficiency of exit as shown by Edmans and Manso (2011). Edmans and Manso use data from Dlugosz, Fahlenbrach, Gompers, and Metrick (2006) to show that 70% of U.S. firms have multiple blockholders (defined as a shareholder who owns at least 5%). Using a 10% threshold, Laeven and Levin (2007) find that 34% of European firms have multiple blockholders, Maury and Pajuste

(2005) document 48% for Finland, and Western European data made available by Faccio and Lang (2002) yields a figure of 39%. However, the existence of multiple blockholders is also consistent with voice-only theories, where a finite individual stake arises due to wealth constraints (Winton (1993)) or risk aversion.

More specific evidence for exit studies the link between blockholders and financial markets. The first set of evidence supports the notion that blockholder trades contain private information. Parrino, Sias, and Starks (2003) show that sales by institutional investors precede CEO turnover and negative long-run returns. Institutions with larger positions sell their shares to a greater extent than those with smaller positions, as in the Edmans (2009) model where larger blockholders are more informed. Bushee and Goodman (2007) find the private information content of an institutional investor's trade is increasing in his stake. Brockman and Yan (2009) document that stocks with higher total outside block ownership contain greater firm-specific information. They also recognize the importance of blockholder heterogeneity and show that this result does not hold for ESOPs, who are unlikely to trade on information. Gallagher, Gardner, and Swan (2013) find that blockholders who trade frequently generate trading profits, and Yan and Zhang (2009) find that frequent traders are more informed (in terms of their trades predicting future stock returns) than those who rarely trade. Collin-Dufresne and Fos (2013) show that the trades made by 13D filers in the 60 days before the filing date (which must be disclosed in the filing) are highly profitable.

A second strand of research studies the link between blockholders and price informativeness. Gallagher, Gardner, and Swan (2013) use Australian data that provides higher-frequency information on institutional investor trades than 13F filings in the U.S. Institutional investor trading leads to subsequent increases in price efficiency, which they in turn link to improvements in future performance. These effects are stronger in the presence of multiple institutional investors; Gorton, Huang, and Kang (2013) similarly find a positive association between the number of blockholders

and price informativeness. Boehmer and Kelley (2009) use Granger causality tests to show a causal relationship between total institutional ownership and price efficiency, particularly when there is low ownership concentration (i.e., more institutional owners). Both the volume of trading and the level of institutional holdings in the absence of trading cause greater efficiency; that the level of holdings matters suggests that the *threat* of exit increases price informativeness.

Third, a number of papers show that blockholder exit reduces the stock price, and that these price declines are permanent and thus likely result from the sale conveying negative information, rather than temporary price pressure effects due to downward-sloping demand curves accommodating a sudden increase in supply. Scholes (1972) and Mikkelsen and Partch (1985) find this result for secondary issues, and Holthausen, Leftwich, and Mayers (1990) and Sias, Starks, and Titman (2006) document that institutional trading has a permanent effect on stock prices. Collin-Dufresne and Fos (2013) find that purchasers by eventual 13D filers in the 60 days before the filing date increase prices.

While the above papers study the effect of blockholders on financial markets (*I2*), another financial market test relates liquidity to blockholders. Fang, Noe, and Tice (2009) use decimalization to show that liquidity causes increases in firm value, and Bharath, Jayaraman, and Nagar (2013) show that this effect is stronger for firms with greater block ownership, measured either by the share of all blockholders, the share of the largest blockholder, or the number of blockholders. This result supports the idea that blockholders improve firm value (*I2*). It is consistent with liquidity enhancing either exit (Admati and Pfleiderer (2009), Edmans (2009), Edmans and Manso (2011)) or voice (Maug (1998), Faure-Grimaud and Gromb (2004)) (*I1*). Supporting the former interpretation, Bharath, Jayaraman, and Nagar show that the link between firm value and the interaction of liquidity and blockholdings is stronger where the manager has

greater equity incentives²⁰, and remains strong even in firms where the manager is entrenched and thus voice is less likely to be effective.

Edmans, Fang, and Zur (2013) use decimalization to show that liquidity encourages the acquisition of blocks by activist hedge funds, as in the exit theory of Edmans (2009) and the voice theories of Kyle and Vila (1991), Kahn and Winton (1998), and Maug (1998). Supporting exit theories in particular, the effect of liquidity is stronger where the manager has greater sensitivity to the stock price. Moreover, liquidity increases the likelihood that the hedge fund blockholder files a 13G rather than a 13D.²¹ A 13G filing indicates that the blockholder will not be engaging in activism. It can thus suggest either that the blockholder is abandoning governance altogether, or is governing through the alternative mechanism of exit. Supporting the latter explanation, liquidity is particularly likely to induce a 13G filing (rather than a 13D filing) where the manager has greater sensitivity to the stock price. Moreover, a 13G filing leads to a positive event-study reaction, positive holding period returns for the blockholder, and positive improvements in operating performance, particularly for firms with high liquidity. The authors then extend the analysis to all activists, which includes institutions less effective at intervention or trading than hedge funds (e.g., due to flatter compensation structures). The effect of liquidity on block formation continues to hold, but its effect on the choice of governance mechanism and the consequences of a 13G filing are weaker, again highlighting the importance of blockholder identity. Gerken (2009) similarly finds no correlation between liquidity and governance choices for blockholders in general (which includes non-activists).

²⁰ High equity holdings will not induce the CEO to be sensitive to the current stock price if his equity has very long vesting periods, but vesting periods are typically short in practice (see, e.g., Kole (1997)).

²¹ Even though liquidity reduces the likelihood of a 13D filing, conditional upon block formation, this effect is outweighed by the positive effect of liquidity on the likelihood of a block being acquired in the first place. Thus, liquidity has an unconditionally positive effect on a 13D filing, as documented in Section 3.2.

Roosenboom, Schlingemann, and Vasconcelos (2013) study the link between liquidity and blockholder governance in the particular setting of M&A. Liquidity is correlated with lower M&A returns where there is a single blockholder (and thus governance through voice is most likely) but not when there are multiple blockholders (and thus governance through exit is most likely).

Dimmock, Gerken, Ivković, and Weisbenner (2013) study a different dimension of liquidity: the capital gains tax liability when selling a stake. Importantly, this liability varies across different investors in the same stock, depending on when they acquired their stake, addressing omitted variables concerns. They find that a greater capital gains lock-in increases the likelihood of voting against management (a form of intervention) but reduces the likelihood of exit.

3.4 Evidence on the Costs of Blockholders

There are four main approaches to identifying a negative effect of blockholders on firm value.²² The simplest one is to investigate the correlation between blockholdings and firm value, or firm outcomes (such as liquidity) that are likely linked to firm value. Studies using this approach are covered in Section 3.1.

A second approach is to estimate the private benefits of control, i.e., the additional value that blockholders derive from ownership over and above minority shareholders. (Note, however, the earlier caveat that private benefits need not be at the expense of other shareholders.) Barclay and Holderness (1989) find that negotiated block trades (owned by insiders or outsiders) occur at a 20% premium to the market price, reflecting the private benefits of control. The premium is higher for firms with larger cash holdings, and thus greater potential for expropriation. Albuquerque and

²² I use “firm value” to refer to the value of the firm available to minority shareholders. This equals the market capitalization of the firm in an efficient market, and is referred to by Holderness (2003) as “exchange value”. It is a different concept from the total value of the firm available to all shareholders, which will include private benefits of control accruing to blockholders and also to any managers who are shareholders.

Schroth (2010) study block trades between 10-50% where the ownership of the buyer rises from below 20% to above 20%, which they estimate as the threshold required to enjoy private benefits. They estimate private benefits as 10% of the value of the block or 3-4% of the value of the target firm's equity. Private benefits create a deadweight loss, as firm value falls by \$1.76 for every \$1 of private benefit on average. They also find that block trades increase firm value by 19%, consistent with the Barclay and Holderness (1991) finding that blockholder identity matters. Thus, the deadweight loss created by private benefit extraction is likely outweighed by the monitoring provided by blockholders.

Third, researchers can study firm outcomes where the blockholder is likely to be misaligned with minority shareholders. Faccio, Marchica, and Mura (2011) hypothesize that undiversified large shareholders will be excessively conservative, and indeed find that the portfolio concentration of the largest shareholder is associated with reduced volatility of return-on-assets (although they do not investigate the effect on firm value). To identify causality, they study the effect of a block passing to a successor (who is typically less diversified than the previous owner) and the effect of acquiring additional firms to a portfolio (which increases diversification) on the risk-taking of existing firms.

A fourth approach is to examine the behavior of blockholders themselves. Davis and Kim (2007) study the proxy voting behavior of mutual funds. At the fund family level, funds with more business ties (aggregated across all firms that they invest in) are more likely to vote with management. However, at the individual firm level, funds are no more likely to vote with the management of a client than a non-client. Agrawal (2012) finds that pension funds affiliated with the AFL-CIO labor union becomes significantly less opposed to directors once the union no longer represents a firm's workers. Since opposition by AFL-CIO pension funds is negatively associated

with valuations, this result suggests that they vote for directors who protect workers' interests at the expense of shareholders.

4 CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

The effect of blockholders on corporate governance is a rich and varied literature, covering many topics in financial economics. Theoretical models examine topics such as the free-rider problem, informed trading and market microstructure, strategic information transmission, the trade-off between the ex-post costs and ex-ante benefits of monitoring, and the role of managerial and blockholder incentives. Empirical studies have linked blockholdings to both corporate finance outcomes (such as firm value, profitability, leverage, investment, and risk-taking) and financial market variables (such as liquidity and price informativeness), studied the market reaction to block trades, and estimated the private benefits of control. Identifying causal effects for either the consequences or determinants of blockholders is particularly challenging, and a number of approaches have been employed.

There are several potential avenues for future research. Starting with voice, recent empirical research has significantly enhanced our understanding on activism through hand-collection of data (e.g., 13D filings, private letters to management, and surveys), and further data entrepreneurship will hopefully shed even more light. In particular, while the theoretical literature typically assumes a single blockholder and an unspecified interventionist action, in reality there are several types of blockholders who engage in various forms of activism, which meet with different management responses. Gathering finer data (as recent papers focusing on activist hedge funds have done) will help us understand which types of activism are successful, under which circumstances, and by which blockholders. A particular challenge is to identify causal effects, due to the lack of

instruments for blockholder presence or actions. Even a question as fundamental as the impact of blockholders on firm value remains unanswered.

The exit mechanism implies a new way of thinking about blockholders – as informed traders rather than controlling entities – which gives rise to a number of new research directions linking blockholders to microstructure, and more generally, corporate finance to financial markets. Future theories could incorporate more complex features of informed trading, which have previously been analyzed in microstructure models that treat firm value as exogenous. Current exit theories consider a single trading round, but in reality there may be multiple periods across which the blockholder may trade on her information. Moreover, while some existing single-period models feature the blockholder being forced to trade due to a liquidity shock (in addition to voluntarily trading on information), combining liquidity shocks with multiple periods and multiple informed traders may lead to additional interesting insights, such as the possibility of front-running (e.g., Brunnermeier and Pedersen (2005)). Empirical investigation of exit may similarly benefit from studying variables typically analyzed in the microstructure literature, such as trading volume, price informativeness, and the extent of information asymmetries between blockholders and the market (or the manager). In addition, the recent financial crisis has led to a number of regulatory changes (e.g., short-sale restrictions) that affect financial markets, and thus may be used to identify casual effects.

While voice and exit have largely been studied independently, it would be interesting to examine their interactions theoretically. The few papers that study voice and exit together assume the same blockholder engages in both, but in reality, different blockholders have expertise in different strategies. Moreover, it would be fruitful to study how voice and exit interact with other, non-blockholder governance mechanisms. For example, the manager's contract is a governance mechanism in itself and also affects the effectiveness of exit. It is typically taken as exogenous, but in reality may be jointly determined with blockholdings. Cohn and Rajan (2012) study how the

board moderates conflicts between the activist investor and manager and show that, surprisingly, internal governance (by the board) and external governance (by the activist) can be complements.

For both the voice and exit channels, a particular empirical challenge is that there is no widely accepted definition of a blockholder. While most empirical papers define a blockholder as a 5% shareholder, theory models do not predict a discontinuity at 5%. Particular attention could be paid to how the effectiveness of governance depends on block size. In addition, other data sources such as 13F filings may allow researchers to consider blockholders with stakes below 5%. Such blockholders may still have incentives to engage in monitoring, particularly in large firms where their dollar stakes will be significant. Relatedly, while the percentage stake is the most common measure of block size, the dollar stake may be more relevant, particularly in settings in which blockholder governance is likely to scale with firm size.

Our theoretical and empirical understanding of both voice and exit may be further enhanced by considering agency problems at the blockholder level (as some recent papers have done). Many blockholders are agents themselves, who may have objectives other than shareholder value maximization. On the theoretical side, while there are some early papers on the private benefits of control, studying the interaction between private benefits and governance through voice or exit would be interesting. Empirically, gathering data on blockholder agency problems (e.g., the alignment of the blockholder with her target firm's performance, her concern for fund flows, and her ownership of other firms with business ties) is a potentially fruitful avenue.

There is also scope for both theory and empirics to study new categories of blockholders that are emerging. For example, exchange-traded funds actively engage in proxy voting, but do not engage in discretionary trading (Davis (2013)). Similarly, researchers can analyze new practices that blockholders are recently beginning to engage in, such as empty voting (establishing separate

positions in cash flow ownership and voting rights, for instance through borrowing shares). See Brav and Mathews (2011) for a theoretical analysis and Hu and Black (2007) for empirics.

Overall, while the literature on blockholders and corporate governance is nearly thirty years old, many new and exciting strands have recently developed due to data entrepreneurship and the study of a new governance channel. These strands are still in their infancy and there is substantial scope for future research, not only in understanding these strands in and of themselves, but also how they interact with other governance mechanisms. I hope that this review will help stimulate this research going forward, and look forward to learning from it.

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