



## Do organizational and political–legal arrangements explain financial wrongdoing?<sup>1,2</sup>

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### Abstract

The 2008 financial crisis was a systemic problem with deep-rooted structural causes that created opportunities to engage in financial malfeasance, a form of corporate wrongdoing. However, few quantitative studies exist on the effects of organizational and political–legal arrangements on financial malfeasance. In this paper, we examine the effects of organizational and political–legal arrangements that emerged in the 1990s in the FIRE sector (i.e., financial, insurance, and real estate) on financial malfeasance. Our historical contextualization demonstrates how changes in the political–legal arrangements facilitate the emergence of new corporate structures and opportunities for financial malfeasance. Our longitudinal quantitative analysis demonstrates that US FIRE sector corporations with a more complex organizational structure, larger size, lower dividend payment, and higher executive compensation are more prone to commit financial malfeasance.

**Keywords:** Corporate wrongdoing; financial malfeasance; FIRE sector; organizational; political–legal

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Corporate financial malfeasance associated with the 2008 financial crisis invoked public attention and outcry. Yet, little is known about the organizational and political–legal arrangements that enable corporate actors to engage in financial malfeasance. Drawing on theories in criminology, organizational, economic, and political sociology, this study aims to explain the mechanisms that provide motives and opportunities for managers to engage in financial malfeasance. In accordance with Sutherland’s (1949) seminal observation on differential social structure, we examine whether organizational and political–legal arrangements create opportunities for corporate financial malfeasance. We define *financial malfeasance* as acts that violate (1) a law or the intent of a law established by government agencies responsible for ensuring the integrity of the financial system, and (2) the public’s understanding of the business code of

conduct that consumers and investors use when making financial decisions (Prechel 2016: 296; Prechel and Morris 2010). We emphasize malfeasance rather than crime because our dependent variable measures alleged violations filed by the US Security and Exchange Commission where virtually all cases are settled without admission of wrongdoing (see below). Thus, we are examining behaviours that are presumptively illegal.

Our empirical analysis differs from previous research in important ways. First, most quantitative research on financial malfeasance narrowly focuses on misrepresentation of corporate financial statements (Harris and Bromiley 2007; Pfarrer et al. 2008; Prechel and Morris 2010). Second, much corporate malfeasance research lumps together different types of wrongdoing (i.e., environmental pollution, anticompetitive actions, false claims, and fraud) (Clinard and Yeager 1980; Mishina et al. 2010) or includes corporations from multiple economic sectors in the same analysis (Clinard and Yeager 1980; Prechel and Morris 2010).

In contrast, our analysis focuses on a single category of white-collar wrongdoing in one sector: financial malfeasance in the FIRE sector (i.e., finance, insurance, and real estate). We focus on a single economic sector because (1) much organizational behaviour is industry specific and (2) the FIRE sector was arguably at the centre of the 2008 financial crisis. Although industrial heterogeneity calls for a sector-specific analysis, few studies of corporate wrongdoing focus on the financial sector because prior to the 2008 financial crisis it was considered to be extensively regulated (Schnatterly 2003: 592). We now know that oversight agencies failed to identify financial malfeasance in the FIRE sector and the behaviour of the largest corporations in this sector triggered the 2008 financial crisis that dragged the economy into recession (Stiglitz 2010; Madrick 2011). Furthermore, research suggests that organizational wrongdoing is more likely to occur in rapid-growth sectors (Clinard and Yeager 1980; Tillman and Pontell 1995) and the FIRE sector was certainly one of them. It is widely understood that the FIRE sector provided the human and social capital that facilitated financialization of the economy and captured a larger share of corporate revenues and profits in recent years (Krier 2005; Davis 2009; Krippner 2011). This rapid growth was, in part, an outcome of re-regulation of the political–legal arrangements in which the FIRE sector is embedded. These new arrangements, in turn, permitted new financial markets to emerge and new financial instruments to flourish.

We consider financial malfeasance a type of *corporate wrongdoing*: violations committed by a business entity or by individuals identified with the business. Corporate wrongdoing is organizational wrongdoing that occurs in the context of complex relationships and expectations among shareholders, boards of directors, executives, and managers in parent companies, divisions, subsidiaries (Clinard and Yeager 1980: 16–17), and more recently in off-balance-sheet partnerships (Prechel 2003). We focus on corporate financial malfeasance because

such violations distort market signals, disrupt the functioning of the financial system, and mislead investors. Moreover, recent distortion of market signals had widespread effects on society. In 2004, more than 50 per cent of US families were shareholders either through direct ownership of corporate securities or indirectly through retirement and other mutual funds (Kennickell, Starr-McCluer and Surette 2003). By 2009, US households lost \$14 trillion in wealth (Liu 2013).

This paper is divided into three sections. The first part presents the theoretical framework, which focuses on the effects of financial incentives, resource dependence, and organizational structure on financial malfeasance. Second, we contextualize the statistical analysis by summarizing changes in the political–legal arrangements that permitted the expansion and emergent organizational characteristics in the FIRE sector. The third section develops and tests hypotheses from this theoretical framework and historical contextualization.

### **Theoretical framework: organizational political economy**

Organizational political economy broadens existing theory by integrating differential social structure theory (Sutherland 1949) with perspectives in organizational, economic, and political sociology. This framework maintains that dimensions of the social structure are intrinsically intertwined and cannot be understood in isolation of one another (Weber 1921 [1978]; Polanyi 1944 [2001]). Unfortunately, as research in organizational studies becomes increasingly fragmented into different academic disciplines and subfields within disciplines, less attention has been given to the interrelationships among dimensions of increasingly large and complex organizations (Prechel 2000; Zald and Lounsbury 2010) and their relationship to corporate wrongdoing.

To overcome this shortcoming, we focus on how organizational and political–legal arrangements interact to create conditions that permit managers to engage in wrongdoing. Our framework maintains that the study of organizational wrongdoing should be contextualized within the prevailing political and economic arrangements because regulatory policy, enforcement structures, economic conditions, and organizational characteristics are all important factors that affect corporate behaviour. This theoretical logic suggests that the historical specific form of organizational and political–legal arrangements that emerged in the 1990s and 2000s create incentives, dependencies, and opportunities for social actors to engage in financial malfeasance.

Incentives and dependence exist at both the organizational and individual levels. At the organizational level, dependence on external shareholders who control critical resources (Pfeffer and Salancik 1978) create incentives for managers to engage in financial malfeasance to meet shareholder demands. Shareholder activism emerged during the 1980s and 1990s among mutual funds,

pension funds, and large individual investors that owned corporate securities (Hill 1995). By the mid-1980s, institutional investors and wealthy individuals began to pressure management to increase return on investment by tying executive compensation to shareholder value (Useem 1996; Krier 2005). Advocates of this organizational arrangement maintain that tying executive compensation to corporate performance aligns the interests of agents to principals and prompts managers to behave more like owners (Jensen and Meckling 1976). However, this performance-based compensation strategy assumes that (1) organizations consist of individuals and groups who pursue their own interests through *legitimate* means, and (2) greater monetary rewards create the *kinds of incentives* that motivate managers to make decisions that advance the organizational goal of increasing shareholder value (Prechel and Zheng 2011). By the 1990s, executive compensation was tied to performance in most large corporations (Hall and Liebman 1998) and this form of compensation increased throughout the next decade (Davis 2009).

However, when organizations establish incentives designed to ensure that its members conform to external expectations, these arrangements may decouple means from ends (Cyert and March 1963 [1992]) and create perverse incentives to engage in financial malfeasance. Therefore, we take a critical approach to performance-based compensation and maintain that financial incentives can have the unintended consequence of encouraging managers to use *illegitimate* means to achieve organizational goals. When executive compensation is tied to organizational performance and increases at high rates as occurred during much of the 1990s and 2000s, these conditions create perverse incentives for managers to engage in illegitimate means to pursue such ends. The threat by large investors to disinvest from the firm or withhold future investment for lacklustre performance creates an additional incentive to pursue illegitimate means to increase shareholder value. In short, there is no guarantee that the incentive structure will ensure managers employ legitimate means to increase shareholder value. It is plausible that these incentives increase the probability of decoupling means from ends and encourage managers to engage in financial malfeasance to increase shareholder value in ways that benefit themselves at the expense of investors, especially small investors.

Although economic incentives matter, social action is also affected by the social structure in which the actor is embedded. Social structures affect both the opportunity to commit wrongdoing and the type of wrongdoing that is viable. We focus on two dimensions of the social structure that affect the opportunity to engage in corporate wrongdoing: (1) the political–legal arrangements in which corporations are embedded, and (2) the organizational arrangements in which managers are embedded.

Organizational size and complexity are two critically important organizational characteristics that affect the opportunity to engage in corporate wrongdoing because bounded rationality associated with them contribute to

*asymmetric information*: one party has access to information relevant to a financial transaction and others do not (Granovetter 1973; Brass, Butterfield and Skaggs 1998; Stiglitz 2010). Social network theorists maintain that *structural holes* – separations between nonredundant contacts in a social structure – result in asymmetric information (Burt 1992). This line of research was developed to show how entrepreneurial managers can take advantage of structural holes in their personal network to advance their careers through legitimate means (e.g., a producer in a market negotiating with two suppliers unknown to each other). When social structures are rich in structural holes, social actors obtain advantages and enjoy a higher level of autonomy (i.e., lack of constraints). Such conditions translate into social capital (i.e., relationships among social actors) and create opportunities to benefit from the existing social structure. The capacity of social actors to bridge structural holes and act on information asymmetry entails human capital (e.g., knowledge and skills) and, more importantly, social capital (e.g., relationships with another social actor) (Burt 1992; Granovetter 1973; Corra and Willer 2002).

Whereas conceptions of structural holes among network research focuses on the legitimate exploitation of information asymmetries within or between organizations, recent theory and research expand the concept of structural holes in two ways (Prechel and Morris 2010; Prechel 2016; Prechel and Hou 2016). First, changes in organizational and political–legal arrangements can establish structural holes that create opportunities to commit wrongdoing. For instance, structural holes are created when organizational structures become larger and more complex, which typically permit new behaviours when a corresponding change does not occur in the political–legal arrangements. Second, structural holes are created when the political–legal arrangements replace oversight agencies with a purported efficient market that may fail to transmit crucial information to all participants and to sanction participants who break rules. That is, structural holes *can* emerge when two parts of the social structure are intertwined and (1) a change occurs in one part of that social structure without a corresponding change in the other, or (2) it is assumed that the market fills the same or equivalent function as a previous part of the social structure (e.g., government oversight). These structural holes provide managers with new-found autonomy and opportunity to engage in financial malfeasance and make wrongdoing harder to identify.

In summary, this framework extends structural-hole theory to include *illegitimate* managerial behaviour that exploits information asymmetry to gain resources and benefits that advance managers' careers and incomes. Illegitimate exploitation of structural holes may involve violating the intent of a regulation or law such that corporate financial status is misrepresented or risks are concealed. Illegitimate behaviours may also include capital transfers among corporate entities that conceal losses or place high-risk financial instruments in corporate entities intended for low-risk investments. Absent information on

capital transfers, neither investors nor oversight agencies accurately understand corporations' financial condition. As a result, adherence to a law or a rule (or their intent) is dependent on trust (Pixley 2002). However, empirical events demonstrate that trust is an inadequate mechanism to ensure compliance. To illustrate, the exposure of financial malfeasance at Goldman Sachs and other financial firms following the 2008 financial crisis and the later revelation of JP Morgan's multi-billion dollar trading loss suggest that changes in organizational and political-legal arrangements created structural holes in the FIRE sector that were exploited by managers to advance their personal agendas (e.g., career and income). These cases suggest that governance structures (e.g., accounting, auditing, reporting and monitoring systems) contain structural holes that create opportunities for financial malfeasance and that trust is insufficient to ensure that financial transactions are conducted through legitimate means.

### **Historical context: changes in political-legal arrangements**

Since the 1950s, large national banks attempted to overcome restrictions on interstate banking that limited their entrance into new markets (Ingham 1999; Davis and Mizruchi 1999). The bank lobby became more politically active when declining profits, escalating debt, and high interest rates in the 1970s and early 1980s further undermined their capital accumulation opportunities. Their primary agenda was to extend the outside parameters of the political-legal arrangements in which national banks were embedded. A central focus of the bank lobby was to repeal two dimensions of corporate-state relations: (1) the New Deal Banking Act of 1933 known as the Glass-Steagall Act that separated the financial activities of commercial and investment banks, and (2) the 1956 Holding Company Act that established barriers to mergers between banks and an insurance companies. These laws were intended to limit banks' speculative investment with depositors' money, prohibit national banks from engaging in business practices prone to conflicts of interest, and protect small banks from anti-competitive practices of large national banks.

The primary focus of the banking lobby was to redefine their political embeddedness in ways that allowed them to diversify into multiple financial markets. President Reagan was receptive to these arguments and in 1987 replaced Paul Volcker with Alan Greenspan as the chairman of the Federal Reserve Bank. In contrast to Volker, Greenspan embraced the neoliberal doctrine that markets are self regulating and government regulation undermines market efficiencies. By the 1990s, decisions by the Federal Reserve Bank and the Treasury Department weakened key provisions in the Glass-Steagall Act and the Bank Holding Company Act. These restrictions were formally eliminated in 1999 when Congress passed the *Gramm-Leach-Bliley Financial Services Modernization Act*, which was the final step in a series of legal changes that

permitted banks and other firms to merge with investment banks and insurance companies to create the FIRE sector (Prechel and Hou 2016). These corporations were permitted to provide a wide range of financial services including loans, stock analysis, insurance, underwriting of stocks and bonds, and advising on mergers and acquisitions.

In a related policy arena, the energy industry maintained that the political–legal arrangements governing derivatives undermined the development of energy markets and its capacity to meet the nation’s growing energy needs. Although oversight agencies and members of Congress argued that the increased use of derivatives created additional risks in capital markets, FIRE sector corporations joined energy companies and launched a well-financed lobby campaign to allow derivatives futures to be traded on unregulated market (Prechel and Zheng 2011). After several failed attempts to pass this legislation and with little discussion in Congress, Republican leaders in the House attached this legislation to the large *Consolidated Appropriations Act for FY2001*. This bill passed with a strong majority in the House and by unanimous consent in the Senate. The commodities provision exempted many high-risk derivative trades from regulation by permitting corporations to create over-the-counter derivatives trading exchanges inside the firm that were removed from public scrutiny and government oversight (US Congress 2002; Financial Crisis Inquiry Commission 2011). Taken together, the way in which the organizational and political–legal arrangements were assembled created opportunities for managers to trade derivatives that were not subject to external oversight.

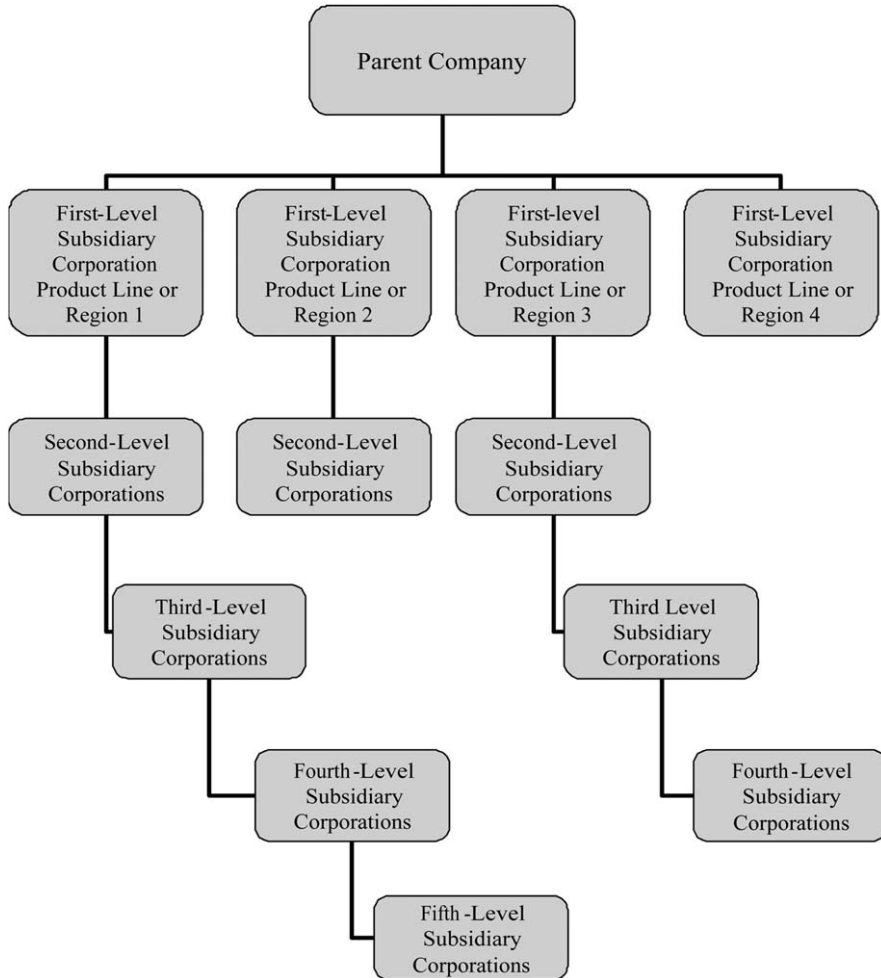
In addition to information asymmetries caused by trading in unregulated markets, some of the new derivatives (e.g., inverse floaters) were virtually impossible for clients and many financial managers themselves to understand (Johnson and Kwak 2010: 80). Whereas these organizational and political–legal arrangements created opportunities for managers to engage in financial wrongdoing, high profits in this market created incentives for managers to engage in high-risk and sometimes illegal financial transactions.

## Hypotheses

The following hypotheses are developed from the theoretical framework and historical contextualization.

### *Organizational complexity and opportunity*

FIRE sector corporations tend to be structured into a multilayer-subsidary form, which consists of multiple subsidiaries and layers of subsidiaries. The multilayer-subsidary form has a parent company at the top of the corporate hierarchy that operates as a financial management company, with two or more levels of subsidiary corporations embedded in it (see Figure I). *Subsidiaries* are

**Figure 1:** *Multilayer-subsidary form*

legally independent companies that parent company management exercises ownership control over by owning more than 50 per cent of their stock. This corporate form became viable after a little know provision was included in the 1986 Tax Reform Act that eliminated the tax on capital transfers among legally independent corporate entities (Prechel and Boies 1998). After the capital transfer tax was repealed, most corporations changed from the multidivisional form where the corporate entities (i.e., central office, divisions) are all part of a single legal company (Chandler 1962) to the multilayer-subsidary form where the parent company holds ownership control over a complex of legally independent subsidiary corporations (Prechel 2000).



One of the primary characteristics of the multilayer-subsidary form is that it allows management to organize different product lines in legally independent corporations, which creates a complex system (Perrow 2007) where the number of connections among corporate entities is high. By 2004, 92 per cent of FIRE sector corporations in the Fortune 500 were structured under the multilayer-subsidary form and most of these firms are *complex systems*: the mean number of subsidiary companies organized under each parent company in our study group is 53.

The embeddedness of these complex organizations in the prevailing political–legal arrangements created information asymmetries between corporate managers and oversight entities. On the one hand, eliminating the capital transfer tax simultaneously removed the paper trail on many internal financial transactions. On the other, ambiguity in financial and accounting rules in a multilayer-subsidary firm created opportunities for management to engage in behaviours that were poorly understood by outsiders including shareholders. For example, these political–legal arrangements provide managers with discretion to determine the value of its wholly-owned subsidiaries (i.e., those that do not sell stock on securities markets). Whereas the value of subsidiaries that sell securities to the public is influenced by the market, no such transparency exists for wholly-owned subsidiaries. As a result, this corporate form creates opportunities for managers to manipulate their balance sheets by raising the valuation of a wholly-owned subsidiary in order to increase the value of the parent company, which is derived, in part, from its subsidiaries' stock value (Prechel 2003: 332).

In short, there are more opportunities for firms with a larger number of subsidiaries to engage in financial transactions and those transactions are difficult to monitor by third parties. Therefore, we expect that parent companies with more subsidiary corporations are more likely to engage in financial malfeasance. This structural complexity hypothesis states:

*Hypothesis 1: Parent companies with more subsidiaries are more likely to commit a securities violation.*

### ***Organizational size and opportunity***

Organizational political economy suggests that larger organizations are more likely to engage in wrongdoing (Clinard and Yeager 1980; Baucus and Near 1991) for several interrelated reasons. First, larger organizations have more expansive networks where they conduct financial transactions. Second, deterrence for financial malfeasance in large corporations is often modest in relationship to their capacity to pay, which may affect social actor's perceptions of the cost and benefits of engaging in illegal behaviour (Vaughan 1998). Third, larger corporations have the political power to engage in deviant behaviour without

suffering adverse consequences (Yeager 1991; Mokhiber and Weissman 1999). For example, the cozy relationship between corporations and the government creates little reason for executives to fear reprisals from government enforcement agencies. In fact, the government has a long record of providing financial assistance to large corporations in industries that are considered important to capitalist growth and development (e.g., airline, automobile, steel, and railroad). For these reasons, our organizational size hypothesis maintains that larger parent companies engage in financial malfeasance at a higher rate because they have more opportunities to do so.

*Hypothesis 2: Larger corporations are more likely to commit a securities violation.*

### ***Capital dependence and shareholder value***

Although the subsidiary structure permits management to raise capital by issuing securities in them, this strategy creates another layer of capital dependence that makes corporations more dependent on external capital markets. Moreover, because large investors have so much capital invested in individual corporations, it is not always viable for them to shift their capital to other investment outlets (Useem 1996). This relationship creates incentives for investors to be more proactive in pressuring corporate managers to increase shareholder value.

In addition, large investors and trade associations (e.g., the Council of Institutional Investors) lobbied to change the regulations governing investor-manager relations. This political strategy succeeded in 1992 when the Securities and Exchange Commission (SEC) and the Financial Accounting Standards Board (FASB) relaxed the rules governing communication between managers and investors. This change was followed by a rapid increase of the number of corporations with institutional relations departments, which created more opportunities for large investors to communicate their interests to corporate executives (Krier 2005). Together, greater dependence on equity financing and the organizational and political-legal arrangements that permitted greater communications between investors and managers increased the power of institutional investors to pressure corporate management to increase shareholder value.

To test the effects of investors on financial malfeasance, we used two measurements of shareholder value. The theory suggests that companies with lower dividend payments and lower change in share price are more likely to engage in financial malfeasance in order to generate a higher return for investors in the next fiscal cycle. These hypotheses state:

*Hypothesis 3: Dividend per share is negatively associated with corporations' likelihood of committing a securities violation.*

*Hypothesis 4: Share price increase is negatively associated with corporations' likelihood of committing a securities violation.*

### ***Incentives to engage in financial malfeasance: executive compensation***

At the beginning of our study period (1995), performance-based executive compensation had been adopted by most corporations to align the interests of managers with owners (Hall and Liebman 1998). Large investors were among the strongest advocates of performance-based compensation because they believed that it would increase the value of the corporate stock in their portfolios (Krier 2005; Dass, Massa, and Patgiri 2005). Although the benefits to management were not initially understood, managers soon turned the goal of increasing shareholder value into a justification for massive increases in their compensation (Boyer 2010: 231). Once management realized that they could benefit from this arrangement, they joined large investors and argued that increasing executive compensation would align managers' and shareholders' interests and encourage managers to behave like owners.

The incentives from performance-based compensation were substantial; the salary and bonus of the highest paid executives of Fortune 500 corporations more than doubled during our study period from \$1.4 million in 1995 to \$2.9 million in 2004 (see Prechel and Zheng 2011). Compensation was even higher for FIRE sector executives where it increased from more than \$2.2 million in 1995 to almost \$3.7 million in 2003 (Table I). The amount of stock options granted to executives also increased during our study period. Whereas salary and bonuses create incentives for executives to increase return on investment (ROI) in the short term, stock options create incentives for managers to maximize ROI in the medium to long term thereby increasing their own compensation. Our executive compensation hypotheses state:

*Hypothesis 5: The value of salaries and bonuses of the highest paid executive is positively associated with the likelihood of committing a securities violation.*

*Hypothesis 6: The value of stock options granted to the highest paid executive is positively associated with the likelihood of committing a securities violation.*

## **Research design**

### ***Sample***

The study group consists of the largest US publicly traded Fortune 500 corporations in the FIRE sector in 2001. This study group was followed backward to

**Table 1:** Means/per cent and standard deviation for variables used in multivariate analyses in selected years

Variables used	1995	1999	2003
<i>Dependent variable</i>			
Percentage of firms with wrongdoing	2.1 (14.6)	16.7 (37.6)	11.3 (31.9)
<i>Independent variables</i>			
Number of subsidiaries	55.4 (50.1)	50.6 (50.1)	61.4 (67.6)
Number of subsidiaries (log)	3.6 (1.1)	3.4 (1.1)	3.5 (1.2)
Total assets (in millions)	39,136.0 (45,838.0)	85,832.2 (133,632.9)	147,293.1 (221,770.6)
Total assets in millions (log)	9.7 (1.5)	10.5 (1.5)	10.9 (1.6)
Dividend per share (in dollars)	0.5 (0.5)	0.6 (0.4)	0.7 (0.6)
Change in stock price (per cent)	-8.5 (20.4)	26.1 (99.1)	-6.5 (29.1)
Total salary and bonus of top executive (in thousands)	2,235.4 (2,488.9)	3,404.0 (3,475.6)	3,672.4 (2,789.7)
Total salary and bonus of top executive in thousands (log)	7.4 (0.8)	7.8 (0.7)	8.0 (0.7)
Value of stock option of top executive (in thousands)	1,416.9 (3,171.5)	9,026.2 (12,902.1)	8,865.2 (7,143.5)
Value of stock option of top executive in thousands (log)	4.2 (4.3)	6.6 (4.6)	7.4 (4.1)
Organization age (in years)	70.3 (60.4)	69.1 (61.9)	67.5 (61.4)
Growth in assets (per cent)	12.4 (21.4)	47.8 (139.5)	7.6 (111)
Return on equity (per cent)	15.0 (5.9)	15.4 (6.7)	15.1 (118)
<i>N of firms</i>	47	54	62

*Source:* Dun and Bradstreet, WRDS, Compustat, SEC website, and website of corporations  
*Notes:* Numbers in parentheses are standard deviations.

1995 and forward to 2004 to compile a unique 10-year panel dataset. We focus on large corporations in the FIRE sector because the economy has become increasingly dependent on the behaviour of the largest corporations in this economic sector and, as the 2007–2008 economic crisis documented, their behaviour has widespread impacts on society (Financial Crisis Inquiry Commission 2011).

We include multiple years in the analysis because this research design increases the reliability of the findings compared to cross-sectional analyses. We use 2001 as the sample selection year for two interrelated reasons. First, like other researchers, we conceptualize organizational wrongdoing as a normal occurrence (Palmer 2012). For this reasons, we ended our study period in 2004

because it permits examining multiple years during a period that was not influenced by the extreme events preceding the 2007–2008 financial crisis. FIRE sector organizations were engaged in a wide range of risky and potentially illegal behaviours immediately preceding the crisis that may not have occurred in subsequent years when the public and oversight agencies became more aware of corporate wrongdoing. Second, 2001 is near the middle of our study period, which reduces the problem of firms leaving the sample. That is, whereas using the sample selection year at the beginning of the study period is likely to result in larger number of firms exiting the sample (e.g., mergers, bankruptcies), using the sample selection year at the end of the study period is likely to result in a larger number of firms entering the sample during the study period. Both increase the probability of missing data.

There were initially 82 parent companies in the FIRE sector in the pooled sample. Missing data reduced the number of corporations included in the final analysis to 73. Missing data also exists on some companies during the study period. The final dataset used for analysis consists of 552 firm-year observations.<sup>2</sup> Statistical analysis did not find that missing data was systematic.

### ***Dependent variable***

The dependent variable is a dummy variable indicating whether or not the SEC filed an allegation against a company in a particular year. This information was obtained from the litigation database of corporate financial violations on the SEC's website. The SEC makes an allegation against a corporation after it compiles evidence to document that the corporation engaged in financial malfeasance. Most of these SEC allegations involve accounting violations but they also include violations relating to information disclosure, market manipulation, and insider trading.

We focus on the occurrence of an event (i.e., violation) rather than the count of events for two related reasons. First, as commented on in Prechel and Zheng 2011, once a firm is accused of one violation, it is subject to further scrutiny and other related violations are likely to be discovered. Thus, identifying multiple violations is, in part, a consequence of identifying the first event. Second, using a dummy dependent variable avoids the problem of giving companies with multiple violations in a particular year undue influence on estimation results (e.g., one company in the sample had 11 allegations in a single year).

A couple of caveats about the dependent variable are in order. There is a difference between an allegation by the SEC and an actual financial violation. However, in virtually all cases, the implicated corporations settled with the SEC while neither admitting nor denying whether they committed the violation. Moreover, our contact in the SEC informed us that the agency is conservative when filing allegations of financial malfeasance; allegations are not filed unless the agency obtains sufficient evidence to make a strong case. For these

reasons, firms accused of violating SEC rules are very likely to have committed financial malfeasance. Another problem relates to undercounting. Because the SEC only files allegations when it has a strong case, we cannot identify firms that commit malfeasance but get away with it. This suggests that our data provide a conservative estimate of financial malfeasance.

### ***Independent variables***

We use the number of subsidiaries to measure the complexity of corporate structure and used a natural logarithm of this variable to correct for its skewed distribution. The data were collected from Dun and Bradstreet, the SEC, and corporate websites. We measure organizational size by a corporation's total assets and used a natural logarithm of this variable in our regression models. To test the effect of the shareholder value, we use dividend per share paid on common stock and the annual per cent change in stock price. Information on these variables was obtained from Compustat. To test the effects of executive compensations, we use the total salary and bonus of the highest paid executive in the corporation and the value of stock options granted to the executive with the highest compensation. The data were obtained from the Wharton Research Data Services (WRDS).

To tease out potential confounding effects, we control for several other organizational characteristics. We control for age because previous research shows that younger corporations are more likely to commit financial malfeasance (Crutchley, Jensen, and Marshall 2007). We calculated organizational age by subtracting the calendar year of the company-year observation from the year when the company was founded. This information was collected from Dun and Bradstreet and corporate websites. Including age in the model also helps to control for time trends in our longitudinal model. Rapid growth, which is one of the primary strategies that investors associated with increased shareholder value (Krier 2005), undermines cash flow thereby creating financial strain and incentives for managers to misrepresent the costs of these transactions (e.g., acquisition) (Tillman and Pontell 1995). We measure growth as the per cent change in total assets from the previous year. Previous research suggests that lower profitability is associated with corporate malfeasance (Staw and Szwajkowski 1975; Clinard and Yeager 1980; Harris and Bromiley 2007); managers in companies with low profits have incentives to engage in financial malfeasance because higher profits are one of the criteria that boost stock price. Therefore, we include return on equity to control for corporate profitability. Lastly, because the Democratic Party is considered to be less business oriented than the Republican Party and thus more likely to enforce SEC regulations (Stretesky 2006; Simpson 2013), we include a dummy variable for the Clinton Administration (equal to 1 if the calendar year falls into the period of 1993–2000 and 0 otherwise).

## Model

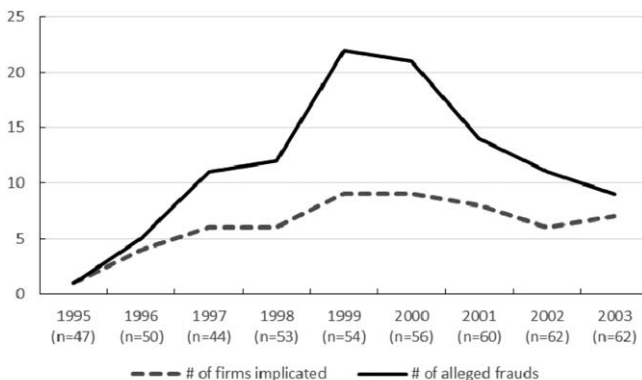
We use random-intercept logistic model to analyse the repeated binary responses of the longitudinal data. By including a random-intercept in the model, the interdependencies among the repeated observations within companies are explicitly taken into account (Rabe-Hesketh and Skrondal 2008; see also Prechel and Zheng 2011). One of the advantages of the random-intercept logistic model is the estimated odds ratios are adjusted for unobserved heterogeneities by having the subject specific random intercept. Maximum likelihood is used to estimate the model. To avoid the simultaneity bias, which occurs when an inadequate time lag exists between an event and a response, all independent variables are lagged for one year with regard to the dependent variable.

## Findings

Figure II shows the number of firms and the number of violations that the SEC filed over time. In 1995, there was only one firm out of the 47 firms (i.e., 2 per cent of the firms) that had one alleged violation. The figure peaked in 1999 when 9 firms with a total of 21 violations were filed by the SEC (i.e., 16.7 per cent of the 54 firms in that year) and decreased to 7 firms with 9 allegations in 2003 (i.e., 11.3 per cent of the 62 firms in that year). This decline is expected because firms probably became more cautious after the public exposure of highly publicized cases of 2001 (e.g., Enron and WorldCom).<sup>3</sup>

Table I reports univariate analyses of the variables in selected years (i.e. 1995, 1999, and 2003). It shows that FIRE sector firms have a large number of subsidiaries. The average number of subsidiaries was 55 in 1995, went down to about 50 in 1999, and climb up to 61 in 2003. Meanwhile, mean dividends per

**Figure II:** Number of firms and financial fraud allegations by the SEC, 1995–2003



Note: n is the number of firms in the sample in that year.

share increased from 49 cents in 1995 to 71 cents in 2003. The data are consistent with the ascendance of shareholder value thesis. In terms of executive compensation, the average top executive in the study group earned about \$2.2 million in salary and bonus in 1995 and about \$3.7 million in 2003. More dramatic change occurred in the average value of the stock options granted to the top executive during the study period, which increased from about \$1.4 million in 1995 to approximately \$9 million in 1999 and in 2003. A correlation matrix of the variables included in the analysis is presented in Table II. Table III presents the findings from the random-intercept logistic models using the maximum likelihood method to examine the effects of the independent variables on the log odds of an allegation by the SEC between 1995 and 2004.

The analysis supports our first organizational complexity hypothesis (H1) that corporations with a larger number of subsidiaries are more likely to engage in financial malfeasance. The results suggest that a 10 per cent increase in the number of subsidiaries increases a firm's odds of committing a violation by about 6 per cent ( $=1.1^{0.656}-1$ ). This effect can become substantial since the number of subsidiaries owned by a parent company in the study group varies from a couple of dozen to several hundred.

The analysis also supports our second organizational complexity hypothesis (H2). Size, which is measured by total assets of the firm in its natural logarithm form, is positively associated with financial malfeasance. For a 10 per cent increase in assets, a firm's odds of committing a violation increase by 10 per cent ( $=1.1^{0.987}-1$ ). Thus, larger corporations among the largest FIRE sector firms are more likely to engage in financial malfeasance. Because our study group is FIRE sector Fortune 500 firms, which are the largest US firms, we are not generalizing to smaller firms not included in the Fortune 500. Instead, this finding suggests that giant FIRE sector firms are more likely to engage in financial malfeasance than other relatively large firms.

The analysis also supports our shareholder value hypothesis (H3) that a lower dividend payout per share increases a firm's odds of financial malfeasance. Hypothetically, one dollar decrease in dividend payout increases a firm's odds to violate securities laws by more than 9 times ( $=1/\exp(-2.28)-1$ ).<sup>4</sup> The relationship between change in stock price and a company's likelihood of committing a financial violation is not statistically significant (H4). One possible explanation is stock prices are more affected by macro-economic factors than specific firm behaviour (Jin and Myers 2006).

The analysis also supports the hypothesis (H5) that the amount of salary and bonus paid to the top executive is positively associated with a firm's odds of financial malfeasance. The results show a 10 per cent increase of executive compensation in the form of salary and bonus increases a firm's odds of violating securities laws by about 11 per cent ( $=1.1^{1.114}-1$ ), other things being equal. Our analysis does not show that the value of stock options has an effect on a firm's likelihood of engaged in financial malfeasance. The lack of support for



**Table II:** Variable correlation

Variables	1	2	3	4	5	6	7	8	9	10
1. Financial wrongdoing										
2. Number of subsidiaries (log)	0.26									
3. Total assets in millions (log)	0.35	0.42								
4. Dividend per share (in dollars)	-0.07	0.33	0.43							
5. Change in stock price (per cent)	0.07	-0.11	-0.02	-0.20						
6. Total salary and bonus of top executive (log)	0.38	0.26	0.50	0.08	0.08					
7. Value of stock options of top executive (log)	0.01	0.15	0.20	0.15	-0.14	0.12				
8. Organization age (in years)	0.13	0.37	0.33	0.40	-0.12	0.22	0.15			
9. Growth in assets (per cent)	0.02	-0.10	-0.05	-0.14	0.40	-0.01	-0.03	-0.10		
10. Return on equity (per cent)	0.02	-0.12	-0.04	-0.07	0.16	0.13	0.01	0.04	0.05	
11. Clinton admin. dummy (1995–2000)	0.05	0.01	-0.20	-0.14	0.01	-0.21	-0.18	0.03	0.12	0.06

Source: Dun and Bradstreet, WRDS, Compustat, SEC website, and website of corporations

<sup>a</sup>Note: The dependent variables is measured for year  $t$ ; the independent variable for  $t-1$ . Correlations  $>=|0.08|$  are significant at  $p < 0.05$ ;  $n = 552$ .

**Table III:** Maximum likelihood estimates of random-intercept logistic model of financial wrongdoing, 1995–2004

	Model 1
<i>Independent variables</i>	
Number of subsidiaries (log)	0.656* (0.323)
Total assets in millions (log)	0.987*** (0.286)
Dividend per share (in dollars)	–2.280** (0.781)
Change in stock price (per cent)	0.0001 (0.002)
Total salary and bonus of top executive in thousands (log)	1.114** (0.371)
Value of stock options of top executive in thousands (log)	–0.040 (0.052)
<i>Control variables</i>	
Organization age (in years)	0.005 (0.005)
Growth in assets (per cent)	0.0003 (0.004)
Return on equity (per cent)	–0.003 (0.027)
Clinton Administration dummy (1995–2000)	0.520** (2.570)
Intercept	–25.111*** (3.856)
Number of events	56
Number of firms	73
Number of company-year observations	552

Source: Dun and Bradstreet, WRDS, Compustat.SEC website and website of corporations

Notes: \* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$  (two tailed test)

this hypothesis (H6) is consistent with a previous study that found no statistically significant relationship between executive equity compensation and financial malfeasance (Erickson, Hanlon and Maydew 2006). One plausible explanation is stock options tend to provide returns to management over a long time period and one of the defining features of financialization is the emphasis on short-term returns.

With regard to the control variables, age does not have an effect on a firm's likelihood of financial malfeasance. Since organizations tend to grow larger and more complex as they age, including the number of subsidiaries and organizational size likely eliminates the age effect. It is organizational complexity and size, not age per se, that increase a firm's likelihood of financial malfeasance. Profits and growth are not significant, which suggest that other financial variables are better predictors of SEC violations. The dummy for the Clinton Administration has a significant positive effect, which indicates that a Democratic Administration is more likely to enforce securities laws.

To summarize, our statistical analysis shows that corporations with more complex organizational structures, larger size, lower dividend payment, and higher executive compensation in the form of salary and bonus are more likely to commit financial malfeasance.

## Conclusion

The historical contextualization and statistical analyses support our organizational political economy framework, which maintains that organizational and political–legal arrangements create dependencies, incentives, and opportunities to engage in financial malfeasance. Whereas Tax Reform Act of 1986 made it viable for managers to reorganize as the multilayer–subsidiary form, which provided the organizational capacity to create large and complex corporations, other political–legal arrangements decoupled the FIRE sector from important dimensions of corporate oversight and created mechanisms for investors to pressure management to increase shareholder value. These organizational and political–legal arrangements created asymmetric information that make financial transactions less transparent and increase dependence on large investors creating incentives for managers to engage in risk-taking behaviour that often entailed financial malfeasance.

Organizational complexity in the form of a larger number of subsidiaries increases managerial autonomy and opportunities to engage in financial malfeasance. It is difficult to monitor financial transactions in complex organizations where transactions occur among many subsidiary corporations operating in different markets and geographic locations. To illustrate after external oversight agencies were sensitized to the risk-taking behaviour of financial corporations, these agencies (nor apparently the parent company’s internal risk assessment unit) were aware of the high-risk financial transactions conducted by traders in JP Morgan Chase’s London hedge fund subsidiary that resulted in a multi-billion dollar loss in 2012. Complex structures create a high degree of secrecy (Weber 1921 [1978]) and limit transparency; only after it became apparent that these massive losses could not be recovered did the JP Morgan disclose them to the investing public.

Organizational political economy also aids in understanding the complex relationship between managers and large investors. On the one hand, the analysis demonstrates that the capital dependent relationship between corporations and large investors create perverse incentives for corporate managers to increase shareholder value through *illegitimate* means. If management is unable to achieve desired levels of financial performance through legitimate means, the analysis here suggests that they engage in financial malfeasance. The perverse incentive problem is compounded by collaboration among investors’ and managers’ to increase executive compensation and tie it to corporate earnings.

Together, pressure from large investors to increase dividend payments and managers' interests to increase their own salaries and bonuses simultaneously decouple legitimate means from ends and created incentives to engage in financial malfeasance.

This organizational political economy framework contributes to our understanding of the relationship between managerial power and state power. The organizational and political–legal arrangements that emerged in the late twentieth century increased managerial power and reduced state power. This power imbalance was most profound in the FIRE sector where a well-financed corporate lobby succeeded in transforming critical dimensions of the political–legal arrangements in which firms are embedded. The emergent organizational and political–legal arrangements created structural holes and information asymmetries that provide autonomy for managers to advance short-term shareholder value in ways that involve financial malfeasance. Information asymmetry occurred, in part, because large and complex organizations internalize market functions, which create opportunities to restrict information flows.

Organizational political economy raises important questions about the extent to which markets provide adequate information to monitor corporate behaviour. In contrast to the neoliberal claim that government oversight limits efficiency and markets are efficient means to distribute information (Hayek 1944), corporate political behaviour in the late twentieth century was driven by short-term efficiency considerations that created structural holes and obstacles to information symmetry that undermine long-term efficiency. Whereas large and complex corporations create opportunities to engage in financial malfeasance, capital dependence on large investors who stress increasing shareholder value and tying executive compensation to shareholder value create perverse incentives. Behaviours in the FIRE sector almost brought the global economy to the brink of disaster and created the Great Recession. Moreover, the revelation that the US Department of Justice obtain admissions of guilt for currency manipulations by subsidiaries of big banks suggest that the organizational and political–legal arrangements continue to create information asymmetry, hood-wink oversight agencies, and provide managers with the autonomy to engage financial malfeasance. This suggests that regulator remedies are necessary to restore the balance between managerial power and state power.

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2. The duration of firms in the final sample ranges from one to ten years; 35 out of

the 73 firms are in the sample over the entire period. There are several reasons for the varying duration of firms over the study period: (1) the disappearance (exit) of the company (e.g., merger, bankruptcy) after 2001, (2) the possible entrance of a company after 1995 but before 2001, and (3) missing data.

3. One might expect the number of alleged violations to increase after 2001 because of more aggressive enforcement by the SEC. However, increased enforcement is costly and the SEC budget remained largely unchanged.

4. The interpretation of this effect needs to be put in the context that dividend per share of the firms in the sample ranges from zero to two dollars in most cases and is averaged around 0.50 to 0.70 dollar per share in a typical year.

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