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Do Outside Directors with Government Experience Create Value?

Abstract

We examine whether outside directors with government experience add value to their firms. We find that government directors are more likely to miss board meetings and that their appointment announcements are greeted more negatively. Firms with government directors also experience poorer operating performance and more negative merger announcement returns, although their mergers are less likely to be challenged by antitrust authorities. These adverse valuation effects are largely alleviated when firms have large government sales, when they operate in regulated industries, or when government directors are politically connected. Using close gubernatorial election outcomes as a natural experiment and an instrumental variables approach to control for endogeneity bias do not change the results.

Keywords: Government director; Firm value; Endogeneity; Political connection.

JEL Classification: G14, G28, G34

1. Introduction

The number of publicly listed firms that appoint former government officials as their outside directors has increased dramatically in recent decades. For example, while in 1990, only 31.47% of our sample U.S. public firms had former government officials on their boards, by 2007, this number had increased to 54.53%.¹ However, despite the increasing presence of former government officials on corporate boards, their role as independent directors has been called into question.

In this paper, we investigate several important issues regarding the role of government directors (outside directors with work experience in government agencies) in U.S. public firms and their impact on firm value. Specifically, we examine the following issues: What motivates firms to appoint government directors? Do government directors perform an important value-enhancing role (the “value-enhancing view”) or do they just rubber-stamp the decisions of top management (the “rubber-stamp view”)?

Firms may appoint government directors because they are expected to bring several benefits to the firms. For example, government directors can provide firms with valuable connections and privileged information about the public policy process, which can otherwise be expensive and often difficult to obtain due to its complexity (Hillman, Zardkoohi, and Bierman, 1999). These connections and unique information about the public policy process allow government directors to facilitate sales to the government, thus helping improve firm performance. In addition, with the contacts they acquire from working in the public sector, government directors can influence government actions in the firm’s best interest, a benefit that is especially valuable when the actions of regulatory agencies such as the Food and Drug Administration and the Environmental

¹ For example, in 2006, Lockheed Martin had thirteen outside directors on its board, of whom five were former government officials, including former Under Secretary of Department of Defense Pete Aldridge Jr., former Admiral of U.S. Strategic Command James O. Ellis Jr., and former Deputy Secretary of Homeland Security James M. Loy.

Protection Agency have important consequences for firm performance (Agrawal and Knoeber, 2001). Thus, according to this value-enhancing view, government directors play an important role in firms' decision making, particularly when firms have a major trading relationship with the government or when they operate in a regulatory environment.

In contrast to the above value-enhancing view, the rubber-stamp view regards government directors as inefficient independent directors because, compared with their counterparts in the corporate world, they tend to have less business experience in areas such as accounting, finance, and corporate governance, which limits their ability to effectively perform a value-enhancing function. Several studies show that directors' industry experience and accounting and financial knowledge are positively related to firm performance, as they play an important role in the decision-making and management succession processes. For example, Custódio and Metzger (2013) find that CEOs who have worked in a target industry increase their shareholders' wealth during takeovers. Cohen, Krishnamoorthy, and Wright (2010) show that directors' accounting and financial expertise is important for effective advising.

The advisory capacity of government directors can also be impaired to the extent that they hold directorships in multiple firms. Firms that regularly deal with government agencies or have significant procurement government contracts are likely to have strong demand for government directors due to their ability to facilitate business with government agencies and influence governmental decisions (Agrawal and Knoeber, 2001). However, the supply of government directors is often limited, which provides retired government officials an opportunity to sit on more than one board. For example, former U.S. Labor Secretary Elaine L. Chao served on six different boards, including C.R. Bard, Clorox, Columbia/HCA Healthcare, Dole Food,

Northwest Airlines, and Protective Life, before sitting on George W. Bush's cabinet.² These overcommitted government directors may have little time to advise firm management, resulting in lower firm performance and value (Fich and Shivdasani, 2006).³

CEOs may hire these retired government officials because of their career concerns or other private benefits. For example, CEOs may hire government directors because they share common educational and social backgrounds with these directors. To the extent that socially connected directors are friendly to CEOs, less likely to confront management, and less likely to take an active role in disciplining management (e.g., Hwang and Kim, 2009), CEOs of firms appointing socially connected government directors may be less constrained than those of firms appointing nongovernment directors. Thus, the rubber-stamp view suggests that government directors' lack of business experience, their frequent multiple directorships, and their friendly relationships with top management limit their ability to play an effective advising role and consequently have an adverse effect on firm performance.⁴

Using a large sample of 78,803 firm-year observations and 20,101 outside director appointments from 1990 to 2007, we find that the presence of a government director is prevalent in many publicly listed firms in the U.S. Specifically, we find that approximately 43% of our sample firms have at least one government director on their board. Conditional on the presence of a government director, one out of five outside directors is a government director.

² "Multiple seats of power: companies are cracking down on number of directorships board members can hold", *Wall Street Journal*, January 23, 2001.

³ Fich and Shivdasani (2006) find that firms with a majority of outside directors holding three or more directorships are associated with weak corporate governance. They also find that firms with a "busy board" have lower market-to-book ratios, lower profitability, and lower sensitivity of CEO turnover to firm performance.

⁴ Consistent with the rubber-stamp view, the shareholder advisory firm Glass Lewis & Co. criticized American International Group (AIG) Inc, which was beset by bookkeeping and governance problems, for having too many government directors (such as former U.S. ambassador to the United Nations Richard Holbrooke and former Defense Secretary William Cohen) on its board. Glass Lewis further claimed that AIG needed to "increase the level of business expertise, including expertise in the insurance industry on its board." ("Lifting the Lid: Ex-politicians draw scrutiny over board roles", *Reuters News*, July 29, 2005).

To distinguish between the value-enhancing view and the rubber-stamp view of the role of government directors, we perform several tests. In performing our tests, we control for potential endogeneity bias caused by unobservable omitted firm characteristics and the endogeneity of board composition by using firm fixed effects, an instrumental variables approach, and close gubernatorial election outcomes. We also use an event study approach to alleviate the reverse causality problem that the causation runs from firm performance to the presence of a government director on the board.

First, as a director-level analysis, we examine whether directors' attendance rate at board meetings is different between government and nongovernment outside directors. Supporting the rubber-stamp view, we find that government directors are more likely to have attendance problems than nongovernment directors, especially when they hold multiple directorships or when they are socially connected to the CEO. However, government directors' attendance problems are not likely to be severe when their firms have a major trading relationship with the government or when they operate in regulated industries, suggesting that the role of government directors on corporate boards varies across the product markets and regulatory environments that firms face.

Second, as firm-level analyses, we examine the link between merger announcement returns and the presence of government directors on the board. To the extent that a merger is a largely unanticipated event, using announcement returns around such an event in the analysis can potentially mitigate the reverse causality problem. We find that acquiring firms that have a government director experience significantly lower abnormal announcement returns than those without a government director. This result supports the rubber-stamp view. However, their announcement returns are statistically indistinguishable from those of firms without a

government director when they maintain extensive trading relationships with the government or when they operate in regulated industries. Thus, under certain circumstances, such as when the importance of a firm's government sales is high or when the firm operates in a regulated industry, government directors' unique information about the public policy process and their ability to influence government policy help increase firm value, thereby offsetting the potential costs associated with having retired bureaucrats on corporate boards. Further supporting this view, we find that mergers by acquirers with a government director are less likely to be challenged by antitrust authorities.

As an additional firm-level analysis, we examine how the stock market reacts to appointments of government directors to a board. Supporting the rubber-stamp view, we find that the mean three-day abnormal announcement return for firms appointing a government director is a significant -0.56%. However, similar to the merger announcement return analysis, this negative announcement effect is largely alleviated when firms with high sales dependence on the government or those in regulated industries appoint government directors. We also examine whether the presence of a government director affects a firm's operating performance. We find that firms with a government director exhibit significantly lower industry-adjusted return on assets (ROA) than those without a government director, particularly when firms do not have the government as a major customer or when firms operate in nonregulated industries.

We address the concern regarding omitted variable bias by using two approaches. First, we examine the change in firm value around close gubernatorial elections. To the extent that these election outcomes are not likely to be predictable, we can attribute the observed change in firm value to the change in political power. We find that firms whose government directors with political experience are affiliated with a winning (losing) party experience an increase (a

decrease) in firm value. We further find that firms with any type of government director who is socially connected to winning (losing) candidates—particularly those with government directors who also have a political connection with winning candidates—experience an increase (a decrease) in firm value. Second, we use a propensity score matching approach to mitigate the concern that *observable* omitted variables simultaneously affect firm performance and the presence of government directors on the board. Our results do not change.

Finally, we examine whether the above results differ depending on the heterogeneity of government experience, such as industry relatedness, ranking, and political backgrounds of government directors' previous positions. We find that the “rubber-stamp” role of government directors is less evident when their prior experience in the government sector is related to firms' main businesses, when they previously held a senior position in the public sector, or when they are politically connected.

Broadly, our study contributes to the literature on the reputed influence of political connection in policymaking. Public policymaking has huge value at stake, and the returns to political connections could be high. For example, it has been estimated that during the voting on the 1985 agriculture bill, \$192,000 worth of contributions could buy more than \$5 billion worth of value for the sugar industry over a five-year period (Stratmann, 1991; Ansolabehere, Figueiredo, and Snyder, 2003). Given large returns to political connections, Tullock (1972) asks why there is so little money in U.S. politics. In particular, high returns to political connections suggest that we should observe more firms having connections to the policy maker. Our study provides a potential answer to Tullock's paradox by highlighting the cost of hiring outside directors with policymaking experience. Specifically, we show that government directors, in general, could have a negative impact on firm value, possibly due to their lack of business

experience in areas such as accounting, finance, and corporate governance, as well as their overcommitted multiple directorships. Although the presence of certain government directors with political experience on the board may help overcome these costs associated with government directors in general, the supply of such directors is relatively limited, as shown in Table 1. The existence of these costs and the lack of supply of government directors with political experience help reconcile the discrepancy between the findings in prior studies showing high returns to political connections and relatively fewer firms having directors with political connections.

It is important to note that the government director in our sample is not necessarily a politician. In fact, only 10% of our sample of government directors can be considered as having political experience. Thus, our paper is different from the previous studies that focus solely on directors who are former politicians with certain senior positions (Faccio, Masulis, and McConnell, 2006; Goldman, Rocholl, and So, 2009; Houston et al, 2014; among others). While these studies examine only the effects of political connection on firm value, we examine the value-enhancing roles of government directors in firms' decision making as well as firm value.

Our study also contributes to the literature on the roles performed by different types of outside directors and their effect on firm value. Prior studies examine the monitoring/advising roles performed by various types of outside directors who have different skill sets, such as bank directors (Güner, Malmendier, and Tate, 2008), CEO directors (Fahlenbrach, Low, and Stulz, 2010), female directors (Adams and Ferreira, 2009), and foreign directors (Masulis, Wang, and Xie, 2012). They show that each of these outside directors performs a different monitoring/advising role in firms' decision making. We show that while the role of government directors is generally consistent with the rubber-stamp view, in circumstances under which

government directors are expected to play an instrumental role in facilitating sales to the government or influencing the actions of regulatory agencies, the adverse effects of government directors are largely alleviated.

The remainder of the paper proceeds as follows. Section 2 describes the data and sample characteristics and reports empirical evidence on the determinants of government director appointments. In Section 3, we provide results from various tests on the two competing views on the roles of government directors. In Section 4, we examine the effect of government directors on firm performance by analyzing the announcement returns of government director appointments and a firm's operating performance. In Section 5, we present evidence from close gubernatorial elections. Section 6 discusses additional tests, including tests of sample selection biases. Finally, we present concluding remarks in Section 7.

2. Sample selection and determinants of government director appointments

Our initial sample includes all firms covered in the BoardEx database of Management Diagnostics Ltd for the period 1990 to 2007. BoardEx contains information on board structures as well as detailed profiles of more than 30,000 executives and board members, and it has been used in several recent studies (e.g., Custódio and Metzger, 2013; Schmidt, 2014). To be included in our sample, we require that firms' stock returns and financial data be available in CRSP and Compustat, respectively.⁵ These restrictions result in a sample of 78,803 firm-year observations.

⁵ Following previous studies, we match firm names in BoardEx to the universe of firms in Compustat/CRSP (Chidambaran, Kedia, and Prabhala, 2012; Kang and Kim, 2011; Ishii and Xuan, 2014). Specifically, we first match firm names in BoardEx to firms in a comprehensive set of databases, including Compustat, Compustat Global, CRSP, Dealscan, the Bank Regulatory Database of the Chicago Federal Reserve, Jay Ritter's IPO Adviser ranking table, and SDC Platinum. We use the SAS function *compged* to perform fuzzy string matching. Then, for each name matched, we verify the identity of the company by hand-checking company websites, *Business Week* magazine, and Hoovers' databases. We thank Y. Han Kim for sharing the link table between BoardEx and Compustat.

Of these, 18,864 are in regulated industries (hereafter called “regulated firms”) and 59,939 are in nonregulated industries (hereafter called “nonregulated firms”).⁶

We define government directors as directors who have worked in government agencies prior to being appointed to a sample firm’s board. To identify prior work experience in the government, we use the director’s employment profile from BoardEx. Specifically, we search for the names of all institutions that a director worked with prior to his/her appointment to a firm’s board of directors. We then manually check whether the director worked with one of the government institutions listed on the U.S. government’s web site.⁷

Our sample of government directors includes a former member of any U.S. government agency, irrespective of agency type, including legislative, executive, and judicial institutions. Thus, the government agencies we consider include some well-known institutions, such as the Food and Drug Administration (FDA) and the Internal Revenue Service (IRS), as well as less-well-known institutions, such as the Merit Systems Protection Board (MSPB). To fully capture the impact of government directors’ previous government experience on firm value, we also include all different ranks of former government employees when defining government directors. However, to reflect the fact that the effect of government directors on firm value can be different depending on their government and policy-making experience, we classify government directors according to their rank (senior versus junior) at the government agencies. Examples of senior positions include commissioner, director, chairman, mayor, minister, deputy minister, deputy

⁶ Although the coverage of the BoardEx database has increased over the past 20 years, it was notably lower in the earlier part of our sample period than in the later part. For example, for 1990, 1999, and 2007, BoardEx covers approximately 74%, 88%, and 97% of the firms in Compustat/CRSP, respectively. This lower coverage of Compustat/CRSP firms by BoardEx in the earlier part of our sample period could create a sample selection bias in our regression estimates. To address this concern, in an untabulated test, we exclude firm-year observations before 1999 and repeat all regression analyses reported in the paper using the subsample of post-1999 firm-year observations. We find nearly identical results for all of our main findings.

⁷ www.usa.gov/Agencies/Federal/All_Agencies/.

secretary, and deputy undersecretary. The complete list of these positions is included in the Appendix. Examples of junior positions include staff, manager, and assistant.

The potential benefits government directors bring to a firm may also differ depending on the relatedness between the government sectors and the firm they served. To examine this heterogeneity of government directors' experience, we classify our sample government directors according to whether their prior experience in the public sector is related to firms' main businesses. We classify the experience of former government officials as being related if they are nominated to a company that operates in an industry that is related to their former government job duties (Cohen, Coval and Malloy, 2011). For example, a director who worked for the Food and Drug Administration and joined the board of a pharmaceutical firm is classified as a government director with related experience. On the other hand, a director who worked for the U.S. State Department and joined the board of a pharmaceutical firm is classified as a government director with unrelated experience.

Finally, since the effects of government directors on firm value can differ depending on their political background, we classify our sample government directors according to whether they have political experience. Specifically, following Goldman, Rocholl, and So (2009), we identify government directors with political experience as outside directors who previously held one of the following positions in the government agencies: President, Presidential (Vice-Presidential) candidate, senator, member of the House of Representatives, (assistant) secretary, deputy secretary, deputy assistant secretary, undersecretary, associate director, governor, director (CIA, FEMA), deputy director (CIA, OMB), commissioner (IRS, NRC, SSA, CRC, FDA, SEC), representative to the United Nations, ambassador, mayor, staff (White House, President,

Presidential campaign), chairman of the Party Caucus, chairman or staff of the Presidential election campaign, and chairman or member of the President's committee/council.

Panel A of Table 1 presents the distribution of sample firms with at least one government director by year. We find that 43.32% of our sample firms have at least one government director on the board. The last column shows that among firms with a government director, on average, one out of four outside directors (23.76%) is a government director. Panel B of Table 1 presents the distribution of sample firms by industry in 1999, which is the middle year of our sample period. We find that government directors are appointed to the board of firms in all industries, with a higher prevalence in industries where government sales and contracts are particularly important or in industries where firms are heavily influenced by government regulations. For example, we find that in 1999, government directors are most prevalent in the shipbuilding and railroad industries, followed by the utilities, defense, and aircraft industries. We report the heterogeneity of the government directors' prior experiences in Panel C of Table 1. We find that among firms with at least one government director, approximately 18%, 14%, and 10% have a related government director, senior government director, and political government director, respectively.

In Table 2, we present summary statistics of board-, director-, firm-, and CEO-specific characteristics for firms that appoint a government director versus firms that appoint a nongovernment director. We assume that a new director appointment takes place when the director's name first appears on the list of directors. All variables are measured as of the fiscal year-end that immediately precedes the director appointments. We find that compared with firms that appoint a nongovernment director, those that appoint a government director have a larger board size, a higher percentage of existing government directors on the board, and more

departing government directors. We also find that new government directors are older, more likely to have a law degree,⁸ and more likely to be female than new nongovernment directors. In addition, prior to the appointment, they have held more board seats in other firms than new nongovernment directors, and they are more likely to be socially connected with CEOs. We further find that firms appointing a government director are larger and less risky (lower return volatility), spend less on R&D activity, have more government sales and higher institutional ownership, and perform better than those appointing a nongovernment director. In particular, we find that while 12.4% of firms appointing a government director have a government body as their major customer, the corresponding number for firms appointing a nongovernment director is only 6.4%.⁹ Furthermore, regulated firms are more likely to appoint government directors to their boards than nonregulated firms, suggesting that firms hire government directors to gain valuable insight into government policies or even to influence the actions of regulatory agencies. Moreover, we find that firms appointing a government director tend to be located closer to the state capital city (or Washington D.C.) than those appointing a nongovernment director. This finding is consistent with Knyazeva, Knyazeva, and Masulis (2013), who show that the local director pool is an important determinant of a firm's board structure. Finally, we find that CEOs in firms appointing a government director more often serve as the chairman of the board or are the founder of the firm, are older, and have longer tenure, suggesting that powerful CEOs are more likely to appoint retired bureaucrats as directors on the board.

3. Do government directors play a value-enhancing role?

⁸ Agrawal and Knoeber (2001) argue that government directors with a law degree can help firms because of their knowledge of government procedures and their ability to predict government actions.

⁹ We define major customers as those that account for 10% or more of a firm's sales. We use the Compustat Segment Customer database field *customer name* to identify whether firms have major government customers.

In this section, to distinguish between the value-enhancing view and the rubber-stamp view on the role of government directors, we perform several director- and firm-level analyses, including the likelihood of directors' board-meeting attendance, merger announcement effects, and the likelihood of mergers being challenged by antitrust authorities.

3.1. Director-level analysis: Board meeting attendance

In this subsection, we examine whether there is a difference in the likelihood of government and nongovernment directors missing a board meeting. As Adams and Ferreira (2009) point out, attendance records can serve as an important indicator of the role of outside directors for at least two reasons. One is that attendance records are the observable measure of director performance, which allows us to investigate whether government directors behave differently from nongovernment ones. Another reason is that attending board meetings is a direct way for directors to obtain the information necessary to carry out their duties and exert influence over managers. Thus, according to the value-enhancing (rubber-stamp) view, government directors miss fewer (more) board meetings than nongovernment directors.

Using a sample of 55,193 director-firm-year observations, we estimate logit regressions in which the dependent variable is a dummy variable that equals one if a director attended fewer than 75% of a firm's board meetings during the past fiscal year and zero otherwise.¹⁰ The explanatory variables are those used in Adams and Ferreira (2009) and Masulis, Wang, and Xie (2012). The regressions also include the number of director's board seats, the number of social ties between the directors and the CEO, the percentage of sales to the government, and a dummy

¹⁰ Public firms in the U.S. are required to disclose directors' attendance records at board meetings in their annual proxy statement. In particular, they are required to disclose whether any director has attended fewer than 75% of the board meetings during a fiscal year. We obtain this information from the Riskmetrics (formerly IRRC) database and match it with director information from BoardEx. We also obtain information about director meeting fees from the ExecuComp database. Our final sample consists of 55,193 director-firm-year observations.

variable for firms in a regulated industry and their interaction terms with the dummy variable for government director.

The results are presented in Table 3. In models (1) through (8), we use the subsample of nonregulated firms in estimating the regulations. Model (1), which controls for year and industry fixed effects, shows that the probability of missing more than 25% of board meetings is significantly higher for government than nongovernment directors. In model (2), we replace industry fixed effects with firm fixed effects and estimate the regression with a linear probability model (LPM). We find that the result does not change. These results support the rubber-stamp view.

In model (3), we find that the coefficient on the interaction term between the dummy variable for government directors and the number of director's board seats is positive and significant, indicating that the probability of missing more than 25% of board meetings is higher when government directors have more board seats in other firms. Controlling for firm fixed effects in model (4) does not change the results.

In models (5) and (6), we find that the coefficient on the interaction term between the dummy variable for government directors and the number of social ties between the directors and CEO are positive and significant, suggesting that relative to nongovernment directors, socially connected government directors are more likely to miss board meetings.

Models (7) and (8) include the interaction term between the dummy variable for government directors and the percentage of sales to the government. We find that in both models, the coefficient estimate on the interaction term is significantly negative. Thus, government directors whose firms have the government as a major customer are more likely to attend board meetings than nongovernment directors.

In models (9) and (10), we use the full sample of regulated and nonregulated firms and include the interaction term between the dummy variable for government directors and the dummy variable for firms in a regulated industry. We find that the coefficient on this interaction term is negative and significant, indicating that government directors whose firms operate in regulated industries are less likely to miss board meetings.

In sum, we find that government directors, especially those with multiple directorships, those who are socially connected to the CEO, and those whose firms operate in nonregulated industries, are more likely to miss board meetings. These results support the rubber-stamp view. In contrast, government directors whose firms have a major trading relationship with the government are more likely to attend board meetings, suggesting that the board attendance behavior of government directors depends in part on a firm's product market relationship with the government.

3.2. Firm-level analysis

3.2.1. Merger announcement returns

In this subsection, we examine how acquirers' merger announcement returns are affected by the presence of government directors on their board using ordinary least squares (OLS) regressions. To the extent that government directors play an important advisory role in a firm's M&A decisions, the value-enhancing view predicts higher merger announcement returns for firms with a government director than for firms without a government director, while the rubber-stamp view predicts otherwise. We obtain an initial sample of mergers from Thomson Financial's Security Data Corporation (SDC) Platinum database. We then exclude cases in which the acquirer is not covered in BoardEx. We also exclude those mergers in which the transaction

value is less than one million dollars or less than 1% of the acquirer's market value of equity. Our sample consists of 5,188 mergers between 1990 and 2007.

We employ a market model to measure abnormal bidder announcement-day returns. To obtain our estimates of the market model, we use 200 days of return data, beginning 220 trading days before and ending 21 trading days before the merger announcement date. We use the CRSP value-weighted return as a proxy for the market return. Using CRSP equally weighted returns as a proxy for the market return does not change our results. We use the CAR (-1, +1) as the dependent variable. Our key independent variable of interest is the proportion of government directors on the board. We also include the following five variables and their interaction terms with the proportion of government directors in the regressions: the proportion of inexperienced nongovernment outside directors, the average number of board seats held by government directors, the average number of social ties between the government directors and CEO, the percentage of sales to the government, and a dummy variable for firms in a regulated industry.¹¹ Our control variables include those used in Masulis, Wang, and Xie (2007).

The results are reported in Table 4. In estimating models (1) through (6), we limit attention to the subsample of nonregulated firms. Model (1) shows that the CARs (-1, 1) for acquirers with a higher proportion of government directors are significantly lower than those for acquirers with a lower proportion of government directors after controlling for firm- and deal-specific characteristics.

In model (2), we include the proportion of inexperienced nongovernment outside directors, which is a measure of nongovernment outside directors' advising ability, and its interaction with the proportion of government directors. The value-enhancing role of government directors, if it

¹¹ Across all regressions, to account for potential time trend and common industry factors that could affect merger outcomes, we include both year fixed effects and industry fixed effects. In untabulated tests, we replace year fixed effects and industry fixed effects with year $\times$ industry fixed effect and find similar results.

exists, is likely to be more important when other nongovernment outside directors have less advising ability. Thus, the value-enhancing (rubber-stamp) view of government directors predicts a positive (negative) coefficient estimate on this interaction term. We find that the coefficient estimate on the interaction term is negative and significant at the 0.05 level, supporting the rubber-stamp view.

In model (3), we replace the proportion of inexperienced nongovernment outside directors with the average number of board seats held by government directors. We find that the interaction term between the proportion of government directors and the average number of board seats held by government directors is significantly negative, suggesting that firms with busy government directors experience more negative merger announcement returns.

In model (4), we use the average number of social ties between the government directors and the CEO instead of the average number of board seats held by government directors. We find that the coefficient on the interaction term between the proportion of government directors and the average number of social ties between the government directors and CEO are significantly negative. Thus, firms with government directors experience more negative merger announcement returns when these directors have more close social connections with CEOs.

Model (5) includes the interaction term between the proportion of government directors and the percentage of sales to the government. We find that the coefficient on this interaction term is statistically positive. Thus, the negative impact of having government directors on the board is particularly severe when firms do not maintain major customer relationships with the government.

In model (6), we use the full sample of regulated and nonregulated firms. We find that the coefficient estimate on the interaction term between the proportion of government directors and

the dummy variable for firms that operate in regulated industries is positive and significant at the 0.05 level. Thus, the adverse effect of government directors on merger valuation effects is particularly pronounced when firms operate in nonregulated environments.

Overall, our findings from merger announcement return analyses provide strong support for the rubber-stamp view. However, we find that the adverse effects of having government directors on the board are largely alleviated when government directors' experience and knowledge in the public sector and their connections to the government can bring benefits to firms, such as when firms have close trading relationships with the government or when firms operate in regulated environments.

3.2.2. Likelihood of merger deals being challenged by antitrust authorities

To further identify the circumstances under which government directors' connections to the government and unique prior experience in the public sector help firms deal with the regulatory authorities, we examine whether the probability of merger deals being challenged by the antitrust authorities is related to the presence of government directors on acquiring firms' boards. If government directors' valuable connections and their unique prior experience in the government sector help firms deal with the regulatory authorities in negotiating merger transactions, we expect this probability to be lower for acquiring firms with a government director than those without one. Following Fee and Thomas (2004), we define a deal as challenged if the Justice Department or Federal Trade Commission (FTC) sued or threatened to sue to block the deal, or if the firm voluntarily restructured the deal or entered into a consent agreement to satisfy regulatory demands. We obtain information on merger challenges from "Annual Report to Congress Pursuant to Subsection (j) of the Clayton Act Hart-Scott-Rodino Antitrust Improvements Act of

1976,” jointly issued by the Justice Department or FTC for the fiscal years 1990 to 2007 (13th to 30th reports). We find that out of the 5,188 merger deals in our sample, 128 were challenged by the Justice Department or FTC.

Model (1) of Table 5 reports the results for probit regressions in which the dependent variable is a dummy variable that equals one if the merger is challenged by antitrust authorities and zero otherwise. We use as explanatory variables those in Masulis, Wang, and Xie (2012). In addition, we include acquirers’ cumulative abnormal return to control for the quality of the merger deals and year and the Fama-French (1997) 48 industry fixed effects. We use the full sample of regulated and nonregulated firms in estimating the regressions. The coefficient estimate on the proportion of government directors on the board is negative and significant at the 0.01 level, suggesting that the probability of merger deals being challenged by the antitrust authorities is lower for firms with more government directors than for those with fewer government directors. We also find that the marginal effect of the proportion of government directors on the board is -0.007. Considering that the standard deviation of the proportion of government directors on the board is 0.239, this number suggests that a one-standard deviation increase in the proportion of government directors is associated with an approximately 0.17% decrease in the probability of deals being challenged by antitrust authorities. Given that the unconditional probability of merger deals challenged by antitrust authorities is 2.47% for our full sample, a 0.17% probability seems to be economically large and significant.

Overall, these results suggest that government directors help firms work with the antitrust authorities in negotiating merger transactions, possibly due to their valuable government connections and their knowledge about the public policy process obtained from prior experience in the government sector.

The results in model (1) of Table 5, however, are subject to a potential endogeneity problem. It is possible that some unobservable firm characteristics simultaneously affect both the board's structure and the likelihood of the firm's merger being challenged, resulting in a spurious correlation between these two variables. For example, the top executives of some firms may maintain a better relationship with government officials than those of other firms. Because of their close relationship with government officials, these firms may be able to hire government directors more easily and at the same time face fewer government challenges to their mergers.

To address this concern, we perform two-stage least squares (2SLS) regressions. In the first stage, we estimate an OLS regression of the proportion of the government directors, where we use as explanatory variables an instrument for the presence of a government director on the board—namely, the logarithm of the physical distance between a firm's headquarters and the closest state capital (or Washington D.C.)—and the other variables used in model (1) of Table 5. To the extent that the local director pool is an important determinant of a firm's board structure (Knyazeva, Knyazeva, and Masulis, 2013), we expect that firms located closer to the state capital (or Washington D.C.) have better access to a large pool of prospective government directors and, thus, are able to attract more government directors to their boards. Thus, our instrument is likely to be highly correlated with a selection variable (i.e., the proportion of government directors), thus satisfying the relevance condition of instrumental variables. Consistent with our expectation, we find that the coefficient estimate on the instrumental variable is positive and significant at the 5% level (model (2)). However, since the construction of our instrument is based on the distance between a firm's headquarters and the state capital, it is unlikely that it has a direct effect on merger outcomes, thus possibly satisfying the exclusion condition of instrumental variables.

In the second stage, we estimate a probit regression of the likelihood of a firm's merger being challenged by the antitrust authorities, using as explanatory variables the predicted value of the proportion of government directors from the first stage and the other control variables used in model (1) of Table 5. We find that in the second-stage regression, the coefficient estimate on the predicted value of the proportion of government directors is negative and significant at the 0.05 level (model (3)), suggesting that our previous results are robust to controlling for unobservable omitted firm characteristics.

4. Government directors and firm performance

4.1. Announcement returns of government director appointments

In this subsection, to test the effect of government directors on firm performance, we examine how the stock market reacts to announcements of their appointments. The value-enhancing view predicts that if government directors can provide firms with valuable connections and unique information about the public policy process, and these benefits translate into better firm performance, firms that announce appointments of government directors realize more positive returns than those that announce appointments of nongovernment directors. In contrast, the rubber stamp view predicts the opposite.

We begin our sample selection with the universe of firms in BoardEx that appoint new government directors during the period 1990 to 2007. For each government director appointment, we use the date a director appointment is first mentioned in *Factiva* as the initial announcement date. In addition, we search *Factiva* for major confounding corporate news (e.g., dividend payments, earnings announcements, and management turnover) within one trading day before and after the initial announcement and exclude observations associated with such news.

This restriction results in a final sample of 176 government director appointments.¹² We next obtain announcements of nongovernment director appointments made by the firms that appoint the 176 government directors, and we use these announcements as a matching sample. We are able to identify 163 matching nongovernment director announcements. In the event of multiple matching appointments, we select the nongovernment director whose appointment announcement date is closest to that of the government director.

In untabulated tests, we find that the mean CAR (-1, 1) for government director appointments is -0.56%, which is significant at the 0.05 level. In contrast, the corresponding CAR for nongovernment director appointments is a significant 0.63%. The difference in mean CARs between these two groups of director appointments is significant at the 0.01 level.¹³

To examine whether this negative effect of government director appointments on firm value holds even after controlling for board-, director-, and firm-specific characteristics, we estimate the multiple OLS regressions using CARs (-1, 1) as the dependent variable. The results are reported in Table 6. In models (1) through (4), we limit attention to the subsample of nonregulated firms in estimating the regulations. In model (1), we find that the average announcement effect for government director appointments is, on average, 1.0% lower than that

¹² We begin our sample selection with the universe of firms in BoardEx that appoint new government directors. For each government director appointment, we use the date a director appointment is first mentioned in *Factiva* as the initial announcement date. In addition, we search *Factiva* for major confounding corporate news (e.g., dividend payments, earnings announcements, and management turnover) within one trading day before and after the initial announcement and exclude observations associated with such news.

¹³ Goldman, Rocholl, and So (2009) find significant positive abnormal announcement returns for their sample of politically connected director appointments. To examine whether the appointments of politically and nonpolitically connected government directors show different announcement returns, we follow their definition in identifying politically connected directors, and we classify our sample of outside directors into two types of outside directors, government directors with political experience (N=36) and those without political experience (N=140). See the appendix for the definition of political experience. We find that the mean CAR (-1, 1) for a subsample of firms having government directors with political experience is a significant 0.84%, while the mean CAR (-1, 1) for a subsample of firms having government directors without political experience is a significant -0.93%. The difference in these CARs (-1, 1) is significant at the 0.01 level. Thus, the stock market perceives the announcements of board nominations of politically connected individuals as value-increasing events and those of board nominations of nonpolitically connected individuals as value-decreasing events.

for nongovernment director appointments. In model (2), we include the interaction term between the dummy variable for government director appointments and the number of the appointed director's board seats. We find that the coefficient estimates on this interaction term are significantly negative, suggesting that the stock market reacts more negatively to the appointment of a busy government director. In model (3), we include the interaction term between the dummy variable for government director appointments and the number of social ties between the appointed director and CEO. We find that the coefficient on this interaction term is significantly negative. Thus, the market reacts more negatively to the appointment of government directors who have more social connections with CEOs. In model (4), we include the interaction term between the dummy variable for government director appointments and the percentage of sales to the government. The coefficient on this interaction term is positively and significantly related to CARs (-1, 1), suggesting that the appointment of government directors prompts a more positive market reaction when the appointing firm has a trading relationship with the government.

In model (5), we use the full sample of regulated and nonregulated firms and include an interaction term between the dummy variable for government director appointments and the dummy variable for firms operating in regulated industries. We find that the coefficient on the interaction term is significantly positive. This result suggests that the valuation effect of government director appointments is more positive for firms in regulated industries than those in regulated industries.

4.2. Industry-adjusted annual operating performance

To further illustrate how the presence of government directors on the board affects firm performance, we examine a firm's annual operating performance. We use an OLS regression in which the dependent variable is the Fama-French (1997) 48 industry-adjusted annual ROA.¹⁴ As in the previous regressions, we use the proportion of government directors on the board as our key explanatory variable of interest. Other explanatory variables are the same as those used in the Table 6 regressions.

The results are presented in Table 7. In models (1) through (4), we use the subsample of nonregulated firms in estimating the regressions. In model (1), we find that the coefficient estimate on the proportion of government directors is significantly negative, suggesting that the industry-adjusted ROA decrease as the proportion of government directors on the board increases. In models (2), (3), and (4), we include interaction terms of the proportion of government directors with the average number of board seats held by government directors, the average number of social ties between the government directors and CEO, and the percentage of sales to the government, respectively. We find that firms with government directors perform worse when their government directors are busier or when they have more social ties with CEOs. We also find that the government directors' negative impact on firm performance is mitigated when the firm has a trading relationship with the government. In model (5), we use the full sample of regulated and nonregulated firms and include the interaction term between the proportion of government directors and a dummy variable for firms that operate in regulated industries. We find that the coefficient estimate on the interaction term is significantly positive.

Overall, these results echo those from the analysis of merger announcement returns and suggest that government directors' negative effect outweighs their positive effect, especially

¹⁴ As a robustness check, we use annual ROAs without industry adjustment and find similar results.

when firms with a government director do not maintain a trading relationship with the government or when they operate in nonregulated industries.

We also use a 2SLS regression approach that is similar to that used in Table 5 to mitigate the concern that unobservable omitted firm characteristics or reverse causality between board structure and firm performance drive our results. For example, it could be the case that poorly performing firms appoint more government directors on their boards, so that firms with a government director have worse operating performance than firms without a government director. In such a case, the causation goes from poor operating performance to the presence of a government director, not the other way around. In the first stage, we estimate an OLS regression of the proportion of government directors using as explanatory variables the instrumental variable discussed in the previous section and the other variables used in model (5) of Table 7. In the second stage, we estimate an OLS regression of a firm's industry-adjusted ROA on the predicted value of the proportion of government directors from the first stage and the other variables used in model (5). The results are reported in the last two columns of Table 7. We find that the coefficient estimate on the predicted value of the proportion of government directors is negative and significant at the 0.05 level in model (7). Thus, the presence of a government director adversely affects a firm's operating performance even after controlling for endogeneity bias.

5. Evidence from close gubernatorial elections

To further address the concern regarding omitted variable biases, in this section, we examine the change in firm value around close gubernatorial elections.¹⁵ We collect gubernatorial election results from state official election websites and define an election as

¹⁵ We thank an anonymous referee for suggesting this approach.

“close” when the margin of votes between the candidates finishing first and second is less than 5% of the total votes. We are able to identify 50 close gubernatorial elections during our sample period. We expect these elections to serve as a natural experiment for our tests for two reasons. First, close gubernatorial elections change the political power within the state and have an impact on the value of political connection for directors connected to a winning or losing party. Second, they affect the value of the connection between the director and the winning (losing) candidates. Moreover, to the extent that these close gubernatorial election results are unlikely to be predictable, we can attribute the observed change in firm value to the change in political power.¹⁶ Specifically, we perform the following four tests.

5.1. Announcement returns for firms having government directors with political experience who are affiliated with a winning/losing party

As a first test, we examine the market reaction to the announcement of the election results for firms having government directors with political experience who are affiliated with a winning/losing party. We follow Goldman, Rocholl, and So (2009) in identifying government directors with political experience. In our sample, approximately 10% of the government directors are former politicians whose party affiliation is known. Using this information, we further classify firms having government directors with political experience into those whose government directors are affiliated with a winning party and those whose government directors are affiliated with a losing party.

For each of the close gubernatorial elections, we use the date on which the election results are announced as the announcement date. We estimate the market model by using 200 days of return data ending 21 trading days before the election announcement date. We use the CRSP

¹⁶ Close gubernatorial election events are also used in a recently study by Do, Lee, and Nguyen (2016).

value-weighted return as a proxy for the market return. For a robustness test, we follow Goldman, Rocholl, and So (2009) and report the firms' announcement return during four event windows: (+1, +2), (+1, +3), (+1, +5), and (+1, +7).

The results are reported in Panel A of Table 8. We find that firms whose government directors with political experience are affiliated with the winning party experience an increase in firm value across all the event windows, while those whose government directors with political experience are affiliated with the losing party experience a decrease in firm value. These findings suggest that one potential channel through which government directors create value is their political connection.

As a second test, to further identify the source of value creation, in Panel B of Table 8, we divide firms whose government directors with political experience are affiliated with the winning party into two groups: firms whose government directors are socially connected to a winning candidate and those whose government directors are not socially connected to a winning candidate. To identify social connection, for each candidate in the election, we search the internet, including her campaign website, the election office website, and *Wikipedia.com*, to obtain her biographies, such as employment history, degrees attained, the year in which these degrees were awarded, and the awarding institution. We then combine this information with the government directors' biographical information extracted from BoardEx and identify the social connection between the government directors and the election candidates. We consider a government director and a winning candidate to be socially connected when they share common educational antecedents or common prior employment. We find that the former group of firms exhibit higher announcement returns than the latter group of firms, indicating that social

connection to the winning candidate is another important source of value creation by government directors with political experience who are affiliated with a winning party.

5.2. Announcement returns for firms with government directors (including both former politicians and nonpoliticians) who are socially connected to winning/losing candidates

As a third test, we examine the market reaction for firms with government directors who are socially connected to winning/losing candidates during the announcement of the election results. The sample includes all types of government directors, including both former politicians and nonpoliticians. We classify firms into those with government directors who are socially connected to winning candidates and those with government directors who are socially connected to losing candidates.

The results are reported in Panel C of Table 8. We find that firms with government directors who are socially connected to winning candidates experience an increase in firm value, while those with government directors who are socially connected to losing candidates experience a decrease in firm value, suggesting the potential benefit of government directors being socially connected to the politician in power.

To further examine the importance of government directors' political connections in increasing firm value, as a last test, we focus on firms with government directors who are socially connected to winning candidates and examine whether the announcement returns are different depending on the existence of government directors' political connections. Specifically, we divide firms with government directors who are socially connected to winning candidates into two groups: firms with government directors who are politically connected to winning candidates and those with government directors who are not politically connected to winning

candidates. The results are reported in Panel D of Table 8. We find that the former group of firms exhibit significantly higher announcement returns than the latter group. Thus, political connections through government directors help add value to the firms beyond their social connections to the politician in power.

Overall, these results suggest that firms with government directors who are politically affiliated with a winning (losing) party and those with government directors who are socially connected to a winning (losing) candidate experience an increase (decrease) in firm value. These findings highlight that political connections, either through party affiliation or through social connection, could be an important channel through which government directors can add value to the firms. However, it should be noted that most of our sample government directors do not have political experience or connections to political power, with only approximately 10% of the government directors having political experiences and party affiliation. As a result, although this small group of government directors can create value through their access to political power, the majority of remaining government directors who do not have such access do not add value as documented in the previous sections. For example, in Section 4.1, where we use an event study methodology to examine the market reaction to the announcements of government director appointments, we find that the stock market perceives the announcements of the nominations of government directors with (without) political experience to the board as value-increasing (value-decreasing) events.¹⁷ In the next section, we further examine how our results are different depending on the heterogeneity in government directors' past experience.

¹⁷ The results in this subsection are also consistent with those in prior studies that examine the relation between the political connection and firm value. For example, Goldman, Rocholl, and So (2009) find a positive abnormal stock return around the announcement of the nomination of a politically connected individual to the board. Using an international sample of sudden deaths of politicians, Faccio and Parsley (2009) document a decline of a market-adjusted return of 1.7% for firms headquartered in the deceased politician's hometown.

6. Additional tests

6.1. Heterogeneity of directors' past government experience

To the extent that the potential benefits that government directors bring to a firm may differ depending on their previous experience in the government sectors, in this subsection, we further examine whether our results differ depending on their heterogeneity, such as the relatedness of government directors' experience and their rank in government.

We first examine whether the relatedness of government directors' experience matters. We find that in board attendance regressions, the coefficient estimate on the dummy variable for government directors with related experience is not significant, while that on the dummy variable for government directors with unrelated experience is positive and significant at the 0.10 level. These results suggest that the probability of missing board meetings is especially higher when government directors previously worked for public sectors whose main businesses are unrelated to firms' industries. We also find that, compared with firms with nongovernment directors, both firms with government directors who have related experience and those with government directors who have unrelated experience realize significantly lower merger announcement returns. However, the coefficient estimate on the dummy variable for firms with government directors who have related experience is significantly smaller than the coefficient estimate on the dummy variable for firms with government directors who have unrelated experience at the 10% level. Thus, the "rubber-stamp" role of government directors is less evident when their prior experience in the government sector is related to firms' main businesses.

However, we find that irrespective of whether government directors' previous experience in the government sectors is related or not, firms with government directors have a lower

probability of their merger deals being challenged by antitrust authorities, and they experience poorer operating performance. We further find that the appointments of these government directors are associated with negative abnormal returns.

Next, we examine the seniority of government directors. We find that in board attendance regressions, the coefficient estimate on the dummy variable for government directors with a senior position is positive and significant, while the coefficient estimate on the dummy variable for government directors with a junior position is not significant, suggesting that government directors with a senior position are more likely to miss board meetings. We also find that firms with a government director who previously held a junior position realize significantly lower merger announcement returns than firms with a nongovernment director, while firms with a government director who previously held a senior position realize merger announcement returns that are statistically indistinguishable from those of firms with a nongovernment director.

We further find that the mergers by firms with government directors are less likely to be challenged by antitrust authorities, irrespective of the ranks of their prior positions in the government sector. Firms with government directors also experience significantly lower operating performance than firms with nongovernment directors, irrespective of government directors' rank in prior positions in the government sector. However, in the operating performance regressions, the coefficient estimate on the dummy variable for firms with a government director who previously held a junior position is significantly lower than the coefficient estimate on the dummy variable for firms with a government director who previously held a senior position. We also find that for the announcement effect of director appointments, only the appointments of government directors who previously held a junior position are associated with negative abnormal announcement returns.

Thus, the overall effect of government directors on firm performance is particularly negative when they previously held a junior position in the public sector.

6.2. Omitted variable bias

Table 2 shows that a firm's decision to hire government directors has its own determinants, raising the possibility that firms with certain characteristics choose to hire government directors. Although we control for these differences in firms characteristics using various control variables, other observable omitted variables simultaneously affect the presence of a government director on the board and firm performance. In addition, differences in observables would most likely translate to differences in unobservables. To alleviate these concerns, we employ a matching technique that controls for selection based on observable firm characteristics: matching and treatment samples are similar in observable characteristics but differ in the existence of government directors.

The matching procedure we employ is a one-to-one nearest neighbor matching with replacement (Heckman, Ichimura, and Todd, 1997). We also employ two additional matching techniques: Gaussian kernel and local linear. The matching starts with a probit regression in which the dependent variable is the presence of a government director and the explanatory variables are a set of firm, board, and CEO characteristics that can potentially affect the appointment decision of government directors. Then, using the predicted probabilities—propensity scores—estimated from the probit regressions, we match each firm-year observation with a government director with a firm-year observation without a government director. To ensure the quality of the match, we drop 2% of the observations for which the propensity score

density of the matched observations is the lowest (Smith and Todd, 2005; Bae, Kang, and Wang, 2011).

In Panel A of Table 9, we report the average firm characteristics of the treated firms (firms with government directors) and the matching firms without government directors and test the differences in these characteristics. We find that other than total assets and CEO-chairman duality, where the matched firms have a marginally smaller size and a smaller frequency of CEO-chairman duality, there are no statistical differences in firm, board, or CEO characteristics between the two groups of firms, suggesting that the matching is effective.

Next, we calculate the difference in industry-adjusted ROA between firms with and without government directors using each matching technique. We use bootstrapped standard errors based on 50 replications. The results are reported in Panel B of Table 9. We find that, on average, firms with government directors have approximately 0.5% lower industry-adjusted ROA than matching firms without government directors. The differences in industry adjusted ROA between these two groups of firms are significant at the 5% level across all three matching techniques. Therefore, the negative effect of government directors on operating performance is unlikely to be driven by observable firm characteristics other than the presence of government directors on the board.

6.3. Likelihood of top executive turnover

In this subsection, we test the governance role of government directors by examining the likelihood of top executive turnover. We examine the likelihood of top executive turnover by performing logit regressions in which the dependent variable equals one if a top executive turnover event occurs and zero otherwise. We obtain information about top executive turnover

from BoardEx by examining changes in the name of a firm's top executive. Following Denis, Denis, and Sarin (1997) and Kang and Kim (2008), we define the top executive as the CEO. If a firm does not have a CEO, we take the chairman of the board to be the top executive.

Following Kaplan and Minton (2012), the regression includes as explanatory variables the previous one-year Fama-French (1997) 48 industry-adjusted stock return, the proportion of outside directors, the previous one-year market return, the difference between the previous one-year industry and market returns, and a dummy variable that equals one if the CEO is older than 60. Furthermore, following Denis, Denis, and Sarin (1997), we include top executive tenure and institutional ownership as additional control variables. The regressions also include a dummy variable for having the government as a major customer, the proportion of busy directors, the proportion of socially connected directors, industry-adjusted ROA, and log (total assets). Finally, to control for industry effects and potential time trends, we include industry and year fixed effects, respectively.

In untabulated tests, we find that the coefficient estimate on the interaction term between prior stock performance and the proportion of government directors on the board is not significant, suggesting that government directors are no different from other directors in disciplining poorly performing top executives.

7. Summary and Conclusion

In this paper, we examine two competing views concerning the role of government directors and the effect of their board presence on firm performance: the value-enhancing view and the rubber-stamp view. We find several important results that support the rubber-stamp view of government directors, but we also identify circumstances under which government directors add

value to a firm. First, we find that government directors are more likely to have board meeting attendance problems than nongovernment directors, especially when they hold multiple directorships, when they are socially connected to the CEO, or when their firms operate in nonregulated industries. However, government directors are more likely to attend board meetings than nongovernment directors when their firms maintain a major trading relationship with the government.

Second, merger announcement returns for acquiring firms with a government director are significantly lower than those for acquiring firms without a government director. However, their announcement returns are statistically indistinguishable from those of firms without a government director when they maintain extensive trading relationships with the government or when they operate in regulated industries. Moreover, compared to mergers by firms without a government director, those by firms with a government director are less likely to be challenged by antitrust authorities.

Third, we find that announcements of government director appointments are greeted more negatively by investors than announcements of nongovernment director appointments. However, this result is evident only when firms with government directors do not maintain a major trading relationship with the government or when they operate in nonregulated industries. We also find that firms with government directors experience worse operating performance than firms without government directors, but only when they do not maintain a major trading relationship with the government or when they operate in nonregulated industries.

To address the concern regarding omitted variable bias, we examine the change in firm value around close gubernatorial elections. We find that firms having government directors with political experience who are affiliated with a winning (losing) party experience an increase

(decrease) in firm value. We further find that firms with any type of government director who is socially connected to winning (losing) candidates, particularly those with government directors who also have a political connection with winning candidates, experience an increase (decrease) in firm value. Our findings are also robust to using instrumental variables and propensity score matching approaches.

Overall, these results are consistent with the rubber-stamp view on the role of government directors. However, in circumstances in which government directors are expected to play an instrumental role in facilitating sales to the government or influencing the actions of regulatory agencies, we find that the positive impact on firm performance of having government directors largely offsets the potential costs associated with their presence.

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Table 1
Distribution of sample firms with government directors by year and industry

This table shows the distribution of sample firms with government directors by year and industry. The initial sample includes all firms covered in Management Diagnostics Ltd's BoardEx database for the period 1990 to 2007. To be included in the final sample, the firm must be covered in both Compustat and CRSP. Outside directors are directors who do not have any executive role in the firm. Government directors are outside directors who have worked in government agencies prior to being appointed to a sample firm's board. To identify the government director, we use the director employment profile from BoardEx. Specifically, using this profile, we search for the names of all institutions that a director had worked with prior to his/her appointment to a firm's board of directors. We then manually check whether the director worked with one of the government institutions listed on the U.S. government's web site. In Panel C, we classify former government officials as being related if they are nominated to a company that operates in an industry that is related to their former government job duties (Cohen, Coval and Malloy, 2011). We define senior government directors as the directors who had senior positions at the government sector. We identify government directors with political experience as those who previously held one of the following positions: President, Presidential (Vice-Presidential) candidate, senator, member of the House of Representatives, (assistant) secretary, deputy secretary, deputy assistant secretary, undersecretary, associate director, governor, director (CIA, FEMA), deputy director (CIA, OMB), commissioner (IRS, NRC, SSA, CRC, FDA, SEC), representative to the United Nations, ambassador, mayor, staff (White House, President, Presidential campaign), chairman of the Party Caucus, chairman or staff of the Presidential election campaign, and chairman or member of the President's committee/council (Goldman, Rocholl, and So, 2009).

Panel A: Distribution of sample firms by year

Year	Number of total sample firms: (a)	Number of firms with at least one government director: (b)	Proportion of firms with at least one government director: (b / a)	Ratio of number of government directors to number of outside directors conditional on the presence of a government director
1990	1,805	568	31.47%	30.55%
1991	2,399	744	31.01%	30.75%
1992	2,706	867	32.04%	29.87%
1993	3,071	1,025	33.38%	30.17%
1994	3,403	1,156	33.97%	29.59%
1995	3,998	1,368	34.22%	28.81%
1996	4,450	1,616	36.31%	27.57%
1997	4,702	1,821	38.73%	26.84%
1998	5,251	2,057	39.17%	25.62%
1999	5,490	2,236	40.73%	24.70%
2000	5,344	2,321	43.43%	23.38%
2001	5,235	2,442	46.65%	22.43%
2002	5,213	2,516	48.26%	21.64%
2003	5,239	2,608	49.78%	21.09%
2004	5,572	2,873	51.56%	20.56%
2005	5,360	2,805	52.33%	20.44%
2006	4,997	2,627	52.57%	20.18%
2007	4,568	2,491	54.53%	20.10%
Total	78,803	34,141	43.32%	23.76%

Panel B: Distribution of sample firms by industry (in year 1999)

Industry	Number of sample firms: (a)	Number of firms with at least one government director: (b)	Proportion of firms with at least one government director: (b / a)
Agriculture	20	8	40.00%
Food Products	80	35	43.75%
Candy & Soda	9	6	66.67%
Beer & Liquor	23	9	39.13%
Tobacco Products	9	5	55.56%
Recreation	44	13	29.55%
Entertainment	71	31	43.66%
Printing and Publishing	47	26	55.32%
Consumer Goods	81	34	41.98%
Apparel	75	26	34.67%
Healthcare	96	36	37.50%
Medical Equipment	185	73	39.46%
Pharmaceutical Products	342	151	44.15%
Chemicals	92	53	57.61%
Rubber and Plastic	39	14	35.90%
Textiles	22	6	27.27%
Construction Materials	88	43	48.86%
Construction	53	23	43.40%
Steel Works Etc	75	28	37.33%
Fabricated Products	22	6	27.27%
Machinery	173	77	44.51%
Electrical Equipment	67	31	46.27%
Automobiles and Trucks	68	30	44.12%
Aircraft	17	12	70.59%
Shipbuilding/Railroad	9	7	77.78%
Defense	7	5	71.43%
Precious Metals	42	6	14.29%
Mining	31	6	19.35%
Coal	6	4	66.67%
Petroleum and Natural	195	78	40.00%
Utilities	127	91	71.65%
Communication	188	65	34.57%
Personal Services	56	28	50.00%
Business Services	841	260	30.92%
Computers	262	84	32.06%
Electronic Equipment	364	120	32.97%
Measuring and Control	123	43	34.96%
Business Supplies	65	25	38.46%
Shipping Containers	17	9	52.94%
Transportation	132	65	49.24%
Wholesale	204	65	31.86%
Retail	262	94	35.88%
Restaurants/Hotels	105	39	37.14%
Banking	253	155	61.26%
Insurance	165	92	55.76%
Real Estate	44	18	40.91%
Financial Trading	135	73	54.07%
Other	59	28	47.46%
Total	5,490	2,236	40.73%

Panel C: Heterogeneity of government directors

Year	Firms with government directors	Firms with related government directors		Firms with senior government directors		Firms having government directors with political experience	
1990	568	107	18.84%	64	11.27%	33	5.81%
1991	744	134	18.01%	78	10.48%	48	6.45%
1992	867	152	17.53%	94	10.84%	66	7.61%
1993	1,025	209	20.39%	134	13.07%	74	7.22%
1994	1,156	227	19.64%	159	13.75%	83	7.18%
1995	1,368	236	17.25%	178	13.01%	102	7.46%
1996	1,616	321	19.86%	196	12.13%	134	8.29%
1997	1,821	334	18.34%	227	12.47%	157	8.62%
1998	2,057	352	17.11%	264	12.83%	189	9.19%
1999	2,236	370	16.55%	288	12.88%	205	9.17%
2000	2,321	394	16.98%	301	12.97%	257	11.07%
2001	2,442	427	17.49%	332	13.60%	241	9.87%
2002	2,516	431	17.13%	368	14.63%	267	10.61%
2003	2,608	462	17.71%	411	15.76%	281	10.77%
2004	2,873	475	16.53%	430	14.97%	302	10.51%
2005	2,805	496	17.68%	451	16.08%	339	12.09%
2006	2,627	502	19.11%	478	18.20%	347	13.21%
2007	2,491	528	21.20%	490	19.67%	366	14.69%
Total	34,141	6,157	18.03%	4,943	14.48%	3,491	10.23%

Table 2
Summary statistics by director appointment types

The table shows summary statistics on board-, director-, firm-, and top executives-specific characteristics for a sample of 20,101 outside director appointments between 1990 and 2007. The initial sample includes all outside director appointments by firms covered in BoardEx between 1990 and 2007. To be included in the final sample, the firm must be covered in both Compustat and CRSP. We assume that a new director appointment takes place when the director's name first appears on the list of directors. Outside directors are directors who do not have any executive role in the firm. Government directors are outside directors who have worked in government agencies prior to being appointed to a sample firm's board. We refer to all other outside director appointments as nongovernment director appointments. All variables are measured as of the fiscal year-end that immediately precedes the director appointments. Appendix provides a detailed description of the construction of the variables. *N* denotes the number of director appointment observations. Numbers in test-of-difference columns are *p*-values.

Variables	Government director appointment: A (N = 3,502)		Nongovernment director appointment: B (N = 16,599)		Test of difference (A-B)	
	Mean	Median	Mean	Median	<i>t</i> -test	Wilcoxon <i>z</i> -test
Board characteristics:						
Board size	8.594	8	8.449	8	(0.01)	(0.00)
Proportion of outside directors	74.812	80	74.623	80	(0.31)	(0.19)
Proportion of government directors	16.624	14.300	11.620	9.100	(0.00)	(0.00)
Number of departing government directors	0.157	0	0.102	0	(0.00)	(0.00)
Number of departing nongovernment directors	0.589	0	0.681	0	(0.00)	(0.00)
Change in number of board seats (%)	13.091	0	14.785	0	(0.30)	(0.08)
Director characteristics:						
Director age (year)	58.393	59	54.622	55	(0.00)	(0.00)
Proportion of directors with a law degree	26.321	0	10.075	0	(0.00)	(0.00)
Proportion of female directors	15.512	0	10.725	0	(0.00)	(0.00)
Number of other board seats director holds	2.502	1	1.975	0	(0.00)	(0.00)
Proportion of busy directors	37.201	0	28.218	0	(0.00)	(0.00)
Proportion of socially connected directors	13.015	0	9.065	0	(0.00)	(0.00)
Firm characteristics:						
Total assets (\$ billions)	13.512	1.205	9.672	0.730	(0.00)	(0.00)
Return volatility	0.031	0.025	0.034	0.028	(0.00)	(0.00)
Leverage	0.239	0.207	0.235	0.200	(0.19)	(0.03)
Capital expenditures / total assets	0.055	0.040	0.054	0.038	(0.34)	(0.06)
R&D expenditures / total assets	0.045	0	0.054	0	(0.00)	(0.00)
Firm has the government as a major customer (dummy)	0.124	-	0.064	-	(0.00)	(-)
Government sales / total sales	0.047	0	0.020	0	(0.00)	(0.00)
Institutional ownership	0.503	0.523	0.459	0.470	(0.00)	(0.00)
Previous one year sales growth	0.134	0.094	0.127	0.095	(0.19)	(0.06)
Cash flow / total assets	0.019	0.072	0.002	0.069	(0.01)	(0.00)
Industry-adjusted ROA	0.035	0.029	0.015	0.024	(0.00)	(0.00)

Tobin's q	2.266	1.572	2.149	1.519	(0.00)	(0.00)
Proportion of firms in regulated industry	0.268	-	0.212	-	(0.00)	(-)
Distance between firm's headquarters and the closest state capital (or Washington D.C.) (km)	20.446	17.593	21.490	19.421	(0.00)	(0.00)
Top executive characteristics:						
Top executive is a chairman (dummy)	0.635	-	0.560	-	(0.00)	(-)
Top executive is a founder (dummy)	0.109	-	0.092	0.000	(0.00)	(-)
Top executive age (years)	54.164	54	53.261	53	(0.00)	(0.00)
Top executive tenure (years)	5.097	3	4.906	3	(0.01)	(0.00)

Table 3
Regression estimates of the likelihood of directors' board meeting attendance

This table presents the results of logit and linear probability model (LPM) regressions in which the dependent variable is equal to one if a director attended less than 75% of board meetings during a fiscal year, and zero otherwise. The initial sample includes all outside directors covered by the BoardEx between 1990 and 2007. To be included in the final sample, the firm must be covered in Compustat, CRSP, RiskMetrics (formerly IRR), and ExecuComp. Board meeting attendance information is obtained from RiskMetrics database. Director meeting fee information is obtained from ExecuComp database. Outside directors are directors who do not have any executive role in the firm. Government directors are outside directors who have work experience in the government prior to the appointment to the board of director in the sample firm. We refer to all other outside directors as nongovernment directors. Appendix provides a detailed description of the construction of the variables. *p*-values in parentheses are based on standard errors that are heteroskedasticity-consistent and allow for clustering at the firm level. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Independent variables	Subsample of nonregulated firms								Total sample of regulate and nonregulated firms	
	Logit (1)	LPM (2)	Logit (3)	LPM (4)	Logit (5)	LPM (6)	Logit (7)	LPM (8)	Logit (9)	LPM (10)
Government director (dummy): a	0.075** (0.04)	0.004* (0.04)	0.060* (0.08)	0.002 (0.12)	0.058* (0.07)	0.003* (0.08)	0.051* (0.07)	0.003* (0.08)	0.050* (0.06)	0.002** (0.04)
Number of director's board seats: b			0.124*** (0.00)	0.003*** (0.00)						
Number of social ties between the directors and CEO: c					0.201** (0.04)	0.002** (0.00)				
Percentage of sales to the government: d							-0.621** (0.04)	-0.033** (0.02)		
Firm is in a regulated industry (dummy): e									-0.335** (0.08)	-0.002* (0.06)
a*b			0.034** (0.04)	0.001** (0.04)						
a*c					0.012* (0.06)	0.001** (0.03)				
a*d							-0.061* (0.07)	-0.021* (0.06)		
a*e									-0.048* (0.08)	-0.003* (0.02)
Director has law degree (dummy)	-0.201** (0.03)	-0.005* (0.08)	-0.243*** (0.00)	-0.006 (0.12)	-0.248** (0.03)	-0.005 (0.15)	-0.226** (0.03)	-0.005 (0.09)	-0.260** (0.04)	-0.007** (0.02)
Board size	0.061** (0.02)	0.002* (0.06)	0.056*** (0.00)	0.002* (0.09)	0.057*** (0.00)	0.002* (0.08)	0.057*** (0.00)	0.002* (0.08)	0.050*** (0.00)	0.002* (0.07)
Proportion of outside directors	0.541* (0.08)	0.001 (0.95)	0.570* (0.09)	0.001 (0.98)	0.520 (0.14)	0.001 (0.95)	0.504 (0.13)	0.001 (0.94)	0.482* (0.07)	0.001 (0.58)
Log (director age)	-1.270*** (0.00)	-0.030*** (0.00)	-1.272*** (0.00)	-0.030*** (0.00)	-1.280*** (0.00)	-0.030*** (0.00)	-1.282*** (0.00)	-0.030*** (0.00)	-1.290*** (0.00)	-0.030*** (0.00)
Director is female (dummy)	-0.310*** (0.00)	-0.006* (0.07)	-0.320*** (0.00)	-0.007** (0.04)	-0.290*** (0.00)	-0.006* (0.09)	-0.310*** (0.00)	-0.006* (0.07)	-0.290*** (0.00)	-0.005* (0.07)

Log (total assets)	-0.064** (0.02)	-0.004 (0.29)	-0.059** (0.02)	-0.004 (0.28)	-0.062** (0.03)	-0.004 (0.31)	-0.065** (0.02)	-0.004 (0.30)	-0.072** (0.02)	-0.004 (0.34)
Industry-adjusted ROA	0.509 (0.12)	0.004 (0.85)	0.524 (0.20)	0.004 (0.85)	0.501 (0.12)	0.004 (0.84)	0.530 (0.14)	0.004 (0.83)	0.692 (0.23)	0.005 (0.63)
Institutional ownership	-0.316* (0.05)	0.002 (0.88)	-0.312* (0.06)	0.002 (0.82)	-0.310* (0.06)	0.002 (0.82)	-0.310* (0.06)	0.002 (0.87)	-0.320** (0.04)	0.003 (0.82)
Top executive is a chairman (dummy)	0.033 (0.60)	0.001 (0.80)	0.038 (0.58)	0.001 (0.79)	0.036 (0.70)	0.001 (0.82)	0.034 (0.60)	0.001 (0.83)	0.034 (0.62)	0.001 (0.88)
Top executive is a founder (dummy)	-0.042 (0.70)	-0.006 (0.44)	-0.051 (0.70)	-0.006 (0.44)	-0.050 (0.72)	-0.006 (0.44)	-0.042 (0.72)	-0.006 (0.44)	-0.043 (0.72)	-0.007 (0.44)
Director meeting fee	-0.062* (0.06)	-0.003 (0.25)	-0.059* (0.07)	-0.003 (0.25)	-0.059* (0.08)	-0.003 (0.25)	-0.060* (0.06)	-0.003 (0.26)	-0.082** (0.05)	-0.004 (0.23)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Firm fixed effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Number of observations	42,391	42,391	42,391	42,391	42,391	42,391	42,391	42,391	55,193	55,193
Pseudo / Adjusted R^2	0.02	0.03	0.03	0.04	0.03	0.04	0.03	0.04	0.03	0.04

Table 4
OLS regression of acquirers' cumulative abnormal return (-1, 1) on explanatory variables

This table presents the results of OLS regressions in which the dependent variable is the acquirer's cumulative abnormal return (CAR) from one day before to one day after the merger announcement date. The sample consists of 5,118 mergers between 1990 and 2007. We obtain the initial sample of mergers from Thomson Financial's Security Data Corporation (SDC) Platinum database. We then exclude cases in which the acquirer is not covered in BoardEx. We also exclude those mergers in which the transaction value is less than one million dollars or less than 1% of the acquirer's market value of equity. We estimate the market model by using 200 days of return data ending 21 trading days before the merger announcement date. We use the CRSP value-weighted return as a proxy for the market return. Outside directors are directors who do not have any executive role in the firm. Government directors are outside directors who have worked in government agencies prior to being appointed to a sample firm's board. We refer to all other outside directors as nongovernment directors. All independent variables are measured as of the fiscal year-end that immediately precedes the merger announcement date. Appendix provides a detailed description of the construction of the variables. *p*-values in parentheses are based on standard errors that are heteroskedasticity-consistent and allow for clustering at the firm level. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

	Subsample of nonregulated firms					Total sample of regulation and nonregulated firms
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
Proportion of government directors: a	-0.012*** (0.00)	-0.007*** (0.00)	-0.009*** (0.00)	-0.006*** (0.00)	-0.015*** (0.00)	-0.010*** (0.00)
Proportion of inexperienced nongovernment outside director: b		0.025 (0.15)				
Average number of board seats held by government directors:			-0.003 (0.16)			
Average number of social ties between government directors and CEO: d				-0.002* (0.08)		
Percentage of sales to the government: e					0.030* (0.07)	
Firm is in a regulated industry (dummy): f						0.006 (0.13)
a*b		-0.006** (0.04)				
a*c			-0.002* (0.06)			
a*d				-0.002** (0.04)		
a*e					0.020* (0.06)	
a*f						0.003** (0.04)
Board size	0.001*	0.001**	0.001*	0.002**	0.001**	0.001*

	(0.06)	(0.04)	(0.08)	(0.02)	(0.04)	(0.08)
Proportion of outside directors	0.016	0.012	0.020	0.028	0.024	0.035
	(0.20)	(0.32)	(0.36)	(0.33)	(0.40)	(0.50)
Log (total assets)	-0.005***	-0.005***	-0.006**	-0.005***	-0.005***	-0.005***
	(0.00)	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)
Leverage	0.001	0.002	0.003	0.002	0.002	0.001
	(0.97)	(0.90)	(0.75)	(0.66)	(0.74)	(0.95)
Cash flow / total assets	-0.032***	-0.032***	-0.032***	-0.033*	-0.032***	-0.024**
	(0.00)	(0.00)	(0.00)	(0.05)	(0.00)	(0.04)
Tobin's q	-0.022***	-0.020**	-0.021***	-0.021***	-0.021***	-0.021***
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Private target (dummy)	-0.013**	-0.012**	-0.013**	-0.014**	-0.015**	-0.014**
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Public target (dummy)	-0.045***	-0.045***	-0.045***	-0.043***	-0.045***	-0.048***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
All cash payment (dummy)	0.010**	0.010**	0.010**	0.010**	0.010**	0.008**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)
All stock payment (dummy)	-0.005	-0.006	-0.006	-0.005	-0.006	-0.005
	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)
Same industry merger (dummy)	-0.005*	-0.005*	-0.005*	-0.006	-0.007*	-0.007*
	(0.06)	(0.06)	(0.06)	(0.11)	(0.06)	(0.06)
Tender offer (dummy)	0.028***	0.028***	0.029***	0.028***	0.028***	0.027***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Competing offer (dummy)	-0.010	-0.010	-0.011	-0.012	-0.012	-0.010
	(0.36)	(0.38)	(0.32)	(0.30)	(0.32)	(0.33)
Deal value / market value of equity	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	3,944	3,944	3,944	3,944	3,944	5,188
Adjusted R^2	0.07	0.07	0.07	0.07	0.07	0.07

Table 5
Probit and 2SLS regressions of probability of merger deals being challenged by antitrust authorities

This table presents the results of probit and 2SLS regressions in which the dependent variables are a dummy variable that is equal to one if a merger deal is challenged by the antitrust authorities, and zero otherwise in models (1) and (3), and the proportion of government directors on the board in model (2). We obtain the initial sample of mergers from Thomson Financial's Security Data Corporation (SDC) Platinum database. We then exclude cases in which the acquirer is not covered in BoardEx. We also exclude those mergers in which the transaction value is less than one million dollars or less than 1% of the acquirer's market value of equity. Following Fee and Thomas (2004), we define a deal as challenged if the Justice Department or Federal Trade Commission (FTC) brought suit or threatened to sue to block the deal, or if the firm voluntarily restructured the deal or entered into a consent agreement to satisfy regulatory demands. We obtain information on merger challenges from "Annual Report to Congress Pursuant to Subsection (j) of the Clayton Act Hart-Scott-Rodino Antitrust Improvements Act of 1976" jointly issued by the Justice Department or FTC for fiscal years from 1990 to 2007 (13th to 30th reports). All independent variables are measured as of the fiscal year-end that immediately precedes the director appointments. Appendix provides a detailed description of the construction of the variables. *p*-values in parentheses are based on standard errors that are heteroskedasticity-consistent and allow for clustering at the firm level. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Independent variables	Total sample of regulated and nonregulated firms		
	Probit	2SLS	
	(1)	(2) 1 st Stage	(3) 2 nd Stage
Proportion of government directors: a	-0.892*** (0.00)		-0.530** (0.03)
Acquirers' cumulative abnormal return (-1, 1)	-1.562** (0.03)		-0.072 (0.13)
Instrument: Log of the distance between firm headquarters and the closest state capital (or Washington D.C.)		0.013** (0.02)	
Other control variables in Table 4	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	5,188	5,188	5,188
Pseudo R^2 / Adjusted R^2	0.33	0.24	0.15

Table 6
OLS regression of cumulative abnormal returns (-1, 1) around the announcement date of director appointments on explanatory variables

This table presents the results of OLS regressions in which the dependent variable is the cumulative abnormal return (CAR) from one day before to one day after the announcement date of director appointments. The sample consists of 339 outside director appointments between 1990 and 2007. Of these 339 outside director appointments, 176 are government director appointments and 163 are nongovernment director appointments made by the same firms that appoint the government directors. Outside directors are directors who do not have any executive role in the firm. Government directors are outside directors who have worked in the government prior to being appointed to the sample firm's board of directors. We refer to all other outside directors as nongovernment directors. Data on new director appointments come from BoardEx. Specifically, we assume that a new director appointment has taken place when the name of a new director first appears on the list of a firm's director names in BoardEx. For each of these new director appointments, we use the date that the appointment is first mentioned in *Factiva* as the initial announcement date. In addition, we search *Factiva* for major confounding corporate news (e.g., dividend payments, earnings announcements, and management turnover) one trading day before and after the initial announcement and exclude such observations. We estimate the market model by using 200 days of return data ending 21 trading days before the director appointment date. We use the CRSP value-weighted return as a proxy for the market return. All independent variables are measured at the fiscal year-end that immediately precedes the announcement date of director appointments. Appendix details the construction of the variables. *p*-values in parentheses are based on standard errors that are heteroskedasticity-consistent and allow for clustering at the firm level. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Independent variables	Subsample of nonregulated firms				Total sample of regulated and nonregulated firms
	(1)	(2)	(3)	(4)	(5)
Government director (dummy): a	-0.010** (0.02)	-0.004** (0.02)	-0.006** (0.02)	-0.005* (0.07)	-0.010** (0.02)
Number of director's board seats: b		-0.002* (0.06)			
Number of social ties between the director and CEO: c			-0.001 (0.12)		
Percentage of sales to the government: d				0.025* (0.06)	
Firm is in a regulated industry (dummy): e					0.006** (0.04)
a*b		-0.001** (0.03)			
a*c			-0.002* (0.07)		
a*d				0.012** (0.02)	
a*e					0.004* (0.06)
Log (director age)	0.022 (0.33)	0.024 (0.36)	0.022 (0.36)	0.024 (0.32)	0.026 (0.19)
Log (total assets)	0.001 (0.46)	0.001 (0.46)	0.001 (0.45)	0.001 (0.44)	0.001 (0.39)
Leverage	0.006 (0.69)	0.007 (0.70)	0.007 (0.63)	0.007 (0.63)	0.007 (0.63)
Capital expenditures / total assets	0.013 (0.72)	0.013 (0.72)	0.014 (0.74)	0.014 (0.74)	0.011 (0.75)
Industry-adjusted ROA	-0.003 (0.62)	-0.004 (0.58)	-0.003 (0.62)	-0.003 (0.62)	-0.003 (0.60)
Number of observations	274	274	274	274	317
Adjusted R^2	0.01	0.02	0.02	0.02	0.02

Table 7
OLS and 2SLS regressions of operating performance on explanatory variables

This table presents results of OLS and 2SLS regressions in which the dependent variables are a firm's annual industry-adjusted operating performance (ROA) in models (1) through (5) and model (7) and a dummy variable for the presence of government directors on the board in model (6), respectively. Industry-adjusted ROA is estimated by subtracting the median ROA of the other firms in a sample firm's Fama and French (1997) industry from each sample firm's raw ROA. The initial sample includes all firm-year observations covered in BoardEx between 1990 and 2007. To be included in the final sample, the firm must be covered in both Compustat and CRSP. Outside directors are directors who do not have any executive role in the firm. Government directors are outside directors who have worked in government agencies prior to being appointed to a sample firm's board. We refer to all other outside directors as nongovernment directors. Appendix provides a detailed description of the construction of the variables. *p*-values in parentheses are based on standard errors that are heteroskedasticity-consistent and allow for clustering at the firm level. ***, **, and * denote significance at the 0.01, 0.05, and 0.10 levels, respectively.

Independent variables	Nonregulated firms				Regulated and nonregulated firms		
	OLS				(5)	2SLS	
	(1)	(2)	(3)	(4)		(6) 1 st OLS	(7) 2 nd OLS
Proportion of government directors: a	-0.014** (0.03)	-0.004* (0.06)	-0.003* (0.07)	-0.007** (0.03)	-0.009** (0.02)		-0.021** (0.02)
Average number of board seats held by government directors: b		-0.004 (0.13)					
Average number of social ties between government directors and CEO: c			-0.002** (0.02)				
Percentage of sales to the government: d				0.202 (0.18)			
Firm is in a regulated industry (dummy): e					0.007 (0.32)		
a*b		-0.009** (0.03)					
a*c			-0.010** (0.02)				
a*d				0.032** (0.06)			
a*e					0.022** (0.02)		
Instrumental: Log of the distance between firm headquarters and the closest state capital (or Washington D.C.)							-0.052*** (0.00)
Other firm characteristics variables in Table 6	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	No	No
Industry fixed effects	No	No	No	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	59,939	59,939	59,939	59,939	78,803	78,803	78,803
Adjusted <i>R</i> ²	0.63	0.65	0.64	0.63	0.60	--	0.13

Table 8

Cumulative abnormal returns (CARs) around the announcements of close gubernatorial election results

This table presents cumulative abnormal returns (CARs) around the announcements of close gubernatorial election results for firms having government directors with political experience who are affiliated with a winning/losing party (Panel A), firms having government directors with political experience who are/are not socially connected to a winning candidate (Panel B), firms with government directors who are socially connected to winning/losing candidates (Panel C), and firms with government directors who are socially connected to winning candidates with and without political connections (Panel D). We collect gubernatorial election results from state official election websites and define an election as “close” when the margin of votes between the candidates finishing first and second is less than 5% of the total votes. Following Goldman, Rocholl, and So (2009), we identify government directors with political experience as those who previously held one of the following positions: President, Presidential (Vice-Presidential) candidate, senator, member of the House of Representatives, (assistant) secretary, deputy secretary, deputy assistant secretary, undersecretary, associate director, governor, director (CIA, FEMA), deputy director (CIA, OMB), commissioner (IRS, NRC, SSA, CRC, FDA, SEC), representative to the United Nations, ambassador, mayor, staff (White House, President, Presidential campaign), chairman of the Party Caucus, chairman or staff of the Presidential election campaign, and chairman or member of the President’s committee/council. To identify social connection, for each candidate in the election, we search the internet including her campaign website, the election office website, and *Wikipedia.com* to obtain her biographies such as her employment history, degrees attained, the year in which these degrees were awarded, and the awarding institution. We then combine this information with the government directors’ biographical information extracted from Boardex and identify the social connection between the government directors and the election candidates. We consider a government director and a winning candidate being socially connected when they share common educational antecedents or common prior employment. We use the market model to estimate the announcement effects. We estimate market model parameters using days -200 to -21 relative to the announcement date. We use the CRSP value-weighted return as the proxy for the market return. We cumulate daily abnormal stock returns to obtain the CAR from day t_1 before the announcement date to day t_2 after the announcement date. N denotes the number of sample observations. The numbers in the test-of-difference columns are p -values. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: CARs (%) for firms having government directors with political experience who are affiliated with a winning/losing party

Event window	Firms having government directors with political experience who are affiliated with a winning party: A (N = 327)		Firms having government directors with political experience who are affiliated with a losing party: B (N =409)		Test of difference (A-B)	
	Mean	Median	Mean	Median	t -test	Wilcoxon z -test
(+1, +2)	1.572***	1.078**	-0.621**	-0.251*	(0.02)**	(0.04)**
(+1, +3)	2.245***	1.421***	-0.984**	-0.325*	(0.02)**	(0.06)*
(+1, +5)	1.981***	1.632***	-0.425**	-0.041*	(0.03)**	(0.04)**
(+1, +7)	2.021***	1.214***	-0.352*	-0.046	(0.07)*	(0.13)

Panel B: CARs (%) for firms having government directors with political experience who are affiliated with a winning party (Panel A Group A)

Event window	Firms having government directors with political experience who are socially connected to winning candidate: A (N = 29)		Firms having government directors with political experience who are not socially connected to winning candidate: B (N = 298)		Test of difference (A-B)	
	Mean	Median	Mean	Median	t-test	Wilcoxon z-test
(+1, +2)	1.701***	1.119**	1.422***	1.003**	(0.06)*	(0.12)
(+1, +3)	2.439***	1.594***	2.107***	1.299***	(0.04)**	(0.06)*
(+1, +5)	2.224***	1.865***	1.770***	1.572***	(0.03)**	(0.04)**
(+1, +7)	2.115***	1.299***	2.009***	1.178***	(0.17)	(0.08)*

Panel C: CARs (%) for firms with government directors who are socially connected to winning/losing candidate

Event window	Firms with government directors who are socially connected to winning candidate: A (N = 512)		Firms with government directors who are socially connected to losing candidate: B (N = 427)		Test of difference (A-B)	
	Mean	Median	Mean	Median	t-test	Wilcoxon z-test
(+1, +2)	0.521**	0.219*	0.002	-0.018	(0.04)**	(0.06)*
(+1, +3)	0.558**	0.236*	-0.152	-0.004	(0.02)**	(0.04)**
(+1, +5)	0.374**	0.163	-0.210*	-0.007	(0.06)*	(0.09)*
(+1, +7)	0.327*	0.105	-0.195*	-0.102	(0.05)*	(0.14)

Panel D: CARs (%) for firms with government directors who are socially connected to winning candidate (Panel C Group A)

Event window	Firms with government directors who are politically connected to winning candidate: A (N = 42)		Firms with government directors who are not politically connected to winning candidate: B (N = 470)		Test of difference (A-B)	
	Mean	Median	Mean	Median	t-test	Wilcoxon z-test
(+1, +2)	1.121***	0.419**	0.409**	0.192	(0.02)**	(0.03)**
(+1, +3)	0.987***	0.389**	0.442**	0.211*	(0.03)**	(0.06)*
(+1, +5)	0.665***	0.297**	0.324**	0.109	(0.04)**	(0.08)*
(+1, +7)	0.441**	0.220*	0.296*	0.008	(0.06)*	(0.04)**

Table 9
Omitted variable bias: Propensity score matching approach

The table presents results from propensity score matching where firms with government directors are matched to firms without government directors. The matching starts with a probit regression in which the dependent variable is the presence of government directors and the explanatory variables are a group of firm, board, and CEO characteristics that can potentially affect the appointment of government directors. Then, using the predicted probabilities estimated from the probit regressions, we match each firm-year observation with a government director with a firm-year observation without a government director. We employ one-to-one nearest neighbour matching, Gaussian kernel matching, and local linear matching. Panel A reports summary statistics for firm characteristics between sample (treated) firm and matched firm from the nearest neighbour matching technique. Appendix provides a detailed description of the construction of the variables. Panel B reports results from the propensity score matching where the numbers reported are the differences in industry adjusted ROA between firms with and without government directors. *P*-values based on bootstrapped standard errors using 50 replications are reported in parentheses and *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A. Summary statistics for firm characteristics between treated firms and matched firms

Variables	Treated firms (Mean)	Matched firms (Mean)	Test of difference <i>t</i> -statistic
Total assets	6.546	6.425	1.80*
Leverage	0.231	0.233	-0.28
Capital expenditures / total assets	0.563	0.558	0.55
R&D expenditures / total assets	0.476	0.476	0.01
Government sales / total sales	0.092	0.089	1.29
Institutional ownership	0.464	0.462	1.21
Previous one year sales growth	0.137	0.143	-0.47
Industry-adjusted ROA	0.034	0.035	-0.89
Tobin's <i>q</i>	1.998	1.979	0.99
Proportion of firms in regulated industry	0.172	0.174	-0.62
Board size	8.971	9.071	-1.24
Proportion of outside director	0.773	0.727	1.12
Top executive is a chairman (dummy)	0.612	0.602	1.72*
Top executive is a founder (dummy)	0.108	0.107	0.55
Top executive age	54.243	54.316	-0.57
Top executive tenure	5.745	5.720	0.26

Panel B. Propensity score matching: Differences in industry-adjusted ROA

	(1)	(2)	(3)
Difference in industry adjusted ROA between firms with government directors and matched firms without government directors	0.006** (0.03)	0.004*** (0.02)	0.005*** (0.04)
Matching method	Nearest Neighborhood	Gaussian Kernel	Local Linear

Appendix: Variable definitions

This appendix provides a detailed description of the construction of all the variables used in the tables.

Variable name	Definition	Source
All cash (stock) payment (dummy)	Dummy variable that equals one if the payment method in acquisition consists of entire cash (stock)	SDC Platinum
Board size	Number of directors on the board	BoardEx
Busy director	Director who serve on three or more boards (Fich and Shivdasani, 2006)	BoardEx
Cash flow / total assets	Operating cash flow scaled by total book assets	Compustat
Competing offer (dummy)	Dummy variable that equals one if there are multiple bidders	SDC Platinum
Deal value / market value of equity	Value of the transaction dividend by target's market value of equity	SDC Platinum
Director age (year)	Director age calculated by taking the difference between firm year and director birth year reported in BoardEx.	BoardEx
Director is busy (dummy)	Dummy variable that equals one if the director serve on three or more boards (Fich and Shivdasani, 2006)	BoardEx
Director misses more than 25% of board meeting (dummy)	Dummy variable that equals one if a director misses 25% of the board meeting	RiskMetric
Directors with a law degree (dummy)	Dummy variable that equals one if the director degree is JD, LL.M., LL.B., LL.D., SJD or other law degrees	BoardEx
Director is female (dummy)	Dummy variable that equals one if director is female	BoardEx
Firm is in a regulated industry (dummy)	Dummy variable that equals one if the firm operates in one of the following 3-digit SIC industries: 421 (trucking and couriers services), 483 (radio and television broadcasting), 493 (utility services), 612 (savings institutions), 621 (security brokers and dealers), 633 (insurance), 805 (nursing and personal care facilities), and 809 (health and allied services) (O'Brien and Bhushan, 1990)	Compustat
Government directors	Directors who have work experience in the government prior to the appointment to the sample firm board	BoardEx
Government director with related (unrelated) industry experience	Government director who are nominated to a company that operates in an industry related (unrelated) to their former government job duties.	BoardEx
Government director with political experience	Outside directors who previously held one of the following positions: President, Presidential (Vice-Presidential) candidate, senator, member of the House of Representatives, (assistant) secretary, deputy secretary, deputy assistant secretary, undersecretary, associate director, governor, director (CIA, FEMA), deputy director (CIA, OMB), commissioner (IRS, NRC, SSA, CRC, FDA, SEC), representative to the United Nations, ambassador, mayor, staff (White House, President, Presidential campaign), chairman of the Party Caucus, chairman or staff of the Presidential election campaign, and chairman or member of the President's committee/council (Goldman, Rocholl, and So, 2009).	BoardEx
Government sales / total sales	Government sales scaled by total sales. Missing values of government sales are coded with zero	Compustat
Industry-adjusted ROA	Firm's raw annual ROA minus median annual ROA of other firms in a firm's Fama and French (1997) industry	Compustat
Inexperienced nongovernment outside directors (dummy)	Dummy variable that equals one if nongovernment directors' average year of industry experience is below the sample median	BoardEx
Leverage	Book debt scaled by total book asset	Compustat
Number of directors' board seats	Number of boards the directors sit on	BoardEx
Number of social ties between the director and CEO	Number of social ties where the director and CEO share common educational antecedents or common prior employment	BoardEx
Outside directors	Directors who do not have any executive role in the firm	BoardEx
Percentage of sales to the government	Percentage of sales to the government reported by the firm	Compustat
Previous one year sales growth	Log (sales(t) / sales(t-1))	Compustat
Private target (dummy)	Dummy variable that equals one if the target is a privately held firm	SDC Platinum
Proportion of government directors	Number of outside directors with government working experience divided by total number of directors on the board	BoardEx
Proportion of outside directors	Number of directors without executive role in the firm divided by total number of directors on the board	BoardEx
Public target (dummy)	Dummy variable that equals one if the target is a publicly held firm	SDC Platinum

R&D expenditures / total assets	Research and development expenditures scaled by total book assets. Missing values are coded with zero.	Compustat
Same industry merger (dummy)	Dummy variable that equals one if the acquirer and the target have the same first two digits of SIC code	SDC Platinum
Senior government director	Government directors who previously held the following position in government agencies: Ambassador, Assistant Attorney, Assistant Commissioner, Assistant Director, Assistant Secretary, Attorney General, Chairwoman, Chief of Staff, Commander, Commission Chairman, Commissioner, Committee Chairman, Congressman, Congresswoman, Deputy Assistant Secretary, Deputy Chairman, Deputy Chief of Staff, Deputy Commissioner, Deputy Director, Deputy Mayor, Deputy Minister, Deputy Secretary, Deputy Undersecretary, Diplomat, Executive President, First Lady, General Governor, Judge, Major, Mayor, President, Representative, Secretary, Secretary General, Secretary of State, Senator, Senior Judge, Superintendent, Undersecretary, Undersecretary of State. All other positions are classified as junior positions.	BoardEx
Tender offer (dummy)	Dummy variable that equals one if the acquisition is made through a tender offer	SDC Platinum
Tobin's q	$(\text{Total assets} - \text{book equity} + \text{market value of equity} - \text{deferred tax}) / \text{total assets}$	Compustat
Top executive is a chairman (founder) (dummy)	Dummy variable that equals one if top executive is chairman (founder)	BoardEx
Top executive age	CEO age calculated by taking the difference between firm year and CEO birth year reported in BoardEx.	BoardEx
Top executive tenure	Number of year worked as top executive	BoardEx
Total assets (\$ billions)	Book value of assets	Compustat