THE OXFORD HANDBOOK OF MANAGERIAL ECONOMICS

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and

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CHAPTER 22

CORPORATE GOVERNANCE AND FIRM PERFORMANCE

ANUP AGRAWAL AND CHARLES R. KNOEBER

This chapter reviews the sizeable literature on corporate governance and firm performance in economies with relatively dispersed stock ownership and an active market for corporate control, such as the United States and the United Kingdom. This review is not intended to be exhaustive and we apologize to authors whose work is not cited. Instead, we provide a conceptual overview, suggest important issues, and offer a pathway to the larger literature. We start in section 22.1 by outlining a framework of the basic agency problem between managers and shareholders and the corporate governance mechanisms that have evolved to address this problem. Section 22.2 deals with the relation between firm performance and inside ownership. Section 22.3 pertains to the relation between firm performance and monitoring by large shareholders, monitoring by boards, and shareholder rights regarding takeover of the firm. Section 22.4 considers the relation between governance regulation and firm performance. Section 22.5 deals with the relation between governance and firm performance in family firms. Finally, section 22.6 provides a summary and identifies some remaining puzzles and unresolved issues for future research.

22.1 The Agency Problem

Owners (i.e., shareholders) of a firm have a claim on the firm's net income. As a consequence, their interest is in greater net income and its multiperiod, present value analog—a higher stock price. Call this profit, and label it π. Larger π means better performance. However, owners do not operate their firm; they employ managers to do this for them. Hired managers have no inherent interest in firm profit since this belongs to the owners, but their behavior affects profit. To capture this, think of a manager choosing what Demsetz (1983) calls on-the-job consumption or what is often referred to as private benefits. Call this *a*. On-the-job consumption may be in the form of perks,

such as airplane use, but it is much broader. Not working hard, not taking chances, or indulging one's political tastes with company resources are all forms of *a*. Importantly, profit depends inversely on *a*, or $\pi(a)$ where $\pi'<0$. Since the benefits of *a* are enjoyed by managers while the costs are borne by owners (lower profit), managers will choose an *a* that is too large from the owners' point of view.[1] This is the agency problem. Managers' incentives are not aligned with those of the owners. The result is lower profit or worse performance. Solving or ameliorating the agency problem provides better incentives to managers and results in better firm performance.

There are two fundamental ways for owners to address the agency problem. The first way is to make the managers part owners—that is, inside ownership. As part owners, managers will still enjoy the benefits of on-the-job consumption but will now also incur some of the costs. The greater is inside ownership, the more aligned are the interests of owners and managers. The advantage of inside ownership as a way to address the agency problem is that owners do not have to monitor managers. Profit (or stock price), π, is the *outcome* of manager behavior, and it is publicly observed. When owners are enriched, managers (as owners) are automatically enriched as well. The disadvantage of inside ownership is that profit depends on many things in addition to manager behavior, *a*. This makes profit a noisy signal of what managers have done. There are two undesirable consequences of this noise. First, by diffusing the link between better manager behavior (less *a*) and manager reward, it dilutes the incentive for managers to behave better. Second, it imposes risk on managers because their reward is partly determined by things beyond their control. Since managers are risk averse, they must be paid more to bear this risk.

The second way is for owners to monitor managers in order to try to measure *input a* directly and then to reward or penalize managers based upon their measured behavior. The advantage of rewarding managers based on owner monitoring is that it makes the link between manager behavior and reward less noisy. So, incentives can be made stronger and managers need bear less risk. The disadvantage is that it is costly for owners to monitor. This is a particular problem because owners face a free-rider problem. Each owner benefits from better manager behavior when another owner incurs the cost of monitoring. Each, then, would like to free-ride on the monitoring effort of others. Motivating owner monitoring becomes a problem.

Neither way of addressing the agency problem is perfect. Moreover, both ways allow for differences in firm mechanisms that in turn determine the effectiveness of owner response to the agency problem. Sometimes firms adopt these mechanisms; sometimes they are imposed on them. The set of such mechanisms employed by a firm is what we call corporate governance.

22.2 Inside Ownership

Greater inside ownership raises the cost to managers of on-the-job consumption, *a*, and so should lead to less *a* and, in turn, larger firm profits. The empirical literature assessing

the relationship between inside ownership and firm performance largely began with a 1988 paper by Morck et al. For large US firms in 1980, they regress Tobin's q (measured as the market value of a firm divided by the book value of its total assets) on the fraction of the firm owned by its board of directors. Using a piecewise linear model, they find a surprising relation. For inside ownership less than 5%, increasing ownership results in improved firm performance (larger Tobin's q); but for inside ownership between 5% and 25%, increasing ownership results in poorer firm performance (and there is little effect for inside ownership greater than 25%). McConnell and Servaes (1990) extend this analysis to the years 1976 and 1986 and to a broader set of firms. Instead of a piecewise linear model, they estimate a quadratic model, including both the fraction of inside ownership and its square. And they find a similar result. Increasing inside ownership results in improved firm performance up to about 50% inside ownership in 1976 and up to about 38% inside ownership in 1986, but beyond that increased inside ownership worsens firm performance.

Morck et al. suggest a rationale for the non-monotonic relation between inside ownership and firm performance. In addition to inside ownership giving managers a claim on firm profits, it also gives managers voting power. As this power becomes greater, managers will be harder to displace and so become more entrenched. Increased inside ownership, then, has two opposing effects on managerial incentives. Managers behave better because they have a stake in firm profits, but they behave worse because they are less afraid of dismissal. The latter implies that owners are monitoring the managers and linking manager tenure to manager behavior (the second way to address the agency problem). Importantly, this means that there are multiple mechanisms at work and that these act together to provide incentives to managers.

Two issues bedevil the interpretation of the non-monotonic relation between inside ownership and firm performance. One is multiple mechanisms. A regression that looks at inside ownership alone is likely mis-specified and so the inside ownership effect may be spurious. The second is the endogeneity of inside ownership and firm performance. Since inside ownership is chosen by the firm, treating it as arising exogenously may lead to misleading estimates of the effect of inside ownership on firm performance. Starting with the second issue, Demsetz (1983) and later Demsetz and Lehn (1985) consider the relation between ownership concentration (their focus is not exclusively on inside ownership) and firm performance. If firms choose inside ownership optimally, then it will differ across firms depending on a firm's costs and benefits of greater insider ownership. Where cost is high or benefit is low, inside ownership will be small; where cost is low or benefit is high, insider ownership will be large. So, inside ownership will vary among firms, but if each firm has chosen it optimally then all are maximizing profits. There should be no cross-sectional relation between inside ownership and firm performance. That such a relation exists suggests either that firms do not choose optimally (the implicit assumption in Morck et al. 1988; and McConnell and Servaes 1990) or that something else (such as the cost or benefit of inside ownership) is driving both firm performance and inside ownership. If this endogeneity is accounted for empirically, the relation between inside ownership and firm performance should evaporate.

With these two issues in mind, Agrawal and Knoeber (1996) examine the relation between inside ownership and firm performance (again, using Tobin's q) for large US firms in 1987. Using a quadratic model like McConnell and Servaes (1990), they find a similar nonlinear relation between inside ownership and firm performance. And, when they introduce six other mechanisms that also provide incentives to managers (tied to the concentration of ownership by outsiders, board composition, and the markets for managers, capital and corporate control) into the estimation, the relation between inside ownership and firm performance largely disappears. When they estimate a simultaneous equation system consisting of one equation for each of the six governance mechanisms and an equation for Tobin's q to account for the simultaneity and endogeneity of these governance mechanisms and firm performance, this relationship evaporates.

Himmelberg et al. (1999) provide a similar finding. Using panel data for 1982–92, they find strong evidence that unobserved heterogeneity among firms is an important determinant of inside ownership. Controlling for this heterogeneity with firm fixed effects, the relation between inside ownership and firm performance disappears. Both the simultaneous equations and the firm fixed effects approaches are subject to several criticisms. First, it is very difficult to find appropriate instrumental variables for each equation and poor instruments may disguise an underlying relationship. Second, the simultaneous equations approach is quite sensitive to model specification. A mis-specification of any equation affects the entire system and inflates the standard errors (i.e., reduces t-statistics) of the coefficient estimates. Finally, firm fixed effects require within-firm variation in inside ownership to drive changes in firm performance. Zhou (2001) argues that within-firm variation in inside ownership is small and unlikely to motivate changes in long-term decision making by managers and so ultimately in firm performance. So even if inside ownership does affect firm performance, evidence of this relation is unlikely to survive the use of firm fixed effects.

Gompers et al. (2010) return to the rationale that Morck et al. (1988) provide for the non-monotonic relation they find between inside ownership and firm performance. Greater inside ownership engenders two opposing incentive effects. As owners, managers' claim on profits means that they pay more for their on-the-job consumption but as owners with votes, managers are more secure in their jobs. Looking at firms with dual-class stock which divide cash-flow rights differently from voting rights, they are able to estimate the two incentive effects separately. They find that, holding voting rights constant, an increase in cash-flow rights improves firm performance (at least until inside ownership is quite large). And holding cash-flow rights constant, an increase in voting rights reduces firm performance. Combined, greater inside ownership has a non-monotonic effect on firm performance (industry-adjusted Tobin's q), similar to that in McConnell and Servaes (1990). Moreover, these results persist after using instrumental variables to account for endogeneity.

Although primarily concerned with the endogeneity of inside ownership, Cho (1998) considers the path by which inside ownership may affect firm performance. He posits that inside ownership affects the level of firm investment (measured either by capital expenditures or R&D expenditures), which in turn affects firm performance. Using a

piecewise linear model and data for large US firms in 1991, he finds an empirical relation between inside ownership and investment level that is similar to that found by Morck et al. (1988), suggesting that this may be the path along which inside ownership affects firm performance. But when 2SLS is used to account for the endogeneity of these variables, the relation disappears.

Coles et al. (2012) push this approach further. They develop a parsimonious structural model in which optimal inside ownership and firm performance are jointly determined in equilibrium. They then use data for firms during the 1993–2000 period to calibrate this model, solving for the implied unobservable parameters that would make observed choices optimal. They then use this model to simulate data and use it to estimate a regression model like that in McConnell and Servaes (1990). And they find a very similar result. As inside ownership increases, Tobin's q at first rises and then falls. This suggests that the empirical non-monotonic relation between inside ownership and firm performance may indeed be spurious. More interestingly, employing the standard instrumental variables and fixed effects treatments to the simulated data does not eliminate this spurious relation. The endogeneity problem appears particularly difficult to solve here.

22.3 Monitoring

Section 22.3.1 deals with monitoring by large shareholders, section 22.3.2 deals with monitoring by boards, and section 22.3.3 deals with shareholder rights regarding takeover of the firm.

22.3.1 Large Shareholders

Because they receive a large proportion of firm profits, large shareholders, such as blockholders and institutional investors, have stronger incentives to monitor and contract with managers to reduce agency problems (see, e.g., Demsetz and Lehn 1985; Shleifer and Vishny 1986; and Holderness 2003). However, blockholders can also use their power to extract private benefits. Analyzing block sales, Barclay and Holderness (1989, 1992) argue that in the absence of private benefits, blocks should trade at the exchange price. They find that on average, blocks command a substantial premium over the exchange price, suggesting that blocks confer private benefits. Moreover when blocks are sold at a premium, stock prices typically increase (though not to the block price), suggesting both shared and private benefits of block ownership. But Atanasov et al. (2010) find that publicly traded firms with corporate blockholders who own substantial minority stakes are valued at substantial discounts to peers, which suggests that such blockholders extract private benefits that exceed any shared benefits from their ownership.

McConnell and Servaes (1990) find no significant relation between firm valuations (i.e., Tobin's q) and the existence or holdings of an outside blockholder. They examine

a large sample of NYSE and AMEX firms for two years, 1976 and 1986. Mehran (1995) also finds no significant relationship between firm performance (both Tobin's q and return on assets) and outside blockholdings. In a similar vein, Holderness and Sheehan (1988) find no significant differences between the accounting rates of return or Tobin's q of paired majority-owned and diffusely held corporations. But these early studies do not take into account the endogeneity of blockholdings.

Becker, Cronqvist and Fahlenbrach (2011) separate the selection and treatment effects of individual outside blockholder existence on firm (operating) performance. Using the number of wealthy individuals per public firm in the state of a firm's headquarters as an instrument for blockholder presence in a firm, they find that blockholder presence significantly improves firm performance. Their sample consists of about 6000 firm-years of data on S&P 1500 firms from 1996 to 2001.

Agrawal and Nasser (2011) argue that neither board independence nor outside blockholder presence alone may be a match for CEO power in most firms. Nominally independent directors with negligible shareholdings may have neither sufficient incentive nor the ability to confront a powerful CEO, especially if they have been handpicked by the CEO. While an outside blockholder has an incentive to monitor the CEO, without a board seat, he may lack sufficient information and a regular forum for monitoring the CEO. Thus, independent directors who are blockholders (IDBs) enjoy a unique position and power in a firm. IDBs can use this power to increase firm valuation, which would benefit all shareholders, but can also extract private benefits. Using a panel containing about 11,500 firm-years for S&P 1500 firms over the 1998–2006 period, Agrawal and Nasser find that firms with IDBs have higher valuations, as measured by Tobin's q. They explicitly account for the endogeneity of IDB presence and control for board independence and outside blockholder presence, neither of which has a significant effect on q. About three-fourths of the IDBs in their sample are individual investors, who drive most of their results.

Another stream of the literature examines the relation between stockholdings of other large investors, such as institutions and activist hedge funds, and firm performance. These investors have incentives to monitor and they can pressure managers to adopt better corporate governance. Black (1998), Karpoff (2001) and Gillan and Starks (2007) provide excellent reviews of the large literature on institutional activism. These reviews show that activism by institutional investors, such as mutual funds and pension funds, does not improve firm performance. This ineffectiveness is often attributed to regulatory and institutional constraints. On the other hand, as Brav et al. (2009) discuss in their review of the literature on hedge fund activism, activist hedge funds are more successful in influencing corporate boards and managers, leading to better stock returns and operating performance.

22.3.2 Boards

The board of directors is the locus for monitoring and rewarding (penalizing) managers. However, this is not the only role that boards play. They also act as advisors providing

input into strategic decision making. Our focus is monitoring, but nothing comes free. Better monitoring likely means poorer advising.

Boards are typically measured by two characteristics—their size (number of members) and their composition (fraction of members who are outsiders or independent of management). With either characteristic, there is a trade-off between more information and more effective decision making. Bigger boards bring more (sources of) information but make coming to a collective decision more difficult. Similarly more outsider-oriented boards sacrifice information that insiders bring, but may be more unified in what to do given the available information. An optimal board is one with the size and composition that adjusts this trade-off to maximize firm value. If boards are constituted optimally, they likely will differ across firms, reflecting the relative value of better information and better execution. However, following Demsetz (1983), looking across firms, there should be no relation between board structure and firm performance. The evidence is mixed.

Yermack (1996) examines large US firms from 1984 to 1991 and finds a strong negative effect of board size on Tobin's q. Boards seem systematically to be too big. Moreover, this is very costly. For a firm with eight board members (the average is about twelve), an extra member reduces firm value by $100 million; for a firm with fifteen board members, an extra member reduces firm value by $50 million. This is a puzzling finding. Why should essentially all firms appear unwilling, despite the substantial rewards, to reduce board size? One possibility is that the trade-off between information and execution changed for all firms (say because globalization made all markets more competitive) due to an increase in the relative value of execution. So, boards that once were optimal no longer are. All firms will adjust, but those with higher adjustment costs will do so more slowly. During this process there will be a negative relation between board size and firm performance. But in addition, we should see board size falling on average. This is exactly what has happened, with board sizes falling by about two members since Yermack's study.

Hermalin and Weisbach (1991) investigate the relation between the fraction of board members who are outsiders and Tobin's q for firms during five different years (mostly in the 1970s). They estimate a piecewise linear model using instrumental variables to account for endogeneity. They find no relation between board composition and firm performance, consistent with firms choosing board composition optimally.

Duchin et al. (2010) take advantage of the natural experiment provided by the implementation of Sarbanes-Oxley Act (SOX) rules requiring minimum proportions of outside directors. They first predict firm changes in the proportion of outside (independent) directors during 2000–2005 (SOX passed in 2002). They then regress changes in firm performance over the same period on the (predicted) change in board composition. If board composition was optimal and SOX-induced changes are suboptimal, then firm performance should fall. And where those induced changes are greatest, firm performance should fall the most. Increases in the proportion of outsiders should be negatively related to firm performance. For firms where insiders are an important source of information (where analysts' predictions show great dispersion), this is indeed the

case. But for firms where insiders are not an important source of information (dispersion among analysts' predictions is small), the induced increase in the proportion of outsiders increases firm performance. This suggests that for this set of firms, board composition was not chosen optimally.

Boards structure themselves into smaller committees for certain tasks. The number of such committees varies across boards, but their purposes comport with the two roles that boards play—monitoring and advising. Audit, nominating, and compensation committees focus on monitoring. Others such as the finance and investment committees focus on advising. Klein (1998), like Hermalin and Weisbach (1991), finds no relation between the proportion of outside directors and firm performance among large US firms in the early 1990s. Similarly, she finds no relation between firm performance and the proportion of outsiders on committees focused on monitoring, but she finds a negative relation between firm performance and the proportion of outsiders on committees focused on advising. The latter result suggests that insiders play an important informational role and that boards may not take sufficient advantage of this.

Faleye et al. (2011) characterize outside board members as intensively engaged in monitoring if a majority are on at least two committees devoted to monitoring. Based on a sample of S&P 1500 firms over the 1986–2006 period, they find evidence that this effort is successful. Firms with outsiders intensively engaged in monitoring provide smaller excess CEO compensation and are more likely to dismiss a CEO for poor performance. But these gains come at a cost—less intensive advising—and this cost is exhibited in poorer acquisition returns and poorer innovation. Moreover, the net effect of intensive outsider monitoring is to reduce firm performance (lower Tobin's q). This result survives controls for the endogeneity of board structure, including a test on firms that were forced to change committee structure by SOX. Adams and Ferreira (2009) focus on women directors (mostly outsiders) and find a similar result. Women directors serve disproportionately on monitoring committees and the greater is the fraction of women board members, the more likely it is that a poorly performing CEO will be fired. But firm performance declines with the fraction of women directors, even accounting for endogeneity.

22.3.3 Shareholder Rights

Gompers et al. (GIM 2003) use the incidence of twenty-four governance rules to construct a Governance Index (G) to measure the level of shareholder rights at S&P 1500 firms during the 1990s. Most of these rules are antitakeover provisions (ATPs) in the corporate charter or bylaws, such as classified boards, fair price provisions, or poison pills; others are state antitakeover laws that apply to firms incorporated in the state. GIM find that firms with stronger shareholder rights (i.e., fewer ATPs) had higher valuations (Tobin's q), higher profits and higher stock returns. The results on q and profits are puzzling: Why don't shareholders of all firms demand more rights to increase the profitability and value of their investments? And the results on stock returns are inconsistent with weak-form market efficiency.

GIM argue that weak shareholder rights may cause additional agency costs and so compromise operating performance. If investors underestimate these additional costs, stock returns would be lower than expected, leading to lower valuations. GIM find some support for this explanation in the form of more capital spending and takeover activity, suggesting greater agency costs, in firms with weak shareholder rights. Alternatively, since governance provisions are not adopted randomly, they may not cause higher agency costs, but their presence may be correlated with other characteristics that produced abnormal returns in the 1990s. In support of this omitted variables explanation, the authors find that industry effects explain some of their results. They conclude that the remaining performance differences, which are economically large, were either directly caused by governance provisions or were related to unobservable or hard-to-measure characteristics correlated with them.

Bebchuk et al. (BCF 2009) provide a more parsimonious specification of GIM's main results. They construct an entrenchment index based on just six of the twenty-four provisions in the G-index that essentially replicates GIM's results on firm valuation and abnormal stock returns. These six provisions are staggered board terms, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and amending charters. The other eighteen provisions in the G-index are unrelated to valuation and abnormal returns.

Cremers and Nair (2005) show that GIM's results hold only if stronger shareholder rights are accompanied by large institutional ownership. They find that a long-short portfolio, formed from the group of firms with high ownership by institutional blockholders or public pension funds, that holds stocks of firms with weak ATPs and shorts stocks of firms with strong ATPs has large positive abnormal returns; the corresponding portfolio formed from the group of firms with low ownership by institutional blockholders or public pension funds has insignificant abnormal returns. Their results also imply that takeovers and large shareholders are complementary governance mechanisms. This relation is stronger in firms with low leverage, consistent with theories in which higher debt reduces the probability of takeover (see, e.g., Stulz 1988; and Harris and Raviv 1988).

Masulis, Wang and Xie (2007) identify one channel through which ATPs can reduce firm value. They find that firms with more ATPs make worse acquisitions, as evidenced by lower abnormal returns upon announcement. This result continues to hold in a subsample of firms that (likely) adopted ATPs several years before acquisitions, reducing the likelihood of reverse causality from firms adopting ATPs just before making bad acquisitions. Their results continue to hold after controlling for CEO quality, reducing the possibility of spurious correlation caused by bad CEOs adopting takeover defenses for entrenchment purposes *and* making poor acquisitions. And these results are robust to controlling for a variety of other governance mechanisms, including product market competition, leverage, CEO equity incentives, institutional ownership, and board characteristics.

Giroud and Mueller (2011) argue that managers of firms in noncompetitive industries do not have strong incentives to reduce slack and maximize profits, so the benefits

of good governance (i.e., strong shareholder rights) should be larger for such firms. They find that firms with weak governance have lower equity returns, worse operating performance, and lower firm value, but only in noncompetitive industries. Firms with weak governance also have lower labor productivity and higher input costs, and make more value-destroying acquisitions, but only in noncompetitive industries. Finally, they find that firms with weak governance in noncompetitive industries are more likely to be targeted by activist hedge funds, suggesting that investors take actions to mitigate the inefficiency.

Lehn et al. (2007) reexamine the GIM and BCF findings of a negative relation between valuation multiples and governance indices during the 1990s to test whether causation runs from governance to valuation or vice versa. They find that valuation multiples during the early 1980s, a period preceding the adoption of the antitakeover provisions comprising the governance indices, are highly correlated with valuation multiples during the 1990s. After controlling for valuation multiples during 1980–85, they find no significant relation between contemporaneous valuation multiples and governance indices during the 1990s. Their findings suggest that firms with low valuations were more likely to adopt provisions comprising the governance indices, not that the adoption of these provisions depresses valuations.

Core et al. (2006) reexamine GIM's puzzling finding that firms with weak shareholder rights exhibit significant stock market underperformance. If poor governance *causes* poor stock returns, it must be that investors are surprised by the poor operating performance of weak governance firms. To assess this, Core et al. examine the relations between G and either analyst forecast errors or earnings announcement returns. They find that while firms with weak shareholder rights exhibit significant operating underperformance, neither analysts' forecast errors nor abnormal returns upon earnings announcements show evidence that this underperformance surprises the market. Alternatively, weak governance may cause lower stock returns if the stock returns of firms with more ATPs (i.e., weak governance) drop when investors are surprised by the diminished probability of receiving a takeover bid. But here the authors find that weak governance firms are taken over at about the same rate as strong governance firms, and the return differences related to G are not sensitive to excluding firms that were taken over. Those results do not support the idea that weak governance causes poor stock returns. Core et al. suggest that GIM's result that firms with poor governance experience low stock returns may be specific to the 1990s time-period of their study or to the tech stock bubble of the late 1990s because the result is sensitive to the exclusion of technology firms and does not hold in the four years (2000–2003) following GIM's sample period.

Johnson et al. (2009) return to the GIM and BCF findings of large positive long-term abnormal returns on a zero-cost investment portfolio that is long in stocks of firms with strong shareholder rights and short in stocks of firms with weak shareholder rights. They find that these two groups of firms differ from the population of firms and from each other in how they cluster across industries. GIM adjust for industry-clustering in their portfolio using the Fama and French (1997) forty-eight-industry classification and find statistically significant abnormal returns of approximately 5.8% per year during the

1990s. Johnson et al. argue that the Fama-French forty-eight-industry classification is too coarse to measure industry returns accurately. With tests that adjust for industry returns using narrower, more precise three-digit SIC industries, they find statistically zero long-term abnormal returns for GIM's long-short governance portfolio.

Lewellen and Metrick (2010) dispute Johnson et al.'s result. Using an alternative industry adjustment, they confirm a large positive abnormal return during the 1990s on GIM's zero-cost long-short governance portfolio. Moreover, they argue that since a narrowly defined industry classification includes fewer firms in an industry than a broadly defined classification, industry returns computed using the former may contain high levels of idiosyncratic noise. They conclude that narrowly defined industry classifications are not necessarily better than broader classifications. Finally, using the Johnson et al. empirical specification, they find that a majority of the industry-adjusted asset pricing tests with the strongest empirical properties also yield statistically and economically significant industry-adjusted returns on the GIM governance portfolio.

Bebchuk et al. (2012) present evidence to suggest that the positive long-run returns on the GIM and BCF long-short governance portfolios were specific to their 1990s sample period. With the same methodology, they find statistically zero abnormal return on this portfolio during the subsequent 2000–2008 period. They find that the existence and subsequent disappearance of the abnormal return on this portfolio cannot be fully explained either by additional common risk factors suggested in the literature for augmenting the Fama-French-Carhart four-factor model (such as the liquidity risk factor of Pastor and Stambaugh 2003; the downside risk factor of Ang et al. 2006; and the takeover risk factor of Cremers et al. 2009) or by the Lewellen and Metrick (2010) industry-adjustment. They suggest that the positive return disappeared in the 2000s as investors learned about the abnormal return on this portfolio and invested in it.

22.4 Governance Regulation

La Porta et al. (2002) find that international variation in legal rules on investor protection affects firm value. Investor protection in US firms varies according to the firm's state of incorporation. Each state has its own corporate laws and court system. States differ in the resources they devote to resolving corporate disputes and sometimes customize legal rules to suit local firms or interest groups. Delaware corporate law is the nation's most important as more than half of all public firms are incorporated there. Legal scholars have long debated Delaware law's effect on agency costs and firm value. Based on a sample of about 4500 US public companies during 1981–96, Daines (2001) finds that Delaware corporate law improves firm valuation (i.e., Tobin's q) and facilitates the sale of public firms. He finds that Delaware firms are worth significantly more than similar firms incorporated elsewhere, after controlling for other factors and accounting for endogeneity. Delaware firms are also more likely to receive takeover bids and subsequently be acquired.

Dahya and McConnell (2007) examine the relation between changes in board composition and corporate performance in the United Kingdom over 1989–96, a period that surrounds the 1992 publication of the Cadbury Report, which recommends at least three outside directors for public companies. While the recommendation was not enacted into UK law, legislation was to follow if companies failed to comply with it voluntarily. In addition, the London Stock Exchange requires a statement from its listed companies indicating whether the company is compliant with the Cadbury recommendations and, if not, to explain why not. Contrary to their expectation, the authors find that this "quasi-mandated" board structure is associated with an improvement in the performance of UK companies. They find that companies that add directors to comply with this standard exhibit a significant improvement in operating performance both in absolute terms and relative to various peer group benchmarks. They also find a statistically significant increase in stock prices around announcements that outside directors were added in conformance with this recommendation.

High-profile corporate scandals in the United States in the early 2000s led to the adoption of tough, new governance rules as part of SOX and the listing requirements of major US stock markets. Chhaochharia and Grinstein (2007) find that the announcement of these rules had a significant effect on firm value. They focus on five main provisions of the new rules, dealing with insider trading, financial reporting, related party transactions, internal controls, and board and committee independence. For each provision, they construct portfolios of more compliant and less compliant firms. In general, they find that firms that were less compliant with the rules earn larger, positive abnormal returns in the announcement year compared to more compliant firms. They argue that the provisions on internal controls and director independence can affect small firms and large firms differently. For these provisions, they find that within the group of less compliant firms, large firms earn positive abnormal returns, while small firms earn negative abnormal returns, suggesting that some provisions are detrimental to small firms.

Zhang (2007) examines the effects of SOX by examining market reactions to related legislative events. Using an international asset pricing model to estimate normal US returns, she finds that US firms experienced significantly negative cumulative abnormal returns around key SOX events. She then examines the cross-sectional variation of US firms' returns around these events and finds that the nonaudit services and governance provisions appear to impose net costs on firms. Deferring the compliance of section 404 internal control provisions appears to result in significant cost savings for small firms.

An important purpose of SOX was to improve the accuracy and reliability of accounting information reported to investors. As such, it is the most important legislation affecting corporate financial reporting enacted in the United States since the 1930s. Li et al. (2008) argue that the WorldCom fraud announcement changed the political landscape for substantive financial accounting reform. They find significantly positive returns for the US stock market associated with eight SOX events following the WorldCom revelations. Instead of trying to adjust for a normal US stock market return, the authors consider other contemporaneous news (focusing on macroeconomic events, accounting scandals, and related accounting issues) when analyzing the market return on SOX

event days. They also find a positive relation between individual firms' stock returns on SOX event days and the extent of earnings management (i.e., "manipulation") across firms. Their results are consistent with investors anticipating that the more extensively firms had managed earnings in the past, the more SOX would constrain earnings management in the future and so improve the quality of financial statement information.

One of the most controversial provisions of SOX is section 404. This section, implemented by the US Securities and Exchange Commission (SEC) in 2003, requires a company to introduce and periodically test procedures that monitor its internal control systems ensuring accurate financial reports. The rule requires managers to report their findings annually in the 10K report to shareholders and outside auditors to attest to management's assessment of the company's controls. The SEC intended these procedures to help companies deter financial fraud by detecting fraudulent reporting early, improving the reliability of financial statements. Critics argue that this requirement is quite onerous and costly, particularly for small companies.

Iliev (2010) investigates the effect of SOX section 404 on firm values, using a natural quasi-experiment to isolate the effects of this provision. US firms with a public float[2] under $75 million could delay section 404 compliance (to fiscal year 2007 for the management report and to June 2010 for auditor's attestation), and foreign firms under $700 million could delay the auditor's attestation requirement to fiscal year 2006. Iliev uses a regression discontinuity design that compares the companies that were just above the rule's cutoff and had to file the report to companies that were just below the cutoff and did not have to file the report. He finds that section 404 compliance leads to higher audit costs and less earnings management, measured by discretionary accruals. Management report filers have higher returns around SOX-related announcements of delays in section 404 implementation. Overall, section 404 compliance led to conservative reported earnings, but also imposed real costs. On net, it reduced the market values of small firms.

22.5 Family Firms

Family firms where managers are related to (substantial) shareholders introduce social considerations into the agency problem. This may help or hurt. An advantage is that the manager may have nonmonetary reasons to reduce on-the-job consumption. He may care about the welfare of the other shareholders or he may take pleasure in the success of the firm either of which naturally aligns his interest with that of the owners. A disadvantage is that the (family) owners may care about the manager. This may deter them from monitoring and punishing the manager for bad behavior, allowing her to pursue her interest at their expense. Incentives may be better or worse in a family firm. A second effect is that family firms draw managers mostly from close kin, and this pool likely yields a less able manager than the broader pool of managers.

A focus of research on family firms has been CEO successions. When a family firm chooses a new CEO, often replacing the founding family member, what is the effect

of choosing the new CEO from among the family? Anderson and Reeb (2003) examine large US firms during 1993–99 and compare the performance of firms choosing a family CEO with those choosing an outsider. Accounting measures of performance seem better with family succession, but Tobin's q shows no difference. Villalonga and Amit (2006) look at a similar set of firms but find that choosing a succeeding CEO from within the family reduces Tobin's q. However, this seems to be true only for the first successor to a founder. For third and later generations, family succession has no differential effect. Cucculelli and Micucci (2008) examine a large sample of Italian firms in the late 1990s. Using a difference-in-difference method, they find a decline in accounting performance with family successions, but only for those firms that had previously performed well.

Bennedsen et al. (2007) look at Danish firms using similar methods and also find a decline in accounting returns with family succession. Moreover, controlling for endogeneity with instrumental variables they find an even larger effect. Perez-Gonzalez (2006) investigates the source of this performance decline. Using data for US firms during 1980–2000, he finds that accounting performance declines with family succession, but only for new CEOs who did not attend selective undergraduate schools. To the extent that attendance at these schools indicates greater ability, this finding implies that the incentive effects of family firms are a wash (the good balances the bad), but when drawing from the family pool results in a low ability CEO, performance at the family firm suffers.

22.6 Summary and Suggestions for Future Work

Characterizing the mechanisms of corporate governance and their empirical relation to firm performance has generated a huge literature. We have organized our survey of this literature with no intention of being exhaustive. Instead, we have been quite selective. Our intent is to provide a conceptual overview, to suggest important issues, and to offer a portal to the larger literature. The extent of this larger literature is a reflection of the importance of the topic and of the difficulties in analysis. We provide here a bird's-eye view of the literature that we have discussed, note some important contributions, and identify some remaining puzzles and unresolved issues for future research.

The persistent finding of a non-monotonic relation between the extent of inside ownership and firm performance is a puzzle that has motivated a large literature, but no resolution. One rationale is that inside ownership creates offsetting incentives for managers by simultaneously providing automatic reward for better firm performance and insulation from penalty for poor performance. The strongest evidence for this rationale derives from work on dual-class stock which allows these two effects to work separately. Another rationale is that the puzzling relation is spurious. The fragility of the relation to

several techniques to control for mis-specification and endogeneity problems supports this rationale, as does recent structural work showing that this relation can arise spuriously with no fundamental underpinning.

Similar to the first rationale for the insider shareholding puzzle, more concentrated shareholding by outsiders provides both an incentive for better monitoring which should improve firm performance and power to extract private benefits which should impede firm performance. Here, again, any empirical relation between blockholding and firm performance will be confounded by endogeneity problems. Controlling for endogeneity, it appears that the better monitoring effect dominates, at least in the United States, where blockholdings tend to be relatively small compared to the controlling shareholders that characterize firms in much of the world. The likely pathway for this better monitoring is blockholder presence on the board of directors, and recent evidence suggests that it is the combination of blockholding and board membership that improves firm performance.

But it is not just monitoring that boards do; they also provide strategic advice. The literature on boards examines the adjustments to board size, composition, and internal board structure that firms make and whether these adjustments optimally balance the two roles and so maximize firm value. There is some evidence that boards are typically too large and that, where strategic advice is important, they are too outsider-oriented. And there is evidence that boards structure themselves (with committees) to focus too much on monitoring. Why this is the case is a puzzle.

The market for corporate control imposes discipline on managers from outside the firm, but it may also upset internal arrangements that firms make to address the agency problem. Firms sometimes adopt antitakeover provisions that impede the market for corporate control (the label given is "weak shareholder rights") and so relax this outside discipline. Indexes measuring the extent of these antitakeover provisions appear negatively related to firm performance, suggesting that the external market for corporate control is more effective (at least at the margin) than internal mechanisms to address the agency problem. Further results suggest that this result may be limited to firms with large blockholders (who perhaps facilitate the market for corporate control) or to firms in noncompetitive industries (which lack product market discipline). Moreover, some evidence suggests that the relation between antitakeover provisions and firm performance is time-period specific or perhaps the spurious result of the endogeneity of antitakeover provisions. This issue is not yet settled.

Like the market for corporate control, legal rules and regulations can impose discipline from outside the firm that helps address the agency problem, but these rules can also impede internal mechanisms. The positive relation between firm value and Delaware incorporation (making a firm subject to Delaware corporate law) suggests that regulation of corporate governance can improve firm performance. Some additional evidence on the effect of federal governance regulation in the United States, specifically rules that followed the corporate scandals of the early 2000s, supports this. Those firms less compliant with the new regulations fared better than more compliant firms (as did firms with a history of managing earnings), which suggests that where the new rules had

greater impact, they did more good. Quasi-regulation in the United Kingdom focusing on mandated board structures appears to have had a similar effect. But other evidence suggests that the new US rules, especially those that most directly impacted internal monitoring by mandating strong internal controls, made matters worse and reduced firm value. The longer term effects of such governance regulation remain an open question for future research.

Following the adoption of recent governance regulations in the United States and the United Kingdom, many other countries have also either adopted, or are considering, similar regulations. This trend provides a fertile ground for future research. One open research question is the conditions under which governance regulation is beneficial. How does the regulation (and enforcement) of firm-level governance interact with country-level rules on investor protection and the quality of the judicial environment and of other institutions within which firms operate? And what effects do they have on firms and investors?

Finally, in a similar way, kinship ties can provide incentives to managers of family firms in addition to the incentives in nonfamily firms. But these same ties can inhibit discipline from family shareholders. Evidence suggests that these two effects offset each other, providing no net advantage to family firms. But evidence also suggests that family firms are disadvantaged by their overreliance on managers from the smaller family pool. An interesting but as yet unexamined question is the effect of nepotism on the incentives and compensation of outside hires.

Notes

1. Owners will tolerate *a* to the extent that managers "pay" for this with lower monetary compensation, since that will not lower profit.
2. A company's public float is the part of its outstanding equity that is not held by management or large shareholders.

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