ABSTRACT

BENTON, RICHARD A. Corporate Governance and Director Interlocks: The Effects of Network Mechanisms, Structural Cohesion, and Institutional Contexts on the Balance of Power in American Corporations. (Under the direction of Steve McDonald.)

Corporate governance refers to the institutions and structures that allocate power among participants within publicly traded corporations—most notably dispersed shareholders/owners, managers, and boards of directors. Board interlocks, network ties that form when a common director sits on the board of two or more firms, influence corporate governance practices by spreading information and status as well as promoting collective action among elites. More broadly, the rise of shareholder-value as the dominant conception of the firm has fostered a shift toward shareholder-oriented corporate governance at the expense of managerialism. However, there remains paradoxical variation in firm-level corporate governance orientations despite the shareholder-value movement. The present study investigates diffusion and selection processes in the interlock network by analyzing how 1) governance practices diffuse across interlocks and 2) firms select board members based on the board members’ experiences in similarly governed firms. These alternative, but co-occurring, processes offer avenues for firms to change or reinforce existing governance orientations. I also consider how these patterns differ across changing institutional environments and heightened levels of shareholder-scrutiny before and after the Sarbanes-Oxley Act of 2002. Finally, I inspect how governance orientations are embedded within cohesive relationships among actors. Broadly, this project analyzes how internal power-dynamics within corporations are nested within broader contexts in which the firm operates. The study uses data from the Investor Responsibility Research Center, Compustat, and Thompson-Reuters to explore longitudinal governance/network coevolution on a sample of 1,586 firms across five time points, spanning 1998-2006. The studies use stochastic-actor
oriented models to evaluate governance-interlock coevolution as well as a cohesive blocking routine to measure the extent to which corporations are embedded in cohesive substructures. Findings indicate that governance practices diffuse across board interlocks while, at the same time, similarly governed firms preferentially interlock with one another. After Sarbanex-Oxley these patterns where altered. The diffusion effect disappeared but corporations increased their tendency to preferentially interlock with similarly governed firms. Finally, corporations that are embedded in cohesive subgroups tend toward greater managerial entrenchment. These findings offer evidence that interlock structure affects the extent to which firms conform to or resist the shareholder-value movement.
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Corporate Governance and Director Interlocks: The Effects of Network Mechanisms, Structural Cohesion, and Institutional Contexts on the Balance of Power in American Corporations

by
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A dissertation submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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DEDICATION

To my sisters, Beverly and Martha.
BIOGRAPHY

Richard Benton grew up in Durham, North Carolina where he played alto saxophone in the high school jazz band, earned his Eagle Scout award from BSA troop 476, and graduated from Riverside High School in 2002. He attended North Carolina State University and earned B.A. degrees in psychology and sociology. After a brief stint as a 10th grade civics and economics teacher at Leesville Road High School in Raleigh NC, Richard returned to NC State to pursue a PhD in Sociology. In the fall of 2014 Richard will join the Department of Sociology at Duke University as a post-doctoral researcher.
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CHAPTER 1: INTRODUCTION

Corporations in the contemporary United States wield considerable economic power. Corporations affect wealth accumulation, individual social mobility, community economic development, and numerous other environmental and social outcomes. Ownership and control of corporate resources is one of the dominant modes of modern capital accumulation and powerfully affects patterns of social inequality (Tomaskovic-Devey and Lin 2011). The nature of corporate property and control has long been one the richest areas of social science research and debate. Scholars in sociology, economics, and law have considered fundamental questions about who controls the modern corporation. These debates variously focus on the historical, institutional, relational, and efficiency-driven components of corporate power and control. Even in the modern era, how to best characterize corporate control remains an open debate.

The scholarship in this tradition implicitly or explicitly examines corporate governance. Corporate governance refers to the set of institutions and structures that allocate power, rights, and responsibilities among a corporation’s various stakeholders—especially shareholders and managers. Corporations may hold pro-shareholder oriented governance that preserves the rights of shareholders and aggressively pursues increasing stock-market value. Alternatively, corporations may maintain a managerialist orientation—allowing managers to become entrenched in their positions and buffered from shareholder activism. The board of directors is at the center of this governance apparatus. At the extreme ends of the governance continuum, boards might fire delinquent managers or simply rubber-stamp management prerogatives and decisions.
Since the late 1970s there have been a number of broad changes in corporate governance as a “shareholder-value movement” has tilted corporate governance in favor of shareholders at the expense of other stakeholders (Davis and Thompson 1994). Today, it appears, the modal corporation focuses on maximizing shareholder wealth and often uses share-price as the guidepost for corporate strategy and policy (Shin 2013). Critics argue that this turn has contributed to the problem of short-termism in corporate policy (Dobbin and Jung 2010), down-sizing waves (Budros 2002, 2004), and malfeasance (Dobbin and Zorn 2005). Scholars have proposed a number of causes for the turn toward shareholder-value oriented corporate governance: the rise of institutional investors (Davis 2009a; Heineman and Davis 2011), the advent of academic agency theory (Dobbin and Jung 2010; Shapiro 2005), and a fracturing of the post-war managerialist corporate elite (Mizruchi 2013). However, despite all of these forces favoring shareholder-value governance, managerialism paradoxically persists in many corporations (Goldstein 2012). This project examines the causes of the surprising variation in corporate governance by focusing on how inter-organizational networks and institutional environments shape firms’ corporate governance orientations.

Although a firm’s corporate governance orientation is nominally determined by the board of directors and management team, corporations are not isolated entities. Sociological research on corporations and corporate governance has long investigated the roles of social networks, particularly board interlocks, in shaping organizational practices. Board interlocks are one of sociology’s most studied networks (Mizruchi 1996). Board interlocks form when a corporate director, CEO, or other officer sits on the board of another firm. Researchers
studying board interlocks have documented how they produce information flows across organizational boundaries and often encourage organizations to imitate one another (Davis and Greve 1997). Interlocks are also conduits through which an organization may exert influence and cooptation across organizations and industries (Burt 1983). Finally, board interlock research evokes apprehension about elite class cohesion and speaks to lasting debates about the internal differentiation of the American capitalist class and its coordination through major financial institutions (Mintz and Schwartz 1985; Mizruchi 2013; Zeitlin 1974).

The three studies in this project focus on alternative, but complementary, conceptualizations of how director interlocks and changing institutional contexts affect governance outcomes. The central premise of the project is that intra-firm governance provisions that construct power relationships and authority between shareholders and managers are “nested” within broader structures external to the firm (Davis 2005; Kahler and Lake 2003).

The first study analyzes how selection and diffusion mechanisms simultaneously operate in the interlock network. Under a selection mechanism, new interlocks form based on similarity in corporate governance orientation. Consequently, shareholder or managerialist corporations form interlocks with others that have a similar approach to allocating internal authority (Zajac and Westphal 1996). Under the diffusion mechanism corporations adopt the governance provisions of their interlocked network neighbors. Firms learn about corporate governance provisions through shared directors with experiences on diverse boards (Davis and Greve 1997; Davis 1991). Diffusion allows governance orientations to spread across the interlock network.
The second study investigates how these two network mechanisms (among others) operate under a changing institutional context. “Institutional context” broadly refers to the taken-for-granted logics, routines, and norms within a field of organizations. Theory and research that merges network analysis with institutional theory remains surprisingly underdeveloped considering they hold complementary goals of explaining organizational structure (Owen-Smith and Powell 2008). I develop a theoretical framework for how network action is embedded within broader institutional contexts. Institutionalized logics affect the flow of information and resources through networks as well as network formation and evolution. In the case of corporate governance the shareholder-value logic has come to dominate the institutional field and prescribe a variety of provisions and strategies for signaling a commitment to shareholder-value (Fligstein and Shin 2007; Shin 2013). I apply the theoretical framework to the case of the 2002 Sarbanes-Oxley Act that affected the formal and informal rules confronting publicly traded corporations in the U.S., and I demonstrate how the law altered interlock formation and governance provision adoption.

The third and final study analyzes how corporate governance is embedded in meso-level network structures that foster collective action. I argue that board interlocks provide a platform for managerialist corporate elites to resist the shareholder-value movement and maintain a degree of entrenchment. I assess the extent to which corporations are embedded within cohesive substructures that allow managers to draw on these collective resources and resist shareholder pressures. The analysis demonstrates that managerial entrenchment remains robust within some of the most cohesive subsets of corporations. Therefore, structural cohesion explains some of the variation in corporate governance orientations.
Substantively, this project addresses how firms’ manage shareholder scrutiny and negotiate intra-firm control within contexts established by broader network structures and the institutional environment. I use data on corporate board memberships and governance provisions to examine the interplay between board interlocks, institutional change, and corporate governance orientation. In this introduction to the project I present the broad theoretical underpinnings of my analysis of corporate governance as nested within external contexts, I describe the data used in the studies, and outline the empirical approaches and methods used in the analyses.

**Background Debates about the Separation of Ownership and Control**

Because corporations are nebulous social entities, their actions, strategies, and structures are often the result of internal power dynamics or information asymmetries. The separation of dispersed owners and managers represents a fundamental problem for firm control which, if left unchecked, allows managers to pursue growth over profit and engage in empire building or unproductive diversification rather than maximize returns to their shareholders. The arrangement might also encourage stability and reduce problems of short-termism. This situation is known as “managerialism” or managerial entrenchment (Davis 2005: 144). Berle and Means (1968 [1932]), in their classic analysis of the corporate power structure, argued that while ownership was centrifugal, management control was centripetal, leaving shareholders virtually powerless to oversee the managers who ran firms. Rather than pursue profit maximization, un-checked managers might seek “prestige, power, or the gratification of professional zeal” (1968 [1932]: 144). Additionally, while boards of directors exercised formal authority over corporate activities, managers had extensive power in
selecting the individuals who would serve on the board, leading managers to surround
themselves with passive, compliant monitors (1968 [1932]: 67). Dahrendorf summarized the
argument: “The roles of owner and manager, originally combined in the position of the
capitalist, have been separated and distributed over two positions, those of stockholder and
executive” (1959: 44). It seemed that the modern corporation had created a role
differentiation in the capitalist class.

Several sociologists questioned the managerialist thesis that a meaningful separation
of ownership and control had actually occurred. Zeitlin (1974) suggested that Berle and
Means’ evidence overstated their evidence, but more importantly that the conclusions were
erroneous. The rise of bureaucratic management did not necessarily imply that large
shareholders had lost control of the bureaucracies themselves. According to Zeitlin,
ownership interests, especially families and finance capitalists, still maintained control over
the broad policies guiding corporate strategic decisions even if they had relinquished
direction over the day-to-day operations. Furthermore, Zeitlin argued, corporations had
become a primary unit in the “class controlled apparatus of appropriation” (Zeitlin 1974:
1079). In this regard, corporate managers and owners all participate, to varying degrees, as
members of the same social class.

Out of this debate also came studies on the rise of finance capitalists and bank control
through board interlocks. For instance, Mariolis (1975) was one of the first sociologists to
document the pattern that banks were over represented among the most central firms in the
interlock network—banks tended to have the most interlocks and tended to be interlocked
with other well-connected firms. Mariolis attributed this high centrality to the outsized power
banks wielded across the economy. Mintz and Schwartz (1985) also documented bank interlock centrality but offered a different interpretation. Rather than banks exercising direct control over interlocked firms, bank centrality and the growth of capital dependency resulted in a situation of bank hegemony and asymmetrical interdependence; firms relied on financial institutions but this dependency was not mutual. Firms determined their strategy and action in accordance with the structural constraints imposed by the major financial institutions. This perspective furthered understanding of how inter-corporate constraints limited the growth of managerialism.

**Functionalist Approaches in Financial Economics**

By the 1970’s, theorists in economics and law began to worry that managerial elites had become insulated from shareholder pressures and were collecting rents at shareholder expense. They argued that a variety of institutions and structures could ensure that managers would adhere to shareholder interests and overcome the problem of managerial entrenchment (Jensen and Meckling 1976). According to financial economists’ accounts, an “agency problem” manifests itself when principals (corporate shareholder/owners) cannot be guaranteed that their agents (corporate managers) have the principals’ best interests at heart. As an efficient response, corporate governance mechanisms attempt to align managers’ incentives with shareholder interests. At the center of these mechanisms, the board of directors upholds the fiduciary responsibilities of dispersed stock holders (Jensen and Meckling 1976; Fama and Jensen 1983). When CEOs are unresponsive, boards can seek to replace them, or, when firms are mismanaged, the share-price will reflect their
underperformance and corporate raiders can attempt a take-over, fire the idling managers, and generate windfall wealth for stockholders (Jensen and Ruback 1983).

In this view, corporate governance makes the public corporation a possibility by orienting corporate managers toward shareholder-value. Dispersed owners can invest in companies with the knowledge that managers will not squander their funds for fear of being disciplined by the market, activist shareholders, and ratings agencies. Furthermore, even though all investors cannot be expected to research a firm’s corporate governance, it only takes a few lead investors (typically institutional investors who own large blocks of equity) to gather this information and act on it for the market judgments to operate. These lead investors are rewarded for their diligence and market prices remain an efficient evaluation of the firm. The efficient market hypothesis formalizes these propositions and posits that markets (especially equity markets and the market for corporate control) render continuous judgments and offer a useful gauge for corporate policy and strategy (Davis 2009).

As a result, in the agency theory view, efficient financial markets encourage managers and boards to commit to shareholder value in a variety of ways. Corporations might appoint outsiders to the board, directors who are not also employees of the firm, to oversee operations without the undue influence of management. They might hire well reputed accounting firms as auditors, or they may partner with prestigious investment banks in underwriting their securities. Firms can also create incentives for top managers to maximize stock-price by issuing stock-options or forcing top managers to hold equity and attract the attention of influential financial analysts to recommend the company as a sound investment. Davis summarizes the functionalist account of these mechanisms, “In each case,
incentives to maintain sterling reputations for quality work ensure that accountants, investment bankers, and analysts uphold high standards of corporate governance.” (2005: 147).

Uneven Adoption of the Shareholder-Value Logic

Power dynamics within firms often prevent board monitoring from operating as agency theorists describe and allow managers to retain considerable autonomy. Dobbin and Jung (2010) argue that even as corporate stakeholders embraced agency theory’s prescriptions under the shareholder revolution—linking management compensation with shareholder-value, promoting de-diversification (Zuckerman 2000), and increasing debt financing—the strategy of aligning shareholder and managerial interests was implemented unevenly and emphasized short-term stock price gains over long-term profitability. Firms exacerbated their risks but did not adopt the provisions meant to moderate risk and enhance long-term shareholder interests: increasing executive equity holdings and introducing independent board monitoring. As a consequence, agency theory’s prescriptions attained legitimacy in the inter-organizational field, yet they were adopted in accordance with the interests of powerful corporate managers (Dobbin and Jung 2010).

Other evidence also supports the continued power of corporate managers. Scholars have uncovered patterns where corporations attempt to “signal” their commitment to shareholder-value without actually curtailing managerial entrenchment. For instance, Westphal and Zajac document several provisions intended to maximize shareholder wealth who nominal adoption become decoupled from implementation: CEO long term incentive plans (1998) and stock repurchase programs (2001). In each case corporations attempt to
signal their control over managerial behavior and their commitment to shareholder-value, but the policies are more symbolic than substantive.

Finally, recent evidence suggests that managers have been able to capture sizable rents in the era of shareholder-value. Goldstein (2012) argues that despite the rhetoric of hegemonic shareholder-value, from 1984 to 2001 managers became a larger portion of the corporate workforce and continued to receive increases in pay. Rather than trimming managerial ranks in an effort to increase shareholder-value, managers responded to market pressures by creating the modern “fat and mean” corporation with its bloated bureaucracies and abusive work practices that simultaneously expanded managerial positions and increased their ability to capture rents at the expense of labor (Gordon 1996; Goldstein 2012).

Essentially, the shareholder-value movement gave managers increased power because of their role as a labor control device. Thus, the question of who controls the modern corporation is hardly settled (Fligstein and Brantley 1992). Rather than an efficient outcome, firm strategies and structures reflect field level pressures and power dynamics between and within firms.

**Corporate Governance and Board Interlocks**

Much of the previous research on managerial entrenchment in the era of shareholder-value focuses on decoupling and rent seeking. Alternatively, the present study focuses on network and institutional contexts that have embedded firm-level strategy and structure. To be sure, internal power dynamics affect managers’ abilities to capture rents and boards’ abilities to prevent decoupling in shareholder-value maximizing strategies. However, organizations are not atomistic entities where internal monitoring and external markets (and
market intermediaries) deterministically orient strategy. Rather, firms and boards are embedded in a field of other organizations that monitor one another’s strategies and structures so that these fields spread conceptions of control (Fligstein 1990; Fligstein and McAdam 2011).

Interlocking directorates are a particularly important type of inter-firm tie that significantly influences corporate governance practices (Mizruchi 1996). Historically, financial institutions used interlock ties to maintain their influence and monitor developments across the economy (Mintz and Schwartz 1985). Banks took an active hand in firm governance, especially when firms required increased capital or began to suffer declining performance (Mizruchi and Stearns 1988). However, as corporate financing shifted from commercial banks to financial markets, bank centrality declined in the network and they lost much of their direct influence over corporate governance practices (Davis and Mizruchi 1999).

Scholars have also documented the myriad ways in which interlocks spread information about governance and structure across firms. Board ties diffuse information and imitation in such practices as mergers (Haunschild 1993) and what stock-market to list on (Rao, Davis, and Ward 2000). Interlocks may also spread practices that reflect intra-firm power dynamics between managers and shareholders, thereby affecting corporate governance. Davis (1991) demonstrates how the poison-pill take-over defense diffused through board interlocks during the take-over wave of the 1980s. Poison pills are a type of governance provision that allows shareholders in a target firm to purchase additional shares at a discounted rate. The effect is to make a hostile take-over bid prohibitively expensive and
force bidders to negotiate with a target’s board rather than directly with shareholders. Take-over defenses, such as the poison-pill, remain controversial, and have been condemned by agency theorists (Jensen 1984), because they interfere with the take-over market that keeps managers attentive to shareholder-value. Managers have an interest in preventing hostile take-over bids and disallowing hostile bidders from negotiating directly with shareholders because successful take-over bids frequently result in the firing of top managers. Davis and Greve argue that poison pills deprive shareholders of the opportunity to gain the windfall profits that typically result from a successful take-over and give managers the “corporate equivalent of tenure” (1997: 3). In a similar study, Westphal and Zajac (1997) show how three governance practices diffuse across ties when CEO-directors serve on the board of another firm: board independence, reduced diversification, and contingent CEO compensation. Each of these is an indicator of a firm’s shareholder-value orientation. Taken together this evidence suggests that shareholder vs. managerialist orientations, and the associated practices, can diffuse across board interlock ties.

Corporate governance concerns also motivate how firms recruit directors and form interlocks to other corporations. Zajac and Westphal (1996) find that powerful managers prefer to recruit directors with experience on passive boards while powerful boards seek to maintain control by recruiting directors with experience on activist boards and by avoiding passive directors. These results are consistent across a variety of indicators of board/management power relations. When directors have participated in boards that separate the CEO and board chair functions, increase the ratio of outside to inside directors, reduce corporate diversification, increase CEO compensation contingency and decrease CEO total
compensation, they become more attractive appointments to firms with stronger board control. The reverse is also true; directors who have participated in increasing management power over boards are more attractive to firms with greater management independence (Zajac and Westphal 1996). Zajac and Westphal (1996) argue that these internal firm power dynamics have introduced a segmented network of corporate directors.

Taken together, the evidence indicates that corporate governance is embedded in director interlock networks. The present project address how these two processes work in concert: the network of board interlocks diffuses governance practices and shareholder-rights orientations as well as evolves to reflect the governance orientations of corporate network actors. As described above, the individual studies address different aspects of the relationship between corporate governance and director interlocks. The first study unpacks the selection and diffusion mechanisms in the interlock network and distinguishes them from alternative network mechanisms. The second study analyzes these mechanisms under conditions of institutional change. Mechanisms that drive network-practice coevolution may be altered when the legal environment introduces an exogenous shock. Finally, the third study explores how structural cohesion in the interlock network provides collective resources for managerial elites to maintain a degree of entrenchment and contributes to continued variation in firm-level corporate governance.

Data

Data for this project come from several online databases accessible through Wharton Research Data Services hosted by the Wharton Business School at the University of Pennsylvania. In this section I describe the key datasets and variables used in the analyses.
Holistic Interlocks Adjacency Matrices

The central dataset for the project consists of five holistic interlock network matrices for the time points 1998, 2000, 2002, 2004, and 2006. These are firm-by-firm undirected adjacency matrices with a 1 in cell \((i, j)\) if firms \(i\) and \(j\) share a director or executive and a zero otherwise. Network-panels allow me to investigate longitudinal network dynamics and the processes of director selection and practice diffusion across the network. Interlock data comes from the Investor Responsibility Research Center’s (IRRC) Risk Metrics database. I construct the adjacency matrices using the Risk Metrics director lists and extensive hand checking. Throughout the project I use a sample of firms that is the union of the 1000 largest firms by total assets for each panel year. This generates a sample of 1,586 unique corporations and is substantially larger than many comparable interlock studies. Additionally, some corporations leave or join the sample during the study period. Leavers either delisted their securities (i.e. went private), merged with another firm, or were purchased by another firm. Joiners either went public or spun off from an existing public firm during the study period. Seven hundred seventy-five firms appear in all five panels.

Corporate Governance

The key concept of interest throughout the project is firm-level corporate governance. I use Gompers, Ishii, and Metrick’s (2003) g-index to measure firms’ managerialist vs. shareholder-orientations. The g-index comes from Risk Metrics and provides a holistic measure of corporate governance that compiles provisions and practices that allocate authority within corporations. These include the charter and bylaw provisions that insulate managers from the take-over threat, augment or restrict shareholder voting rights, and
indemnify officers and directors. The index includes 22 firm-level practices plus six state-level laws. Duplication between firm provisions and state laws leaves 24 unique provisions in the index. The g-index is arranged so that higher scores indicate greater managerialism and lower scores represent more shareholder rights. I provide greater detail about the provisions in the g-index in the appendix.

**Firm and Dyad-Level Controls**

In addition to interlock ties and corporate governance orientations, this project assesses a variety of firm-level and dyad-level control variables found in the literature to affect interlocking and governance outcomes. Firm *size* is measured using three indicators: *annual sales volume, number of employees, and total assets*. Stock-market *performance* is measured using the *market-to-book ratio*, the market value of the firm’s common stock (price * shares outstanding) divided by its book value (value of total assets minus liabilities and debt) at the year-end month of a firm’s fiscal year. A dyad-level control variable accounts for the geographic location of a firm’s headquarters because *geographically proximate* firms are more likely to interlock (Kono et al. 1998). I use a dyadic indicator for whether or not two firms list the same area code for their headquarters. I also use a dyadic indicator for whether or not two firms list their securities on the *same stock exchange* or over-the-counter market. Some research suggests that firms use interlocks to attempt to manage resource dependencies (Burt 1983; Pfeffer and Salancik 1978; Pfeffer 1987). In order to address this I control for whether or not a focal firm operates establishments in a “network industry.” Firms in network industries are more likely to exchange with firms across the economy, thereby inducing resource dependencies on others. I measure this using the 3-digit codes from the
North American industry Classification System (NAICS): telecommunications (517), financial services (522), securities (523), insurance (524-525), transportation (481-484) and business services (561). Each of the above indicators comes from Standard and Poor’s Compustat database. Finally, institutional investors are perhaps the leading proponents of the shareholder-value movement and can have a powerful influence on firms’ corporate governance. I control for institutional ownership using the percentage of a firm’s outstanding shares owned by 13-f filing institutional investment managers. This measure comes from the Thompson-Reuters database on institutional ownership.

**Methods**

Each of the empirical chapters uses approaches developed in social network analysis to investigate the interplay between director interlocks and firm-level corporate governance provisions. Chapter two applies the recently developed techniques in Stochastic Actor-Oriented Modeling to parse selection and diffusion effects in the network (Snijders, Bunt, and Steglich 2010; Steglich, Snijders, and Pearson 2010). This class of models uses network/behavior panel data to estimate a “creation function” governing tie formation and an “objective function” governing behaviors. The algorithm, implemented in the RSiena package in the R statistical environment, simulates micro-steps between observation waves and iteratively updates parameter estimates in order to estimate the behavioral foundations that govern network/behavior coevolution.

The third chapter extends the Stochastic Actor-Oriented modeling approach to evaluate how network/behavior evolution differed before and after the passage of the 2002 Sarbanes-Oxley Act (SOX). Theory suggests that SOX heightened scrutiny and the explicit
commitment to shareholder-value in the institutional environment and, in turn, affected the ways in which corporations formed interlock ties and adopted governance provisions. I run separate models for the panel waves before and after SOX and evaluate how these mechanisms differ under the altered institutional context.

Finally, chapter four evaluates how structural cohesion in the interlock network fosters resistance to the shareholder-value movement and preserves managerial entrenchment. Theory implies that structural cohesion allows entrenched elites to act collectively, thus providing a platform for maintaining managerialism in the hostile shareholder-value oriented environment. I evaluate firm’s embeddedness in structurally cohesive communities using the cohesive blocking technique developed by Moody and White (2003). I estimate the relationship between cohesive embeddedness and manageralist corporate governance under increasingly restrictive assumptions using pooled-, random-, and fixed-effects regression models.

Summary

The three studies in this project explore the relationship between director interlocks and firm-level corporate governance orientations. Previous research demonstrates how governance practices flow through interlocks, as firms are more likely to adopt innovations, such as poison pills, when they share a director with another firm that has previously adopted the provision (Davis and Greve 1997; Davis 1991). Consequently, intra-firm power dynamics are partially a function of interlock links with other firms and the power dynamics of network neighbors (Westphal and Zajac 1997). Previous work also shows how firms recruit and appoint new directors, forming new interlock ties, as a reflection of intra-firm power
constellations. Firms are likely to appoint a new director with previous experience on boards with similar governance orientations to their own (Zajac and Westphal 1996). This project seeks to assess these patterns simultaneously using recent panel-waves of board ties among the largest American corporations. The project also evaluates how these processes operate under changed institutional/legal conditions. Finally, the project determines how cohesive meso-level social structures contribute to intra-firm power balances. Rather than asking how individual firms atomistically determine corporate governance, this project considers the network mechanisms under which firms adopt practices and recruit directors. Generally, these questions also address theoretical concerns of how shareholder-value and corporate control are each embedded within networks and institutional context.
CHAPTER 2: STUDY ONE—CORPORATE GOVERNANCE AND NESTED AUTHORITY: THE EFFECTS OF NETWORK SELECTION AND ASSIMILATION ON THE BALANCE OF POWER IN AMERICAN CORPORATIONS

Abstract

Corporate governance refers to firm-level practices that allocate power within public corporations, especially between dispersed shareholders and concentrated managers. Recent work heralds the rise of the shareholder-value principle and its effects on corporate governance—referring to the notion that firms should be primarily vehicles for creating shareholder wealth. However, managerialist orientations persist in many corporations and governance practices vary widely among firms. This study considers how firm-level corporate governance orientations are nested in inter-firm networks, specifically director interlocks. The study investigates the coevolution of interlocks and governance: how 1) governance orientations diffuse across interlocks and 2) governance orientations influence the emergence of interlocks. The empirical analysis uses stochastic actor-oriented models and interlock panel data for 1,586 of the largest publicly traded corporations in the U.S. to evaluate the mechanisms driving network/practice coevolution—how firms select interlock partners and adopt governance practices. Results reveal that governance practices diffuse across ties while, simultaneously, interlocks tend to form among similarly governed firms. Meanwhile, endogenous network mechanisms also influence interlock emergence. Findings suggest that corporate governance and inter-firm networks should be viewed as mutually constituted.
Introduction

Corporate governance is about authority and accountability, the practices and power constellations within a corporation that determine who makes decisions and who gets the rewards. These might include decisions about hiring and firing the CEO, mergers and acquisitions, issuing dividends or new securities, and the distribution of a firm’s cash-flow. Corporate governance refers to the practices within a publicly traded corporation that determine who has a say in strategy and resource distribution (Davis 2005; Gourevitch and Shinn 2005). These practices affect shareholders, managers, workers, directors, pensioners and such countless other stakeholders as suppliers, customers, community groups, mutual fund managers, and endowment beneficiaries. A firm’s governance might be managerialist in orientation, with entrenched managers protected from shareholder scrutiny and activism. Conversely, governance may be shareholder oriented with an independent board of directors and managers who are more responsive to the demands of investors and financial markets.

Considerable scholarship describes how corporate governance has been affected by the shareholder-value principle that emerged during the 1980s under regulatory changes, an active take-over market, increasingly powerful institutional investors, and the advent of academic agency theory (Davis 2011). The shareholder-value principle refers to the notion that corporations’ primary purpose is to maximize shareholder wealth (Davis 2009a; Fligstein and Shin 2007; Shin 2013). Critics argue that this movement has contributed to the experiences of dislocation and instability for many American workers and families, increased financialization, produced greater systemic risk, and altered the structure of income inequality to increasingly favor elites (Davis 2009a; Tomaskovic-Devey and Lin 2011;
Volscho and Kelly 2012; Weeden and Grusky forthcoming). However, others point out that despite the symbolic veil of shareholder-value (Westphal and Zajac 1998; Zajac and Westphal 2004), managerialism persists in many corporations (Dobbin and Jung 2010; Goldstein 2012). Clearly, because corporate governance can affect the power and fortunes of so many, it remains highly contentious and the persistence of firm-level variation in corporate governance in the era of shareholder-value remains an open question.

Resolving this dilemma requires focusing on corporate governance practices, the firm-level provisions that allocate power, and looking beyond conventional approaches in law and financial economics that view these practices as efficient responses to the problem of agency costs inherent in the separation of ownership and control in American public corporations (Fama and Jensen 1983; Jensen and Meckling 1976). Alternatively, a sociological view emphasizes that firms’ corporate governance orientations should not be viewed atomistically. Rather, they are shaped and reshaped to match the interests of the organization’s internal and external participants. Thus, corporate governance is a form of “nested authority”: power relationships within a firm are a function of the larger structures in which they operate (Davis 1996; Kahler and Lake 2003). Corporations have permeable boundaries and many participants have numerous conflicting or complementary outside affiliations and responsibilities. As a result, firm level practices should not be decontextualized from members’ inter-firm affiliations.

In particular, corporate governance is nested in the network of interlocking directorates (Kogut 2012). A corporation’s board of directors is formally responsible for constructing internal governance provisions. Yet many board members serve on the boards of
multiple firms, producing a network of interlocking boards. Research on this network has a long history in sociology (Mizruchi 1996). Analyzing these network affiliations offers insights into the flows of information and influence that contextualize variation in firm-level corporate governance. Previous work has emphasized imitation mechanisms and the effect of board ties on individual governance practices (Davis 1991; Shipilov, Greve, and Rowley 2010). Crucially however, scholars have yet to investigate how networks and governance orientations coevolve. This is a significant gap in the literature given recent debates about variation in corporate governance orientations and their consequences. This paper fills this gap by asking how interlocks spread corporate governance orientations while these orientations simultaneously affect interlock emergence.

Substantively, this study addresses how the networked environment contextualizes internal power dynamics in public corporations. Drawing on research in finance economics, law, and the sociology of organizations, I investigate two primary co-occurring mechanisms driving the coevolution of corporate governance and the interlock network: the assimilation of corporate governance and selection of interlock partners. These processes reflect the power dynamics between shareholders and managers within firms, two groups which, in many public corporations, compete for autonomy, discretion, and control. First, under an assimilation mechanism, governance orientations and practices diffuse or spread across interlock ties to adjacent firms. For instance, activist boards may attempt to curtail executive discretion by adopting the governance provisions of shareholder-oriented interlocked firms. Second, under the selection mechanism, firms may recruit new directors in accord with
existing corporate governance practices. For instance, top managers may attempt to maintain extensive control by nominating directors with experience on passive boards.

I use data on corporate board memberships and governance provisions to test the extent to which these governance orientations diffuse across ties and influence firms’ selection of new directors. In what follows I introduce a theoretical framework describing the sociological approach to corporate governance as nested authority. Next, I describe recently developed models in longitudinal network analysis that allow researchers to parse out patterns of assimilation and selection simultaneously along with endogenous network mechanisms (Snijders, Bunt, and Steglich 2010; Steglich, Snijders, and Pearson 2010). I present findings from stochastic actor-oriented models of assimilation and selection mechanisms in the corporate board network for 1,586 of the largest publicly traded companies from 1998 to 2006. Findings indicate that both selection and assimilation mechanisms operated during this time, embedding corporate governance orientations in the network of board interlocks. Moreover, despite pronouncements of the rise of shareholder-value principle, managerialism remains as a paradoxically robust orientation that simultaneously drives interlock emergence and is supported by network relationships.

**Theoretical Framework: Corporate Governance and Board Interlocks**

Corporate governance refers to the practices and structures that allocate power among organizational participants–most notably dispersed shareholders, concentrated managers, and the board of directors (Davis 2005). Conventional approaches outside sociology view corporate governance practices as responses to the problem of agency costs and efficient market valuation. In this frame, the separation of dispersed owners and managers represents a
fundamental problem for firm control which, if left unchecked, can produce managerialist corporations: a situation where managers are free to pursue growth over profit and engage in empire building or unproductive diversification rather than shareholder-value (Davis 2005:144). Berle and Means (1968 [1932]), in their classic analysis of the corporate power structure, argued that dispersed ownership left shareholders virtually powerless to oversee the managers who run firms. Rather than pursue profit maximization, un-checked managers might seek “prestige, power, or the gratification of professional zeal” (1968 [1932]:114).

How can dispersed shareholders (principals in the agency theory formulation) invest in a corporation with confidence that managers (their agents) will see to their interests? Agency theory describes corporate governance structures as a resolution to this problem (Fama and Jensen 1983; Jensen and Meckling 1976; Shapiro 2005). In particular, these governance structures include an independent board of directors and the market for corporate control.¹ Elected by stock owners, the board of directors monitors managers’ performance and often establishes systems that link management compensation to firm performance. When CEOs are unresponsive to shareholder interests, boards can replace them. Similarly, the market for corporate control assures managements’ attention to share-price. When firms are mismanaged, a lower market value reflects their underperformance, making it cheaper for competing management teams to take-over, fire the idling managers, and generate greater returns for stockholders (Jensen and Ruback 1983). As a result of these structures, dispersed owners can invest in companies with the expectation that managers will not squander their

¹ Agency theorists also discuss the role of reputational intermediaries, such as accounting firms, and institutional investors in assuring management’s attention to shareholder value.
funds under the threat of being disciplined by an independent board and the take-over market.

Despite agency theory’s prescriptions about best practices, firms vary in their corporate governance. A firm’s bylaw provisions, internal structures, and strategies give indications of its internal authority and balance of power. For instance, a corporate board’s insider-outsider ratio follows from internal power constellations; a board staffed with many insiders (firm employees) is more likely to be held under the sway of a powerful CEO and less able to curtail executive entrenchment. Similarly, powerful CEOs often simultaneously hold the position of board chair, so de-linking the CEO and chair positions is typically an indicator of shareholder-orientated governance. Firms might also adopt take-over defenses, such as a poison-pill, that insulates management from the threats of the take-over market despite their negative effects on shareholder wealth (Sundaramurthy, Mahoney, and Mahoney 1997). Likewise, firms could adopt practices that either limit or enhance shareholders’ voting rights—their ability to elect board members or pass new by-law amendments without management’s approval. Finally, firms might implement practices that limit director and management liability or indemnify them from legal expenses stemming from their conduct. Gompers, Ishii, and Metrick (2003) demonstrate that these practices tend to cluster together and give an indication of a firm’s corporate governance orientation. Consequently, shareholder orientated firms tend to generate greater returns, have higher sales growth and profits, make fewer corporate acquisitions, and exhibit lower capital expenditures (Gompers, Ishii, and Metrick 2003). The latter point also implies that shareholder
orientations may encourage financial investments that crowd out employment growth (Lin 2013).

**Corporate Governance as Nested Authority and Empirical Expectations**

While agency theorists interpret corporate governance as a response to agency costs and judgments of financial markets, the approach is overly atomistic. Within sociology, recent work emphasizes changes at the institutional level that have contributed to the rise of shareholder-value as the dominant conception of the firm, as well as related consequences for employment, risk, and inequality (Davis 2009a; Goldstein 2012; Shin 2013). However, echoing past work on corporate practices and social networks (e.g. Davis and Greve 1997; Davis 1991; 1996; Palmer, Jennings, and Zhou 1993; Palmer, Barber, Zhou, and Soysal 1995), variation in governance orientations should also be analyzed in the context of larger relational structures. Additionally, endogenous network dynamics drive the relationship between inter-organizational network structures and organizational behavior (Gulati and Gargiulo 1999). Thus, the links between inter-organizational networks and corporate governance are not simply a matter of firm dyads as most previous work implicitly assumes. Drawing on these perspectives, I argue that firm-level corporate governance orientations and the firm’s networked environment are mutually-constituted.

The theoretical mechanisms linking corporate governance practices to the firms’ networked environment, particularly interlocking directorates, are rooted in a considerable body of research on organizations and networks (Brass, Galaskiewicz, Greve, and Tsai
Interlocks allow a corporation to place a representative, such as an executive or director, on the board of another firm. They also allow corporations to invite another firm’s representative onto their own board. As boards are primarily tasked with overseeing managers and establishing corporate governance practices, these inter-firm ties have powerful consequences for governance orientations and can define how power is distributed within a corporation. As a result, this network contextualizes variation of managerialist versus shareholder orientations.

Two focal mechanisms classify the interplay between corporate governance and the interlock network: practice assimilation and director selection. These two mechanisms define the coevolution of interlock emergence and governance practices and they describe how internal authority structures are nested within social ties. First, interlock ties can spread information about corporate governance thereby diffusing orientations and practices between firms (Davis 1991; Haunschild 1993). Directors rely on their previous experience serving on other boards, and in their “home” corporation, when they address corporate policy issues and a well-connected board increases a firm’s “business scan” (Useem 1984: 45). For instance, many firms responded to the take-over wave of the 1980s by adopting a “poison pill” defense strategy, but they often learned about the provision through director interlocks; that is, the firm shared a director with a corporation that already had the provision (Davis 1991). Similarly, in some contexts firms tend to imitate interlocked corporations in deciding on which stock exchange to list their securities (Rao, Davis, and Ward 2000), merger and

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2 The sociological literature on corporate governance spans many analytic levels. The present paper focuses on the level of inter-firm ties but scholars also analyze the role of economic institutions, legal traditions, and political power driving corporate governance patterns. This branch of the literature notes the extensive international variation in market development, ownership structures, and agency problems (Roe 2003).
acquisition strategies (Haunschild 1993), and board reform policies (Shipilov, Greve, and Rowley 2010). Corporations are also more likely to imitate their direct market competitors when they are interlocked with other firms who also imitate their own competitors (Westphal, Seidel, and Stewart 2001). Thus, corporations often “learn about” corporate governance from the information transferred through interlocks.

This tendency is illustrated in Figure 2.1. On the left, at time one, two corporations are interlocked but have different governance orientations. At time two, the focal firm has changed its governance to match that of the network neighbor. In the case of multiple network neighbors, this effect is a function of the proportion of network neighbors with a given governance orientation. For instance, firms may adjust their own governance to match the average governance across all network neighbors. A shareholder-value oriented neighborhood induces a focal firm to adopt shareholder oriented provisions and the same is true for managerialist neighborhoods. Therefore, firms assimilate the corporate governance of their network neighborhood.

**Hypothesis 1: (Assimilation Hypothesis) Corporations tend to adopt the governance provisions and orientations of interlock network neighbors.**

(Insert Figure 2.1)

Second, firms may select new directors and form board interlocks in accord with existing governance orientations. A corporation’s balance of power between shareholders and managers could be upset by appointing a new director with a different approach: for an entrenched CEO, an activist director would not be a desirable addition to the board. As a
result, corporations often appoint new directors with experience on the boards of similarly governed corporations (Bouwman 2011). Zajac and Westphal (1996) demonstrate that powerful managers tend to select board members with experience on other passive boards. Conversely, more powerful boards (with more shareholder oriented governance) recruit directors with experience on other activist boards. For example, a director with experience at a firm that recently cut CEO compensation is more likely to be recruited to boards with greater control and weaker CEOs but less likely to join passive boards (Zajac and Westphal 1996). Thus, the potential for interlocks to influence intra-organizational power leads governance participants to strategically recruit sympathetic and like-minded new directors. Unfortunately, scholarship has yet to demonstrate this effect with regard to internal governance practices such as voting rights or take-over defenses. It remains an open question if corporations with fewer shareholder voting rights and greater managerialist take-over defenses appoint directors from similarly governed firms.

Figure 2.2 illustrates the selection mechanism. At time point one, both firms hold similar governance orientations but are not interlocked, but by time two the companies have formed a network tie because of their attribute similarity.

Hypothesis 2: (Selection Hypothesis) Corporations prefer to form interlocks with similarly governed firms.

(Insert Figure 2.2 here)

These two mechanisms offer alternative ways of explaining the paradoxical persistence of managerialism and for the potential for shareholder-value oriented governance
practices to replace managerial entrenchment. Under a selection mechanism we might expect governance orientations to gradually silo into disconnected portions of the network. Under an influence mechanism corporations might alter the governance of their network neighbors and corporate governance practices would be more widely dispersed in the network. Of course, firm-level attributes also influence governance outcomes to a large degree so it is unlikely that network dynamics will deterministically affect how governance is distributed in the network.

**Alternative Mechanisms**

Scholars have yet to document the extent to which the assimilation and selection mechanisms co-occur. Existing research considers variants of the assimilation and selection mechanisms independently from one another and without regard to alternative network mechanisms that may drive the null hypothesis, even though these alternatives have clear precedence in other inter-organizational networks. For instance, Gulati and Gargiulo (1999) demonstrate that organizations’ centrality and being linked to common third parties (closure) are important determinants of strategic alliance formation. Thus, evaluating these processes, and their substantive implications, alongside assimilation and selection effects represents a crucial advancement in the study of director interlocks and corporate governance orientations. Two alternative network mechanisms, *status* and *reputation*, could explain interlock emergence without regard to corporate governance.

Interlocks can confer status on a focal firm. Theoretically, this produces a “Matthew effect” of preferential attachment in the interlock network; high status firms and directors are
more sought after, which in turn generates still greater status (Davis and Robbins 2005). Status concerns clearly play a role in many areas of corporate governance. For instance, Han (1994) finds that middle-status corporations tend to imitate industry leaders in selecting auditors. Auditing firms serve as reputational intermediaries in securities markets and can send a status signal to relevant audiences. Han argues that this imitation is a function of the corporation’s status position; while high status firms attempt to differentiate themselves from competitors, middle status firms conform and imitate status leaders.

Network-based status mechanisms are especially applicable in the board network because of the nature of corporate governance (Davis and Robbins 2005). Podolny (2001) argues that networks operate as “prisms” through which market participants evaluate a focal actor when there is considerable uncertainty about its underlying quality. When quality is uncertain, market participants evaluate an actor based on its affiliation with prominent others. Certain aspects of corporate governance feature considerable uncertainty. While directly observing the quality of a corporation’s governance may be costly or even impossible, audiences are likely to view governance through the lens of network based status in board affiliations (Davis and Robbins 2005). In other words, sharing a director with a high status board sends a salient and favorable status signal to such firm constituencies as shareholders, analysts, and other financial market participants; status “leaks” across network ties (Podolny 2005). Board makeup tells others something about the quality of corporate governance they

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3 Podolny (2005) notes that status hierarchies exhibit a “Matthew effect” where high status actors are able to leverage that status into more resources and better performance allowing them to acquire more status. Director status may work the same way. Well-connected directors and directors serving on prominent boards are highly sought after because of the status signals they send to financial markets and analysts; however, that high status allows them access to more prominent firms, better information, and more influential positions further enhancing their status as directors.
will produce. Thus, board interlocks most likely exhibit preferential attachment. In other network studies, this is observed as a “popularity effect” where more popular actors attract additional ties. For example, van de Bunt and Groenewegen (2007) find that collaborative partnerships among genomics firms are influenced by network-related status; firms prefer to partner with highly connected organizations.

Figure 2.3 illustrates this effect. The focal corporation has an option between interlocking with firms A or B. Given a choice, the focal firm will prefer firm B because it is already highly interlocked (cf. van de Bunt and Groenewegen 2007: Figure 5).

Hypothesis 3: (Status Hypothesis) Corporations prefer to form interlocks with already highly interlocked firms.

(Status should be distinguished from reputation in the network. While status represents a generalized esteem, reputation represents more relationally contingent information. For example, a particular director might develop a reputation for diligence or honesty that is known among others in her network. Koskinen and Edling (2012) examine director recruitment among firms listing securities in the Stockholm stock exchange and find extensive use of peer referrals in tie formation. In this example, a director’s quality is known to local network neighbors and this information is useful for recruiting new directors through network intermediaries. With the present study, I am unable to directly examine director referrals but I can examine the effects of reputation in local network neighborhoods. A firm’s reputation is not directly observable to all members of the larger network, but direct network
neighbors are likely to be more familiar with the governance orientations within a focal firm. Therefore, reputation in the network can be captured as a “transitivity effect” (van de Bunt and Groenewegen 2007). The more interlock partners two companies have in common, the more likely they will interlock themselves. In other words, intermediaries spread local information and reputation about a company’s governance that can increase the preference for interlocking.

Figure 2.4 illustrates this effect. A focal corporation has a choice between interlocking with companies A and B. However, the focal firm and B share a mutual tie to C. In such a circumstance the focal firm will prefer to interlock with B producing a transitive triad.

**Hypothesis 4: (Reputation Hypothesis) Corporations prefer to form interlocks with other firms with whom they share a mutual third party tie (transitive closure).**

(Insert Figure 2.4 here)

Taken together, previous research suggests that some corporate governance practices diffuse through board ties (Davis and Greve 1997; Davis 1991) and firms recruit directors based on previous experience with corporate governance orientations (Zajac and Westphal 1996). However, questions remain about how these interlock dynamics work in concert: 1) to what extent do directors draw on previous experience in activist and managerialist boards in influencing the governance practices of a focal firm, and 2) to what extent do firms prefer directors who enhance existing power constellations within firms? 3) How do these mechanisms operate alongside endogenous network effects of reputation and status? Next, I
present an analysis of these mechanisms in the board interlocks among 1,586 corporations between 1998 and 2006.

Data

Data for this study primarily come from the Investor Responsibility Research Center’s (IRRC) Risk Metrics database, Standard and Poor’s Compustat database, and Thomson-Reuters database of 13f institutional investors. I construct five undirected interlock network matrices for the time points 1998, 2000, 2002, 2004, and 2006. Data for these adjacency matrices come from the directorship listings in the Risk Metrics database and the executive listings from Compustat’s Execucomp database. These are firm-by-firm matrices with a 1 in cell \((i,j)\) if firms \(i\) and \(j\) share a director and a zero otherwise. The interlock matrices include ties that occur when multiple firms share a director or when an executive from one firm serves on the board of another. Some researchers distinguish these two types of ties. For instance, Zajac and Westphal (1996) examine interlocks that occur when a firm recruits another company’s CEO onto the board and they anticipate that these CEO-directors are pivotal in affecting governance orientations. Under this restriction, they find that focal firms tend to recruit CEOs of similarly governed firms onto their boards. In the present study, I expand the operationalization of interlocks to include both executive-directors and

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4 Both RiskMetrics and Execucomp include unique identifier numbers for each director and executive in the sample. I used a string matching algorithm and extensive hand checking to match the lists.

5 Some studies of interlocking directorates empirically focus on ties between directors and boards. In network terms these are two-mode networks. The present study is primarily concerned with firm-level practices and the dynamics of inter-firm ties. Therefore, the analysis uses firm-by-firm projections of the two-mode director-by-firm matrices following recent interlock analyses (Stark and Vedres 2012). At present, RSiena computations are memory intensive and not suitable for networks above a certain threshold. The two-mode matrix consists of 1,586 unique corporations and 26,971 unique directors and executives and is too sizable for reasonable model fit or computation times. Additionally, because the population of public corporations is large, reducing the network boundaries poses considerable tradeoffs. As Siena models become adapted to manage larger networks, future research should consider their application to two-mode director-by-firm networks.
nonexecutive-directors. This approach is likely to offer a more conservative test of the assimilation and selection hypotheses because non-executive directors may be more passive and less consequential with regard to governance orientations than directors who are also top-executives. Although, testing this proposition is beyond the scope of this study, future work should consider the distinction between executive and non-executive interlocks in driving managerialist and shareholder rights governance orientations.

My sample is based on the IRRC database that contains information on corporate governance practices and board membership for S&P 1500 firms. IRRC also added firms based on market capitalization and high institutional ownership levels. To generate my sample I use the same set of firms across all panel waves. I select the 1000 largest firms by total assets for each year and follow them through the entire study period. This generates a sample of 1,586 unique corporations. As it builds on the S&P 1500, the result is a sample that covers a large portion of U.S market capitalization and provides valuable data on interlocking and governance among the largest public corporations. The sample size is also substantially larger than other director interlock studies, which have tended to focus only on the Fortune 500 or S&P 500 lists. Some corporations enter or leave the sample during the study period. Firms joining the sample either went public or spun off from an existing public firm during the study period while firms leaving the sample either delisted their securities, merged with another firm, or were purchased by another firm. Seven hundred seventy-five firms appear in all five panels. My analytic approach accommodates observations that join or leave the
network during the study period, so panel missingness should not substantively influence the findings.\footnote{I conducted several robustness tests with more restricted samples of the data. These included samples with exactly the same firms for each panel (no missing data), and firms with 2 or more observations. Substantively, findings are robust across samples indicating similar network dynamics among firms regardless of sampling frame.}

In addition to board interlocks, this study considers corporate governance and a firm’s managerialist vs. shareholder orientation. Previous corporate governance research employs a variety of indicators of governance orientations, including CEO pay, insider-outside board ratio, and whether or not the board-chair and CEO positions are held by the same person (Westphal and Zajac 1997; Zajac and Westphal 1996). Other research uses specific practices that are linked to corporate governance, such as poison-pill and golden parachute take-over defenses (Davis and Greve 1997). In this study I use an index of corporate governance related practices that captures the arrangements most proximate to intra-firm power. These include provisions that act as take-over defenses, ensure or restrict shareholder voting rights, and indemnify officers and directors.

Specifically, I use the governance index constructed by Gompers, Ishii and Metrick (2003) to tap into the balance of power between shareholders and managers within a firm. The index is compiled from IRRC data and includes 22 firm-level charter provisions, bylaw provisions, and other rules plus six state-level laws.\footnote{More details on the governance index, including definitions of individual provisions, are available in Gompers, Ishii, and Metrick (2003) and in the appendix} Duplication between firm-level provisions and state laws leaves 24 unique provisions in the index. The index is arranged so that high scores indicate greater managerialism and fewer shareholder rights while low scores represent more shareholder rights and less managerialism. It has been widely used in research
on corporate governance in accounting, economics, and sociology (e.g. Ashbaugh-Skaife, Collins, and LaFond 2006; Jiraporn and Gleason 2007; Vasi and King 2012).

I also include several firm-level control variables thought to influence governance orientations and board interlocks. I measure firm size based on logged total assets, logged annual sales volume, and total number of employees. I assess firm performance using logged market-to-book ratio, which I construct by dividing the closing price by the book-value per share for the fiscal yearend month. Percent institutional ownership is the percent of outstanding shares owned by 13f-filing institutional investment managers. Extensive institutional ownership is thought to lead to greater shareholder scrutiny and thus encourages shareholder-value orientations. I also include two dyad-level controls, indicators that measure whether or not two firms are similar on some measure. First, geographic proximity measures whether or not two firms list the same area code for their headquarters (Kono, Palmer, Friedland, and Zafonte 1998). Second, I control for whether or not two firms list securities on the same stock exchange or over-the-counter market. Some firms are thought to use interlocks to coopt uncertainty and resource dependencies in the operating environment (Burt 1983; Pfeffer 1972; Pfeffer and Salancik 1978). In particular, firms operating in industries that have high transaction volume with other industries may be more likely to use interlocks as a mode of coopting these dependencies. I controlled for these effects by including an indicator for whether or not a firm operates an establishment in a network industry based on the 3-digit codes from the North American Industry Classification System (NAICS). Network industries include telecommunications (517), financial services (522), securities (523), insurance (524-525), transportation (481-484) and business services (561) (cf. Davis
and Robbins 2005). All firm-level controls are time varying and come from Compustat and Thomson-Reuters. They are matched to interlock and governance data using CUSIP identifiers and extensive hand checking. Table 2.1 presents descriptive statistics for the key control variables as well as network statistics for average degree centrality and average geodesic distance, the shortest path between any two nodes.

(Insert Table 2.1 here)

Methods

Recent advances in social network analysis allow researchers to assess the simultaneous effects of selection and assimilation in holistic networks using stochastic actor-oriented models (Snijders, Bunt, and Steglich 2010; Snijders, Steglich, and Schweinberger 2007). Research has applied the technique to modeling the coevolution of adolescent friendship networks with alcohol and tobacco use (Steglich, Snijders, and Pearson 2010), friendship and depression (Schaefer, Kornienko, and Fox 2011), and the formation of inter-organizational strategic alliances (van de Bunt and Groenewegen 2007). For example, Steglich, Snijders, and Pearson (2010) examine the question of why smokers tend to be friends. They use network/behavior panel data to separate peer selection effects from assimilation effects: the extent to which an adolescent either 1) chooses friends who exhibit similar smoking behavior or 2) adopts the smoking behavior of her friends.

In network terms, this technique allows researchers to study the mutual constitution of network homophily (preference for similar others) and assimilation (in which actors adopt
the behaviors of their network neighbors) while also controlling for covariates and endogenous network effects.\textsuperscript{8} This technique allows me to parse out the effects of homophilous selection and assimilation in the network of director interlocks. Do firms choose directors with experience on firms with similar governance orientations (managerialist vs. shareholder) or do firms adapt their governance practices to match network neighbors?

Stochastic actor-oriented models derive the micro-mechanisms that drive the formation of observed network states by specifying parametric models for the probabilities of transitions between these states in a stochastic process (Steglich, Snijders, and West 2006). The stochastic actor-oriented framework is extremely flexible and suitable for a variety of research questions. The most straightforward way to think about this technique is to consider an actor’s network ties and behavior as joint dependent variables modeled on substantively defined endogenous and exogenous effects. The technique models how an actor changes its ties or behavior.

The model has four component functions, which depend on the state of the network, behavior, and covariates. The algorithm simulates micro-steps between observation points from iterative Markov-chain trials; it conditions on the first wave and tests several effects thought to influence actors’ network and behavior states in subsequent waves. The algorithm

\textsuperscript{8} Before assessing selection and assimilation mechanisms it was necessary to establish that interlocked firms actually have similar governance practices. I did this in two ways. First, I used Moran and Geary statistics for assessing network autocorrelation and compared these measures to 1000 random network draws. Second, I constructed an attribute distance matrix that gives a tie value equal to the absolute difference between two firms’ governance index scores. I then estimated a Quadratic Assignment Procedure (QAP) regression with the attribute matrix as the dependent graph and the interlocks matrix as the predictor graph. I compared estimates to a sampling distribution of 2000 random graphs. Each of these initial checks indicated a moderate but substantively and statistically significant association between interlock ties and governance scores. These findings are available on request.
produces parameter estimates for which simulated data most closely resembles the observed data (Steglich, Snijders, and Pearson 2010). First, the network rate function models the speed at which the dependent network variable changes; essentially, the frequency of “micro-steps” that allow an actor to change (or not to change) its set of ties. Second, the network creation function\(^9\) models the probabilities of different network changes, in a stochastic process, that govern actors’ micro-steps between waves. For instance, it models their preference for connecting to similar others or connecting to popular others.\(^{10}\) This creation function is modeled as a linear combination of the parameters (network creation effects in the top portion of Table 2.2) and can be interpreted as conditional choice probabilities: the network actor’s attraction to a potential network state given the current network and the set of covariates. Third, the behavior rate function models the speed at which actors have the opportunity to change dependent behavior variables during micro-step simulations. Finally, the behavior evaluation function models the actor’s probabilities of changing its behavior scores against network variables and covariates. For instance, it models the probability of

\(^9\) The interlock literature demonstrates that different processes drive tie formation and tie dissolution (Palmer 1983a; Palmer 1983b; Stearns and Mizruchi 1986). While the processes outlined in this study drive tie formation, tie dissolution frequently occurs when directors retire or die—processes that are irrelevant to the present study. Fortunately, SIENA models can accommodate situations where different processes drive tie formation and tie dissolution. The network evaluation function typically used in modeling network evolution is decomposed into the creation function and endowment function, which accommodate tie formation and dissolution respectively. In this study, all network evolution effects are assessed as components of the creation function which is zero for the dissolution of ties. Thus, these effects should be interpreted as conditional choice probabilities contributing to interlock formation, not tie maintenance or dissolution.

\(^{10}\) Stochastic actor-oriented models are implemented for both directed and non-directed networks. Modeling directed networks assumes that an actor controls its outgoing ties but models for non-directed networks requires more careful assumptions that have been elaborated for inter-organizational non-directed networks (van de Bunt and Groenewegen 2007). I model interlocking behavior under a forcing assumption, as specified in the SIENA manual, whereby a tie is formed if it maximizes at least one actor’s evaluation function (Ripley, Snijders, and Preciado 2013: 73). This assumption best approximates interlocking behavior between corporations where a firm can elect a new director without needing to consult with his or her other board affiliations. Additionally, non-directed network models in RSiena do not include ego-covariate effects on network evolution.
changing the behavior score to match network neighbors or the effect of a covariate on the actor’s likelihood of changing the dependent behavior (the behavior evaluation effects in the bottom portion of Table 2.2).

The behavior evaluation and network creation functions are modeled as discrete choices: models where the dependent variable is a set of discrete choices, such as with which company to interlock or which change to make to the governance provisions. Parameters describe the degree to which actors are likely to change their network ties or behavior states (Steglich, Snijders, and Pearson 2010:359). Parameters in these functions must be substantively defined and can be specified in terms of 1) endogenous network dynamics, such as transitive closure or preference for popular alters, 2) as preference for covariate similarity, in this case preference for ties to firms with similar governance practices, and 3) covariate behavior evolution, in this case assimilation to neighbors’ governance scores. Table 2.2 describes the effects included in the analytic models (see also Steglich, Snijders, and Pearson 2010).

There are two important effects to consider for the substantive analysis. First, the “covariate similarity” effect (under effects on interlock formation in Table 2.2) is used to assess firms’ preference for interlocking with other firms with similar governance scores. Parameters estimate the extent to which firms select similarly governed firms. Second, the “average-alter” effect (under effects on governance) estimates firms’ preference for adjusting their governance practices to be in line with their network neighbors. This assesses a contagion or assimilation effect for corporate governance across interlocks.

(Insert Table 2.2 here)

Results

Results support the argument that corporate governance practices and interlocks are co-constituted; the assimilation mechanism (average alter’s governance) as well as the selection mechanism (governance similarity) are robust across models. This suggests that, independent of covariates and endogenous network mechanisms, firms are likely both to interlock with similarly governed corporations (Hypothesis 2) and to adopt the governance orientations of network neighbors (Hypothesis 1). There are also a number of notable covariate and endogenous network effects: both the status (Hypothesis 3) and reputation (Hypothesis 4) effects are significant and in the expected direction. Surprisingly, findings also indicate that more managerialist firms make more attractive interlock partners (alter’s governance effect). Additionally, firms tend toward more managerialist governance orientations (governance linear shape)\textsuperscript{11} but with a countervailing tendency against overly

\textsuperscript{11} This is also consistent with network descriptive statistics that evaluate how frequently firms tend to change their governance scores across observations. Comparing governance scores across time periods reveals that in
managerialist governance (governance quadratic shape). Furthermore, corporations with greater institutional ownership not surprisingly tend toward lower governance scores (more shareholder oriented governance) but also make more attractive interlock partners.

Table 2.3 presents the results from Stochastic Actor-Oriented Models. The top portion includes parameters for the network creation function (interlock formation) while the bottom portion includes the behavior evaluation function (effects on governance), but note that in the models these effects control for one another. Parameters in the network creation function and behavior evaluation function should be interpreted as a given focal firm’s “attraction” to potential interlock partners or potential behavior states (governance scores).

(Insert Table 2.3 here)

Model 1 is the baseline model and includes 1) the effect of two firm’s governance similarity on the tendency toward interlock formation (selection effect), 2) the effect of average alter’s governance on the focal firm’s governance (assimilation effect), 3) the effect of an alter’s popularity on their attractiveness as an interlock partner (status effect), 4) the effect of transitive closure on attractiveness as an interlock partner (reputation effect). In the baseline model, each of these effects is in the expected direction. Model 2 includes the covariates for firm assets, employees, sales, market-to-book ratio, percent institutional ownership, geographic proximity, listing securities on the same exchange, and operating in a network industry. Model 2 is used for evaluating the proposed hypotheses, all of which are the data, firms keep their current governance scores 66% of the time, adjust them to become more managerialist 22%, and adjust them toward a shareholder orientation 11% of the time.
supported. Below I present a more detailed discussion of the results for effects on interlock formation and governance orientations, focusing on model 2 with the controls.

Effects on Interlock Formation

First, hypothesis 2 (selection hypothesis) predicts that corporations prefer to form interlocks with similarly governed firms. Hypothesis 2 is supported in model 2 by the positive and statistically significant governance similarity effect. However, the positive alter’s governance effect indicates that corporations prefer surprisingly to interlock with corporations with more managerialist orientations. In general these findings suggest that managerialist oriented firms are attractive interlock partners but, net of this, firms still prefer interlocking with similarly governed corporations.

To aid in interpreting these effects in conjunction, I present an ego-alter selection table that describes the tendency for two corporations to form interlocks given their governance scores (cf. Ripley, Snijders, and Preciado 2013: section 13.3). First, the network creation model features two effects: alter’s governance and governance similarity (main selection effect). Together these effects evaluate the role of corporate governance in tie formation. Taking their formula’s from Table 2.2 gives the network creation function:

$$
\beta_{\text{alter}} \sum_f x_{ij} v_j + \beta_{\text{sim}} \left(1 - \frac{|v_i - v_j|}{\Delta_v} - \frac{s_{\text{sim}}}{s_{\text{sim}}}ight),
$$

where \( x_{ij} \) is a random tie between actor \( i \) and actor \( j \), \( v_i \) represents the governance score of actor \( i \) and \( v_j \) represents the governance score of actor \( j \). RSiena internally centers \( v \) so the appropriate values are deviations from the mean for alter’s score. The average similarity of governance scores is given by \( s_{\text{sim}} \) and \( \Delta_v \) is the observed range of \( v \). Betas are the estimated
parameters. For model 2, $\beta_{\text{alter}} = 0.017$ and $\beta_{\text{sim}} = 0.236$. In the data, $\nu$ (the governance score) varies between 1 and 17, the average $\bar{\nu} = 9.315$ and the mean of the similarity variable $\bar{\text{sim}}^p = 0.810$.

Table 2.4 presents an ego-alter selection table that eases interpretation of the selection effects for corporate governance; these estimates should be interpreted as if all other structural properties and covariates are equal. The rows indicate the relative probability of a tie with respect to ego’s governance score while columns are the probabilities with respect to alter’s governance score. The intersection indicates the probability of a tie between an ego and alter of the respective governance scores.

Table 2.4 illustrates several dynamics driving interlocking preference with respect to governance scores. First, the highest scores are on the diagonal, indicating a general preference for interlocking with alters of the same governance score. The positive “similarity effect” drives this feature of the creation function. Next, there is a general tendency to prefer interlocking with higher governance score (more managerialist) alters—moving left to right gives higher scores—with the similarity effect held constant. The positive alter governance effect drives this portion of the function. Finally, the off diagonal values are not symmetric. High governance score egos largely prefer not to interlock with low score alters while lower score egos do not as severely avoid interlocking with higher score alters. Substantively, this suggests that managerialist firms avoid interlocking with shareholder oriented firms much more than shareholder oriented firms avoid managerialist firms. Theoretically, this implies that even in shareholder oriented firms, where managers presumably have less power, boards
still tend to recruit directors from managerialist firms. Thus, the persistence of managerialism is rooted in selective network formation.

(Insert Table 2.4 here)

Returning to Table 2.3 and the other creation function effects, in support of Hypothesis 3 (status hypothesis), firms prefer to interlock with corporations that are already highly interlocked or more “popular” companies. Additionally, in support of Hypothesis 4 (reputation hypothesis), the transitivity effect remains significant and positive, indicating that firms prefer to interlock with companies with whom they share a third-party tie. This suggests that local reputation affects interlock formation.

Turning to the Model 2 covariate effects on interlock formation, several of the parameters are significant and positive. A focal firm is more likely to interlock with alters in the same area code, indicating an effect for geographic proximity, but not with alters listing securities on the same exchange. Among the size indicators, only sales are significant and positive. However, net of this, firms also prefer interlocking with companies having similar sales volume. Perhaps unsurprisingly, corporations prefer to interlock with companies having greater as well as similar market-to-book ratios, indicating a preference for ties to high performing and similarly performing alters. Percent institutional ownership is an indicator of shareholder scrutiny and outside pressure to adopt a shareholder-value orientation. The growth of 401(k) retirement plans has contributed to institutional investor power and concentration, making them particularly aggressive proponents of shareholder-value
practices. These effects suggest that corporations prefer to form interlocks with companies that have a high percentage of their outstanding equities owned by institutional investors as well as similar levels of institutional ownership. Finally, firms prefer not to interlock with companies operating establishments in a “network industry” such as telecommunications, financial services, securities, insurance, transportation, and business services. This may reflect the general decline in bank centrality following the structural shift in financial intermediation (Davis and Mizruchi 1999).

**Effects on Governance Orientation**

The lower portion of Table 2.3 presents parameter estimates for effects on governance scores—the dependent behavior variable. These parameters indicate firms’ preferences for changing their governance scores. Recall that higher governance scores indicate more managerialist orientations while lower scores indicate more shareholder-oriented governance. The linear and quadratic shape parameters indicate that firms tend to adjust their governance scores upward by adopting managerialist governance provisions, but the effect has a “leveling-off” quadratic shape that suggests a countervailing trend against excessively managerialist governance. The average alter effect is significant and positive, indicating that firms tend to adjust their governance scores to match the average governance scores of their network neighbors. In support of Hypothesis 1 (assimilation hypothesis), this suggests that, net of covariates and interlock formation effects, firms tend to adopt the average governance orientations of network neighbors.

Therefore, three tie related effects on governance behavior are statistically significant: governance linear shape, governance quadratic shape, and average alter governance (the
main effect for tie-based assimilation). An ego-alter assimilation table aids interpretation of the three joint effects. Taking the formula from Table 2.2 (and noting that the dependent behavior variable $z$ is internally centered by RSiena), the behavior evaluation function is given by:

$$
\beta_{linear}(z_i - \bar{z}) + \beta_{quadratic}(z_i - \bar{z})^2 + \beta_{av.alter}(z_i - \bar{z})(\bar{z}_{(i)} - \bar{z}),
$$

where $\bar{z}_{(i)}$ is the average governance score for $i$’s interlock partners. Note that the last term gives the product of firm $i$’s centered governance score and the average centered scores of $i$’s network neighbors. This reduces from the main assimilation effect in Table 2.2 given by the formula: $z_i(\Sigma_{j,i}x_{ij})/\Sigma_jx_{ij}$.

Parameter estimates are $\beta_{linear} = 0.372$, $\beta_{quadratic} = -0.081$, and $\beta_{av.alter} = 0.137$.

From the data, the average governance score is $\bar{z} = 9.315$. Table 2.5 gives the ego-alter assimilation table calculated from the above equation (cf. Ripley, Snijders, and Preciado 2013: section 13.4). Rows give ego’s preferred governance score and columns give the average governance score in ego’s network neighborhood (across all alters). Thus, Table 2.5 should be interpreted as ego’s preferred governance score given the combination of linear, quadratic and average alter effects with all other effects held constant.

(Insert Table 2.5 here)

Several patterns are notable. First, the largest values in Table 2.5 are found toward the bottom right corner indicating a general tendency to prefer higher governance scores (more managerialist) especially when the average governance score is high in the network.
neighborhood. Second, the smallest values are furthest from the diagonal. Thus, when the network neighborhood’s average governance scores are very high or very low, the focal firm prefers not to have opposing governance scores. However, the diagonals are not uniformly the highest values in the rows. In the less valued columns (shareholder neighborhoods) focal firms still prefer slightly higher governance scores; thus, firms in shareholder value neighborhoods still prefer more managerialist governance practices. However, the reverse is not true; firms in higher valued columns (managerialist neighborhoods) prefer more managerialist orientations themselves. Substantively, this suggests that network ties are better at enforcing managerialism than they are at enforcing shareholder orientations. However, the values furthest away from the diagonal are highly negative, indicating a general tendency to prefer adjusting one’s own governance score to match the average of network neighbors.

Returning to covariate effects in the bottom portion of Table 2.3, assets, sales, and percent institutional ownership are statistically significant and negative. This suggests that larger firms and firms with a larger percentage of their shares owned by institutional investors prefer more shareholder-oriented governance. These effects are not surprising and suggest that firms that are more capital intensive (more assets) and feature greater shareholder scrutiny (institutional investors) tend toward more shareholder-oriented governance. In general, these results provide both expected and surprising additions to recent debates around the persistence of managerialism in the era of shareholder-value but suggest that variation in corporate governance must be considered in the context of a firm’s networked environment.
**Discussion and Conclusion**

Corporate governance is socially contingent rather than being driven by the pure efficiency/monitoring concerns posited by agency theorists. Results support the corporate governance as “nested authority” framework (Kahler and Lake 2003); internal practices and power structures shape and are shaped by external network ties. Interlocks tend to form between corporations with similar governance orientations. Simultaneously, interlocks spread governance orientations between firms. Sharing a director with one or many managerialist firms increases a focal corporation’s tendency to adopt a managerialist orientation and the same pattern holds among shareholder orientations. The total package of shareholder voting provisions, by-law and charter amendment rules, and take-over defenses reflect power constellations within corporations. However, these practices do not emerge atomistically from firm’s attempts to minimize agency costs or respond to the financial market judgments. Rather, governance is socially embedded (Granovetter 1985) and these orientations motivate new interlock formation but are also constituted in the network.

These findings shed light on recent debates about corporate governance and the shareholder-value concept of the firm (Davis 2009a; Fligstein and Shin 2007; Shin 2013). First, findings suggest that many firms tend toward managerialist orientations, though there is a countervailing trend against excessive managerialism. Second, firms tend to adopt managerialist orientations from their network neighbors, further undermining shareholder-oriented practices. Although shareholder-oriented governance also diffuses across interlocks, these mechanisms are not as robust as their managerialist counterparts. It appears that managerialist network neighborhoods are better at enforcing the local governance orientation
than are shareholder-oriented neighborhoods. Using the metaphor of network flows, it may also be that shareholder oriented practices are more “viscous” and firms are more reluctant to imitate them. Finally, and surprisingly, managerialist firms are more attractive interlock partners than shareholder-oriented firms. Thus, while recent research heralds the rise of the shareholder-value principle as the dominant conception of the firm, managerialism is far from absent. Findings demonstrate that governance orientations affect and are affected by inter-firm networks. Further, considerable work has documented the institutional antecedents of the shareholder-value principle (e.g. Davis 2009a), yet scholars should continue to interrogate firm-level variation and evaluate the role of network structures among firms and corporate elites. The persistence of managerialism despite institutional level shifts in favor of the shareholder-value principle remains an open question.

The current literature offers two resolutions to this paradox and I offer a third. First, some evidence indicates that shareholder-value logics may in fact be ceremonialized and decoupled from actual practice. For instance, Zajac and Westphal (2004) find that formally announced stock repurchase plans frequently result in increased market value even when the plans are never actually implemented. In a similar interpretation, Dobbin and Jung (2010) argue that shareholder-value practices prescribed by agency theory have been unevenly adopted by many firms. While executives readily accepted provisions that increase risk, such as dediversification and debt-based financing, they have neglected practices intended to prompt restraint, such as executive equity holdings and greater board independence. In each of these cases managers use portions of the shareholder-value logic to justify actions, but they also retain sizable influence over their organizations by decoupling the institutional
logic of shareholder-value from the actual practices that are implemented. However, decoupling is unlikely to explain the present findings for three reasons. First, this study evaluates firm-level practices that are relatively concrete. For instance, defenses that protect managers from the take-over threat, policies that indemnify managers against legal expenses, and by-laws that make it difficult for shareholders to use their vote clearly affect corporate governance. Although the g-index contains items that extend both managerial and shareholder power, most of the items extend managerial power. For instance, take-over provisions and indemnity provisions are taken to extend managerial entrenchment when they are present and enhance shareholder monitoring when they are absent. Consequently, there is no reason to expect a firm to symbolically adopt provisions that maximize managerial entrenchment because this action contradicts the logic of shareholder-value. Finally, by considering these practices together this study gains a more holistic picture of corporate governance orientations that might be over-looked by focusing on individual practices. These orientations directly affect firm valuation and shareholder wealth (Gompers, Ishii, and Metrick 2003).

A second possibility is that managerial power and shareholder-value logics are not entirely antithetical. Goldstein (2012) analyzes industry-level trends and finds that shareholder-value strategies paradoxically coincided with growth in managerial employment and pay. Consequently, the strategies designed to cut labor costs (lean and mean management) most associated with the shareholder-value principle actually bolstered

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12 To my knowledge, all of the studies that document decoupling in corporate governance show how shareholder-value maximizing provisions can be implemented but decoupled to allow managerial entrenchment despite a symbolic adherence to shareholder-value (e.g. Westphal and Zajac 1998; 2001).
management’s position because of their role in controlling labor. In turn, the shareholder-value principle has enhanced managers’ ability to capture rents at the expense of non-supervisory workers (see also Weeden and Grusky forthcoming). This approach is certainly useful for evaluating the distribution of rents under labor cost-cutting strategies. However, the question of variation in firm-level practices that allocate power and shore-up incumbent managerial positions remains open. For instance, the predominance of labor cost cutting strategies does not explain how some managers have been able to protect themselves from the take-over threat. I view Goldstein’s approach as complimentary to the present study. Future work should consider points of theoretical synthesis between managerial rent seeking and firm-level governance orientations that are nested within inter-firm networks.

This study offers a third alternative (but complementary) route to resolving the paradox of managerialism and shareholder-value. Governance orientations are firm-level phenomena but are also nested in broader social structures (Davis 1996; Kogut 2012). While much of the recent work on the shareholder-value principle has focused on the institutional level, my analysis demonstrates that shareholder-value and managerialist authority practices are nested in inter-firm ties. Interlocks and practices coevolve. Findings suggest that 1) managerialist firms especially avoid shareholder-oriented interlock partners and 2) managerialist network neighborhoods are particularly effective at promoting managerialism. Though the reverse is certainly true for the shareholder-value orientation, the effects do not appear as strong as those promoting managerialism. Taken together, these effects indicate that interlocks promote persistent managerial entrenchment in spite of the rise of the
shareholder-value principle—entrenched managers prefer to surround themselves with passive directors and managerialist orientations are especially salient in the network.

Future work should take up this strand but consider points of agreement with institutional approaches. Fligstein (1990) argues that “conceptions of control” in the organizational field increasingly drive corporate strategy as they become institutionalized. In an earlier generation of managerialism, diversification and growth gave rise to oligopolies and large conglomerates. However, by the 1980s the “finance conception of control” had become well institutionalized in the corporate field; corporations were widely viewed as “bundles of assets” that can be bought or sold without regard for what they produce. In light of these changes, agency theorists prescribed an active take-over market as part of the machinery to pursue shareholder wealth. Following the institutionalist argument, one hypothesis for future research is that shareholder-value orientations have been advanced through institutional pressures (e.g. the increased power of field incumbents such as institutional investors and the dominant logics in equity markets), but networks among corporate elites help maintain firm-level managerialism. Networks provide platforms of managerialist resistance against field level changes favoring shareholder rights. Future work should consider how networks and governance practices are themselves embedded in these broader (and changing) institutional environments (Owen-Smith and Powell 2008).
Table 2.1: Descriptive Statistics for Network Panels and Firm Level Covariates (*total n=1586*)

<table>
<thead>
<tr>
<th>Networks</th>
<th>Mean Degree</th>
<th>Mean Geodesic Distance</th>
<th>Jaccard Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interlocks 1998 (n=1157)</td>
<td>7.30</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Interlocks 2000 (n=1101)</td>
<td>6.49</td>
<td>3.98</td>
<td>0.408</td>
</tr>
<tr>
<td>Interlocks 2002 (n=1089)</td>
<td>6.24</td>
<td>4.00</td>
<td>0.425</td>
</tr>
<tr>
<td>Interlocks 2004 (n=1174)</td>
<td>5.84</td>
<td>4.15</td>
<td>0.447</td>
</tr>
<tr>
<td>Interlocks 2006 (n=1136)</td>
<td>5.78</td>
<td>4.15</td>
<td>0.486</td>
</tr>
</tbody>
</table>

Firm Level Covariates: Mean (S.D.)

- Governance Index (Behavior DV): 9.31 (2.66)
- Log Total Assets (in millions): 8.36 (1.39)
- Log Sales (in millions): 7.64 (1.56)
- Employees (in thousands): 23.85 (62.30)
- Log Market-to-Book Ratio: 0.92 (0.89)
- Percent Inst. Ownership: 0.56 (0.20)
- Network Industry: 0.26

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*a* Mean degree indicates the average number of interlocks across firms.

*b* Geodesic distance is defined as the number of connections along the shortest path between two nodes. Mean geodesic distance refers to the average shortest path between all node pairs.

*c* Jaccard’s index is a similarity coefficient and here describes the proportion of ties that remain stable from the previous wave. Values closer to zero indicate all ties have changes while values closer to 1 indicate no change in the networks. Values less than .3 can present problems for stochastic actor-oriented models (Ripley, Snijders, and Preciado 2013).
<table>
<thead>
<tr>
<th>Network Creation Function Effects</th>
<th>Network Statistic</th>
<th>Visual: Nodes are companies &amp; lines are director interlocks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>$\sum_j x_{ij}$</td>
<td><img src="image" alt="Diagram" /></td>
<td>Tendency to have ties.</td>
</tr>
<tr>
<td>Popularity (square root)</td>
<td>$\sum_j x_{ij} \sqrt[2]{\sum_x x_{hx}}$</td>
<td><img src="image" alt="Diagram" /></td>
<td>Tendency to form interlocks with highly interlocked firms.</td>
</tr>
<tr>
<td>Transitive Triads</td>
<td>$\sum_{j&lt;h} x_{ij}x_{ih}x_{jh}$</td>
<td><img src="image" alt="Diagram" /></td>
<td>Tendency to interlock with a firm with whom a mutual interlock already exists.</td>
</tr>
<tr>
<td>Alter Covariate (used for governance and other covariates)</td>
<td>The sum of the covariate, $v$, overall actors to whom $i$ has a tie, $\sum_j x_{ij} v_j$</td>
<td><img src="image" alt="Diagram" /></td>
<td>Main effect of alter’s covariate – tendency to interlock with firms with a high covariate value. Covariate value’s effect on popularity.</td>
</tr>
<tr>
<td>Alter Covariate Squared (used for governance)</td>
<td>The sum of squared centered governance scores over all firms to whom firm $i$ has an interlock, $\sum_j x_{ij} v_j^2$</td>
<td><img src="image" alt="Diagram" /></td>
<td>The effect of the squared governance score on a firm’s popularity. Negative values suggest a curvilinear preference function.</td>
</tr>
<tr>
<td><strong>Main selection effect</strong> Covariate Similarity (used for governance and other covariates)</td>
<td>$\sum_j x_{ij} \left(\text{sim}<em>{ij}^v - \overline{\text{sim}}^v\right)$ where $\overline{\text{sim}}^v$ is the mean of all similarity scores, which are defined as $\text{sim}</em>{ij}^v = \frac{A -</td>
<td>v_i - v_j</td>
<td>}{\Delta}$ with $\Delta = \max_i</td>
</tr>
<tr>
<td>Dyadic Covariate (same area code)</td>
<td>For dyadic covariate $w_{ij}$ where $\overline{w}$ is the mean of $w_{ij}$, $\sum_j x_{ij} (w_{ij} - \overline{w})$</td>
<td><img src="image" alt="Diagram" /></td>
<td>Tendency to interlock with firms in the same area code.</td>
</tr>
</tbody>
</table>
Table 2.2 continued

<table>
<thead>
<tr>
<th>Behavior Evaluation Function Effects</th>
<th>Network Statistic</th>
<th>Visual: Nodes are companies &amp; lines are director interlocks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance linear and quadratic shape</td>
<td>$z_i$ and $z_i^2$</td>
<td><img src="image" alt="Visual" /></td>
<td>The linear and parabolic shape for behavior evolution.</td>
</tr>
<tr>
<td>Degree * Governance</td>
<td>$z_i \sum_j x_{ij}$</td>
<td><img src="image" alt="Visual" /></td>
<td>Effect of connectedness in the network on governance. Positive parameter means that more interlocked firms have a tendency toward high governance scores.</td>
</tr>
<tr>
<td><strong>Main Assimilation effect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Alter</td>
<td>$z_i \left( \sum_j x_{ij}z_j \right) / \sum_j x_{ij}$</td>
<td><img src="image" alt="Visual" /></td>
<td>Assimilation Mechanisms: Firms whose alters have a higher average governance score have a higher tendency toward high values.</td>
</tr>
<tr>
<td>Covariate on Governance</td>
<td>$z_i v_i$</td>
<td></td>
<td>A positive parameter means that firms with a high value on the covariate will have a tendency toward high governance scores.</td>
</tr>
</tbody>
</table>

Arbitrary score = . High score = . Low score = .

Notes: Visuals and descriptions adapted from Table 2 from Steglich, Snijders, and Pearson (2010); formulas draw on Chapters 5 and 12 from the RSiena Manual (Ripley, Snijders, and Preciado 2013). Non-directed networks in RSiena do not include ego covariate effects on network evolution.
Table 2.3: Stochastic Actor-Oriented Model: Selection and Assimilation Coefficients and Standard Errors. (n=1586)

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<tr>
<th>Network Creation Function – effects on interlock formation</th>
<th>Model 1</th>
<th>Model 2</th>
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<td>Alter’s Governance</td>
<td>0.020***</td>
<td>0.017***</td>
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<tr>
<td></td>
<td>(0.005)</td>
<td>(0.005)</td>
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<td>Alter’s Governance Squared</td>
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<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
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<tr>
<td>Governance similarity (selection)</td>
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<td>0.236**</td>
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<tr>
<td></td>
<td>(0.088)</td>
<td>(0.082)</td>
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<tr>
<td>Degree (density)</td>
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<td>-3.535***</td>
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<tr>
<td></td>
<td>(0.036)</td>
<td>(0.041)</td>
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<tr>
<td>Popularity (square-root)</td>
<td>0.155***</td>
<td>0.096***</td>
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<tr>
<td></td>
<td>(0.012)</td>
<td>(0.017)</td>
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<tr>
<td>Transitive Triads</td>
<td>0.775***</td>
<td>0.747***</td>
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<td>(0.019)</td>
<td>(0.019)</td>
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<td>Same Area Code</td>
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<tr>
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<td>Log Sales Similarity</td>
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<td>Alter’s Log Market-to-Book Ratio</td>
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<td>Log Market-to-Book Similarity</td>
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<td></td>
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<td>Alter’s Percent Inst. Ownership</td>
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<td>Percent Inst. Ownership Similarity</td>
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<tr>
<td>Alter Network industry</td>
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<th>Network Rate Function</th>
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Table 2.3 Continued

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<th>Behavior Evaluation Function – effects on governance</th>
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<td>Governance linear shape</td>
<td>0.456*** (0.039)</td>
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<td>Governance quadratic shape</td>
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<td>Average Alter Governance (assimilation)</td>
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<tr>
<td>Log Sales</td>
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<tr>
<td>Market-to-Book Ratio</td>
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<td>Percent Inst. Ownership</td>
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<td>0.601 (0.036)</td>
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*p<.05; **p<.01; ***p<.001 (two-tailed tests); standard errors in parenthesis

Notes: Standard errors for the parameters are estimated using 2000 iterations. RSiena allows for alternative specifications of the assimilation effect—network neighbor’s influence on ego’s behavior dependent variable. I tested models employing all alternative specifications and the effects are substantively identical to the average alter effect presented here. Alternative model specifications are available on request.
Table 2.4: Ego-Alter Selection on Corporate Governance (G-index score).

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Notes: Table and calculations draw on the formula, calculations, and presentation format from the RSiena manual chapter 13 (Ripley, Snijders, and Preciado 2013)
Table 2.5: Ego-Alter Assimilation of Corporate Governance (G-index).

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Notes: In the RSiena manual these are called “influence tables” but are renamed here for consistency.
Figure 2.1: Assimilation – Corporations Adopt the Governance Orientations of Network Neighbors

Figure 2.2: Selection – Interlocks Form among Similarly Governed Firms

Figure 2.3: Status – Preferential Attachment to Highly Connected Firms

Figure 2.4: Reputation – Transitive Closure
CHAPTER 3: STUDY TWO—INSTITUTIONAL ENVIRONMENTS, NETWORK EFFECTS, AND SHAREHOLDER-VALUE PRACTICES

Abstract

Sociological theory and research on inter-organizational networks and institutional fields have tended to follow divergent paths. Theoretical synthesis between network theory and institutional theory sheds new light on how organizational networks and practices are jointly affected by institutional change. The present paper applies this theoretical synthesis to the case of board interlocks and corporate governance during the institutional-legal shocks associated with the 2002 Corporate and Auditing Accountability and Responsibility Act (also known as the Sarbanes-Oxley Act). It investigates how the law induced institutional changes that altered how corporations form interlocks and adopt governance practices. The study applies Stochastic Actor-oriented models to network panel data of corporate director interlocks (an inter-organizational network) and corporate governance orientations (a suite of organizational practices). It explores how network mechanisms changed after the passage of Sarbanes-Oxley. Findings indicate that the legal changes altered both practice adoption and network formation. Implications for theory and research on the shareholder-value conception of the firm, inter-organizational networks, and institutional fields are discussed.
Introduction

Corporate governance practices are the provisions and structures within publicly traded corporations that allocate power between shareholders and managers. These practices may insulate managers from the threat of take-over, indemnify managers against wrongdoing, or simply improve shareholders’ ability to elect directors and pass by-law provisions. Taken together, these practices coalesce into corporate governance orientations (Davis 2005). For instance, in a corporation with a managerialist orientation, corporate executives can maintain a greater degree of entrenchment and protection from shareholder activism. Conversely, corporations with shareholder-value orientations tend to foster greater scrutiny of managers and align managerial incentives with shareholder interests. These corporate governance orientations have clear implications for shareholder wealth (Gompers, Ishii, and Metrick 2003), CEO pay (Westphal and Zajac 1994), workforce downsizing (Budros 2002; Budros 2004) and layoffs (Fligstein and Shin 2007). Consequently, corporate governance and its determinants continue to attract considerable attention from scholarly and popular commentators.

Scholars, particularly in sociology, have described the rise of the shareholder-value principle over the past four decades as it has become the dominant conception of the firm and overturned generations of managerialist power in the U.S. (Davis 2009a; Shin 2013). In this view, firm-level corporate governance orientations reflect the broader normative assumptions that have come to dominate the corporate field. As a result, many corporations have adopted shareholder-oriented corporate governance and curtailed managerial discretion. This shareholder-value logic has clearly affected prescriptions about public corporations: how
they should be run, who makes decisions, who should be accountable, and what should be
done with profits (Fligstein and Shin 2007). However, despite these pronouncements,
governance orientations in many firms remain decoupled from the institutionalized
shareholder-value logic (Westphal 1998; Westphal and Zajac 1998). Firms continue to vary
in their orientations and many firms maintain a paradoxical adherence to managerialism in
the era of shareholder-value (Goldstein 2012).

Explaining this variation in corporate governance practices requires extending
analysis beyond atomistic firm-level determinants such as board independence or take-over
threats to focus on how organizations are embedded in their environments. However, it also
requires a more dynamic and contested view of institutional fields embedding organizational
behavior. Institutional fields, such as the one populated by public corporations, are not static
social orders. Rather, fields are characterized by endogenous contention as well as by
exogenous shocks introduced by neighboring fields and by policy actors (Fligstein and
McAdam 2012). Understanding these field dynamics requires attending to multiple levels of
social organization that embed local action. These include organization-level practices, inter-
organizational network relationships, and broader institutional fields. Exogenous shocks can
affect action/interaction at all three levels. The present study attempts to disentangle the
various effects of field level dynamism on local inter-organizational network structures and
organization level practices. Substantively, I advance a view of corporate governance as
embedded in both networks and dynamic institutional arenas that set the rules and
understandings for action (Kogut 2012). Empirically, I investigate how institutional level
changes associated with the passage of the Sarbanes-Oxley act affected network evolution
and diffusion. This analysis highlights the accelerated turn toward shareholder-value practices in the early 2000s in response to legislative changes and corporate accounting scandals.

This study presents a theoretical synthesis of network approaches to inter-organizational relationships and recently articulated theories of institutional fields (Fligstein and McAdam 2011). Theoretically, I consider two ways that field-level institutional change and networks come mingle in corporate governance. First, networks can mediate the relationship between institutional change and firm-level practices. That is, institutional logics provide the cognitive framework and legitimacy pressures that encourage organizations to adopt practices, but organizations often learn about practices through their network relationships. Similarly, practice diffusion may be a function of the organization’s position in the network, with centrally located organizations exposed to institutional change through network ties more than peripheral/disconnected organizations. Second, network structures reflect the rules and legitimacy concerns of the institutional arena such that network patterns are imprinted by institutionalized notions. Consequently, institutional change alters the foundations of network evolution as actors adopt new assumptions about tie formation and dissolution. For example, an organization’s popularity in the network (its attractiveness as a network neighbor) may be a function of its degree of conformity to the dominant institutional logic. As institutional logics change, the focal firm’s popularity and consequent centrality may change, as well.

In what follows I outline the theoretical framework, addressing the co-constitution of institutions and networks and focusing on theoretical agreements between the two approaches. I find two broad points of complementarity: 1) networks act as the plumbing that
spread practices related to dominant institutional logics and conventions, and 2) institutional environments imprint networks’ evolution and their effects. Throughout this discussion I maintain an emphasis on the theory’s application to corporate governance (firm-level practices), the shareholder-value principle (an institutional logic), and interlocking directorates (an inter-firm network). Next, I present an empirical analysis applying this approach to co-constitutive changes in corporate governance and interlocking directorates as the shareholder-value logic gained heightened formal and informal support in public corporations’ institutional environment following the Sarbanes-Oxley Act of 2002. I argue that Sarbanes-Oxley constituted a “flashpoint” or accelerant in the shareholder-value conception of the firm and offers an opportunity to evaluate how institutional change (in degree though not in kind) alters the coevolution of networks and practice. In particular, I focus on corporate governance practices and interlocking directorates, inter-firm ties that form when a director sits on the board of multiple firms.

Theoretical Framework

Research and theory on institutions and networks, with a few notable exceptions (Owen-Smith and Powell 2008; Powell, White, Koput, and Owen-Smith 2005), has tended to follow divergent paths. However, one can discern a few clear points of complementarity among these approaches: both institutional fields and networks are 1) undergirded by a relational framework that emphasizes positions, power hierarchies, reference groups, and categorical distinctions; and 2) establish arenas that both enable and constrain local action (Owen-Smith and Powell 2008). Together, these points illustrate how institutional fields and networks are co-constituted.
Drawing on Fligstein and McAdam’s (2012) theorization, fields are meso-level social systems that contextualize action and interaction; they host both actors and the logics necessary for collective action. Institutional logics are the rules and conventions of an institutional field: organizing principles, scripts for action, beliefs and practices (Friedland and Alford 1991).¹³ Logics define some types of action as legitimate or taken-for-granted, while other types of action are more marginal. Fligstein and McAdam (2011; 2012) argue that these arenas are defined by their conflict and change. They distinguish between field incumbents and challengers. Incumbents access greater power and influence in the field and are able to define/articulate shared understandings and logics that reflect their interests. Challengers may articulate an alternative frame but often conform to the dominant logic during times of stability. In addition to endogenous contention, institutional fields are susceptible to exogenous shocks, introduced from proximate fields or from the state. Shocks can initiate episodes of contention, or “unsettled times” (Swidler 1986: 282), during which established logics become destabilized. In general, established field incumbents are well positioned to withstand these episodes, but, as I will demonstrate, a shock may also offer an opportunity for incumbents to re-affirm dominant logics—to accelerate established understandings and value systems.

¹³ Fligstein and McAdam (2011; 2012) suggest that the “institutional logic” concept implies too much consensus and stability about the shared understandings that affect action in the field. However, I use the concept here for consistency with the existing literature on how field level understandings affect organizational structures. But I add the point that exogenous shocks can (and in the empirical case do) alter how logics are enacted. Additionally, the empirical case demonstrates that there is considerable contention surrounding field logics—there is continued variation in governance orientations and this variation engenders the interactional patterns among organizations.
The shareholder-value principle has become the dominant institutional logic in the field populated by public corporations in the United States. Shareholder-value refers to the notion that the primary purpose of the corporation is the creation of shareholder wealth (Shin 2013). More specifically, it describes the principle, informed by academic agency theory (Shapiro 2005), that corporations must have considerable checks to reduce managerial discretion and couple managerial incentives to shareholder interests. The shareholder-value principle reflects the interests of large institutional investors (field incumbents) following their growth and concentration in the 1980s and 1990s (Davis 2008; 2009b; Davis and Thompson 1994). As an institutional logic, the shareholder-value principle represents a normative belief system with prescriptions about organization-level practices and the distribution of power within the firm. It also affects how various constituencies (investors, ratings agencies, analysts etc.) interpret and assign legitimacy to organizational behavior.

However, action in the field is relational and can include forming network connections or drawing on networked resources. Fligstein and McAdam (2011: 29) argue that network analysts have tended to use network methodologies to “map” the structure of field relationships but have failed to show how field-level processes shape network action. Networks generate resource/information flows, reflect and enforce status orders, and infuse exchange relationships with (non-contractual) trust. Yet, these network processes are only meaningful when understood within their broader institutional context. These “flows” may include spreading and enforcing practices associated with institutional logics or, during times of change, providing the recombinant resources and information necessary for field challengers to articulate alternatives to the prevailing logics. Put simply, networks are the
“plumbing” of institutional fields but are also dynamic outgrowths of institutional contexts. In other words, institutional fields affect what gets passed through network ties as well as how network ties form. Furthermore, exogenous shocks that induce institutional change alter the patterned flows and formations. Below I delineate two mechanisms that join changing understandings in the institutional field to network-based action.

*Networks Spread Changing Institutional Logics and Practices*

Early neoinstitutional theory viewed firms as embedded in institutional environments that shape organization-level structures and practices. However, in these early formulations networks were an important theoretical component. Meyer and Rowan (1977) theorized that organizations’ formal structures reflect the dominant myths in the institutional environment; however, relational affiliations, such as trade and professional associations, act as important conduits for diffusing these structures. Similarly, DiMaggio and Powell (1983) delineate three mechanisms through which isomorphic practice adoption occurs: 1) coercive, as when powerful actors such as banks, institutional investors, or regulators exert pressure; 2) mimetic, as when uncertainty encourages firms to imitate one another; and 3) normative, as when taken for granted assumptions become institutionalized through professionalization (e.g. the creation of professional managers). In each case, relationships, communities, and

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14 Podolny (2001) presents a similar theory about the roles of networks in markets, which might be conceptualized as a specific type of field with a range of incumbents, challengers, and shared understandings. He argues that networks are “pipes,” that spread information or resources, as well as “prisms,” that market actors use to interpret others’ action. In this view, actors can enhance their legitimacy or status by establishing ties to prominent others. Consequently, observers interpret a focal actor’s network affiliations as informational cues for some unobservable trait such as underlying quality. Toward the theory at hand, exogenous shocks might prompt actors to seek these cues (or high status network affiliations) to reduce uncertainty.
reference groups are an important conduit spreading organizational practices, often through network-based affiliations with the focal firm.

The more recently developed institutional logics perspective describes how institutional systems are comprised of both symbolic elements as well as material practices (Friedland and Alford 1991). Institutional logics are the dominant (often contested) values and belief systems of an organizational field, but they influence the practices of individual organizations. The institutional logics perspective differs from earlier theoretical formulations about organizations’ institutional environment by emphasizing how logics represent the interests and values of competing actors. Institutional logics provide the abstract principles, scripts, rationalizations, and legitimacy pressures that prompt organizational practice adoption (Thornton, Ocasio, and Lounsbury 2012). During the 1980s the shareholder-value principle became the dominant institutional logic in the corporate governance field. Its ascendancy followed a crisis of corporate profitability, the formulation and prescriptions of academic agency theory, and increased concentration and power among institutional investors (after creation of the portable the 401k) with an interest in curbing managerial entrenchment (Davis 2009a). As the shareholder-value principle became the dominant logic in the corporate governance field, firms responded by adopting a diverse array of conforming practices that were both formal and ceremonial. These included share-price based compensation practices for CEOs (Westphal and Zajac 1994), establishing investor relations departments (Rao and Sivakumar 1999), splitting the board chair and CEO functions (Westphal and Zajac 1997), appointing more outside directors to audit and
compensation committees, and using shareholder-value language in proxy statements and other firm reports.

How did organizations learn about these conforming practices? How did they learn about responses to institutional change? Networks provide a powerful conduit for spreading many types of organizational practices, including those prescribed by the shareholder-value logic. Specifically, research demonstrates that board interlocks aid in diffusing such corporate governance practices as poison pills (Davis 1991), the separation of the CEO and board chair positions (Westphal and Zajac 1997), the multidivisional organizational form (Palmer, Jennings, and Zhou 1993), and decisions about which stock market to join (Rao, Davis, and Ward 2000). Board co-membership is thought to spread information about new practices and in turn encourages firms to imitate their network neighbors. Yet organizational practices also reflect institutional logics. Consequently, network-based diffusion happens within institutional contexts. Conceptually, institutional logics affect the “viscosity” of practice flows within networks—some practices spread more readily depending on their place within the dominant institutional logic. For instance, Shipilove, Greve, and Rowley (2010) document the spread of corporate board reforms through the network of interlocking directorates among large public Canadian firms. In 1994 the Toronto Stock exchange, along with Canadian institutional investors, released a report identifying six “best practices” to enhance board independence and performance. The reforms were linked to longstanding concerns about how to better control top managers and make them more responsive to shareholders, in short, to strengthen corporations’ shareholder-value orientation in line with the dominant logic of the institutional field. Board reforms reflected the changing logic of
corporate governance but the interlock network provided the diffusion conduits for the initial spread of reform practices. Later practice adoption was path-dependent: initial adopters were more likely to adopt later practices irrespective of their network neighbors’ practices.

Besides spreading practices in local neighborhoods, networks can operate as legitimacy monitoring and enforcement mechanisms for institutional logics. For instance, one might expect that actors embedded within a dense network, or more centrally located, to be most conforming with institutional logics. Dreiling and Darves (2011) offer some support for this proposition, finding that membership in policy and board interlock networks produces greater conformity in corporate political action toward trade-policy. In other words, organizations that are deeply embedded in inter-firm networks are more exposed to changing institutional logics and have more to lose by deviating from collective sentiments.

*Dynamic Institutional Fields Imprint Network Evolution*

Actors within an institutional field draw on shared logics as an interpretive frame in order to make sense of others’ actions. After an exogenous shock, the dominant logics may be contested or challenged by field incumbents or by logics that enter from neighboring fields. This shared but contested logic constructs the repertoire of legitimate actions available to field actors—the “rules” in the field. Field incumbents and challengers may have different frames, depending on their oppositional interests and resources, but these frames inform participants’ interpretations of other actors’ behavior (Fligstein and McAdam 2011; 2012). In this way, institutional logics help actors co-construct how behavior is interpreted and assigned meaning by defining what repertoires of local action are viewed as legitimate.
At present, actors in the corporate governance field share an understanding about what types of practices are deemed legitimate (furthering shareholder-value and associated strategies) and who are reputable actors (high status accounting firms, high status companies) (Shin 2013). As a result of these shared understandings surrounding shareholder-value, U.S. corporations typically frame their practices using shareholder-value/agency theory encoded language in an effort to mollify field incumbents (such as institutional investors) or gate-keepers (such as market analysts). For instance, Westphal and Graebner (2010) show that CEOs, when communicating with analysts, often exaggerate the extent to which their board engages in managerial monitoring and control. Consequently, the field-level interpretation of corporate action is often at least as important as the action itself. These symbolic interpretive concerns also affect how corporations legitimize more substantive corporate governance practices. Westphal and Zajac (1998) demonstrate that the stock market responds positively when corporations explain the adoption of long-term incentive plans in agency theory/shareholder-value language. Further, these symbolic efforts can forestall more substantive governance reforms. The symbolic and substantive elements of corporate governance may become decoupled due to conflicting institutional legitimacy concerns and intra-organizational power constellations (Westphal and Zajac 1994).

This description of institutional logics and the resultant repertoires of local action implies a relatively stable set of field dynamics. However, logics and legitimate action may be contested during episodes of contention or exogenous shock. Many observers have noted that the rise of shareholder activism in the 1980s followed from increased ownership concentration and power consolidation in the hands of institutional investors (Davis and
Specifically, in 1982 the IRS altered the tax policy associated with 401(k) retirement plans, which prompted many corporate employers to shift toward these portable retirement packages. As a result, the mutual fund industry grew substantially throughout the 1980s and 1990s and became the dominant owners of corporate equity. Corporate managers confronted increasingly concentrated and well-organized owners where more dispersed owners had previously existed.

As a result of this, and a perceived crisis of corporate profitability, this period saw a shift in the dominant institutional logic to favor shareholders: the decline of the finance conception of control (Fligstein 1990) and rise of the shareholder-value conception (Davis 2009a; Shin 2013). As Fligstein (2001: 149) notes:

“The finance conception of the firm viewed the firm as a bundle of assets that managers deployed and redeployed by the buying and selling of firms. Diversified portfolios of product lines were manipulated to maximize profits (Fligstein 1990: Ch 7). The finance conception of control therefore already viewed the firm in primarily financial terms. The shareholder-value conception of control is also a financial set of strategies, but it had a particular critique of the finance conception of firms. The shareholder-value perspective viewed the principal failure of the finance conception of control as the failure to maximize shareholder-value by raising share prices.”

In particular, the shareholder-value conception assumed that diversification should be left to the shareholders while corporations should focus on core competencies. This shift in the dominant institutional logic prompted de-diversification and the bust-up take over wave of the 1980s (Davis, Diekmann, and Tinsley 1994). Such legitimacy concerns still continue to encourage firm de-diversification when corporations are viewed as “unfocused” in equity markets (Zuckerman 2000). Where corporate diversification was previously viewed as a desirable and profitable strategy, it increasingly became illegitimate.
In addition to corporate strategies such as de-diversification, these socially constructed meaning systems also imprint upon actors’ preferences about who is likely to be an attractive network partner. Zajac and Westphal (1996) find that corporations who have shareholder-oriented governance prefer to appoint new directors with a history of curbing managerial independence. Conversely, firms with entrenched CEOs prefer to recruit directors with experience on passive boards. As a result, network ties reflect firms’ concern over the governance of their network alters, but this categorical distinction is normatively defined at the field level. Shareholder-value or managerialist director histories get interpreted through the lens of the dominant institutional logic and the focal firm’s position within the field. Consequently, a decision to interlock, and with whom to interlock, gets made through this frame.

Changing logics, and exogenous shocks, can also alter patterns of network formation by affecting the meaning system that influences actors networking decisions. In the earlier finance conception of control, financial intermediation by commercial banks afforded these organizations a central place in the interlock network and many firms seeking bank finance invited a representative onto their board. Essentially, the dominant institutional logic (and the associated system of corporate finance) made commercial banks attractive interlock partners. However, with the rise of market-mediated finance accompanying the shareholder-value logic, the interlock network changed and commercial banks lost their central position (Davis and Mizruchi 1999).

The 1980s were an important time of change in the structure of corporate financing, the institutional logics of corporate control, and the relational topography of the interlock
network. However, by the late 1990s and early 2000s the shareholder-value logic reached a fever-pitch and the Sarbanes-Oxley act of 2002 (SOX) represents a dramatic turning point in that institutional logic. The rest of this paper applies this theory about the interplay between changing institutional logics and networks to analyze the case of board interlocks and corporate governance orientations before and after SOX.

**Sarbanes-Oxley as a “Flashpoint” in the Shareholder-Value Logic**

In August 2007, during the annual meeting of the American Sociological Association, a panel convened to discuss how corporations are run. Nicole Biggart, then Dean of the Management School at the University of California—Davis, responded to the question of how corporations are managed differently from in the past, stating:

“For the people I have lunch with [referring to business colleagues], there’s a before AND after, namely 2002, when the Sarbanes-Oxley Act was passed, transforming (at least officially) corporate governance practices in the United States” (Jasper 2007: 10).

In 2002, Congress passed the Public Company Accounting Reform and Investor Protection Act (also known as Sarbanes-Oxley in reference to the bill’s cosponsors) by an overwhelming majority. Sarbanes-Oxley (SOX) was a response to the corporate malfeasance and accounting scandals of the late 1990s and early 2000s (e.g., WorldCom, Enron, Tyco) with the goal of increasing transparency and accountability in corporate governance, internal accounting, and auditing. SOX was a distinct moment when federal legislation was designed explicitly to aid shareholder scrutiny, particularly that of institutional investors. Substantively, SOX represented a flashpoint in the shareholder-value conception of the firm because many observers concluded that corporate governance had failed to protect
shareholder interests. SOX was intended to affect both the formal rules and informal organizational cultures/conventions that define firm-level corporate governance and field level norms. Thus, SOX altered the logics dominating U.S. public corporations’ institutional field by prescribing greater adherence to shareholder-value and increased checks on managerial discretion. The changes SOX introduced to corporate governance offer the rare opportunity to observe institutional change and evaluate propositions about the embeddedness of economic action in social networks and the broader institutional environment.

SOX is an excellent empirical case for observing how institution-level changes affect network evolution and diffusion. In particular, SOX represents a “flashpoint” in the shareholder-value logic—an unsettled time where the corporate scandals, and resulting law, were interpreted through the logic of shareholder-value. By this I mean the law includes elements of the long developing shareholder-value principle but it promotes greater intensity, public scrutiny, and explicit adherence to shareholder-value than previously observed. SOX also laid bare the federal government’s support for shareholder-oriented corporate governance such that investor protection became a stated goal for federal policy. The law also found support from powerful institutional investors, the field incumbents whose concentration ushered in the shareholder-value principle. Sarbanes-Oxley explicitly enshrines the shareholder-value principle into law, and it fosters both formal and informal scripts for firm practices and means of enforcement.

The corporate accounting scandals of the late 1990s and early 2000s exposed notable failures in corporate governance’s ability to ensure firms’ attention to shareholder rights.
Most visibly, the Enron scandal called into question many corporations’ accounting practices and internal controls. It also embroiled Arthur Andersen, one of the “Big 5” accounting firms, in a criminal investigation that irreparably damaged its reputation and eventually forced it to surrender its accounting licenses. The situation generated a crisis of investor confidence and undermined the efficacy of independent audits, one of the primary mechanisms of corporate governance. In a 2004 interview, Senator Paul Sarbanes; chairman of the Senate Banking, Housing and Urban Affairs Committee and cosponsor of SOX; recalled the general tone:

“By the end of 2001, Enron was bankrupt, and as it turned out, it was the canary in the mineshaft. The abuses in the capital markets did not begin or end with Enron. There were problems in the market—problems that were broad, deep, systemic, and structural. News stories at the time made this clear: ‘Financial Restatements Up Sharply’—*New York Times*; ‘Securities Suits Hit Record Total’—*Wall Street Journal*; ‘If You Can’t Believe the Auditors, Who Can You Believe?’—*Business Week*; ‘System Failure…This isn’t just a few bad apples we’re talking about here’—*Fortune*. A number of very major, highly-regarded public companies, along with their auditors, were relying upon convoluted and often fraudulent accounting devices to inflate earnings, hide losses, and drive up stock prices” (Lucas 2004: 4).

From a sociological perspective, and in light of the literature on the shareholder-value concept of the firm, Senator Sarbanes’ view (and the logic behind the legislation) is truly striking for its narrow conceptualization of the “systemic and structural problems” facing corporate governance. From a critical view, the doctrine of share-price as the guidepost for corporate policy is an incentive for fraud and financial manipulation. Clearly, executives engaged in fraud not only because monitoring had failed, but because so much was at stake if their financial statements revealed poor performance. For instance, Prechel and Morris (2010) demonstrate that a firm’s capital dependency on investors and its shareholder-value
management strategies each increase the likelihood of engaging in financial malfeasance. The shareholder-value principle led managers to weigh their options: commit fraud or risk dissatisfied shareholders. Earnings management refers to the less pernicious, but still disingenuous, practice of using flexible accounting techniques to cast a company’s financial activities in a more positive light. Dobbin and Zorn (2005) argue that corporate CEOs came to see earnings management as central to their jobs especially in meeting institutional investors’ expectations. Share-price based evaluation had created perverse incentives for corporate executives. However, despite this critique, the conventional reading of the situation (informed by the dominant institutional logic and the interests of field incumbents) suggested regulators, boards, and other financial constituents needed to “double down” on shareholder-oriented governance by installing greater internal controls and monitoring mechanisms. The problem was not perverse incentives but the classic agency problem of managers failing to pursue shareholder interests and the failure of corporate governance to control those managers. In short, the premises of the shareholder-value logic remained unquestioned by most observers; the prescription, rather, was to give more power to shareholders.

SOX was the most far-reaching legislation on corporate governance and equities markets since the establishment of the Securities and Exchange Commission (SEC) in 1934. In general, the law increased the power of independent directors, constructed more robust external monitoring, and made top corporate managers more accountable to investors. SOX established the Public Company Accounting Oversight Board charged with overseeing and inspecting auditors—public accounting firms that inspect and certify corporate financial statements. The law also prohibited public accounting firms from contemporaneously
providing non-audit services to an audit client out of the worry that such accounting firms would distort their audits to secure non-audit contracts. Moreover, the law changed corporate audit committees, the committee within a corporation’s board of directors tasked with overseeing financial disclosures. For instance, SOX required audit committees to be staffed with independent directors, directors who are not also employees of the firm or members of top management. Thus, auditors were hired and overseen by an independent committee, not by the very people they are auditing (Lucas 2004). SOX also required the chief executive officer and chief financial officer to certify financial statements and disclosures as accurate. Finally, in addition to other specific provisions, SOX increased funding for the SEC and augmented criminal charges for white-collar crime.

Many SOX requirements affected the accounting profession; however, evidence suggests that it altered corporate governance more generally in favor of shareholder-rights. For example, SOX increased the proportion of shareholders winning proxy fights, when shareholders use their votes to oppose management, and it increased the number of shareholder motions intended to curb excessive management compensation (Fass 2003). Similarly, institutional investors, among the most powerful beneficiaries of the shareholder-value logic, view SOX favorably. The Council of Institutional Investors (2010) has issued statements in support of regulatory oversight in financial disclosure and has explicitly praised the Sarbanes-Oxley Act.

In addition to formal changes, SOX was intended to generate broader informal changes to corporate governance. William Donaldson, then chairman of the SEC, argued that
SOX went beyond legal requirements and was part of a larger effort to improve the culture at the top of major corporations:

“Successful corporate leaders must therefore strive to do the right thing, in disclosure, in governance and otherwise in their businesses. And they must instill in their corporations this attitude of doing the right thing. Simply complying with the rules is not enough. They should, as I have said before, make this approach part of their companies’ DNA. For companies that take this approach, most of the major concerns about compliance disappear. Moreover, if companies view the new laws as opportunities—opportunities to improve internal controls, improve the performance of the board, and improve their public reporting—they will ultimately be better run, more transparent, and therefore more attractive to investors” (Donaldson 2003).

Sarbanes-Oxley altered the institutional field populated by public corporations in the U.S. However, rather than replacing one institutional logic with another (as was the case with the shift from the finance conception to the shareholder-value conception), SOX was a flashpoint in the already dominant shareholder-value logic. It took the notion that share-price should guide corporate policy to the next step by formally and informally aligning management prerogatives to shareholder rights through greater disclosure, monitoring, and transparency. As a result, shareholder-value orientations, and the associated practices, gained greater legitimacy in the field and vestiges of managerialism became highly scrutinized. The propositions presented above suggest that institutional pressures affected both practice adoption and network evolution; corporations were exposed to greater pressure to adopt more shareholder-oriented governance practices (and remove managerialist practices) and to avoid interlocking with managerialist firms in favor of interlocking with shareholder-oriented firms. Because SOX was an institutional flashpoint with a clear “before AND after” (Jasper 2007: 10), it offers a rare opportunity to evaluate a natural experiment of institutional change
and resultant re-patterning of networks and practices. The present study explores these propositions using data on corporate board interlocks and firm-level corporate governance provision across the period prior to and immediately following the passage of SOX in 2002.

**Data**

Data for this study come from the Investor Responsibility Research Center’s (IRRC) Risk Metrics database, Standard and Poor’s Compustat database, and Thomson-Reuters database of 13f institutional investors. Using director and executive lists in Risk Metrics and Compustat’s Execucomp database, as well as extensive hand checking, I constructed five network panels for the time points 1998, 2000, 2002, 2004, and 2006. The panels are firm-by-firm undirected adjacency matrices with a 1 in cell \((i,j)\) if firms \(i\) and \(j\) share a director or executive and a zero otherwise\(^{15}\). These matrices provide network panel data before and after the passage of SOX in 2002.

The sample is based on IRRC’s database of S&P 1500 firms. My sample follows an identical panel across all five time points and is the union of the 1000 largest firms by total assets in each year. This generates a sample of 1,586 unique corporations. The sample includes a large portion of U.S. market capitalization and is substantially larger than the samples in other director interlock studies that focus on Fortune 500 or S&P 500 lists. Additionally, some corporations left or joined the sample during the study period. Leavers either delisted their securities (i.e. went private), merged with another firm, or were

\(^{15}\) An alternative approach is to analyze interlocking as a two-mode network of directors tied to one or more firms. This approach would have the advantage of evaluate multiple interlocks, as when two or more directors sit on the same boards, as well as more complex network structures that occur when director-board memberships overlap. The disadvantage of this strategy is that it requires considerably more computational power to handle networks of this size and it invalidates some of the assumptions of Stochastic Actor-Oriented Models. Future research could benefit by applying two-mode network models for director interlocks.
purchased by another firm. Joiners either went public or spun off from an existing public firm during the study period. Seven hundred seventy-five firms appear in all five panels. The network analysis accommodates joiners and leavers such that panel missingness should not substantively alter the parameter estimates.

The study also investigates corporate governance practices and how they coalesce into managerialist vs. shareholder-value orientations. While previous research uses a variety of governance indicators including board independence (Westphal and Zajac 1997), CEO-board chair link (Zajac and Westphal 1996), and individual governance practices like take-over defenses (Davis 1991), I take a holistic approach to governance orientations based on a variety of firm-level practices. I use Gompers, Ishii, and Metrick’s (2003) governance index (g-index) that taps into the balance of power between shareholder and managers by capturing the provisions and practices that allocate authority. These include the charter and bylaw provisions that insulate managers from the take-over threat, augment or restrict shareholder voting rights, and indemnify officers and directors. The index includes 22 firm-level practices plus six state-level laws. Duplication between firm provisions and state laws leaves 24 unique provisions in the index. The index is arranged so that higher scores indicate greater managerialism and lower scores represent more shareholder rights (for further details on the index see Gompers, Ishii, and Metrick 2003) and the appendix.

In addition to interlock ties and corporate governance provisions, I assess several firm-level indicators. Logged total assets, logged annual sales volume, and total number of employees each captures an aspect of firm size. Market-to-book ratio addresses firm performance and is constructed by dividing the closing price by the book-value per share for
the fiscal year-end month. Percent institutional ownership is an indicator of the level of shareholder scrutiny and is the percent of a firm’s outstanding shares controlled by 13f-filing institutional investment managers. In addition to these firm-level measures, I include two dyad-level indicators. Geographic proximity indicates whether or not two firms list the same area code for their headquarters (Kono, Palmer, Friedland, and Zafonte 1998). I also control for whether or not two firms list securities on the same stock exchange or over-the-counter market. Finally, I control for whether or not a focal firm operates establishments in a network industry in order to capture aspects of resource dependencies that may affect interlock formation. Firms operating in industries with high transaction volume with other industries may be more likely to use interlocks to coopt uncertainty associated with these dependencies (Burt 1983). Network industries (and their 3-digit NAICS classification code) include: telecommunications (517), financial services (522), securities (523), insurance (524-525), transportation (481-484) and business services (561) (cf. Davis and Robbins 2005). Controls come from Thomson-Reuters and Compustat and are matched to governance/interlock panels using CUSIP identifiers and extensive hand checking. Table 3.1 presents descriptive statistics for the network panels and key controls.

(Insert Table 3.1 Here)

Methods

This study applies the recently developed class of stochastic actor-oriented models (SAOM) (Snijders, Bunt, and Steglich 2010; Snijders, Steglich, and Schweinberger 2007;
Steglich, Snijders, and Pearson 2010). These models have the advantage of being able to disentangle mechanisms that drive network evolution and those that drive actor-level behaviors. For instance, Steglich, Snijders, and Pearson (2010) apply stochastic actor-oriented models to the question of smoking behavior in adolescent friendships: do youths adopt the smoking behavior of their friends or do smokers form friendships with other smokers? Thus, this technique allows researchers to parse out effects that drive homophilous network formation from those that drive behavior change through social contagion while also examining endogenous network effects such as transitive closure or preferential attachment.

SAOMs model social network evolution as a continuous time Markov chain. The algorithm simulates micro-steps during periods between network observations (panel time points) according to stochastic optimization in a discrete choice framework. These micro-steps update a series of functions (network and behavior rate functions, network creation function, and behavior evaluation function) that estimate the rules governing network/behavior coevolution. Models are estimated in R using the RSiena package. During model estimation I followed procedures for model fitting, convergence criteria, and goodness-of-fit tests outlined in the RSiena manual and the recent literature (Ripley, Snijders, and Preciado 2013; Steglich, Snijders, and Pearson 2010; Steglich, Snijders, and West 2006).

This modeling framework is ideal for the present investigation concerning the coevolution of organizational practices and interlock network ties. Thus, I am able to evaluate mechanisms that drive governance practice adoption/contagion and interlock

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16 SAOMs are implemented to estimate effects that drive tie creation as well as dissolution. Evidence suggests that different processes drive interlock formation and dissolution because ties are often broken when a director dies or retires (Palmer 1983). Thus, the present analysis estimates the network creation function that drives interlock formation but leaves aside the question of interlock dissolution.
formation. The present study is concerned with how mechanisms driving governance practice contagion and interlocking differ before and after Sarbanes-Oxley altered the institutional environment in 2002. Therefore, I estimate separate models for the periods encompassing 1998-2002 and 2002-2006. These models present a substantively meaningful comparison for coefficients before and after SOX was passed in 2002. I estimate identical models for the two time periods and test for significant differences between the parameters (Ripley, Snijders, and Preciado 2013: 8.5).

**Results**

Table 3.2 presents results from stochastic actor-oriented models for the periods before and after the 2002 passage of SOX. Results are broadly supportive of the proposition that institutional change impacts network formation and practice adoption. First, theory suggests that institutional change affects how behavior spreads through a network. The lower portion of table 3.2 presents parameter estimate for effects on changes in the governance index. Recall that high scores indicate managerialist governance orientations while lower scores indicate shareholder-value orientations. The linear governance shape is significantly different between the two periods indicating substantially less movement toward managerialism after the passage of SOX. The negative quadratic effect also demonstrates a negative feedback against excessive managerialism. This indicates that, independent of network effects and covariates, corporations increasingly turned away from managerialist provisions following SOX. The “flashpoint” of shareholder-value in 2002 appears to have substantially affected corporations’ governance directly, though not completely erased managerialist orientations.
How did corporate interlocking moderate the effect of the shareholder-value flashpoint on governance provisions? Theory suggests that networks operate as carriers for shareholder-value logics. Notably, table 3.2 indicates that average alter effects on corporate governance (governance assimilation), that is the effect of network neighbors’ governance on a focal corporation’s governance, loses statistical significance after SOX; however, this difference is not itself significant, although, the effect of a focal firms’ degree is negative and statistically significant following SOX. This indicates that more highly interlocked firms—corporations who share directors with many other corporations—increasingly turn toward shareholder-value governance following SOX. Central and densely connected firms are the most likely to conform to the dominant institutional logic of shareholder-value.

Notably, most of the institutional change effects appear in the top portion of table 3.2 that assesses mechanisms driving network evolution before and after SOX. Theory suggests that the institutional flashpoint associated with SOX altered the way managerialist and shareholder-value oriented firms were viewed in the network as potential interlock partners. First, prior to 2002 managerialist corporations were more attractive interlock partners to others in the network (alter’s governance effect), but following the passage of SOX this effect loses significance. Thus, managerialist corporations become less attractive interlock partners after the institutional logic shifted to explicitly favor shareholder-value. Second, prior to 2002 firms did not tend to interlock with similarly governed firms but following SOX, corporations preferred recruiting directors from corporations holding similar
governance orientations (governance similarity effect). This indicates that preferential attachment toward similarly governed firms increased after 2002. It may be that the heightened scrutiny corporations faced encouraged them to surround themselves with like-minded others or that the categorical distinctions between managerialist and shareholder-oriented alters became particularly salient after the legislation. Third, transitivity increased in the wake of SOX. Transitivity refers to the tendency for a focal firm to interlock with a corporation with which it shares a mutual third party tie. Transitivity effects are frequently interpreted as emerging from local reputation and information (van de Bunt and Groenewegen 2007). For instance, a friend of a friend is more likely to be familiar than a complete stranger. This implies that local reputation became a more important driver for network evolution following SOX. Heightened scrutiny and monitoring in the destabilized governance field facing boards drove companies to appoint directors from more socially proximate corporations—a kind of “circling the wagons” effect. SOX also increased the risk and uncertainty associated with potentially flawed director appointments prompting organizations to rely more on reputation. This interpretation is also consistent with the governance similarity effect reported above.

Of the controls, the effects for percent institutional ownership is the most interesting and is consistent with the proposition that SOX represented a flashpoint in the shareholder-value institutional logic. Institutional ownership is typically taken to indicate greater shareholder scrutiny because institutional investors have greater resources to organize shareholder activism and monitor managers (Agrawal and Mandelker 1990; Davis and Thompson 1994; Shleifer and Vishny 1986). Institutional investors were also among the
loudest proponents of SOX because the bill’s provisions increased managers’ accountability and gave investors more legal rights in instances of financial fraud. Prior to SOX, a firm’s percent institutional ownership had no effect on its attractiveness as an interlock partner. However, after 2002, corporations with a greater portion of their equity held by institutional investors became more attractive interlock partners (alter’s percent inst. ownership) and companies increasingly sought interlock partners with similar rates of institutional ownership as themselves (percent inst. ownership similarity).

Taken together, these effects offer further support for the proposition that institutional change altered interlock formation after 2002. For a focal firm, recruiting a director from a high institutional ownership corporation may have signaled a greater commitment to shareholder-value that was especially salient following the shareholder-value flashpoint. Furthermore, seeking similarly owned interlock partners suggests that institutional owners put pressure on the corporations they dominated to recruit directors from other firms where institutional investors held large blocks.

**Discussion and Conclusion**

This study investigates the interplay between changing institutional logics and network/behavior coevolution. Theory proposes that networks carry organizational practices that line up with the changing logic; that is, networks are conduits for institutional change. As the institutional environment shifts, new assumptions and scripts for action emerge that reflect the interests of field incumbents. These new institutional logics prescribe conforming practices that organizations learn through network connections. Thus, organizations learn how to adjust to institutional change through network ties. In particular, the most embedded
organizations are under the most effective pressure to conform to the emerging institutional logic. Theory also proposes that institutional change imprints upon network evolution. Logics affect the way organizational practices are interpreted in the field and these interpretations lead to modes of preferential attachment, transitivity, and homophily. Consequently, the ascendant logic influences how potential network partners are evaluated and selected.

The analysis focuses on an institutional logic that changed in degree, not in kind. The Sarbanes-Oxley act was a “flashpoint” in the already dominant shareholder-value logic. Rather than replace an existing logic with another, SOX afforded field incumbents (especially institutional investors and fund managers) the opportunity formally and informally to inscribe their interests. SOX explicitly enshrined shareholder-value in the institutional field populated by public corporations, in turn altering firm-level corporate governance practices and network evolution mechanisms in theoretically consistent ways. First, following SOX, managerialist governance orientations tended to level off. Most notably, firms that were deeply embedded in the interlock network turned toward more shareholder-oriented governance after the passage of SOX. This suggests that network position shaped the effect of institutional change on corporate governance orientations—corporations with more ties were more likely to conform to the emerging institutional logic. However, peer influence effects did not significantly differ before and after SOX, suggesting that, in this case, network position was more impactful than the direct effect of network neighbors’ behavior. It may be that institutional change did not prompt actors to imitate network neighbors but that more highly connected actors were most likely to conform due to
greater visibility and monitoring associated with central network positions. Since SOX formally enhanced scrutiny on corporate governance, the most exposed firms were those with dense interconnections to others in the corporate community. Thus, exposure and visibility produced conformity independent of what network neighbors were doing. Analytically, this suggests that the interlock network promoted either coercive or normative effect on corporate governance but not a mimetic effect (DiMaggio and Powell 1983).

The most consistent empirical support for the theory concerns how institutional change affected network change. After SOX, managerialist corporations lost their attractiveness as interlock partners. Appointing a director from a managerialist corporation sent a signal to firm constituencies that diverges from the ascendant institutional logic. At the same time, corporations began increasingly to interlock with similarly governed corporations following SOX. It may be that scrutiny and change at the institutional level encouraged homophilous network formation. Paradoxically, this suggests that managerialist firms increasingly recruited directors from other managerialist corporations, perhaps in an effort to buffer themselves against the dominant shareholder-value logic—a kind of “circle the wagons” response. The tendency for triadic closure after SOX supports this interpretation as local reputation and social proximity came to matter more in the changed environment.

Finally, institutional ownership became especially impactful following SOX. Institutional owners were already field incumbents and had arisen as a powerful force in equities markets and corporate governance due to the proliferation of portable 401k investment instruments. Institutional investors were instrumental in advancing the shareholder-value movement in the 1980s and 1990s and in curbing managerial power (Davis
and Thompson 1994). Institutional investors were also among the most pronounced proponents and beneficiaries of Sarbanes-Oxley. Following SOX, the modal corporation increasingly sought interlock partners with large portions of their shares owned by institutional investors. Thus, shareholder scrutiny became an attractive characteristic for potential interlock partners. Furthermore, corporations sought interlock partners with similar rates of institutional ownership. This further supports the interpretation that SOX induced greater network homophily with regard to corporate governance. Taken together, findings suggest that Sarbanes-Oxley altered the way corporate governance practices and institutional ownership were viewed by field occupants. Following SOX, as a flashpoint in the shareholder-value logic, corporations increasingly sought network partners who espoused shareholder-value in both their practices and in their ownership structure. Independent of this, they also sought interlock partners with similar orientations and ownership structure.

These findings echo recent calls for network scholars to incorporate broader social and institutional contexts into their analysis (Owen-Smith and Powell 2008). Network/behavior coevolution occurs within institutional environments characterized by competing logics, scripts for action, and legitimacy concerns. The institutional environment can drive organizational practice contagion at the same time that it defines socially constructed categories influencing network formation. Future work should consider these propositions in cases where institutional change is more dramatic, as when a dominant logic is replaced or when incumbents lose their powerful position in the field. Theory suggests that such a context induces dramatic change in the network and the viscosity of network flows.
Table 3.1: Descriptive Statistics for Network Panels and Firm-level Covariates (*total n=1586*)

<table>
<thead>
<tr>
<th>Networks</th>
<th>Mean Degree a</th>
<th>Mean Geodesic Distance b</th>
<th>Jaccard Index c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interlocks 1998 <em>(n=1157)</em></td>
<td>7.30</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Interlocks 2000 <em>(n=1101)</em></td>
<td>6.49</td>
<td>3.98</td>
<td>0.408</td>
</tr>
<tr>
<td>Interlocks 2002 <em>(n=1089)</em></td>
<td>6.24</td>
<td>4.00</td>
<td>0.425</td>
</tr>
<tr>
<td>Interlocks 2004 <em>(n=1174)</em></td>
<td>5.84</td>
<td>4.15</td>
<td>0.447</td>
</tr>
<tr>
<td>Interlocks 2006 <em>(n=1136)</em></td>
<td>5.78</td>
<td>4.15</td>
<td>0.486</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firm-level Covariates</th>
<th>Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance Index (Behavior DV)</td>
<td>9.31 (2.66)</td>
</tr>
<tr>
<td>Log Total Assets (in millions)</td>
<td>8.36 (1.39)</td>
</tr>
<tr>
<td>Log Sales (in millions)</td>
<td>7.64 (1.56)</td>
</tr>
<tr>
<td>Employees (in thousands)</td>
<td>23.85 (62.30)</td>
</tr>
<tr>
<td>Log Market-to-Book Ratio</td>
<td>0.92 (0.89)</td>
</tr>
<tr>
<td>Percent Inst. Ownership</td>
<td>0.56 (0.20)</td>
</tr>
<tr>
<td>Network Industry</td>
<td>0.26</td>
</tr>
</tbody>
</table>

a Mean degree indicates the average number of interlocks across firms.
b Geodesic distance is defined as the number of connections along the shortest path between two nodes. Mean geodesic distance refers to the average shortest path between all node pairs.
c Jaccard’s index is a similarity coefficient and here describes the proportion of ties that remain stable from the previous wave. Values closer to zero indicate all ties have changes while values closer to 1 indicate no change in the networks. Values less than .3 can present problems for stochastic actor-oriented models (Ripley, Snijders, and Preciado 2013).
Table 3.2: Results from Stochastic Actor-Oriented Models Before and After Sarbanes-Oxley.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alter’s Governance</td>
<td>0.031***</td>
<td>-0.002</td>
<td>**</td>
</tr>
<tr>
<td>Alter’s Governance Squared</td>
<td>-0.005</td>
<td>0.011***</td>
<td>***</td>
</tr>
<tr>
<td>Governance Similarity (selection)</td>
<td>0.059</td>
<td>0.451***</td>
<td>*</td>
</tr>
<tr>
<td>Degree (density)</td>
<td>-3.508***</td>
<td>-3.684***</td>
<td></td>
</tr>
<tr>
<td>Popularity (square-root)</td>
<td>0.096***</td>
<td>0.111***</td>
<td></td>
</tr>
<tr>
<td>Transitive Triads</td>
<td>0.729***</td>
<td>0.894***</td>
<td>***</td>
</tr>
<tr>
<td>Same Area Code</td>
<td>0.973***</td>
<td>1.049***</td>
<td></td>
</tr>
<tr>
<td>Same Exchange</td>
<td>0.021</td>
<td>0.072**</td>
<td></td>
</tr>
<tr>
<td>Alter’s Log Assets</td>
<td>-0.076***</td>
<td>0.031**</td>
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<tr>
<td>Log Assets Similarity</td>
<td>-0.405**</td>
<td>0.086**</td>
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<td>Alter’s Employees</td>
<td>-0.001</td>
<td>-0.001</td>
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<tr>
<td>Employees Similarity</td>
<td>-0.769</td>
<td>-1.322</td>
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<tr>
<td>Alter’s Log Sales</td>
<td>0.153***</td>
<td>0.040**</td>
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<tr>
<td>Log Sales Similarity</td>
<td>0.938***</td>
<td>1.989***</td>
<td>**</td>
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<tr>
<td>Alter’s Log Market-to-Book Ratio</td>
<td>0.200***</td>
<td>0.160***</td>
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<tr>
<td>Log Market-to-Book Similarity</td>
<td>2.377***</td>
<td>1.531***</td>
<td>**</td>
</tr>
<tr>
<td>Alter’s Percent Inst. Ownership</td>
<td>-0.055</td>
<td>0.331**</td>
<td>*</td>
</tr>
<tr>
<td>Percent Inst. Ownership Similarity</td>
<td>-0.082</td>
<td>0.767***</td>
<td>***</td>
</tr>
<tr>
<td>Alter Network Industry</td>
<td>0.002</td>
<td>-0.309***</td>
<td>***</td>
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<thead>
<tr>
<th>Network Rate Function</th>
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<tbody>
<tr>
<td>Interlocks Rate - Period 1</td>
<td>10.193***</td>
<td>5.358***</td>
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<tr>
<td>Interlocks Rate - Period 2</td>
<td>7.212***</td>
<td>4.162***</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Behavior Evaluation Function – effects on governance</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance linear shape</td>
<td>0.555***</td>
<td>0.169*</td>
<td>***</td>
</tr>
<tr>
<td>Governance quadratic shape</td>
<td>-0.095***</td>
<td>-0.074***</td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>-0.001</td>
<td>-0.028**</td>
<td>*</td>
</tr>
<tr>
<td>Average Alter Governance (Assimilation)</td>
<td>0.176**</td>
<td>0.124</td>
<td></td>
</tr>
<tr>
<td>Log Assets</td>
<td>-0.107*</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>-0.001</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>Log Sales</td>
<td>0.007</td>
<td>-0.219**</td>
<td>*</td>
</tr>
<tr>
<td>Market-to-Book Ratio</td>
<td>-0.001</td>
<td>-0.092</td>
<td></td>
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<tr>
<td>Percent Inst. Ownership</td>
<td>-0.809**</td>
<td>-0.402</td>
<td></td>
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<tr>
<td>Network Industry</td>
<td>0.075</td>
<td>-0.252</td>
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CHAPTER 4: STUDY THREE—STRUCTURAL COHESION AND MANAGERIAL ENTRENCHMENT AMONG AMERICA’S CORPORATE ELITE

Abstract

Corporate governance refers to the firm level provisions that allocate power among dispersed shareholders and managers. In some corporations shareholders retain sizable power to monitor, control, or replace management, while in other corporations managers are considerably more “entrenched” or autonomous. Over the past thirty years institutional and legal changes have promoted shareholder rights and curtailed executive entrenchment. This shareholder-value movement emphasizes that firm’s primary responsibility is to maximize shareholder wealth. However, some corporate executives retain sizable power and influence despite the rise of shareholder-value oriented reforms. This variation in corporate governance orientations can be explained by structural cohesion in the director interlock network. Cohesion describes the extent to which multiple independent pathways bind together subgroups and represents a structural component of collective action. I argue that structural cohesion in the interlock network provides a platform for entrenched corporate elites to resist the shareholder-value movement and maintain managerialist corporate governance practices. Analysis of the U.S. interlock network reveals that corporations in highly cohesive subsets display considerably more managerialism than more isolated corporations. Contrary to notions that interlocks spread normative views about corporate governance, these findings suggest that cohesion in the interlock network provides collective action resources for entrenched or powerful managers to resist some of the normative prescriptions of the shareholder-value movement.
Introduction

Corporate governance provisions within publicly traded corporations allocate power between shareholders and managers. In some corporations, shareholders may be more or less dispersed, introducing problems in their ability to control and monitor managers. Corporate governance provisions introduce a variety of mechanisms that might wed managerial incentives to shareholder interests or provide managers greater insulation from shareholder scrutiny. These provisions coalesce into corporate governance orientations that describe the extent to which a given firm’s CEO and management team is either relatively entrenched or susceptible to shareholder/board activism (Davis 2005). Corporate governance orientations have dramatic consequences for a variety of firm participants, including managers, shareholders, workers, and the broader community. Recent research in sociology emphasizes the rise of the shareholder-value movement and how these pressures have prompted public corporations to dismantle managerialist governance in favor of greater shareholder rights (Davis 2011; Fligstein and Shin 2007). Over the last three decades, scholars claim, powerful institutional investors consolidated ownership in large firms across the economy and used this power to force companies to attend to shareholder-value and wealth maximization (Shin 2013). This trend has been linked to a host of social ills that include increased financialization at the expense of real economic growth (Davis 2009) and a fracturing of the corporate elite’s ability to offer moderate policy solutions to the nation’s problems (Mizruchi 2013).

However, some evidence suggests that the turn toward shareholder-value may not be as complete as these perspectives suggest. In fact, in some quarters there remains
considerable managerial power as top CEOs retain their hold. Pronouncements of shareholder wealth may be decoupled from actual practices (Westphal and Zajac 1998), and many top managers are protected through take-over defenses, indemnity provisions, and restricted shareholder voting rights. This study addresses how meso-level social structures in the director interlocks network are associated with governance variation. Director interlocks are inter-organizational ties that form when a director sits on the board of more than one company. I investigate how cohesive substructures in the network embed organizations and produce divergence in corporate governance orientations. Counter-intuitively, shareholder-value orientations are less pronounced among firms that are deeply embedded in cohesive substructures within the director interlock network. I argue that structural cohesion in the interlock network provides the platform for top managers to resist the shareholder-value movement and maintain a degree of entrenchment. While institutional shifts over the past three decades have come to favor shareholder-value orientations, the managerial corporate elite has attempted to protect its “core” at the meso-level by embedding entrenchment in structurally cohesive subgroups. Meanwhile, less embedded firms are more prone to adopt orientations in line with dominant shareholder-value logics.

This paper intervenes in recent debates about the rise of the shareholder-value movement (Shin 2013) and the paradoxical persistence of managerialism (Goldstein 2012). In what follows I outline the contours of this debate and then present an analysis of meso-level network embeddedness and shareholder-value orientations. I employ Moody and White’s (2003) cohesive blocking technique to characterize how firms are structurally embedded in cohesive subgroups and analyze how different levels of structural cohesion are
associated with managerialist versus shareholder rights orientations. I argue that cohesive network structures provide resources that enable managers to maintain a degree of entrenchment in the era of shareholder-value.

**Background: The Shareholder-Value Movement**

At least since Berle and Means’ (1968 [1932]) classic characterization of the separation of ownership and control in public corporations, scholars have debated the causes and consequences of firm-level corporate governance. Public corporations are large organizations owned by dispersed shareholders but controlled by a concentrated group of managers. In the period after World War II this situation gave corporate managerial elites the capital, resources, and power to build vast conglomerates that dominated large portions of the American and global economies. The leaders of the largest corporations, especially those that served on the boards of multiple corporations, formed an “inner-circle” of elites that wielded disproportionate influence over American politics (Useem 1984). Today, some commentators look back on this era with a degree of fondness (Mizruchi 2013). Corporate elite interests were offset by powerful and legitimate labor unions and the federal government. Despite their shortcomings, these commentators argue, these elites introduced a degree of moderation and pragmatism to public debates and had the resources and social capital necessary to intervene in pressing social problems. Managerial elites were able to look past the short-term goals of their firms and pursue an ethic of “enlightened self-interest” (Mizruchi 2013:9) where they viewed their own well-being as tied to general social stability. It was in this context that the period saw high rates of employment, economic growth, healthy working class unions, and relatively extensive worker bargaining rights.
Consequently, the post-war capital-labor social contract benefited from powerful unions, government, and a unified and moderate corporate elite (Mizruchi 2013).

However, by the late 1970s this arrangement began to change. Corporate profitability was suffering due to heightened international competition and an energy crisis, and elites began an all-out assault on the legitimacy of labor unions and government regulation. Contemporary academics argued that economic stagnation was due to managers’ failures to aggressively pursue shareholder-value (Fama and Jensen 1983; Jensen and Meckling 1976; Jensen and Ruback 1983). These observers suggested that managers had built bloated, inefficient corporate empires that protected them from the discipline of the market and that elites were using their positions at the helm of major corporations to capture rents at the expense of investors. Corporate policy, they argued, should be reformulated to pressure executives to maximize shareholder-value by de-diversifying, increasing board independence, increasing the threat of the take-over market, and aligning management incentives and shareholder interests, especially through performance-based pay schemes that tied compensation to stock-price (Dobbin and Jung 2010; Shin 2012).

At the same time, institutional investors began managing larger blocks of corporate equities. In 1978, when the IRS adopted section 401(k) of the Internal Revenue Code, the stage was set for millions of Americans to invest their retirement savings in the stock market. However, much of this investment growth was concentrated into mutual funds managed by institutional investors, such as Fidelity, that owned large blocks of many public corporations (Davis 2008). By 2009 institutional investors owned more than 70 percent of the largest 1,000 companies in the U.S. (Heineman and Davis 2011). Broadly speaking, these
institutional investors used their increased ownership stake to mobilize for shareholder-value oriented corporate governance at the firm, state, and federal levels (Davis and Thompson 1994).

The shareholder-value movement, spurred on by institutional investors and agency theory academics, brought with it several prescriptions about corporate governance. In general, the shareholder-value concept views corporations as bundles of assets with dispersed owners who each have a residual claim on the cash-flow from those assets. Those assets should be managed in such a way as to maximize gains for shareholders by increasing stock-market valuation. Consequently, share-price is viewed as the most efficient and accurate gauge of corporate performance (Shin 2013). Critics argue that the turn toward shareholder-value oriented governance exacerbates the problem of short-termism in corporate policy and strategy as corporate executives seek to maximize short term profitability even at the expense of long term stability or growth (Davis 2009). The shareholder-value movement has also been linked to considerable consequences for American society including waves of corporate downsizing (Budros 2002, 2004), de-unionization (Fligstein and Shin 2007), and increased inequality (Tomaskovic-Devey and Lin 2011).

However, the turn to shareholder-value oriented governance has been paradoxically uneven across firms. Although the average tenure for corporate executives has decreased dramatically since the days of a unified corporate elite (Mizruchi 2013:8) and many CEOs face independent and powerful boards, executives in many corporations retain considerable power, autonomy, and entrenchment. There are a number of reasons that managerialism persists in many corporations. First, research demonstrates that many corporations display a
“symbolic” adherence to shareholder-value oriented governance but decouple these displays from actual practices (Westphal and Zajac 1994, 1998, 2001). Westphal and Zajac (1994) demonstrate that corporations with powerful CEOs are more likely to pursue legitimacy by adopting long-term incentive plans in their executive compensation contracts, but these are often not actually used. Long-term incentive plans are intended to align CEO compensation with shareholder interests and adopting such a plan (i.e. announcing it on the proxy statement to shareholders) signals a commitment to shareholder-value. However, often times these plans are only symbolically adopted because the firm may not actually use them; the firm may allocate only trivial amounts to the incentive plan as a portion of total CEO compensation. Decoupled adoption, when the plan is adopted symbolically but not actually used, is more likely in corporations where the CEO has considerable power over the board as indicated by CEO tenure, the infrequent appointment of outside directors, and having a combined CEO/board-chair position. In a similar study Westphal and Zajac (2001) argue that stock repurchase plans, another policy intended to demonstrate a commitment to shareholder-value, are often decoupled when they are announced but never implemented.

A second reason for the uneven turn toward shareholder-value oriented governance across the population of corporations concerns the how managers capture rents. For instance, Goldstein (2012) argues that the growth of shareholder-value oriented strategies actually increased managerial employment and compensation. Goldstein’s analysis demonstrates that strategies designed to maximize shareholder wealth—such as mergers, layoffs, computerization, and deunionization—each contributed to greater managerial employment and pay because of managers’ role in labor control (see also Gordon 1996). Consequently,
strategies aimed at cutting labor’s share of income paradoxically contributed to managers’ ability to capture rents that would have been distributed to shareholders. Weeden and Grusky’s (2013) recent assessment of “managerial rents” focuses on performance-based bonuses, occupational closure that prevents competition, and benchmarking norms in pay setting (cf. DiPrete, Eirich, and Pittinsky 2010). In each case, managers have used their position at the helm of major corporations (and especially in their espoused role in maximizing shareholder-value) to lay claim to sizable portions of corporate income and power.

**Why Do Interlocks Matter For Corporate Governance?**

Each of the previously mentioned theoretical approaches—decoupling and managerial rents—emphasizes alternative but complementary causes for the uneven implementation of shareholder-value oriented governance reforms in corporations. In this chapter, I emphasize a third factor moderating the effects of the shareholder-value movement on firm-level corporate governance: interlocking directorates. Interlocking directorates are inter-firm network ties that form when a director sits on the board of more than one corporation or when an executive from one corporation sits on the board of another firm (Mizruchi 1996). Considerable research in the social sciences has attempted to unpack the causes and consequences of interlocking directorates. This research has alternatively described how interlocks help corporations manage resource dependencies (Burt 1983; Pfeffer and Salancik 1978), gain information (McDonald and Westphal 2003), and coordinate political action (Burris 2005).
Historically, financial institutions were the most central organizations in the corporate interlock network. During the post-war era, bank boards served as central meeting places for corporate executives across the economy and helped to maintain a degree of coordination among corporate elites (Mizruchi and Stearns 1988; Mizruchi 1982). Mizruchi (2013) argues that bank centrality helped contribute to elite moderation and pragmatism of the time. Consequently, bank centrality fostered greater cohesion among corporate elites that contributed to managerialism. However, during the shareholder-value era bank centrality began to decline as corporate financing increasingly shifted to a market mediated structure favoring capital and equity markets over lending institutions (Davis and Mizruchi 1999). This raises the question of whether and how board interlocks, in the relative absence of bank centrality, coordinate corporate governance practices.

Board interlocks have clear implications for corporate governance, especially for the persistence of managerialism and the uneven impact of the shareholder-value movement across public corporations. According to Davis (1996:154), board interlocks “reflect the embeddedness of corporate governance in social structures.” Managerialist and shareholder-oriented corporate governance do not simply represent individual, “atomistic,” firm strategies. Rather, firm-level corporate governance is embedded in social relationships among corporations and elites. For example, in the 1980s corporations faced an increasingly active take-over market. Shareholder-value pressures prescribed that an under-valued conglomerate (low market-to-book ratio) should be split apart and sold as separate assets to better realize their value and improve management. Consequently, any company that was viewed as “under-valued” on the stock market was at risk of being acquired by “corporate
raiders.” This trend reshaped the U.S. corporate landscape as nearly one-third of the largest corporations disappeared and corporate diversification dropped dramatically. The take-over wave constituted a substantial threat to managerial entrenchment because new owners typically fire the previous management team of a newly acquired target (Davis 1991). However, in response to the active take-over market, many firms implemented defense strategies to protect themselves from hostile bidders, and these take-over defenses are typically taken as indicators of managerial entrenchment. One of the most popular of these take-over defenses is called a “poison-pill” because it has the effect of diluting shares gained during a hostile take-over. Notably, corporations typically “learned about” poison-pill provisions through the interlock network; a focal firm was more likely to adopt a pill if one of the board members sat on the board of another firm that previously had adopted the pill (Davis and Greve 1997; Davis 1991). This finding suggests that managers’ ability to protect themselves from the increasing threat of the take-over market was “embedded” in interlocking relationships. In short, interlocking fostered managerial entrenchment and firm-level resistance to one of the features of the shareholder-value movement: an active take-over market. The elites in the corporate community used their social relationships to resist the take-over market, a pressure associated with the shareholder-value movement.

I argue that interlocks provide a platform for powerful managers to resist shareholder-value oriented governance reforms by surrounding themselves with likeminded directors and network alters. I suggest that cohesion among managerial elites promotes managerial corporate governance and provides the collective action resources necessary to minimize the effects of the shareholder-value movement. Considerable research demonstrates that
interlocking affects corporate governance because ties spread corporate governance practices across firms (Davis 1991) and corporations form new interlocks with similarly governed firms (Zajac and Westphal 1996). However, most of this research conceptualizes the effect of interlocking at the dyad level—how one firm influences another. This approach, while illustrative, fails to take seriously the notion that governance is embedded in meso-level social structures. I argue that cohesive interlocking allows managers to maintain their power and entrenchment in the face of shareholder-value pressure not because of dyadic relationships but because deeply embedded firms (those that are highly interlocked in cohesive groups of firms) are better able to surround themselves with like-minded network neighbors, learn about governance provisions that protect managerial entrenchment, and generate local norms that legitimize managerialism. Meanwhile, isolated firms, corporations that are not embedded in cohesive subsets of corporations, are more susceptible to shareholder-value pressures from institutional investors and the market. They are more isolated from knowledge and meaning systems that allow managers to resist the shareholder-value logic. In an abstract sense, interlocking allows the population of corporations to protect its “core” of managerialism from institutional pressures toward shareholder-value. In the next section I outline a network theoretic conceptualization of embeddedness and structural cohesion that applies to this problem.

**Hierarchical Network Embeddedness and Structural Cohesion**

Moody and White (2003) offer one of the most well developed empirical approaches to network embeddedness based on structural cohesion. Structural cohesion refers to the extent to which a given network is vulnerable to “breaking apart” if actors were to be
hypothetically removed. Conceptually, a highly cohesive network would remain connected even if several actors were removed. Moody and White (2003:104) argue that solidarity within a subgroup can be “partitioned into an ideational component, referring to members’ identification with a collectivity, and a relational component (Doreian and Fararo 1998), referring to the observed connections among members of the collectivity.” The concept of “structural cohesion” captures the latter component of observed social relationships but theoretically implies that collective action has a structural analog—that shared normative understandings are associated with group cohesion. These normative understandings can in turn help group members organize collective action or resist destructive forces. The principle has also been highlighted in theory and research on structural social closure where network density fosters trust, monitoring, and embedded exchanges (Coleman 1988; Burt 2005). Crucially, however, structural cohesion is a group level property rather than a feature of individual actors or dyads.

Moody and White (2003) define structural cohesion as the extent to which multiple independent pathways tie a group together. Highly cohesive subgroups are less vulnerable to “breaking apart” because of these multiple independent pathways. These authors present a cohesive blocking routine for hierarchically nested sub-networks that are increasingly cohesive. Intuitively, this approach starts with the entire network and sequentially partitions it into smaller sub-networks that are more highly cohesive. Each actor can be assigned to multiple groups. As an illustration, figure 4.1 presents cohesive blocks and the hierarchical partitioning structure for a sub-graph of the 1998 director interlock network. I created this
sub-graph by selecting a node in the main component and sampling all nodes up to distance two from the start node. The sub-graph includes all ties among this node-set.

Panel A presents the interlock ties network for the subsample of corporations and panel B illustrates the cohesive blocking. The lowest level of blocking is the entire network and increasingly cohesive blocks are hierarchically nested. Cohesive blocks are said to be “k-connected”, describing k node-independent paths connecting every pair of nodes in the block. For example, block three is the large central component shaded by pale yellow that also contains blocks five and six. Block three is 2-connected because removing two actors would disconnect the network. Said another way, there are two node independent paths that connect actors in the network. In block three, removing actors “19” and “24” would disconnect actors “18” and “10” from the rest of the block. Similarly, removing actors “23” and “25” would disconnect actor “28” from the network. The most cohesive block is block six and consists of seven actors who are 4-connected. Note that two actors do not necessarily need to be adjacent (to be tied to one another) in order to be in the same block. For instance, actors “19” and “12” are both embedded in the most cohesive block but they are not adjacent. Consequently, cohesive blocking describes a meso-level network structure rather than a dyad characteristic. Cohesion is better characterized as a community attribute.

Following this example, actors are embedded in hierarchically nested substructures that have increasing levels of cohesion. A straightforward way to describe each node’s level
of cohesive embeddedness is to denote the maximal cohesion for each actor—that is, the cohesion of the most cohesive block for each actor. In the above example, there are three actors in block three who are excluded from higher order cohesion—actors “18”, “20”, and “28.” These actors have a “maximum cohesion” value of two. However, the seven actors in block six, shaded in violet, have a maximum cohesion level of four—the highest in the network.

Theory suggests that higher levels of nesting, or maximum cohesion, allow for greater collective action through mutually reinforcing relations of trust and informal social control. In the present substantive case, this can provide the collective action resources for managerial corporations to resist the shareholder-value movement. Therefore, I hypothesize that higher levels of structural cohesion will be associated with managerialist governance orientations at the firm level. I test this hypothesis using both pooled data and longitudinally over an eight year period using a lagged dependent variable for governance. In the following sections I present the data, methods, and analysis for investigating how corporate governance varies across firms embedded at different levels of structure cohesion.

**Data and Methods**

The data for this study come from the Risk-Metrics database, produced by the Investor Responsibility Research Center (IRRC), Standard and Poor’s Compustat database, and Thomson-Reuters database of 13f institutional investors. The sample draws on IRRC’s database of S&P 1500 firms. I analyze network panels for the year 1998, 2000, 2002, 2004, and 2006. I follow an identical panel across five time points that is the union of the 1000 largest firms by total assets in each year. This generates a working sample of 1,586 unique
corporations. The analysis uses this general sample as well as several subsamples for each year and for a longitudinal panel model with a lagged design. The sample for the latter model is restricted to cases with at least two-time sequential points and excludes observations in the 2006 panel because they do not have an observed lagged dependent variable. The restrictions yield a sample of 1,320 corporations. The sampling frame includes a large portion of U.S. market capitalization and is substantially larger than other director interlock studies that focus on either the Fortune 500 or S&P 500 lists. Some corporations join or leave the sample during the study period, yielding different sample sizes for each time point and producing unbalanced panels in the longitudinal analysis. Sample turnover may be due to new firms going public or being spun off from an existing firm. It may also be due to delisting securities (going private), merging with another firm, or being purchased by another firm. Seven hundred seventy-five firms appear in all five time-points.

I use director and executive lists in Risk Metrics and Compustat’s Execucomp database, as well as extensive hand checking, to construct six firm-by-firm network panels for the time points 1998, 2000, 2002, 2004, and 2006. These are undirected adjacency matrices with a 1 in cell \((i, j)\) if firms \(i\) and \(j\) share a director or executive and a zero otherwise. These interlock matrices are used to run the cohesive blocking routine proposed by Moody and White (2003) as described in the previous section.\(^{17}\) The key indicator of a focal firm’s embeddedness evaluates the structural cohesion of its most cohesive block. The routine calculates hierarchically nested cohesive blocks and I use, as a firm-level indicator, the \textit{maximum cohesion} for each firm. This is the cohesion of the firm’s most cohesive block.

\(^{17}\) I calculated cohesive blocks using the cohesive.blocks routine in the igraph package for R (Csárdi and Nepusz 2006).
in a given year. For instance, in the example in figure 4.1 above, the node “19” is assigned to four blocks at different levels of cohesion, blocks two, three, five, and six. However, block six is more cohesive than the others (and is deeper in the nesting hierarchy) therefore node “19” has a maximum cohesion of four. Table 4.1 describes the network characteristics of the main sample and each of the subsamples used in the analysis. Note that the average cohesion, maximum cohesion, and the range decline across the survey periods. This is consistent with research indicating that the corporate elite has become more “fractured” (Mizruchi 2013).

This study primarily focuses on **firm-level corporate governance**—the provisions and structures within publicly traded corporations that allocate power among dispersed shareholders and concentrated managers. Corporate governance can preserve managerial entrenchment or foster shareholder monitoring and discipline. Previous research on corporate governance uses a variety of specific indicators including board independence (Westphal and Zajac 1997), linking the CEO and board chair positions (Zajac and Westphal 1996), as well as individual provisions such as take-over defenses (Davis and Greve 1997). The present study takes a more holistic approach to corporate governance by considering a wide range of firm-level charter and bylaw provisions that affect managerial and shareholder power dynamics. I use Gompers, Ishii, and Metrick’s (2003) governance index (g-index) that enumerates charter and bylaw provision that insulate managers from the take-over threat, promote or restrict shareholder voting rights, and indemnify officers and directors. The index
compiles 22 firm-level practices and six state-level laws. Duplication between firm provisions and state laws leaves 24 unique items in the index. The g-index is arranged so that higher scores indicate greater managerialism and lower scores indicate more shareholder oriented governance (for further details about the g-index see Gompers et al. 2003 and the appendix).

I also use several firm-level indicators to control for their effects on corporate governance. Logged total assets, logged annual sales volume, and total number of employees each measure an aspect of firm size. A firm’s logged market-to-book ratio captures the firm’s market performance. I constructed this measure by dividing the closing price by the book-value per share for the fiscal year-end month. Percent institutional ownership indicates the portion of a firm’s outstanding shares owned by 13f-filing institutional investment managers. Institutional ownership is perhaps the most important independent firm-level effect on corporate governance because institutional investors typically have the power and resources to increase shareholder scrutiny. Models include both a linear and squared term for institutional ownership to evaluate whether or not the effects on corporate governance differs across low, moderate, and high levels of institutional-ownership. I also use a dummy indicator for whether or not a firm operates an establishment in a “network industry,” industries with high volumes of inter-industry sales. Network industries (and their 3-digit NAICS classification code) include: telecommunications (517), financial services (522), securities (523), insurance (524-525), transportation (481-484) and business services (561). All firm-level controls come from Thomson-Reuters or Compustat and are matched to the interlock panels using CUSIP identifiers and extensive hand checking. I also include a
control variable for the firm’s *degree* centrality which is simply the number of interlocks for a focal company. All indicators in the analysis are time-varying. Table 4.1 also presents descriptive firm-level statistics for samples used in the analysis.

The analysis proceeds in three parts. First, I calculate the cohesive blocks and inspect corporate governance across different levels of cohesive embeddedness for each of the annual panels. Second, I estimate between-effects and random-effects models on the pooled panels that include firm-level controls and time-dummies. These models estimate the relationship between structural cohesion and corporate governance under different assumptions. Finally, I estimate fixed-effects models using a lagged dependent variable to evaluate within-firm change over time. This latter model is an extremely conservative test of causality in this context because it evaluates the extent to which within-firm change in cohesion is associated with within-firm change in corporate governance. Panel models are calculated in STATA using the `xtreg` package.

**Results**

*Cohesive Blocks*

Figure 4.2 panel A plots the main component of the 1998 interlock network and panel B presents the tree diagram outlining the nested block structure. Shaded areas and node color in the network graph indicate cohesive blocks.

[Insert Figure 4.2 Here]
In 1998, the most cohesive block had cohesion of nine. These ten companies listed in the inset are included for illustration. It turns out that these ten companies were all connected by a single director, Ann D. McLaughlin (later Ann McLaughlin Korologos), the former U.S. Secretary of Labor during President Ronald Reagan’s second term in office. It should be noted that the high cohesion and small block size of the most cohesive blocks in 1998 and 2000 (as can be seen in the plots below) are due to the “super-connector” status of an individual director such as Ms. McLaughlin. Moreover, recent analysis demonstrates that the presence of these “super-connectors” has declined in the interlock overtime, especially in the wake of the Sarbanes-Oxley Act (Chu and Davis 2011). Consequently, we should not generalize a pattern induced by a single director to the entire network or to other panel years. Larger block sizes are more robust to such outliers.

My central question is about how a firm’s level of structural cohesion in the interlock network is associated with its approach to corporate governance. I hypothesize that more managerial corporate governance (high scores on the g-index) will dominate at higher levels of cohesion. To test this relationship I first inspect average g-index scores across the distribution of maximum cohesion for each panel year. Figure 4.3 presents the average g-index score (and 95% confidence intervals) for firms at increasing levels of maximum structural cohesion for each panel. These plots also include the number of firms at each cohesion level. In general the plots reveal a trend toward higher g-index scores among firms nested in more cohesive blocks. As noted above, the most cohesive blocks in 1998 and 2000 have a lower average g-index but these are extremely small blocks (ten and nine respectively) and display a wide variability. However, despite these outliers and an apparent pattern that
the most cohesive blocks are slightly less managerial than the second most cohesive blocks, there appears to be a positive relationship. In the next section I evaluate this relationship between block cohesion and governance score net of firm-level controls and degree centrality.

[Insert Figure 4.3 here]

**Modeling Governance on Block Cohesion**

In order to assess the relationship between block cohesion and governance score I estimate a series of panel regression models that employ different assumptions.\(^\text{18}\) First, I estimate a *between-effects* model that allows for a comparison between firms that have different levels of maximum structural cohesion independent of covariates and within firm effects. Second, I estimate *random-effects* model that incorporates both between- and within-firm heterogeneity but accounts for within firm serial auto-correlation with a random intercept. Table 4.2 presents results from the between- and random-effects models. The sample of large publicly traded firms might better be characterized a *population* of large firms so the significance tests should be regarded as only suggestive. In particular, corporations embedded in more cohesive subsets of the interlock network tend toward high scores on the governance index indicating more managerialist corporate governance. This supports the notion that structural cohesion among corporations helps maintain managerialism in the face of shareholder-oriented governance pressures.

\(^{18}\) I also estimated GLS models for each spate panel and the pattern presented here appears consistent—positive and sizable effects of maximum cohesion on the g-index.
Several covariates have substantively interesting patterns. First, larger firms in terms of asset size and employment tend toward more shareholder oriented corporate governance. Conversely, higher annual sales volume is associated with managerialist governance. Not surprisingly, high market valuation is strongly associated with shareholder oriented governance (lower values on the g-index). The largest effects sizes concern the role of institutional investors. Institutional-ownership played a major role in engendering the shareholder-value movement; thus, we would expect a negative relationship between percent institutional ownership and the g-index—more institutional ownership promotes shareholder oriented governance. However, the models highlight a curvilinear relationship. Moderate levels of institutional ownership are positively associated with managerialism but higher levels of institutional ownership drive governance toward shareholder-value. It may be that institutional investors prefer a moderate amount of managerialism that includes moderate take-over defenses but that excessive managerialism suggests entrenchment that undermines a commitment to shareholder-value. Finally, operating establishments in a “network industry” is associated with shareholder-value oriented governance. This is not surprising because these industries include some of the largest financial firms in the economy operating in insurance, securities, and financial services. The financial industry has grown rapidly over the course of the shareholder-value movement and seems to have benefited from the increased market-valuation of high-earnings/low-asset business models.

Considering the effect sizes is important when evaluating population level data. For instance, in the between-effects model a one point increase in structural cohesion increase the score on the g-index by a factor of .24. For the random effect model it increases by only a
factor of .5. This is not an especially large effect size compared to the firm-level covariates but this is not surprising because firm-level characteristics should have the largest impact on corporate governance. However, when considering the range and distribution of firms across the levels of covariates, the effect is considerably more impressive. First, the maximum range (0-9) is about the same and in some cases larger than other covariates with sizable effects such as logged total assets (2.72-11.24), logged annual sales (1.52-12.75), logged market-to-book ratio (0-6.29), and percent institutional ownership (0-1). Therefore, the effect size across the variable range compares favorably for structural cohesion. Second, and more importantly, observations are much more equally distributed across levels of structural cohesion than they are for any other covariate. Consequently, referring to an increase in structural cohesion at the tails of the distribution actually describes a sizable number of firms.

Causal Models

The previous models highlight the sizable association between a firm’s position in cohesive substructures and managerialism. Here I address causal inferences about the relationship by employing fixed effects panel models to assess within-firm variation. The model regresses a lagged dependent variable (at time $t+1$) on covariates (at time $t$). This approach offers a very conservative test by evaluating the association between cohesion and governance across observations of the same corporation. The model preserves temporal ordering and allows for a within firm comparison. If a causal inference holds, then we should observe a positive association between maximum-cohesion and g-index score independent of all unobserved between firm heterogeneity. Table 4.3 presents the results.
The covariates lose statistical significance in the fixed effects model, but this is only suggestive. Notably however, the effect for maximum cohesion remains positive and substantively sizable. Clearly, the effect size is not as large as that of institutional-ownership or network-industry, but it compares well to the effect sizes for total assets, employment, sales, and market-to-book ratio. Moreover, because the effect persists for within firm variation, this offers strong evidence that the relationship is not due to spurious unobserved between-firm factors. Taken together, the evidence suggests that firms in more structurally cohesive blocks have more managerialist corporate governance and that a corporation’s shifting into more or less cohesive blocks is also associated with a shift toward or away from managerialism respectively.

**Discussion and Conclusion**

This study evaluates the relationship between structural cohesion in the interlock network—a meso-level network feature—and firm-level corporate governance. Theory suggests that structural cohesion fosters collective action and collective identification. I argue that cohesion in the interlock network provides a platform for managerial elites to resist the shareholder-value movement and maintain a degree of entrenchment despite institutional shifts against their power. Consequently, the paradoxical persistence of managerialism in the era of shareholder-value (Goldstein 2012) can be explained, in part, by firm-level variation in positions within cohesive substructures that insulate managerial elites from shareholder-value pressures. Although researchers document the declining cohesion of corporate elite networks
over the past thirty years (Chu and Davis 2011; Davis and Mizruchi 1999), the present study suggests that what cohesion remains is associated with managerial resistance to shareholder-value pressures. It may be that the observed “fracturing” of the corporate elite has facilitated the spread of shareholder-value oriented governance in an uneven way (Mizruchi 2013).

I employ Moody and White’s (2003) cohesive blocking routine that captures hierarchically embedded cohesive groups based on the presence of k-node independent pathways. Using this routine, I assign corporations a value of structural cohesion based on the cohesiveness of the firm’s most cohesive block. Descriptive and inferential analyses reveal that managerialist corporate governance, as measured by the g-index, is broadly positively associated with being positioned in cohesive blocks. I test this association using a variety of panel models under increasingly restrictive assumptions. A between-effects model captures the general trend that, independent of firm level covariates, corporations in higher order cohesive blocks exhibit more managerialist corporate governance. The most restrictive model, a fixed-effects panel model with a lagged dependent variable, confirms a within-firm relationship that is substantively sizable when compared to other firm level-covariates. This is especially notable, and somewhat surprising, because an individual firm’s level of embedding within cohesive substructures is not entirely within its own control. For instance, a focal firm may experience a change in structural cohesion if a network neighbor terminates or forms an interlock with a third party. Consequently, this study reveals that focusing on meso-level social structures (beyond the firm and dyad-level) is especially useful when considering firm-level variation in corporate governance.
The largest firm-level covariates in the models also correspond to existing theory about the role of institutional-ownership and market-valuation in corporate governance. However, the between- and random-effects models uncover an interesting curvilinear relationship between the percent institutional ownership of a firm’s equity and its tendency toward managerialist or shareholder-oriented corporate governance. It may be that institutional investors prefer moderate amounts of managerialism (of the sort that promote take-over defenses), but that excessive managerialism that curtails voting rights is less attractive. Future research should attempt to unpack this curvilinear relationship.

These findings also complement the dyadic level models that I explored in earlier studies of corporate governance and director interlocks. One of the more surprising findings in those studies was that managerialist corporations (high values on the g-index) are more attractive interlock partners. I also found that corporations tend to adopt the governance practices of their network neighbors and to prefer interlocking with other highly interlocked (i.e. popular) corporations. It may be that firms becoming more interlocked with other highly interlocked firms produces the structural cohesion that fosters managerialist corporate governance and resistance to shareholder-value maximizing logics.

More generally, the findings about structural cohesion reaffirm the utility of a sociological approach to corporate governance that emphasizes how firm-level strategies are embedded in social structures that spread information or promote/constrain collective action (Davis 2005). Recent analyses argue that the shareholder-value movement has had a notably destabilizing effect on the economy over the past thirty years (Davis 2009; Dobbin and Zorn 2005; Fliigstein and Shin 2007). Aspects of this shift are associated with increased instability
in the workplace (Budros 2002, 2004), short-termism and risk-taking in corporate planning (Dobbin and Jung 2010), and increased inequality (Tomaskovic-Devey and Lin 2011). Much of this research describes the role of academic agency theory, legal changes, powerful institutional investors, and restructured capital financing. However, my analysis highlights the importance of network structures among large corporations that mediate firm level corporate governance provisions. The cornerstone of this analysis rests on identifying structural cohesion within subsets of corporations in the interlock network. Future research should evaluate the historical trajectories of elite cohesion and assess the effects on firm-level policies as well as broader social change.
### Table 4.1: Descriptive Statistics for Network Panels

<table>
<thead>
<tr>
<th>Network/Sample</th>
<th>Mean Degree</th>
<th>Mean Geodesic Distance</th>
<th>Mean Max. Cohesion</th>
<th>Cohesion Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998 ((n=1157))</td>
<td>7.30 3.85</td>
<td>4.02</td>
<td>0-9</td>
<td></td>
</tr>
<tr>
<td>2000 ((n=1101))</td>
<td>6.49 3.98</td>
<td>3.57</td>
<td>0-8</td>
<td></td>
</tr>
<tr>
<td>2002 ((n=1089))</td>
<td>6.24 4.00</td>
<td>3.47</td>
<td>0-7</td>
<td></td>
</tr>
<tr>
<td>2004 ((n=1174))</td>
<td>5.84 4.15</td>
<td>3.24</td>
<td>0-6</td>
<td></td>
</tr>
<tr>
<td>2006 ((n=1136))</td>
<td>5.78 4.15</td>
<td>3.22</td>
<td>0-6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firm-level Covariates</th>
<th>Mean (S.D.) Full Sample ((1586 \text{ firms and 5657 firm/year units}))</th>
<th>Mean (S.D.) Subsample for FE Panel Models ((1320 \text{ firms 4521 firm/year units}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance Index (DV)</td>
<td>9.31 (2.66)</td>
<td>9.34 (2.66)</td>
</tr>
<tr>
<td>Log Total Assets (in millions)</td>
<td>8.36 (1.39)</td>
<td>8.39 (1.40)</td>
</tr>
<tr>
<td>Log Sales (in millions)</td>
<td>7.64 (1.56)</td>
<td>7.75 (1.40)</td>
</tr>
<tr>
<td>Employees (in thousands)</td>
<td>23.68 (61.79)</td>
<td>24.84 (64.12)</td>
</tr>
<tr>
<td>Log Market-to-Book Ratio</td>
<td>0.92 (.89)</td>
<td>0.94 (.91)</td>
</tr>
<tr>
<td>Percent Inst. Ownership</td>
<td>0.56 (0.20)</td>
<td>0.64 (0.22)</td>
</tr>
<tr>
<td>Network Industry</td>
<td>0.26</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>Between-Effects Models</td>
<td>Random-Effect Models</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Max. Cohesion</td>
<td>0.26***</td>
<td>0.24**</td>
</tr>
<tr>
<td>Degree</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Log Total Assets</td>
<td>-0.34*</td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>-0.003*</td>
<td></td>
</tr>
<tr>
<td>Log Annual Sales</td>
<td>0.28*</td>
<td></td>
</tr>
<tr>
<td>Log Market-to-Book Ratio</td>
<td>-0.39**</td>
<td></td>
</tr>
<tr>
<td>Percent Institutional Ownership</td>
<td>6.93***</td>
<td>1.59**</td>
</tr>
<tr>
<td>Percent Inst. Ownership-</td>
<td>-4.72***</td>
<td></td>
</tr>
<tr>
<td>Squared</td>
<td></td>
<td>-0.75*</td>
</tr>
<tr>
<td>Network Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Dummies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>1.08</td>
<td>0.28***</td>
</tr>
<tr>
<td>2002</td>
<td>0.65</td>
<td>0.56***</td>
</tr>
<tr>
<td>2004</td>
<td>-7.13</td>
<td>0.57***</td>
</tr>
<tr>
<td>2006</td>
<td>0.23</td>
<td>0.42***</td>
</tr>
<tr>
<td>Intercept</td>
<td>8.30***</td>
<td>6.45***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001
Table 4.3: Fixed-Effects Panel Models for Lagged Governance Index on Maximum Cohesion and Covariates \((n=1320)\)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Cohesion</td>
<td>0.03*</td>
<td>0.05*</td>
</tr>
<tr>
<td>Degree</td>
<td>-0.004</td>
<td></td>
</tr>
<tr>
<td>Log Total Assets</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>-0.001</td>
<td></td>
</tr>
<tr>
<td>Log Annual Sales</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Log Market-to-Book Ratio</td>
<td>-0.05</td>
<td></td>
</tr>
<tr>
<td>Percent Institutional Ownership</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>Percent Inst. Ownership-Squared</td>
<td>-0.25</td>
<td></td>
</tr>
<tr>
<td>Network Industry</td>
<td>-0.15</td>
<td></td>
</tr>
<tr>
<td>Time Dummies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>0.35***</td>
<td>0.35***</td>
</tr>
<tr>
<td>2002</td>
<td>0.37***</td>
<td>0.33***</td>
</tr>
<tr>
<td>2004</td>
<td>0.26***</td>
<td>0.20***</td>
</tr>
<tr>
<td>Intercept</td>
<td>9.15***</td>
<td>8.62***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001
Figure 4.1: Illustration of Cohesive Blocks Using a Sub-graph from the 1998 Director Interlock Network
Figure 4.2: Cohesive Blocks and Tree Diagram for 1998 Interlock Network
Figure 4.3: Means and Confidence Intervals for G-Index by Maximum Cohesion and Year
CHAPTER 5: CONCLUSION

This project complements the rich existing literatures in finance, economics, and sociology on corporate governance and director interlocks. Broadly, this project attempts to unpack the contextual mechanisms that help explain why managerial entrenchment persists in the era of shareholder-value. The three studies demonstrate that corporate governance practices are embedded (Granovetter 1985) at multiple levels of analysis: interlocks between corporations, cohesive meso-level network structures, and broader legal institutions that simultaneously influence corporate governance and interlocking. The studies apply cutting edge methodology in social network analysis, as well as a unique natural experiment, to some of the lasting questions in economic sociology and the sociology of organizations. Namely, how does an organization’s environment (both institutional and inter-organizational) affect its practices and structures? Moreover, how do these external contexts affect power constellations between managers and shareholders within publicly traded corporations?

The first study makes three primary contributions to the literature. First, the analysis demonstrates the co-occurrence of selection and diffusion processes and evaluates how these mechanisms operate simultaneously with endogenous network mechanisms such as popularity and transitive closure. Surprisingly, managerialist corporations are attractive interlock partners, suggesting that the persistence of managerialism is partially maintained through network processes. Additionally, similarly governed firms are more likely to form an interlock and governance provisions diffuse across interlocks. Second, the empirical setting updates findings about corporate governance and interlocking by using a more recent time-series than most previous research. Notably, while earlier studies documented network based
governance diffusion during periods of considerable change, such as during the take-over wave of the 1980s (Davis 1991), the present study illustrates that these network effects are still widespread. Finally, the analysis contributes to the broader literature on corporate governance by aggregating general corporate governance orientations from a variety of bylaw and charter provisions. The first study establishes the focal mechanisms that embed corporate governance in the interlock network and documents the somewhat surprising finding that managerialist corporations make attractive interlock partners even in the era of shareholder-value. This suggests that many managers retain considerable power in filling their boards.

The second study furthers understanding of the embeddedness of corporate governance by extending the network analysis to a focus on broader socio-legal institutions. I develop a theoretical framework for how legal changes affect network evolution and diffusion in the interlock network. I merge aspects of social network theory with recent theoretical developments on institutional fields (Fligstein and McAdam 2011; 2012) and institutional logics (Scott 2008; Thornton, Ocasio, and Lounsbury 2012). Theoretical propositions suggest that changes in an institutional field can: 1) alter the diffusion process of networks and 2) imprint upon network evolution. In each case, changes to the institutional environment affect how corporations use interlocks and how interlocks form. I apply the theory to the quasi-natural experiment of the Sarbanes-Oxley Act of 2002 that altered the formal and informal logics confronting corporations in the United States. Analyses reveal that legal changes prompted more centrally located actors to shift their governance toward shareholder-value orientations. At the same time, managerialist corporations lost their
popularity as potential interlock partners, while corporations increasingly turned toward interlocking with similarly governed alters. The second study offers a major contribution to the literature on corporate governance and interlocks as well as a theoretical approach to how network action is embedded in broader institutional arenas (Kogut 2012). This theory has wide applicability in social network analyses more broadly.

Finally, study three returns the analytic focus to meso-level social network structures and how these influence corporate governance orientations. I argue that the shareholder-value movement differentially affects firm-level corporate governance depending on a firm’s position in the interlock network. More specifically, my findings suggest that cohesively embedded corporations have greater access to collective resources that allow them to “resist” the shareholder-value movement and maintain a degree of managerial entrenchment. The analysis uses Moody and White’s (2003) cohesive blocking routine to determine how deeply embedded corporations are in hierarchically nested cohesive structures. The analysis reveals that firms embedded in cohesive substructures have more managerialist corporate governance orientations than corporations that inhabit less cohesive positions in the network. I argue that this is because powerful managers seek deeply embedded positions in order to surround themselves with collective resources with which to resist the shareholder-value movement. Consequently, interlocking itself is associated with managerial entrenchment in the contemporary U.S.

There are a few limitations to these studies that are worth acknowledging. First, methodological limitations warrant returning to this analysis as social network analytic techniques continue to improve. The stochastic-actor oriented models presented in studies
one and two focus on one-mode networks (firm-by-firm matrices) but these are projections of
two-mode networks (director-by-firm matrices). Some information is lost when analyzing
projections of two-mode networks. For instance, when multiple individuals serve on more
than one board together this may create even more cohesion that can be observed by focusing
on the projection.

An additional limitation concerns the micro-interactions that occur in relationships
between board members and top managers. My theoretical framework claims that powerful
top managers are able to exert influence over board member nominations and therefore
promote election of passive directors to their boards. This would account for the observation
that similarly governed firms are more likely to form an interlock. Additionally, my theory
claims that directors bring experiences and orientations about corporate governance from
neighboring interlocked corporations into the focal firm’s boardroom. This would account for
the observation that corporations adjust their governance to align with neighboring firms.
However, because my analysis focuses on inter-firm relationships, I am unable to directly
observe the interaction patterns within board rooms and how these affect intra-firm power
dynamics. Some empirical research suggests that interpersonal influence behaviors
powerfully affect the balance of power within corporations and in establishing corporate
governance practices. For instance, in corporations with powerful boards, CEOs are more
likely to engage in ingratiating and persuasion behaviors toward board members (Westphal
1998). CEOs also often use similar ingratiating and persuasion tactics toward institutional
investment fund managers in order to deter governance changes that would harm
management (Westphal and Bednar 2008). Future research should investigate the micro-
mechanisms that relate inter-firm networks and intra-firm power dynamics by analyzing how powerful managers or boards use that power to nominate interlocking board members.

Future research should also consider how the theory of corporate governance as nested authority affects outcomes for firms, workers, and communities. For instance, considerable research is beginning to document how the shareholder-value movement and the associated turn toward financialization crowd out investments in workers and communities (Davis 2009) and increase income inequality by generating rents for financial elites (Tomaskovic-Devey and Lin 2011). However, it is important to note that the broader neoliberal turn that has presented problems of dislocation and instability for workers is ultimately mediated by organizational processes and, most likely, by networks of organizations. Future research should consider how networks of managerial elites might play a role in limiting or exacerbating the effects of the shareholder-value movement on workers and communities. Relatedly, future research should consider how these networks mediate the relationship between shareholder-value pressures and corporate malfeasance and white-collar crime. Clearly, the shareholder-value movement created a series of perverse incentives for corporate elites to mislead investors (Barak 2012). The questions remain about how these crimes are embedded (or disembedded) within elite networks.

These projects also present a few notable policy implications. Although Sarbanes-Oxley was designed to improve accountability and transparency in corporate securities markets, it had an unintended consequence of encouraging managerial elites to preferentially interlock but also break apart interlocking more generally. Consequently, future legislation designed to influence the information efficiency of markets should carefully consider how
market actors are also socially embedded in networks. My analysis demonstrates how legal changes affect inter-organizational networks as well as organizational practices. Careful consideration of sociological theory can help reduce the unintended consequences of laws that are solely informed by the efficient market hypothesis.

More broadly, these studies suggest that policy should carefully consider the tradeoff inherent in representing the shareholder-value movement against managerial entrenchment. It may be that some degree of managerial entrenchment promotes stability for workers and communities that is healthy. Moreover, concerns over managerial rents at the expense of shareholders may be premature if managers provide a social good. Stakeholder theories of corporate governance may offer a useful alternative to the shareholder-value model for informing policy.

**Historical and National Contexts**

Although these studies document mechanisms associated with different levels of embeddedness in the interlock network and institutional environment, these processes should not be interpreted as universal patterns in corporations and corporate governance. The modern U.S. corporation—with dispersed ownership and entrenched management, agency-problems, and shareholder-value maximizing pressures—is a socio-historical construction with its own history, path-dependencies, and potential roads-not-taken. When Berle and Means (1968 [1932]) wrote that corporate ownership was centrifugal while management control was centripetal, they were arguing for an “efficiency” interpretation of corporate evolution: technology and economies of scale favored huge firms with enormous capital requirements that could only be achieved through dispersed investment. This situation
allowed professional managers to achieve power. However, the American corporate form that is the focus of this project was not historically inevitable and did not occur in other parts of the world. The mechanisms I identify are broadly contingent on national and historical contexts that affect the nature of corporate power, the population of the corporate network, and the socio-legal meanings associated with corporate action. This section provides a broader context for this project by briefly outlining some of these concerns in terms of 1) cross-national contexts, and 2) historical contexts.

Cross-National Contexts

The evidence presented in this project must first be contextualized by the set of institutions in the U.S. that characterize its national system of corporate governance. Indeed, the organizational practices of take-over defenses, shareholder voting-rights, indemnity provisions, outside directors, institutional investors, etc. each developed within a distinct national context of laws, politics, and institutions. Agency theory, the academic approach to corporate governance that became dominant in the 1980s, essentially codifies the American system of corporate governance because it describes the mechanisms and practices that resolve the agency problem created by the separation of ownership and control (Davis and Useem 2002). Yet the ownership/control separation is not universal across national contexts. Financial markets, auditors, boards, regulators, and so on each contribute to the institutional matrix comprising corporate governance in the U.S., and these institutions vary across nations (Kogut 2012).

There are three dominant theoretical perspectives on cross-national variation in corporate governance systems. These theories focus alternatively on 1) national-level legal
protections for minority shareholders (La Porta, Lopez-de-Silanes, and Shleifer 1999; La Porta, Lopez-de-Silanes, Shleifer, and Vishny 2002), 2) political determinants such as the strength of labor or social democracy (Roe 2003), and 3) the multiple equilibria of institutional complementarities in liberal- versus coordinated-market economies (Hall and Soskice 2001; Hall and Thelen 2009). In general, these perspectives detail how national level contexts affect patterns of corporate ownership as well as firm-level practices.

Many scholars in the law and economics tradition emphasize the role of national legal contexts in setting the system of corporate ownership and governance. These scholars question the cross-national generalizability of the American characterization of corporations as widely held but centrally controlled as originally formulated by Berle and Means (1968 [1932]) and later formalized by agency theorists (Jensen and Meckling 1976). Rather than capital requirements or technology, these scholars argue that dispersed ownership occurred in the U.S. (and elsewhere) because of legal protections for minority shareholders. For instance, La Porta, Lopez-de-Silanes, and Shleifer (1999) analyze the ownership structures of large corporations across 27 developed countries and find that dispersed ownership is more common among firms in countries with strong minority shareholder protection laws, such as the U.S. Conversely, countries with weaker minority shareholder protections, like much of continental Europe, tend to have firms with more concentrated ownership, particularly family and state-owned/controlled firms. In the latter case, the separation of ownership and control is not as extensive and mechanisms derived to reduce agency-costs are less applicable. The authors argue that this is because minority shareholders are at greater risk of having their rights expropriated by a controlling-shareholder in countries where protections are weak.
More generally, dispersed ownership is more widespread in countries with roots in English Common Law (e.g. U.S., U.K, Canada, Australia), while concentrated ownership is more common in countries with origins in civil law (e.g. Germany, France, Netherlands) (La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1998). The common law legal tradition is also associated with developing external financial markets for both equity and debt—a key feature of the corporate governance system in the U.S. (La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997). Proponents of this theory speculate that the common law tradition better fosters the development of financial institutions by promoting greater legal enforcement and protections of minority shareholders. Proponents of the legal theory of corporate governance also argue that because these legal traditions were historically established long before corporations developed, it is unlikely that legal provisions are endogenous (e.g. powerful shareholders lobby for legal changes that entrench their controlling position).

A second theory of national corporate governance systems posits that the political system (and path-dependencies) within a country affects the ownership structure of large corporations. Roe (1994) argues that dispersed ownership in the U.S. is attributable to political movements, and resulting policies, that discourage concentrated ownership. In his historical analysis, Roe demonstrates that securities markets evolved in the U.S. (rather than powerful financial intermediaries as developed elsewhere) because of American populist political movements, interest groups (especially managers), and the structure of the American federal system that produced a fragmented banking system.

In a follow-up cross-national comparative study, Roe (2003) extends his political theory to argue that “how social conflict has been settled powerfully affects how firms are
owned and how authority is divided” (Roe 2003: 3). In particular, Roe discusses nations’
(and firms’) balance of power between managers, shareholders, and employees and argues
that powerful labor movements exacerbate the conflicts between managers and owners.
Social democracies and nations with powerful labor movements tend to have less emphasis
on maximizing shareholder-value, and firms are encouraged to take fewer risks and avoid
strategies such as downsizing. In countries like Germany, Italy, and France, labor has
considerable political power and often direct influence in a firm’s corporate governance
apparatus. In Germany, for instance, the largest firms must have sizable labor representation
on the board. In this context, owners are forced to remain concentrated in order to “off-set”
powerful labor organizations. However, in the United States labor has been considerably less
powerful, so ownership was freer to disperse. In addition, social democracies make it more
difficult to apply tools designed to reduce managerial agency-costs, such as hostile take-
overs, proxy fights, or incentive compensation (Roe 2003: Ch 5). In essence, codetermination
(and social democracy more broadly) increases the agency-costs for investors. This in turn
makes decentralized equity markets less likely and promotes concentrated block ownership
as the means to control managers.

A final model for theorizing cross-national differences in corporate governance
regimes comes from the “varieties of capitalism” (VOC) literature (Hall and Soskice 2001;
Hall and Thelen 2009). This literature emphasizes how multiple pathways are possible
through institutional complementarities. Complementary institutions include the education
and training system, inter-organizational coordination, industrial and labor relations, and the
financial system affecting corporate governance. In general, institutional characteristics tend
to cluster together across nations—countries with similar education and training systems also
tend to have similar industrial relations systems. The VOC approach categorizes these
clusters as “liberal market economies” (LMEs), such as the U.S., Australia, and the U.K., and
“coordinated market economies” (CMEs), such as Germany, Netherlands, and Sweden. In
LMEs, market relationships tend to coordinate firm activities, interface between
organizations and the labor force, influence the organization of the education system, and
determine firms’ access to capital. In CMEs, coordination tends to favor non-market
mechanisms such as works councils, industry-wide employer associations, centralized
education and training systems (e.g. a system of vocational training), as well as dense
coordinating networks among organizations.

With regard to corporate governance, the dominant difference between LMEs and
CMEs is in how firms access capital and how investors monitor performance. In LMEs, such
as the U.S., firms typically access capital through securities markets and firms must be more
attentive to share-price and current earnings. The regulatory system allows mergers and
hostile acquisitions as well as management reward systems that link to share-price. Whereas
LME coordination is typically market-centric and based on information about current returns,
the financial system in CMEs is not as dependent on current returns or market mediated
information. Hall and Soskice (2001: 23) argue that investors in CMEs turn toward private
and inside information about company operations in order to monitor firm performance and
investment returns. In CMEs investors typically access this information through close
relationships with suppliers and clients, cross-shareholding networks, and joint memberships
in industry associations (Hall and Soskice 2001). A principle difference between LMEs and
CMEs is that firms in LMEs must be particularly attentive to short term earnings while firms in CMEs have better access to “patient capital” (Hall and Soskice 2001: 22) that makes it possible to weather economic downturns without sizable workforce downsizing and to invest in long term projects. Firms in Japan, for instance, have been able to offer relatively secure long term employment even during times of economic turmoil.

The VOC perspective differs from the two previous views in at least two ways. First, while the legal perspective assumes the Anglo-Saxon model of minority shareholder protection is the superior way to organize a national system of corporate governance, the VOC perspective suggests that the system of institutional complementarities introduce multiple equilibria. CME and LME approaches are both viable systems. Second, VOC goes beyond both the legal and political perspective to highlight how other social institutions interface with finance and corporate ownership. For example, the system of corporate finance in Germany makes it possible for firms to access “patient capital” and thus retain a highly skilled labor force without engaging in periodic downsizing to maintain stock-valuation (as is more common in the U.S.). The German education and training system complements this by providing highly skilled workers with firm-specific skills through vocational training and apprenticeships. Conversely, the education system in the U.S. promotes general skills that are more amenable to flexible labor markets and short-term employment tenures. This logic also extends to the realms of industrial-labor relations and internal firm structures. The uniqueness of the American institutional environment with its minority shareholder protections, weak labor movement, and market centric coordination provides the context for
the debates I address throughout this project about corporate governance orientations that maximize shareholder-value or maintain managerial entrenchment.

[Insert Table 5.1 Here]

Historical Contexts

One of the central arguments of the studies in this project is that shareholder-value oriented governance is embedded in social networks and institutional environments. The notion that corporations exist to create shareholder-value is also a socio-historical construction that unfolded alongside the creation and evolution of public corporations, bureaucratic organization, and the class of professional managers. Sociologists and business historians have engaged in vigorous debates about the process that led to the creation of bureaucratic organizations generally and publicly traded corporations specifically.

The dominant explanation for the rise of large corporations in the U.S., and for the creation of professional managers to oversee them, is that technological developments, huge capital requirements, and increasingly integrated national markets encouraged people to build massive organizations that could capitalize on these economies of scale (Chandler 1977). In general, according to the argument, efficiency requirements rewarded large integrated businesses over smaller market coordinated units in capital intensive industries in high value, national markets through lower costs, higher profits, and greater productivity. This also set the context to create salaried professional managers tasked with overseeing the business but separated from ownership. As Chandler summarizes, “The visible hand of management replaced the invisible hand of market forces where and when new technology and expanded
markets permitted a historically unprecedented high volume and speed of materials through the process of production and distribution” (Chandler 1977: 12).

Perrow (2002) questions much of this efficiency interpretation and argues that alternatives, such as coordinated networks of smaller firms, could have organized production and distribution while also achieving similar economies of scale. These networked organizations were fairly prevalent in the past and continue to exist in many markets and national economies. Perrow (2002) points out that throughout much of the 19th century, two organizational models coexisted in early textile production. In New England, the “Lowell” model exhibited absentee-ownership and centralized mass-production as became characteristic of other large bureaucratic corporations. Meanwhile, in Philadelphia, networks of decentralized specialty producers engaged in greater coordination and cooperation and achieved remarkable flexibility in the production of high quality textiles. While the Lowell model capitalized on cheap low-skilled labor, networked Philadelphia producers were able to utilize and share highly skilled workers to achieve flexible and efficient production outcomes. Perrow (2002) argues that the Philadelphia organizational form, with its less concentrated power structure, necessarily engaged in less labor exploitation and fostered community investment due to greater shared interests. However, although producers in the Philadelphia model were of more modest size and regional (rather than national) scope, they were not inefficient. Consequently, the large bureaucratic corporation is only one historical outcome among multiple possible trajectories that could have organized economic life differently.
Although the textile industry was the first to apply the large bureaucratic organizational form in the U.S., the growth and nationalization of the railroad industry extended many of these same innovations (Perrow 2002). Moreover, the railroad industry, and later manufacturing industries, applied the corporate form (with dispersed owners and control in the hands of managers or investment bankers) that has been central to the analysis throughout this project. However, as with the bureaucratic form discussed above, the corporate form was not the result of a purely efficiency maximizing logic or of efforts to capitalize on economies of scale. Roy (1997) explains how, in the U.S., the public corporation originally developed as a quasi-governmental agency designed to fulfill a public task such as building a turnpike or constructing a dam. However, rather than evolving due to efficiency maximizing pressures, “governments created the corporate form to do things that rational businessmen would not do because they were too risky, too expensive, too unprofitable, or too public, that is, to perform tasks that would not have gotten done if left to the efficient operation of markets” (Roy 1997: 41).

The notion that corporations should “maximize shareholder-value” was entirely absent during the 19th century. By the mid-19th century Wall Street institutions and the federal government’s support for incorporation began to take their modern form and the fully privatized corporation (as opposed to government controlled) became more widespread as the financing and managerial lessons learned in railroads extended into other industries, especially through the power of centralized finance capital. In the late 19th and early 20th century the corporate form extended into manufacturing as the huge investment houses used their central position to organize corporate empires. For instance, by the start of the 20th
century, J.P. Morgan had used a series of mergers to organize General Electric, International Harvester, and U.S. Steel. In general, Roy (1997) argues, the legal foundation for publicly traded corporations had been established in the railroad industry but extended into manufacturing because massive wealth accumulation prompted investors to seek new outlets. Crucially, however, it was the legal definitions and institutional practices that contributed to establishing the public corporation as an organizational form and its attendant class of professional managers, rather than simple efficiency, technology, or economies of scale.

In the early 20th century, public corporations became firmly established as a dominant organizational form and professional managers had emerged as custodians of these powerful entities. By this time, increasing vertical and horizontal integration produced oligopolies that were partly the result of “managements’ and workers’ need for security and predictability” (Perrow 2002: 7). Elites at the helm of these major corporations, and coordinated through financial institutions, wielded considerable power in the early to mid-twentieth century. Mizruchi (2013) argues that many of these elites used their power and position to minimize “destructive competition” by coordinating their interests through a money trust that used mergers or joint-control through stock ownership, voting trusts, and board interlocks (Mizruchi 2013: 24).

Contemporaries worried that as corporations grew in size and integration, professional managers became increasingly powerful and entrenched while ownership became more widely dispersed. Berle and Means, referring to corporations of the 1920s, summarized these anxieties:
“As the ownership of corporate wealth has become more widely dispersed, ownership of that wealth and control over it have come to lie less and less in the same hands. Under the corporate system, control over industrial wealth can be and is being exercised with a minimum of ownership interest. Conceivably it can be exercised without any such interest: Ownership of wealth without appreciable control and control of wealth without appreciable ownership appear to be the logical outcome of corporate development” (Berle and Means 1968[1932]:66).

However, Zeitlin (1974) argues that these concerns were overstated. Many of the corporations Berle and Means analyzed were actually family controlled, had major stockholders, or were strongly affiliated with capitalist investment houses. Consequently, the image of entrenched managers engaging in unproductive empire building at the expense of shareholders may have been exaggerated. The same pattern can be explained by observing the transaction-cost reductions, market dominance, and downturn resistant diversification that corporate elites hoped to attain. As the U.S. emerged from World War II, Mizruchi (2013) argues, the corporate elite was buoyed by their vast economic power and coordinated through centralized financial institutions. Mizruchi suggests that they also represented a relatively moderate and pragmatic branch of the post-war social contract that brought together a powerful and effective labor movement and relatively activist federal governance.

In the 1970s this social contract began to fall apart and the post-war corporate elite began to fracture (Mizruchi 2013). In the context of declining corporate profits, increased international competition, and an oil crisis, many commentators began to search for the root problems of American business enterprise. Best (1990) argues that American industrial corporations were too thoroughly infused with the Taylorist and Fordist logics of mass-
production that emphasized hierarchical forms and specialist process engineers to respond to the changing economic climate. American big business was competing on cost-reductions. However, in Japan and parts of Europe, firms responded to the crisis by developing organizational structures that emphasized continual innovation and specialized high quality products. These smaller enterprises could be more entrepreneurial because they capitalized on the innovative efforts of all organizational participants and skilled workers, rather than exclusively on specialists and managers as was common in American firms. The industrial districts literature also demonstrates that high levels of efficiency and flexibility can be obtained through networks of small firms without the large bureaucratic form and standardized mass production techniques (Piore and Sabel 1984). More recently, the competitive advantages of small network organizations have been highlighted in the biotechnology industry where strategic partnerships between small-firms, universities, research institutes, and venture capital foster extensive collaboration and rapid innovation (Powell, Koput, and Smith-Doerr 1996; Powell, White, Koput, Owen-Smith 2005).

The crises of the 1970s ushered in an era of “new competition” (Best 1990) that could have prompted American organizational restructuring along the lines of Japanese or German firms that were more internationally competitive on the basis of innovation and product quality. That is not what happened. Perhaps American corporations were too imprinted with the logic of cost reduction owing to Taylorist foundational principles. Maybe the institutional contexts available in Japan or Germany allowed firms to access patient capital and high skilled labor while these contexts were not available to U.S. corporations. In any case, American corporations responded to the 1970s crises much differently than the
entrepreneurial firms Best (1990) describes. They responded by blaming managers and labor for excessive rent seeking and going after each, although organized labor was clearly an especially prominent casualty (Tope and Jacobs 2009). Rather than the entrepreneurship and flexibility that firms developed in some other countries, American corporations responded in the context of the shareholder-value movement and neoliberal reforms.

The concepts I explore in this project are associated with conflicting interests between (entrenched) managers and dispersed shareholders as well as the logics of corporate governance that underpin the shareholder-value conceptualization of the firm. Corporate governance broadly refers to the institutions and practices that allocate power among the participants in a public corporation. Normatively, governance mechanisms (such as the board of directors) are supposed to align CEO and shareholder interests. However, the concept of “corporate governance” became especially meaningful in the late twentieth century. The crises of the 1970s prompted academic commentators to argue that entrenched managers were overlooking their fiduciary responsibility to shareholders, pursuing unproductive growth over profitability, and capturing rents or prestige at shareholder expense (Fligstein and Shin 2007; Shin 2013).

With the advent of academic agency theory, a normative conception of the public corporation began to emerge that viewed corporations as a “nexus of contracts” and shareholders as the residual claimants of the firm’s cash flow (Fama and Jensen 1983; Jensen and Meckling 1976; Jensen and Ruback 1983). Additionally, powerful institutional investors began to accumulate sizable portions of firm equity in the 1980s following the creation of the portable 401(k) retirement plan and changes to the rules regulating mutual funds. These
institutional investors further promoted the shareholder-value movement (Davis and Thompson 1994). From the perspective of the shareholder-value conceptualization, the primary responsibility of a public corporation is to maximize shareholder wealth, particularly as measured by the firm’s stock price. Consequently, firms often implement a variety of provisions designed to ensure that managers are attentive to shareholder value. These might include linking CEO pay to the share price, enhancing voting rights for minority shareholders, ensuring that the take-over threat remains robust, especially for “under-valued” corporations, and inviting reputable independent auditors to review the firm’s financial statements.

As descriptive evidence of this historical trend, Figure 5.1 presents a Google ngram plot from the corpus of English language books between 1900 and 2000 (Jean-Baptiste, Shen, Aiden, Veres, Gray, Brockman, Team, Pickett, Hoiberg, Clancy, Norvig, Orwant, Pinker, Nowak, and Aiden 2011). The figure tracks the portion of total ngrams, a sequence of text, for each of four separate ngrams concerning alternative conceptualizations of the corporation. The proportion is normalized for the number of books published in a given year. The phrases “destructive competition” and “money trust” are emblematic of the earlier era during the early to mid-twentieth century. The phrases “shareholder-value” and “corporate governance” represent more contemporary concerns with shareholder-wealth and linking management incentives with shareholder interests. The figure illustrates that the two phrases associated with managerialism became prominent around 1910, reached their peaks around 1915 to 1935 and then began a slow decline. By contrast, the phrases “shareholder-value” and “corporate governance” started their assent in the late 1970s and early 1980s and
continued their assent for the next twenty years. Clearly, the shareholder-value logic, at least as captured by these phrases in the corpus of English language books, saw a drastic increase over the final years of the twentieth century.

My findings fit within the context at the end of this time-series when concerns over corporate governance and shareholder-value reached all-time peaks. The dominant structure of corporate governance during a given period reflects institutional structures, normative assumptions, and legal constructs, and in the contemporary U.S. this logic favors maximizing shareholder wealth even at the expense of other stakeholders. The logic also favors mechanisms and incentives designed to align managerial interests with shareholder interests through structures such as the take-over market, voting provisions, auditing etc. However, despite the national and historical contexts that powerfully promote the shareholder-value logic, there remains a degree of managerial entrenchment that can be explained by focusing on the inter-organizational network created by interlocking directorates. Networks spread governance orientations that both support and resist the shareholder-value movement. They also evolve in ways that allow firms to resist or conform to the dictates of the shareholder-value logic. However, despite these counter-balancing mechanisms, network embeddedness appears to provide a powerful platform for entrenched managers to resist the shareholder-value movement. As this network continues to fracture, as is observed in this study and
others (Chu and Davis 2011), managerial entrenchment may continue the decline documented here.

**The View Ahead**

Tensions between managerial entrenchment and shareholder-value oriented governance exist at the center of my analysis, but the network mechanisms affecting firm-level orientations are also embedded in historically contingent institutional environments. The key features of the contemporary U.S. context are summarized in the shareholder-value logic (Shin 2013). The legacy of dispersed capital markets, normative prescriptions against managerial entrenchment, weak labor unions, and protections for minority shareholders places the U.S. on one side of a spectrum of corporate governance systems. The shareholder-value movement of the 1980s thrust the anti-managerialist paradigm into the forefront of corporate governance and undermined corporate diversification strategies (Davis, Diekmann, and Tinsley 1994). More recently, the Sarbanes-Oxley act sought to increase shareholder protections and foster greater monitoring of corporate managers.

The rise of shareholder-oriented corporate governance, and investor capitalism more generally, has had dramatic consequences for workers and communities. Evidence indicates that shareholder-value motivations have prompted downsizing waves that have had lasting impacts on the employment structure in the United States (Budros 2002; 2004). Additionally, these pressures are associated with increased inequality as top managers are able to capture sizable rents due to their claims of maximizing shareholder-value (DiPrete, Eirich, and Pittinsky 2010). The trend is also evident in compensation patterns for financial elites (Tomaskovic-Devey and Lin 2011).
Possibly more troubling, sociologists have argued that the shift to shareholder-value oriented governance comes at the cost of increased risk and short-termism that overlooks agency theory’s core insights about long term growth and wealth. Dobbin and Jung (2010) argue that agency theory has been “misapplied” because firms have adopted strategies that increase risk (such as dediversification and debt-based financing) as well as executive incentives that maximize short-term focus (stock options), but they have not implemented the provisions that minimize risk and long-term focus (inducing executives to own corporate equity). At the moment it is not clear how these pressures will be resolved. The corporate accounting scandals of the 1990s and early 2000s did not prompt observers to question “earnings management” as an outgrowth of the shareholder-value movement (Dobbin and Zorn 2005). This might have been a moment to reevaluate some of the perverse incentives associated with the shareholder-value concept and articulate an alternative vision for corporate governance.

Sociologists, as is often the case, are discussing alternatives but this work remains preliminary. Gerald Davis, whose work influences much of the analysis in this project, has been articulating alternative organizational forms that draw on the latest developments in transportation, communication, and production technologies. In recent essays, Davis (2010; 2011; 2013) argues that we have reached the “twilight” of the major publicly traded corporation as they have become less concentrated, shorter-lived, more decentralized, and less prevalent. Today, corporations are unable (or unwilling) to provide long-term employment, security, and benefits that made them the pillars of U.S. society in the past:
“Ironically, much of the blame for the decline of the corporation belongs to the success of the shareholder capitalism movement in the United State, which effectively reduced the corporation from an institution to a “nexus of contracts.” The dominance of finance has come at the expense of the corporation” (Davis 2013: 284).

However, the tools and technology already exist to establish successful and functional alternatives to the corporation. Low cost technologies make it possible to envision alternative, local, and democratic organizations that do not require the vast financial capital that was needed for large mass-production organizations (Davis 2013).

Sociological research should continue to investigate these alternative organizational forms, but well established approaches in social network analysis and institutional theory will remain applicable. Moving forward, sociologists should investigate how alternative organizational forms are embedded in social networks. Organizational innovation could spread through network diffusion across communities. For instance, social network media (and communication technology more broadly) offer tempting avenues through which new organizational forms can be established, connect to participants, and spread to new areas.

Similarly, the corporate form has long enjoyed institutional legitimacy in the U.S., but as the form becomes less viable sociologists might observe notable episodes of contention in which actors articulate alternative organizational forms. Institutional legitimacy for alternative organizational forms, such as worker or customer cooperatives, will have important consequences for organizations seeking financing or other resources. Finally, the core insights of agency-theory, that there are agency problems associated with the separation of ownership and control, will most likely find application in new organizational forms. Even democratically organized workplaces typically include managers who coordinate activity and
engage in day-to-day planning. Sociologically informed studies might provide a useful alternative to thinking through this problem by considering how managerialist entrenchment and bureaucratic drift can affect these organizations. There have been many historical turning points that could have produced alternative organizational forms but ended up leading us to the corporation. History has yet to show whether or not the current period of crisis can set the context for future changes or if we will continue to have our wealth, work, and life chances dominated by neoliberal corporate logics.
Table 5.1: Theoretical Perspectives on Cross-national Corporate Governance

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<th>Theoretical Perspective</th>
<th>Primary Causal Factor</th>
<th>Outcomes for Corporate Governance</th>
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| Law and Economics       | Legal Protections for Minority Shareholders | • English common law tradition allowed dispersed shareholding because of minority shareholder protections. Financial Markets develop.  
                              • Civil law tradition forces concentrated ownership because a lack of minority shareholder protections increases the risk of having their rights expropriated by a controlling-shareholder. |
| Political Determinants  | Political Power of Labor | • Weak labor movement makes it easier to wed managerial incentives to shareholder interests allowing for dispersed shareholders.  
                              • Powerful labor movement increases conflict between managers and shareholders. Owners must remain concentrated to offset management-labor entrenchment. |
| Varieties of Capitalism | Institutional Complementarities | • Institutions across the economy (education, labor relations, financial markets, industrial groups etc.) cluster together across countries into liberal- and coordinated-market economies.  
                              • Firms in LMEs must maximize short term earnings to satisfy dispersed shareholders (financial markets)  
                              • Firms in CMEs have access to “patient capital” that emphasizes long term planning. |
Figure 5.1: Google Ngram Viewer for Corporate Concepts, 1900-2000
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APPENDIX
Appendix A

Appendix A

The corporate governance index documents the provisions that influence shareholder rights and managerial autonomy/entrenchment. This measure comes from Gompers, Ishii, and Metrick’s (2003) paper on governance provisions and equity pricing and is widely used in research on corporate governance, finance, and mergers and acquisitions (Kadyrzhanova and Rhodes-Kropf 2011). The main data source comes from Risk Metrics, a database compiled from corporate bylaws and charters, proxy statements, annual reports, and 10-K and 10-Q documents filed with the SEC. The database tracks 22 firm level provisions and 6 state take-over laws. Duplication between state laws and firm level provisions leaves 24 unique provisions in the index. The index is arranged so that high scores indicate more managerial autonomy and lower scores indicate greater shareholder rights.

Governance provisions and state laws indicate the balance of power within corporations in important ways. In general, each of the provisions gives management a tool for resisting hostile bids or curtailing shareholder activism, thereby enhancing management entrenchment and weakening the rights of large shareholders. Provisions might allow firms to delay or prevent hostile bidders or limit shareholder voting rights in elections and charter and bylaw amendments. Provisions and laws might also insure officers against liability or provide for compensation following termination. Gompers, Ishii, and Metrick (2003) find that these provisions tend to cluster within firms, suggesting significant between firm differences in the balance of power between investors and management. For the most part, the governance index is the sum of one point for the existence of each provision. However, two provisions in
the index actually enhance shareholder rights, rather than managerial entrenchment. Secret ballots and cumulative voting provisions, discussed below, are typically proposed by shareholders and opposed by management (Gompers, Ishii, and Metrick 2003). These two provisions are also negatively correlated with many of the other governance provisions. Therefore, the index includes one point when firms do not have each of the provisions. In this appendix I describe the provisions included in the index and discuss their impact on shareholder rights. This appendix draws heavily on Gompers, Ishii and Metrick’s discussion of the index as well as the broader literature on corporate governance.

1. Antigreenmail – Greenmail refers to a practice in the corporate take-over market that was especially common during the 1980s and early 1990s. Typically, during a hostile take-over an investor attempts to make large amounts of money by acquiring a controlling stake in an undervalued target firm and replacing its management or selling off its assets. However, rather than completing the hostile take-over, the greenmailer offers to sell shares back to the target company at a premium over the market price in exchange for signing a standstill agreement. Greenmail might be thought of as a ransom payment for an agreement not to carry out a hostile bid. Antigreenmail provisions typically prevent such a tactic unless the same repurchase offer is made to other shareholders or approved by a vote. As with other take-over defenses and bidder elimination strategies, antigreenmail provisions are thought to serve management interests at the expense of shareholders as they discourage the accumulation of large blocks of stock because they close one source of exit from the firm. Furthermore, take-over defenses in general are thought to inhibit the take-over
market that disciplines management and prevents management entrenchment. Some research suggests that share prices decline after management resists a takeover (Shleifer and Vishny 1986). Five states also have antigreenmail laws which were coded into the index. Gompers, Ishii and Metrick (2003) find that antigreenmail provisions are positively correlated with 18 out of the other 21 firm-level provisions. Therefore, they argue that firms and states perceive antigreenmail as a take-over defense and code it accordingly as a decrease in shareholder rights.

2. **Blank check** preferred stock is a type of stock whose terms and conditions (e.g. voting rights, dividends, and conversion rights) are determined by the board of directors without separate shareholder approval. Typically, blank check preferred stock is used as a take-over defense and delay strategy. For instance, blank check preferred stock might be quickly converted into common stock and issued to a friendly shareholder, without the approval of other shareholders, raising the cost of a hostile takeover (Gaughan 2007).

3. **Business combination laws** limit the transactions, such as asset sales or mergers, between a raider and a target firm unless the transaction is approved by the board of directors. For instance, companies may not merge or conduct major transactions with a company owned by a shareholder for two to five years after the shareholder’s stake passes a specified threshold. Research on corporate governance and law suggests that business combination laws, as with other anti-takeover laws, enhance management entrenchment by limiting the effects of disciplinary take-overs (Bertrand and Mullainathan 2003). Furthermore, firms at greater risk of shareholder activism, those
large blocks of institutional shareholders or venture capital backing, tend to prefer not
to incorporate in states with antitakeover statues—again suggesting that these laws
curtail shareholder interests (Cohen 2012). In 1998, the first year of this study,
business combination laws were in place in 27 states. In Delaware, the most
prominent state of incorporation, it was the only state takeover law.

4. **Bylaw** and **Charter** amendment limitations are governance provisions that restrict the
process of amending the corporate charter and bylaws. Limitations might require a
supermajority of shareholders to agree to an amendment—often between two-thirds
and 90% of shareholders and typically exceeding the attendance of the annual
meeting. Amendment limitations might also render certain parts of a charter
unamendable or completely eliminate shareholders’ ability to amend bylaws. In
general, these provisions restrict shareholders’ rights with regard to bylaw and charter
amendments and make it easier for the management team to retain control of the
charter and bylaw provisions.

5. Control-share **cash-out laws** make take-overs more costly by “enabling shareholders
to sell their stakes to a “controlling” shareholder at a price based on the highest price
of recently acquired shares. This works something like fair-price provisions
(discussed below) extended to nontakeover situations” (Gompers, Ishii, and Metrick
2003: 146). Effectively, this discourages bidders who do not have the resources for a
100% stock acquisition (Gaughan 2007:95)

6. A **classified board**, or staggered board, is a means for preventing hostile takeovers by
organizing the board of directors into different classes with overlapping terms. Prior
to the take-over wave of the 1980s boards typically served annual terms set to expire at the same time. However, under staggered boards a firm only replaces a portion of the board during any given election. Consequently, a take-over team could not succeed at electing a majority of the board in a single year. Staggered boards are an important delay tactic in acquisition defenses and are fairly common today (Kaen 2003).

7. Executive **Compensation plans** sometimes include changes-in-control provisions which allow executives to accelerate bonus payouts or cash out options when a change in firm-control occurs. These provisions might be triggered by different events such as by the sale of more than 50% of company stock or a change in the majority of the board members. Generally, these provisions provide some advantages to executives in the event of a merger or acquisition.

8. **Control-share acquisition laws** – see supermajority below

9. “Director indemnification **contracts** are contracts between the company and individual officers and directors indemnifying them from certain legal expenses and judgments from lawsuits pertaining to their conduct”(Gompers, Ishii, and Metrick 2003: 147). Note that firms might include indemnification as a part of individual contracts as well as provisions in the corporate charter and bylaws (discussed below).

10. **Cumulative voting** provisions signal an increase in shareholder rights. These provisions typically allow shareholders to concentrate their votes, thereby making it easier for minority shareholders to elect directors. Cumulative voting provisions allow shareholders to allocate their votes however they wish, based on the number of
shares they own. For instance, if a shareholder owns 10,000 shares of a company with 100,000 outstanding shares they hold 10 percent of the voting rights. Now suppose the corporation has nine directors on the board. In a corporation without cumulative voting, the shareholder would have 90,000 votes that must be spread evenly among nine candidates—10,000 for each person the shareholder votes for. In a corporation with a cumulative voting provision the shareholder could take the entire 90,000 votes and award them to a single candidate (Kaen 2003: 181). Cumulative voting and secret ballots (described below) are two provisions coded as an increase in shareholder rights. Each adds a point to the governance index when the provision is absent.

11. **Directors’ duties** provisions, also called expanded constituency provisions, “allow directors to consider constituencies other than shareholders when considering a merger. These constituencies may include, for example, employees, host communities, or suppliers. This provision provides boards of directors with a legal basis for rejecting a takeover that would have been beneficial to shareholders” (Gompers, Ishii, and Metrick 2003: 147). Thirty-one states also have directors’ duties laws that similarly expand constituencies beyond shareholders (Cohen 2012).

12. **Fair-price** provisions are designed to ensure fairness to stock-holders during a two-tier tender offer. A tender offer is an acquisition strategy in which an individual or group offers to buy shares of a public corporation from shareholders at a price significantly above the current market price. Typically, tender offer bids are publicized through newspaper ads or other public media through which the bidder appeals directly to shareholders rather than negotiating with the board of directors.
Two-tier offers were a particularly popular variant during the 1980s. These occur when a hostile bidder sets an initial high price for the tender offer set to expire at a given deadline. After the deadline those who sell their stock to the bidder get a second lower price (Reed and Lajoux 1999). Fair-price provisions are supposed to protect shareholders in the event of a successful tender offer by requiring a bidder to offer all shareholders that did not decide to sell the same price as shareholders who did accept the offer (Gaughan 2007). “The goal of this provision is to prevent pressure on the target’s shareholders to tender their shares in the front end of a two-tiered tender offer, and they have the result of making such an acquisition more expensive” (Gompers, Ishii, and Metrick 2003:148). A majority of states also have **fair-price laws** which work similarly to the firm level provisions.

13. **Golden Parachutes** are a type of compensation agreement between a company and upper level management that provide cash or other compensation in the event of termination, demotion, or resignation following a merger or take-over. Golden parachutes might also help reduce managements concerns about job security and allow them to negotiate higher take-over premiums for shareholders. Lambert and Larker (Lambert and Larcker 1985) found that stock prices rose 3% following the announcement of golden parachute adoption. However, golden parachutes may prevent takeovers by increasing their cost. Gompers, Ishii and Metrick argued that in any event the provisions support managerial entrenchement and a decrease in shareholder rights. “In this case, the ‘right’ is the ability of a controlling shareholder to fire management without incurring an addition cost” (2003:148). Golden
parachutes are also highly correlated with the other firm level provisions that restrict shareholder rights. Furthermore, the term “golden handcuffs” has been used to denote the belief that golden parachutes only enable management entrenchment at stockholder expense. By the early 2000s these provisions led to huge payouts to CEOs whose companies were sold, whether or not the company was performing well, giving rise to CEOs who join underperforming companies in an effort to “flip” them (Gaughan 2007:195-196).

14. Director indemnification provisions are similar to the indemnification contracts discussed above but instead use the corporate bylaws and charter to insure officers against legal expenses and judgments. Firms may have both indemnification provisions and contracts.

15. “Limitations on director liability are charter amendments that limit directors’ personal liability to the extent allowed by state law.” (Gompers, Ishii, and Metrick 2003:149) These provisions typically reduce liability for breaches of the duty of care, which describes the expectation that directors exercise “due diligence” when making decisions (Kaen 2003). In other words, the duty of care requires directors to stay informed about company dealings and to make the necessary inquiries to become informed. Liability provisions limit director liability with regard to this fiduciary duty. In practice, staying apprised of corporate activities is quite difficult so many directors must delegate functions or rely on others, such as officers and managers, to stay informed (Colley, Doyle, Logan, and Stettinius 2005). Therefore a limitation of liability provision protects directors from liability under such an arrangement.
Liability limitations do not extend to breaches of the duty of loyalty, which require directors to put shareholder interests ahead of their own, or to violations of the law and intentional misconduct such as fraud.

16. **Pension parachutes** provisions are a type of take-over defense that require surplus cash in the company pension fund to remain the property of the pension fund and only to be used for fund participants’ benefits. In the event of a hostile take-over, this provision prevents the raiding firm from using extra assets in the target’s pension fund to finance the acquisition.

17. **Poison pills** are a significant type of take-over defense that spread rapidly through the interlock network during the 1980s (Davis 1991). Poison pills are a type of security issued by a firm in order to make them less attractive as a take-over target and as a defense against a hostile bid. Poison pills generally give their holders the right to purchase preferred shares of stock below market value thereby diluting the acquirer’s voting power or making the acquisition prohibitively expensive. Poison pills come in many different variants that either allow their holders to purchase shares in the acquiring company or in the target company (Gaughan 2007:176). Furthermore, poison pills can be passed in less than a day’s notice, making them a popular and attractive take-over defense (Gompers, Ishii, and Metrick 2003: 149).

18. “Under a **Secret ballot** (also called confidential voting), either an independent third party or employees sworn to secrecy are used to count proxy votes [shareholder votes sent by a mailed ballot which are then cast by proxy during the annual meeting], and the management usually agrees not to look at individual proxy cards” (Gompers,
Ishii, and Metrick 2003:149). These provisions reduce management pressure and influence over shareholders, especially in the event that a large equity blockholder brings a proxy fight against management (Kaen 2003). As with cumulative voting (discussed above), secret ballots enhance shareholder rights and reduce managerialism. Therefore, these add an additional point to the governance index when the provision is absent for a given corporation.

19. Executive **severance** agreements compensate executives upon termination. However, unlike golden or silver parachutes, they are valid even if a change of control has not occurred.

20. **Silver parachutes**, like golden parachutes, provide compensation to CEOs dismissed after a change in control. However unlike golden parachutes a larger number of the target firm’s employees, including lower level employees, are eligible for severance benefits. These might also be called “tin parachutes” (Reed and Lajoux 1999:389) and are fairly unusual as compared to golden parachutes (Gaughan 2007). As with golden parachutes, silver parachutes are thought to make an acquisition target unattractive and prohibitively expensive.

21. **Special meeting** requirements make it more difficult for shareholders to call a special meeting by increasing the level of shareholder support necessary to call such a meeting. In effect this lengthens a proxy fight (when a group of shareholders try to take control of the board of directors or enact changes to corporate charter and bylaws) because participants have to wait until the regular annual shareholder meeting in order to vote.
22. “Supermajority requirements for approval of mergers are charter provisions that establish voting requirements for mergers or other business combinations that are higher than the threshold requirements of state law (Gompers, Ishii, and Metrick 2003: 149). Typically, this threshold is set higher than the attendance of the annual meeting. Supermajority provisions are an important antitakeover defense because they make it difficult for a firm to approve mergers. They are particularly effective as a defense when management or management supporting groups own enough stock to make merger approval more difficult. “For example, if management and an employee stock ownership plan (ESOP) hold 22% of the outstanding stock and the corporation’s charter requires 80% approval for mergers, it will be very difficult to complete a merger if the 22% do not approve” (Gaughan 2007:186). These provisions are also similar to control-share acquisition laws that require a shareholder vote to grant a new large shareholder voting rights and they contribute to an antitakeover legal environment within a state (Bertrand and Mullainathan 2003).

23. “Unequal voting rights limit the voting rights of some shareholders and expand those of others” (Gompers, Ishii, and Metrick 2003:150). There are several varieties of unequal voting rights. For instance, in some cases shareholders who have held stock for a longer period of time are given more votes per share than recent shareholders. In another variant, shareholders who exceed a certain ownership threshold, such as 10 or 20%, are subject to limited voting power.

24. Some provisions impose limitations on action by written consent thereby reducing or eliminating one avenue of shareholder activism. Under written consent procedures
shareholders can attempt certain goals, such as amend bylaws, remove directors, or fill board vacancies, without having to wait for the annual shareholders meeting or hold a special shareholders meeting. However, limitation provisions might require unanimous consent, raise the threshold for written consent above simple majority, or eliminate the right to take action by written consent altogether. These provisions work similarly to limitations on special meetings in that they can extend a proxy fight and make it more difficult for shareholders to replace board members or approve a merger (Gompers, Ishii, and Metrick 2003: 150).