Does the Political Power of Nonfinancial Stakeholders Affect Firm Values? Evidence from Labor Unions [*]

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December 15, 2016

Abstract

While corporate political connections are known to enhance equity values, we demonstrate that union political activity can have the opposite effect. We examine the consequences of a recent Australian state law that restricts union political activity, but does not change collective bargaining rights. In the wake of this law, the equity values of affected unionized firms significantly increase and, consistent with this market reaction, these firms are able to bargain for more favorable labor contracts than their unionized peers in other states. The evidence strongly suggests that unions use political activism to extract rents from shareholders and benefit their members.

I. Introduction

Recent research has documented that the political connections and power of a firm's owners, executives, and directors can significantly influence equity market valuation and firm outcomes. Firms often use political power to improve profits and reduce competition through regulatory capture of key government agencies and by lobbying for favorable legislation and government policies, contracts, and decisions (Igan and Mishra (2014), Laffont and Tirole (1991), Peltzman (1976), and Stigler (1971)). A large body of research demonstrates a positive relation between a firm's political connections and the value of its equity (Cooper, Gulen, and Ovtchinnikov (2010), Faccio (2006), Goldman, Rocholl, and So (2009), Jayachandran (2006), and Kim, Pantzalis, and Park (2012)). However, we have a very limited understanding of how other important stakeholders of the firm use political power to achieve their own goals and, thereby, influence equity value and firm actions.

Unions, in particular, are an important and politically active stakeholder that have maintained or increased their political influence despite a general decline in membership (Francia (2012) and Kerrissey and Schofer (2013)). Early theoretical work on bargaining between unions and firms emphasizes the importance of unions' political connections, which play a role in influencing government policy and have an economically significant effect on a union's bargaining position with a firm (Ashenfelter and Johnson (1969), Calmfors, Driffill, Honkapohja, and Giavazzi (1988), and Grout (1984)). There is ample anecdotal evidence that unions use their political connections to apply political pressure on firms during industrial actions, block firms' legislative agenda, and even receive economic concessions during bankruptcy. These tactics, and the threat of their use, may also be used as bargaining chips by unions to extract desirable contract terms from firms. However, the existing evidence provided by labor and industrial organization economists about union political activity influencing collective bargaining (discussed in detail in Section 2) primarily relies on case studies. Hence, the general impact of union political power on firms remains unknown.

In this paper, we focus on an important, but previously untested empirical question: Do political

connections improve a union's bargaining position and, therefore, affect wages and equity value? While other studies find that the political connections of a firm's owners, executives, and directors can enhance equity value, union political connections may have the opposite effect. The policy implications of this relation are important since unions can extract economic rents from shareholders without either materially improving their ability to bargain collectively or raising the proportion of unionized workers in a firm. Furthermore, links between union political connections, wages, and equity value suggest that research into the political connections of all the firm's stakeholders is needed to properly inform investors, voters, and government policy makers.

Testing this question presents some major empirical challenges: identifying and disentangling union political connections and power from other effects, such as a union's ability to collectively bargain, and controlling for factors that affect both union's and firm's bargaining power. To overcome these challenges, we use the passage of a law enacted in 2012 in New South Wales (NSW), Australia (a state responsible for about a third of national GDP). As discussed in detail in Section 3, the Election Funding, Expenditure and Disclosures Amendment Act 2012 (the Act) forced political parties to disassociate from unions. This severed a key union political connection by prohibiting union representatives from directly participating in party governance and preventing unions from undertaking voter drives supporting candidates. The Act also limited union political power by prohibiting unions from making material political donations, whether as a direct contribution or as money channeled through affiliated organizations.

The Act provides us with a unique quasi-natural experiment to measure the effect of union political power on bargaining, wages, and equity value. This setting offers several desirable empirical qualities: the Act's passage was a surprise to investors, it reduced union political power without altering membership levels or unions' ability to collectively bargain, and it only affected union political power in NSW and not in other states. These characteristics mitigate endogeneity concerns and allow us to exploit within-industry and within-firm variation to obtain sharp inferences.

We hypothesize that the bargaining power of unionized firms in NSW improved relative to that of their labor unions as a result of this law. Thus, we predict a transfer of economic rents from labor unions to corporate shareholders, resulting in lower union wages and increased equity values.[1]

We provide three key results supporting the above hypothesis. First, we find that union political connections have a real effect on the firm and its employees. Using a comprehensive sample of union contracts at the worksite level, we show that contractually guaranteed annual wage growth rates significantly decreased for NSW unionized workers relative to unionized workers in other states following the event. Second, the equity value of unionized firms in NSW increased relative to both their unionized peers in other states and their nonunionized peers in NSW around key event dates associated with the passage of this law. Therefore, the evidence supports the importance of union political connections and power in directly affecting the relative bargaining positions of firms and employees, which is reflected in equity value and contracted wages.

Finally, we provide evidence that the effect of union political influence on the bargaining relationship between firms and labor is impounded into firm equity value by investors. We link the two preceding results and demonstrate that the increase in equity value as a result of this law was, in part, the result of investors expecting firms to negotiate more favorable contracts with unions. Firms that experienced large abnormal returns around the event subsequently negotiated employment contracts in NSW with lower guaranteed wage growth. Hence, wages operate as a mechanism tying equity value to union political connections and power.

In further support of the hypothesis, we conduct counterfactual tests to determine whether the decrease in wage growth and the increase in unionized NSW firm equity values arose simply from the transition from a labor-friendly to a business-friendly ruling party. Using two similar Australian state election outcomes outside NSW without any proposed restrictions on union political power as counterfactuals, we do not observe that unionized wages decreased or unionized firm equity values

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[1]While corporate political donations were also limited by the Act, in Section 3 we discuss why the Act, which did not alter lobbying activities, had a larger economic impact on union bargaining power than on the bargaining power of politically active firms. Empirically, we do not find any evidence that the Act affected the equity value or the bargaining position of firms that made political contributions. In addition, corporate political activity is not correlated with unionization in the data.

increased. Hence, these results suggest that it was the NSW law, and not the change of government, that limited union political power and reduced union bargaining power. We provide additional evidence that the observed increase in unionized firm equity value was not the result of an omitted industry factor. Our value results are strongest in firms for which prior work finds that unions are more influential. Specifically, equity values increased most in well-governed firms, in firms with contracts with politically powerful unions, and firms in capitally intensive industries.

Finally, evidence suggests that our inferences are not spuriously created by long-term trends. A parallel trend test shows that wage growth for NSW firms was not decreasing relative to that in other states prior to the event. A Monte Carlo falsification test suggests that the estimated increase in the equity value of unionized firms in NSW around the law's key event dates was significantly greater than that which would have occurred on randomly chosen dates in the year surrounding the events. Similarly, the link between value and wages is robust to a Monte Carlo falsification test.

This paper provides new insights into the important effect of nonfinancial stakeholder political connections and power on the firm. Our results show that equity value can be significantly influenced by the political connections of powerful stakeholders other than the firm's owners and management. Unlike corporate political connections, which are associated with increases in equity value, we find that the political connections of organized labor are negatively related to equity value.[2] Our evidence also suggests that key corporate policies, such as wages, are affected by the political power of nonfinancial stakeholders.

Moreover, this work demonstrates the importance of a comprehensive perspective on unions. It suggests that unions do not simply serve their members through pooled representation with firms, but also use political activities to aid their members financially. However, the political role of unions has not been carefully explored by empirical researchers.[3] We enrich the existing literature by

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[2]Cooper, Gulen, and Ovtchinnikov (2010), Faccio (2006), Goldman, Rocholl, and So (2009), Jayachandran (2006), and Kim, Pantzalis, and Park (2012) document a positive relationship between corporate political connections and equity value. Duchin and Sosyura (2012) and Faccio, Masulis, and McConnell (2006) find that politically connected firms are more likely to be funded under the Troubled Asset Relief Program and more likely to be bailed out, respectively. Igan and Mishra (2014) document a connection between lobbying expenditures in the financial industry and legislative support for deregulation.

[3]In general, political power and collective bargaining are interrelated. While collective bargaining can influence the political power of a union, historically, political power was necessary for unions to secure collective bargaining rights in the first place. Notably, in the United States, union

providing evidence that union political power, and not simply union representation rates or the ability of unions to bargain collectively, is an important mechanism allowing unions to influence firm decisions and value.[4] We are not aware of any other study that directly tests the influence of union political power on wages or the market value of a firm's equity.

We also contribute to the literature studying the impact of unionization on wages and equity value.[5] Several papers find that unionization is associated with a reduction in equity value (Bronars and Deere (1991), Lee and Mas (2012), and Ruback and Zimmerman (1984)). While these papers hypothesize this reduction arises, in part, through increased wages to unionized workers, they do not provide direct evidence on this connection. In fact, Lee and Mas (2012) comment that their analysis is "unable to say whether the [firms'] loss in equity value reflects increases in wages, benefits, or inefficiencies." Our results provide this important link between wages and equity value.

The remainder of the paper proceeds as follows. Section 2 develops our hypothesis and its implications. The institutional background of the Election Funding, Expenditure and Disclosures Amendment Act 2012 is covered in Section 3. Sections 4, 5, and 6 present the data and empirical results examining the effect of the events on union wages, equity values, and the link between the two, respectively. Section 7 provides robustness analysis and Section 8 concludes.

II. Hypothesis Development

Labor unions derive political influence through both political activity and political donations. Unions obtain significant political connections and power from the placement of union representatives on governing bodies of political parties and through the effectiveness of their voting drives. Australian unions, for example, directly influence industrial relations policy through their

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lobbying enabled the passage of the National Labor Relations Act of 1935 (Bernstein (1950) and Keyserling (1960)), which gave unions the nationwide legal right to bargain collectively.

[4]Political power may influence several empirical relations found in the existing labor and finance literature. For example, several papers show that union interests are often not aligned with those of shareholders and other stakeholders (Agrawal (2012), Cohen, Coval, and Malloy (2012), Del Guercio and Woidtke (2014), Faleye, Mehrotra, and Morck (2006), and Kim, Maug, and Schneider (2016)). Klasa, Maxwell, and Ortiz-Molina (2009) shows that unionization affects firm cash holdings policy. Blaylock, Edwards, and Stanfield (2015) and Chen, Kacperczyk, and Ortiz-Molina (2011, 2012) find that unions are also an important determinant of firms' cost of capital.

[5]Lewis (1963, 1983, 1986) surveys the impact of unionization on wages, documenting a difference in wages between unionized and nonunionized workers. More recently, researchers have examined the size of the union wage gap and its evolution over time (Blanchflower and Bryson (2004) and DiNardo and Lee (2004)) and the impact of unions on the distribution of wages (Frandsen (2012)).

involvement with the Australian Labor Party (ALP), one of the nation's three major political parties. Moreover, unions expend considerable effort to influence governmental policy through donations to political candidates, political advertising, and funding of political action committees.

This political engagement is reasonable given the strong incentives unions have to be politically active. The reach of both federal and state governments, as well as regulatory bodies, into labor negotiations is extensive. These groups directly affect wages, hiring practices, workplace standards, retirement plans, and unemployment compensation. These government channels into business can affect the bargaining relationship of unions relative to firms and impose costs on firm owners (Ashenfelter and Johnson (1969), Bennett and Taylor (2001), and Grout (1984)).

Anecdotal evidence indicates that union political efforts can be very effective in influencing government legislation, regulatory policy, and the enforcement of labor laws. In the United States, labor unions were critical in helping pass the Fair Labor Standards Act, which established a national minimum wage. In Australia, union campaigns resulted in the introduction of Fair Work Laws in 2009, which established requirements for collective bargaining and baseline national employment standards, and of national paid parental leave in 2011. In both countries, unions have campaigned to restrict companies from hiring low-cost temporary foreign workers in a variety of industries and lobbied in support of labor-friendly appointees for national quasi-governmental entities that resolve labor disputes. These laws and regulations benefit workers, but are costly to the firm's owners.

Katz, Batt, and Keefe (2003) assert that the use (or threat) of political tactics is likely to be common during contract negotiations. Using organizational theory, they argue that success in the modern labor environment necessitates that unions complement traditional collective bargaining tactics with political action. There are several anecdotal examples of unions utilizing political power during the bargaining process to extract contract terms that benefit members. Katz et al. document how the Communications Workers of America effectively leveraged its political clout during contract negotiations with Verizon to receive explicit job security guarantees and easier access

to workers when organizing. Rudy (2004) describes how a custodial union of Apple employees used its political connections to secure the support of local politicians, isolate Apple, and obtain higher wages. Finally, the U.S. government was accused of supporting unsecured union pension liabilities over secured debt (Roe and Skeel (2010)) during the Chrysler bankruptcy process. Several critics of the U.S. government's involvement argued that the intervention occurred due to the political power of unions.[6]

The theoretical and anecdotal evidence shows that union political power can affect the relative bargaining position of both firms and organized labor. Our hypothesis formalizes the relation between union political influence and bargaining.

Hypothesis 1 *Laws and legal decisions that decrease the ability of labor unions to exert political influence will weaken the bargaining position of unions relative to firms.*

Ashenfelter and Johnson (1969) and Grout (1984) provide models in which business profits are split between shareholders and labor based on relative bargaining power. Therefore, the hypothesis implies that the owners' share of firm profit will increase as the ability of unions to exert political influence declines. This insight has two clear empirical implications. As union political influence declines, we expect (i) that the terms of negotiated contracts will be more favorable for the firm's owners and (ii) equity value will increase. Furthermore, these two implications should be linked: in efficient markets, firms with the greatest increase in equity value will negotiate the most favorable contracts.[7]

While the hypothesis focuses on the role of union political influence in isolation from that of firms, government policy may generally affect the bargaining positions of labor unions and firms simultaneously. However, as discussed in the following section, the NSW Act greatly reduced the political influence of unions, but did not materially change the political influence of corporations.

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[6]For example, Clifford Asness, founder of AQR Capital Management, a hedge fund that had not invested in Chrysler, stated "the President's attempted diktat takes money from bondholders and gives it to a labor union that delivers money and votes for him" (Kouwe (2009)).

[7]While unions may allocate additional effort to collective bargaining when political channels are not available, the net effect of any legislation restricting union political influence will move unions from a first-best to a second-best resource allocation. Consequently, such legislation will reduce the bargaining power of unions relative to firms (unless resource adjustments are costless and collective bargaining is a perfect substitute for political influence). Thus, any empirically estimated impact of such legislation may underestimate the full impact of union political influence on equity value.

In other settings, where the political influence of unions and firms both change, the net impact of government policy on bargaining may favor either party.

The academic literature suggests several alternative hypotheses. First, unions may use their political power to push firms to pay a value-maximizing efficiency wage (Bulkley and Myles (1996), Cappelli and Chauvin (1991), and Stiglitz (1976)), benefiting both employees and shareholders. Hence, the "efficiency-wage" alternative suggests a decrease in union political power should reduce both wage growth and equity value. A second alternative hypothesis follows if the leadership structure of unions induces a principal-agent problem similar to that in firms (Jensen and Meckling (1976)). If so, union political connections may generate personal utility for union leaders to the detriment of wage outcomes. Consequently, a union's bargaining position may be strengthened by weakening union leader's ability to expropriate resources; this "principal-agent" alternative suggests that wage growth will increase and equity value will decrease. Critically, the contrasting implications of the competing hypotheses provide testable predictions that allow us to distinguish among them.

III.   Background

Australia is a large, common-law economy with a federal system composed of six states and two territories. However, states have a level of political autonomy and regulatory authority typically reserved for federal governments elsewhere.[8] Australia's workforce is representative of global unionization. An Organisation for Economic Co-operation and Development (2013) survey reports that 17.6% of workers globally were involved in labor unions in 2010. Australia had 18.1% of its workforce unionized at that time. Hence, we believe the results from analyzing the Act are relevant internationally. In 2011, immediately preceding the events studied here, Australia had 9.9 million workers, with 46 major unions representing 1.8 million workers (1.1 million in the private

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[8]Australian states, for example, have primary responsibility for workplace matters, such as workforce composition, occupational health and safety, workplace monitoring, and anti-discrimination policy. The political power of states extends to other important business activities, as well. In the mining sector, for example, the state government determines the initial approval of all resource projects, places limits on how minerals are extracted, and requires environmental controls on firms' exploration and extraction projects.

sector). Nearly all Australian unions operate nationally. However, they are broken up into state-level branches, which bargain independently. Further details on Australian union characteristics are provided in the Robustness tests of Section 7 and the Internet Appendix.

The Election Funding, Expenditure and Disclosures Amendment Act 2012 (the Act) forced political parties in NSW to recognize membership fees and other expenses of affiliated third-party groups against their own political expenditure limits. As the related union costs would substantially exceed political party expenditure limits, any political party associated with a union would be unable to operate. Hence, unions and political parties could no longer work in concert, severing a key union political connection. The Act effectively made union representatives ineligible to serve on the governing bodies of political parties. This was particularly important as Australian unions have traditionally maintained strong political influence through their affiliation with the ALP and support of various industrial relations issues. The Act also disallowed the use of union fees for political activities, such as promoting an industrial relations platform and supporting labor-friendly candidates. Evidence indicates that the Act was effective in severely and quickly curtailing the political activity of unions in NSW and that these activities did not occur while the Act was in force (Cucinotta (2013) and Williams (2013)). Unions were no longer involved in NSW ALP governance, and political contribution data show a complete reduction in union political donations to NSW parties. Additionally, unions expended considerable effort opposing and legally challenging the Act (discussed in further detail in the Internet Appendix).

The political influence of firms in NSW, however, was not materially changed by the Act. The Coalition government, consisting of the Liberal Party of Australia (Liberals) and the National Party of Australia (Nationals), presented the Act to the public as a reduction of both union and corporate political power. Yet, the Act lacked the necessary mechanisms to significantly change the political activities of corporations. Unions, which can mobilize their members, derive influence from direct political involvement. Unlike unions, corporations primarily exert political influence

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through lobbying efforts, which were not affected by the Act. While corporations saw their ability to make political contributions limited, Australian firms do not appear to use political donations to materially counter union efforts.[9] The data show that sample firms in highly unionized industries are less likely to make political donations (and make smaller political contributions on average) than their peers in less-unionized industries. Moreover, the Act's clauses limiting third-party involvement with political parties directly targeted unions, which, unlike corporations, are intimately involved in party governance. Therefore, the overall effect of the Act on corporate political activity was minimal, while unions experienced a dramatic drop in political influence and power.

We examine the two dates on which there was a significant surprise regarding the likelihood that the Act would be passed into law: Mar. 26, 2011, the date of the election victory of the Liberal-National Coalition, whose campaign platform prominently featured the Act; and Feb. 16, 2012, the date the Act passed the upper house of the legislature, which required the unexpected support of a rival political party. We predict that these events weakened the political influence of unions. The nature of these events is described in detail in the Internet Appendix.

IV. Wages and Union Political Power

Our analysis begins with a worksite-level test examining whether collective bargaining units affected by the Act negotiated contracts systematically different from those negotiated by nonaffected units.[10] All collective bargaining agreements in Australia must be filed with the Australian Fair Work Commission, which makes them publicly available. Collective bargaining units are defined at the worksite level, because a union may represent a firm's workers at multiple locations. The hypothesis implies that negotiated contract wages will be more favorable for shareholders, as the

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[9]Only 18% of the NSW firms in the sample made political donations in the state over the four-year election cycle prior to the Act. However, 52% of the NSW firms in the sample are clients of a third-party lobbyist listed on the NSW Register of Lobbyists. This represents a very conservative lower bound, as unregistered in-house corporate lobbyists outnumber third-party lobbyists by more than four to one in Australia (Welch (2012)). In the U.S., Ansolabehere, Figueiredo, and Snyder (2003) and Milyo, Primo, and Groseclose (2000) document that money allocated to corporate lobbying activities exceeds that allocated to political contributions by an order of magnitude.

[10]We use wages, not contract length, as the implication of the hypothesis for contract length is unclear. There is not a significant change in contract lengths for either NSW or nonNSW unionized worksites around the event. The difference-in-differences between these NSW and nonNSW contract lengths pre- and post-event is also not significant.

Act reduces union bargaining power by weakening union political connections and influence.

A. Sample and Data

We identify contracts negotiated between publicly traded firms, or their subsidiaries, and collective bargaining units that were agreed to after the coalition victory. For each contract filed after the Coalition victory, we find the matching contract agreed upon before the election between the same collective bargaining unit and firm. We restrict the sample to only contract pairs with the necessary firm financial information and price data collected from Bloomberg and the Australian Securities Exchange. This yields a sample of 110 unique firms and 643 contract pairs (1,286 contracts).[11]

The tests emphasize the wage growth rate as the key negotiated monetary factor in observed contracts. The wage growth rate permits comparisons across bargaining units and types of employees. It is defined as either (i) the average contracted annual wage growth rate over the life of the contract or (ii) the proximate contracted annual wage growth rate around the event. For contracts agreed upon prior to the event, the proximate annual wage growth rate is equal to the wage growth rate in the last year of the contract. For contracts agreed upon following the Coalition victory, the proximate annual wage growth rate is equal to the wage growth rate in the first year of the contract.[12]

For each contract, we collect data on factors that have been previously shown to influence unionization, collective bargaining, or wages. These include size (Hirsch and Berger (1984)), the market-to-book ratio of equity (Connolly, Hirsch, and Hirschey (1986) and Salinger (1984)), leverage (Myers and Saretto (2016) and Perotti and Spier (1993)), and firm cash holdings (Klasa, Maxwell, and Ortiz-Molina (2009)). We define firm size as the natural log of one plus the total book value of assets, firm market-to-book ratio as the firm's market value of equity scaled by the book value of equity, firm leverage as the book value of interest-bearing debt scaled by the book

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[11] Our contract data run through the end of 2012. The results are robust to excluding contracts agreed to between the first and second event dates and examining contracts (and their matched pairs) agreed to following the Act's passage through the upper house.

[12] Stated employee wage levels are difficult to compare between collective bargaining units, even within the same firm. While the initial wage may appear to be an important negotiated benchmark, it is, in fact, almost always a function of the contracted wage growth rate. That is, the initial wage level in the new contract is generally equal to the prevailing wage in the expiring union contract plus an increase at the guaranteed wage growth rate in the new contract.

value of assets, and cash holdings as the amount of cash and short-term investments scaled by the book value of assets. We include growth in annual gross state product to capture differences in economic trends between states, which may be related to contracted wage growth. To ensure our results do not simply reflect a change in wage growth for nonunionized employees, we also include the annual growth rate in the state-level average nonunionized full-time earnings. Since the Act also restricted corporate political contributions to NSW parties, we include a control for each firm's political contributions within NSW, defined as the natural log of one plus the total value of a given firm's contributions made to state parties within NSW over the previous four-year election cycle.[13]

— *Insert Table 1 about here.* —

Panel A of Table 1 reports summary statistics for the sample of 1,286 collective bargaining agreements (643 contract pairs). Of these, 408 agreements (204 contract pairs) are for collective bargaining units located in NSW. All continuous variables are winsorized at the 1st and 99th percentiles. The mean average annual wage growth over the life of the contract is 3.9%, and the average contract length is 2.5 years. Panel C presents a difference-in-differences analysis of the dependent and independent variables. The first set of statistics compares NSW and nonNSW contracts before the election. Prior to the election, there was not a significant difference in the average or proximate wage growth between NSW and nonNSW contracts. The second set of statistics demonstrates that NSW contracts had significantly lower average and proximate wage growth than nonNSW contracts following the election. Difference-in-differences results, which compare the changes in NSW contracts pre- and post-election to nonNSW contracts pre- and post-election are found in the third set of statistics.

This evidence is consistent with union political power being an important determinant of labor's bargaining position relative to firms. The difference-in-differences estimates indicate that NSW

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[13]State-level data on growth in gross product and average weekly earnings are provided by the Australian Bureau of Statistics. All corporations are required to disclose political contributions above A\$11,900 to the Australian Electoral Commission (AEC). We aggregate all direct political contributions made by a firm in the sample, or their wholly owned subsidiary, as reported to the AEC. We do not find significant state-level differences in other macroeconomic variables, such as inflation and unionization rates.

union contracts experienced significantly reduced wage growth rates after the event relative to nonNSW union contracts. The estimated difference-in-differences for all control variables is not significant. However, NSW experienced higher growth in gross state product and lower growth in wages around the event than other states.[14]

B. Results

Our empirical strategy identifies the average effect of the Act on collectively bargained wage growth rates. Firms that operate in several states will have contracts with both NSW and nonNSW bargaining units. In many cases, these firms will negotiate multiple contracts with distinct local branches of a single underlying union. We use a difference-in-differences regression approach to take advantage of these characteristics of the data, analyzing changes in labor contract terms for unionized firms in NSW relative to nonNSW unionized firms before and after the events. The empirical model for firm i, collective bargaining unit j, and year t is

$$(1) \qquad \text{Wage\_Growth}_{i,j,t} = \beta_0 + \beta_1 \text{NSW}_{i,j} \times \text{Post-Event}_t + \beta_2 \text{NSW}_{i,j} + \beta_3 \text{Post-Event}_t$$

$$+ \beta_4 \text{Controls}_{i,j,t-1} + \epsilon_{i,j,t}.$$

NSW is an indicator variable equal to 1 if the contract is between the firm (or subsidiary of the firm) and a collective bargaining unit that is located in New South Wales, and 0 otherwise. *Post-Event* is an indicator variable equal to 1 if the contract is agreed upon following the election, and 0 otherwise. The labor-contracting implication of the hypothesis indicates that the wage growth in affected contracts declines relative to unaffected contracts following this event: the coefficient on the interaction of *NSW* and *Post-Event* should be negative ($\beta_1 < 0$). We include year, firm, and union fixed effects. Standard errors are double-clustered at the year and firm levels.[15]

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[14]The increase in corporate political contributions following the event, while not statistically significant, may seem curious in the wake of the legislation. Corporate political contributions peak prior to an election and are generally small in nonelection years. We compute all corporate political contributions looking back over a four-year window in order to capture donations over a full election cycle. Therefore, the post-event corporate political contributions window covers contributions during the run-up to the 2011 NSW state election. The pre-event corporate political contributions window covers the 2007 state election, which had lower total political contributions from corporations than the 2011 election.

[15]Given the clustering approach and that the sample comprises paired contracts, with one observation pre-event and one observation post-event, the

Table 2 presents the results from estimating this empirical model. Columns 1 and 2 report results using the average wage growth rate over the life of the contract as the dependent variable in equation (1), while columns 3 and 4 report results using the proximate wage growth rate (the wage growth rate in the final year of the pre-event contract and in the first year of the post-event contract).

The evidence supports the labor-contracting implications of the hypothesis: union political power is an important determinant of the bargaining position of unions in the labor-firm contracting relationship. However, this evidence is inconsistent with the principal-agent alternate hypothesis, which implies that removing agency costs created by union political connections will improve wage growth. Similar to the difference-in-differences findings in Table 1, Panel C, the wage growth of union contracts in NSW experienced a statistically significant decline (*p*-value less than 0.001) relative to nonNSW union contracts following the event in all specifications. Economically, the average annual wage growth rate of NSW contracts decreased by 0.40 percentage points, and the proximate annual wage growth rate decreased by 0.57 percentage points. In the sample, the average wage growth over the life of a contract has a mean of 3.9% per year. Hence, the decrease of 0.40 percentage points represents approximately one-tenth of the average wage growth. The only control variable that significantly impacts contracted wage growth is state economic growth, which, unsurprisingly, exhibits a positive relation. Consistent with the univariate tests in Table 1, growth in state nonunionized wages is not significantly related to collectively bargained wages.[16]

Due to the inclusion of firm and union fixed effects, empirical identification of the estimates occurs within firms and across states (many firms have contracts both inside and outside of NSW simultaneously). Since we are analyzing union contracts, our classification of those collective bargaining units affected by the Act is based on the location of operations, not the location of the

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standard errors are not subject to the understatement bias discussed by Bertrand, Duflo, and Mullainathan (2004). Results are robust to using industry fixed effects and clustering errors at the industry-level rather than firm-level.

[16]In Section 7.4, we perform a firm-level difference-in-difference-in-differences on average employee wage growth rates (differences are based on pre- and post-Event, NSW and nonNSW, and firms with and without a collectively bargained union contract). Consistent with the hypothesis, we find that the triple difference is significant.

firm's headquarters. In unreported regressions, the estimates are robust to allowing for different pre- and post-event economic regimes (by interacting all independent variables with *Post-Event*), dropping contract pairs in which the post-event contract was agreed to between the election and the Act's passage through the upper house, and controlling for annual firm-specific wage effects (by interacting year and firm fixed effects).[17]

We do not find evidence that controlling for firm-level corporate political contributions in NSW significantly influences our results. The results also hold in untabulated tests when controlling for contributions to federal political organizations and to state political groups outside NSW as well as splitting corporate political contributions by political party. Results also hold in an untabulated specification that takes into account all possible interactions of the NSW political contributions variable, the NSW indicator, and the post-event indicator.

A contractual agreement between a firm and a union is an endogenous decision. For example, a firm and a union may negotiate and agree to a new wage contract prior to the expiration of the existing contract. In addition, firms and labor may operate under an expired contract. Given this, an alternative explanation of the results of Table 2 is that they are influenced by a selection bias. We conduct several untabulated robustness tests to ensure that this is not the case. In separate analyses, we exclude observations where firms and unions are most likely to select into negotiating a contract due to changed economic or political conditions. For the first test, we exclude contracts (and their matched pairs) that were terminated early or that expired more than a year before the parties agreed to a new contract. In the second, we eliminate pairs where the pre- and post-event union agreements had different contract lengths. Finally, we eliminate any contract pairs where one or both contracts exceed four years (the standard maximum contract length). In each untabulated test, our results remain significant and the finding that NSW contracts experienced a significant decrease in wage growth due to the Act remains unchanged. Collectively, the results of these tests

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[17]In unreported regressions, we find no evidence that the average contract length changed as a result of the Act. Additionally, our results remain unchanged when we include contract length as a control variable.

indicate that the relation between union political power and contracted wage growth seen in Table 2 is not significantly affected by a selection bias.

V. Equity Values and Union Political Power

Our hypothesis implies that the Act decreases union bargaining power, resulting in an increase in unionized firm equity value. To test this, we perform short-window event tests of stock returns around the election and the Act's passage by the upper house of the legislature.

A. Sample and Data

We begin with the sample of all publicly traded Australian firms and keep those that traded around the event dates and have the required financial data. From the roughly 370 firms that meet these criteria, we eliminate micro-cap stocks by restricting the sample to firms with a book value of assets greater than or equal to A\$100 million. This yields a sample of 639 firm-event observations, with 329 unique firms that trade around at least one of the two events.

Our tests examine cumulative abnormal return for firms around the event days. Following Brown and Warner (1980), we define the daily abnormal return as the difference between the stock return and the market return. The cumulative abnormal return is the total daily abnormal return over the three-day window surrounding each event. We define the market as the Australian All Ordinaries Index, a value-weighted index that captures over 95% of the Australian stock market capitalization.

We use the proportion of unionized workers as a proxy for the strength of union political connections and power. Union political power consists of both pecuniary components (such as direct, indirect, and affiliated entity political contributions) and nonpecuniary connections and power (such as party governance and voter drives). Both these factors should be highly correlated with the proportion of unionized workers.[18] As Australian firms do not report unionization levels

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[18]An alternative measure of union political power, union political contributions, is less desirable than the proportion of unionized workers for several reasons. Political contributions do not necessarily correlate with the nonpecuniary power of the union. Moreover, union political contributions can take several forms (as stated above) that can be difficult to observe. The observable component of these contributions also exhibits a strong homogeneity among unions.

to investors, we define unionization as the percentage of unionized workers at the industry level. This approach is similar to that followed by Chen, Kacperczyk, and Ortiz-Molina (2011, 2012) and Klasa et al. (2009).[19] Industry unionization data are obtained from the Australian Bureau of Statistics (ABS). These are matched to firms using the most specific industry classification available, which, per ABS definitions, may be reported at either the 4-digit (industry group), 6-digit (industry), or 8-digit (subindustry) GICS code. We include the previously discussed firm-level factors used in the wage analysis, measured as of the fiscal year-end preceding each event.

— *Insert Table 3 about here.* —

Panel A of Table 3 reports descriptive statistics for the 639 firm-event observations, where an observation represents a firm whose equity traded around an event day. All continuous variables are winsorized at the 1st and 99th percentiles. The average unionization rate in the sample is roughly 16%. Firms in the sample average A$744 million in total assets and have an average market-to-book ratio of 4.7. Only a small proportion of firms in the sample made state-level political contributions within NSW. For firms that did so, the average total contribution over the previous four-year election cycle was A$310,000. Panel C compares the means of several variables for firms headquartered in NSW with those headquartered elsewhere. NSW firms have significantly higher book asset values, leverage, and political contributions within NSW, but lower cash holdings. The differences in these variables demonstrate the importance of their inclusion as controls variables in our regression analysis. In unreported univariate tests, we find that the average cumulative abnormal return on the events for highly unionized firms in NSW is significantly greater than that for similarly unionized firms outside NSW.

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[19]The union contracts filed with the Australian Fair Work Commission do not provide information on the number of workers covered by the contract. Hence, it is not possible to infer firm-specific unionization rates from the contract data.

B. Results

We use an ordinary least squares event study regression framework to test for changes in the equity value of unionized firms in NSW:

$$(2) \quad \text{CAR}_{i,e} = \beta_0 + \beta_1 \text{Union}_{i,t} \times \text{NSW}_i + \beta_2 \text{Union}_{i,t} + \beta_3 \text{NSW}_i + \beta_4 \text{Controls}_{i,t} + \epsilon_{i,e}.$$

The dependent variable is cumulative abnormal return $CAR_{i,e}$ for firm *i* around event *e*. We analyze each three-day event window individually and also in aggregate using the total cumulative abnormal return combined over both events.[20]

Union is the proportion of unionized workers at the industry level. *NSW* is an indicator variable equal to 1 if the firm's headquarters is located in New South Wales, and 0 otherwise. The hypothesis predicts that unionized firm equity values in NSW should increase around the event days: the coefficient on the interaction of $Union$ and NSW should be positive ($\beta_1 > 0$). All control variables are measured as of the fiscal year-end preceding the event, denoted as time-*t* in the equation (2). Standard errors are clustered at the industry level.

The empirical approach is designed to mitigate concerns that industry-level unionization data act as a proxy for unobserved industry effects. Critically, our analysis relies on cross-state and within-industry comparisons. Variation in industry unionization by state does not appear to be a concern; data available from the Australian Bureau of Statistics show that NSW unionization rates are almost identical to those found in the rest of Australia. Controlling for firm-level factors that are both correlated with unionization and industry characteristics, such as size, market-to-book, and leverage, further reduces the likelihood that the unionization measure is capturing an industry-level risk factor. We also tabulate specifications including industry fixed effects, defined at the 2-digit GICS (sector) level. Finally, we perform a variety of robustness tests, reported later in the paper, to ensure the results do not derive from unobserved industry effects.

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[20]The inferences remain unchanged if we use the S&P ASX 200 Index or the S&P 500 Index as the market return (standard errors when using the S&P500 are adjusted to account for nonsynchronous trading between the United States and Australia (Newey and West (1987))).

Table 4 presents results from estimating equation (2). Columns 1 and 2 report results for cumulative abnormal returns around the first event day, Mar. 26, 2011, the date of the NSW election. Columns 3 and 4 present results for cumulative abnormal returns around the second event day, Feb. 16, 2012, when the Act was passed by the upper house.[21] Columns 5 and 6 present results for combined cumulative abnormal returns around both event days.

Consistent with the hypothesis, unionized firms in NSW experienced significantly positive abnormal returns relative to their NSW and nonNSW counterparts on both event days. This suggests that political connections and power enable unions to extract rents from equity holders and is contrary to both the efficiency-wage and the principal-agent alternate hypotheses. The results are robust to the inclusion of industry fixed effects. While not an explicit implication of our primary hypothesis, the negative and significant relationship between unionization rates and equity value may suggest that the market expects labor unions to shift their political endeavors to states other than NSW as a consequence of the Act. We document that firms outside of NSW, larger firms, lower-value firms, and firms in states with lower economic growth experienced positive abnormal returns around these events. In untabulated results, the findings are robust to allowing for a unique economic regime in NSW (by interacting all control variables with the NSW indicator variable); this ensures that the observed results are not driven by differences in controls across NSW and unaffected states. Our results are robust to using Tobin's Q as the measure of firm value.

We do not find evidence that corporate political contributions in NSW significantly affected abnormal returns around either event date. This suggests that the Act minimally impacted any relation between corporate political contributions and equity value. The results are robust to including regressors for corporate political contributions to other states and at the federal level. The findings are also unchanged in a specification that controls for contributions by political party.

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[21]The NSW election took place on a Saturday. Therefore, the three-day event window includes the trading day before the election, Mar. 25, and the two trading days after the election results were known, Mar. 28 and 29. The Australian Greens announced their support for the Act at the close of the market on Feb. 15. The event window runs from Feb. 15 through 17.

Economically, after controlling for industry fixed effects, the average unionized firm in NSW experienced positive abnormal returns relative to its nonNSW counterparts of 0.79% and 1.17% around Mar. 26, 2011 and Feb. 16, 2012, respectively, and 1.79% over the combined events.[22] This economic magnitude is consistent with the findings of Lee and Mas (2012), who estimate that new unionization results in a 10% cumulative decline in equity value over the 15- to 18-month period following a union election. Consequently, we believe that our estimate of reduced union political power increasing equity value by 1.79% is both reasonable and significant.

The equity value results are robust to a number of alternative explanations. First, NSW unionized firm equity values may have increased because investors expected firm performance to improve as a result of the Act. However, we do not find evidence that firm performance (as measured by either return on assets excluding personnel expenses or asset turnover) significantly improved. This suggests the NSW unionized firm equity value increased due to investors expecting a transfer of rents from unions to equity and not from improved firm performance. Second, the data do not permit us to create a firm-specific continuous variable to capture the differential impact of the Act. Therefore, we classify a firm as affected by the Act if it is headquartered in NSW. All sample firms headquartered in NSW have operations in the state. However, this classification approach will consider firms headquartered outside NSW with operations inside the state as unaffected by the Act. In untabulated robustness tests, the results are qualitatively similar when we classify a firm as being affected by the Act if it has any of its operations located in NSW. Similar results also arise when we consider affected firms as those with the entirety of their operations in NSW.

Finally, unlike the wage results, the equity value results rely on an industry level measure of unionization. Hence, our results may arise from systematic differences in industry compositions across states rather than from union political power. To provide evidence against this argument, we perform several matched sample tests. The inferences remain unchanged if we match nonNSW

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[22]The estimated increases in equity value are obtained by multiplying the OLS coefficient estimates on $NSW \times Union$ in columns 2, 4, and 6 of Table 4 by the mean unionization rate for NSW (15.4%). Since unions may move from a first-best to a second-best resource allocation as a consequence of the Act, this estimate represent a net effect. The true economic effect of union political power on equity value may be larger.

firms to NSW firms (i) by 8-digit GICS and total asset tercile industry or (ii) using a propensity score procedure based on all the control variables in Table 4 with the requirement that all matched firms are within the same 8-digit industry code (Rosenbaum and Rubin (1983)).[23]

These results, along with additional robustness tests in Section 7, suggest that an unmodeled industry effect is not responsible for the observed increase in NSW unionized firm equity value around the event dates. Note that industry-level unionization is only necessary for analyzing equity values; the wage results analyze unionized worksites and do not require a site- or firm-specific unionization measure to infer the average effect of union political power on contracted wage growth. The next section provides further evidence that union political power affects equity value by tying worksite contract outcomes to abnormal stock returns. In so doing, it leverages the clean identification in the wage results to support the equity value results.

VI. Union Political Power and the Link between Wages and Equity Value

Our hypothesis implies that, in efficient markets, firms with the greatest increase in value around the event will negotiate the most favorable contracts. Specifically, we expect the market to predict which firms will be able to negotiate the most favorable contracts as a result of the Act. Analyzing the link between equity value changes and negotiated wage growth suggests that the results derive from the same underlying economic process. That is, the Act weakens the bargaining power of unions. This loss in bargaining power allows firms to negotiate for lower wage growth and, thereby, provides an economic channel to increase equity value.

We test whether market returns predicted contracting outcomes using a two-step identification strategy on the sample of contracts for which the firm traded around the first event date. This contains 83 unique firms and 946 contracts (473 pairs). The first step obtains the firm-specific increase in value around the election. This is the cumulative abnormal return residual, $\epsilon_{i,CAR}$,

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[23]To improve both matching procedures, whenever there are fewer than five nonNSW firms that trade on the event day within the same 8-digit industry as the NSW firm, we sequentially look for matching firms within 6-digit, 4-digit, and 2-digit industry codes until a sufficient number are found.

from estimating equation (2) with industry fixed effects.[24] The second step checks whether the firm-specific increase in value predicts contract outcomes. To do this, we estimate a model similar to the wage methodology (equation (1)) in which the cumulative abnormal return residual is interacted with the *NSW*, *Post-Event*, and *NSW* × *Post-Event* indicators:

$$(3) \quad \text{Wage\_Growth}_{i,j,t} = \beta_0 + \beta_1 \text{NSW}_{i,j} \times \text{Post-Event}_t \times \epsilon_{i,CAR} + \beta_2 \text{NSW}_{i,j} \times \text{Post-Event}_t$$

$$+ \beta_3 \text{NSW}_{i,j} \times \epsilon_{i,CAR} + \beta_4 \text{Post-Event}_t \times \epsilon_{i,CAR}$$

$$+ \beta_5 \text{NSW}_{i,j} + \beta_6 \text{Post-Event}_t + \beta_7 \text{Controls}_{i,j,t-1} + \epsilon_{i,j,t}.$$

If the market predicts which NSW firms will negotiate the most favorable contracts after the event, then the coefficient on the triple interaction of the *NSW*, *Post-Event*, and $\epsilon_{i,CAR}$ will be negative ($\beta_1 < 0$).

NSW and *Post-Event* are as defined previously. We use all control variables found in equation (1) as well as year, firm, and union fixed effects. The firm-level CAR residual $\epsilon_{i,CAR}$ is spanned by firm fixed effects and thus not explicitly included in equation (3). Standard errors are double-clustered at both the year and firm levels, and errors are also corrected for the two-step procedure with generated regressors as described in Murphy and Topel (1985).[25]

— *Insert Table 5 about here.* —

Table 5 examines whether observed changes in equity value from the Act accurately predicted future contracting outcomes using equation (3). Columns 1 and 2 report results using the average wage growth rate over the life of the contract as the dependent variable and columns 3 and 4 report results using the proximate wage growth rate. We do not report the estimated coefficients or *p*-values of control variables for brevity.

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[24]In untabulated tests, the results are robust to including the increase in NSW unionized firm equity value in the residual by excluding the interaction of *NSW* and *Union* from equation (2) in the first stage estimation.

[25]Results are robust to fully interacting all coefficients with *Post-Event*, interacting year and firm fixed effects, and estimating the regressions without fixed effects. Additionally, results are robust to using industry fixed effects and clustering at the industry level rather than firm level

We find that the reduction in wage growth for NSW contracts is largest for firms with positive CAR residuals around the first event in columns 2 and 4.[26] The coefficients on the triple-interactions of NSW, *Post-Event*, and ϵ_{CAR} are negative and statistically significant (*p*-values of 0.003). Economically, a 1-standard-deviation increase in the CAR residual from the value regression for a NSW firm is associated with an additional 0.25 (0.34) percentage points lower average (proximate) wage growth rate than nonNSW contracts post-event. This evidence supports the notion that the market recognizes union political power as a mechanism through which unions shape the bargaining relationship with firms in order to extract rents from equity holders. Additionally, the wage growth rate in NSW contracts declined significantly relative to nonNSW contracts following the event, even after including the interaction of the equity value residual with *NSW* and *Post-Event*.

This combined analysis supports the individual wage and equity value tests by mitigating empirical concerns that might arise when these results are considered independently. First, it provides strong evidence that the decrease in NSW union wage growth relative to other states after the event did not arise from concurrent, but unrelated variation in economic conditions across states. Any such economic differences (both ex post and ex ante) should be priced into stocks before the event. Therefore, stock returns should predict wage outcomes only if the Act changed the relative bargaining positions of firms and labor. Second, an explicit connection between wages and equity values provides evidence that the changes in value do not simply arise from an unmodeled industry effect induced by using industry-level unionization rates in the value analysis. The combined analysis links a firm-level residual to worksite contract outcomes. It, therefore, suggests that the changes in equity value reflect a market expectation that firms will negotiate more favorable labor contracts in the future.

Moreover, the union wage-equity value connection formalizes conditions under which an industry-level unionization measure is appropriate for determining how the political connections of

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[26]In our setting, firms with lower contracting costs have higher values. Ouimet and Simintzi (2016) find that firms that had locked in high wages prior to the global financial crisis performed better. They argue that this result arose because managers focused on short-term results during the crisis, leading to suboptimal contracting. This differs significantly from our setting in which the political influence of firms was not materially affected by the Act and, consequently, managers could focus on maximizing long-term firm value.

unions affect equity values. Specifically, any unmodeled industry effect must be correlated with the variation in industry unionization rates across states. This unmodeled effect must also be correlated with a decrease in NSW union bargaining power relative to other states following the election.

To address this concern, we modify the analysis to account for differences in state-level industry unionization. We estimate the value residual using unique industry-level fixed effects for NSW and nonNSW firms, and we test whether this residual predicts contract outcomes. The approach allows for an arbitrary correlation between state-level unionization and state-level industry factors. Our untabulated results are unchanged from those reported in Table 5, providing further evidence that equity value changes around the event were not due to omitted, state-specific industry factors.

VII. Robustness

In the previous sections, we find evidence that union political connections and power influence wage contracting and equity value, and we show that these effects are connected. This section provides a body of evidence demonstrating the robustness of these findings.

A. Counterfactual Tests

A potential criticism of the analysis is that we are capturing an election effect rather than the direct effect of the Act. For example, the party in power may represent a more important determinant of the contracting relationship between firms and unions than the political connections of unions. To disentangle the effect of the Act from that of the election, we analyze two other recent state elections in Australia as counterfactuals to the NSW election. On Nov. 27, 2010, the ALP narrowly lost its majority to the Liberal-National Coalition in both the upper and lower houses of the state Parliament in Victoria. Similarly, on Mar. 25, 2012, the ALP lost its Parliamentary majority by a large margin to the Liberal-National Coalition in the state of Queensland after two decades of control. Both elections removed a labor-friendly political party and installed a business-friendly Coalition government. However, legislative restrictions on union political power similar to those in

the NSW's Act were neither campaigned for nor proposed by either state's Coalition. These two events allow us to test the effects of elections similar to that in NSW without any direct legislated reduction in the political influence of labor unions.

We perform analysis on wage growth rates around these elections using an analogue to equation (1) and event analysis on abnormal returns using an analogue to equation (2). For the wage analysis, we collect contracts of public firms or their subsidiaries negotiated after the elections and match these to contracts in place prior to the elections. The length of these post-event windows matches that used in Section 4. To ensure the results are not determined by the impact of the NSW election, we do not include contracts negotiated by NSW bargaining units from our original sample. We replace the NSW indicator variable with an indicator *State*, defined as 1 for bargaining units located in the state where the election occurs, and 0 otherwise. The value analysis sample consists of firms that traded around the elections with total assets greater than A\$100 million. We replace the NSW indicator variable with an indicator *State*, defined as 1 for corporations headquartered in the state in which the election occurs and, 0 otherwise.

— *Insert Table 6 about here.* —

As can be seen in Panel A of Table 6, wage growth did not significantly decrease after the Victoria and Queensland elections. The coefficient on the interaction between *State* and *Post-Event* is statistically and economically insignificant for the Victoria election. Further, wage growth actually increased (significantly for average wage growth) following the Queensland election relative to other states. Similarly, in Panel B, we do not find a statistically significant change in equity value for the Victoria or Queensland elections. Unlike the NSW election, the coefficient on the interaction between *State* and *Union* is always negative for both of these state elections. The removal of a party friendly to unions without an accompanying law restricting union political connections and power seems to produce minimal effects on both the wages negotiated by bargaining units and the equity value of unionized firms in these states. These results suggest that the change in NSW unionized

wage growth and equity value documented in Tables 2 and 4 are due to the limitations on union political power imposed by the Act, which subsequently reduced union bargaining power.

B. Cross Sectional Tests of Equity Values

The equity value results rely on an industry-level measure of unionization. In addition to the matched-sample tests reported in Section 5, we perform cross sectional tests to ensure our results are due to union political power and not some other unmodeled effect. The results are in Table 7.

— *Insert Table 7 about here.* —

In poorly governed unionized firms, a reduction in unions' ability to extract rents might not translate into an increase in shareholder value because the surplus could be captured by managers. We collect data on director independence using the Connect4 database on Australian corporate governance. Consistent with this motivation, we find that firms whose proportion of independent directors is above the sample median had higher combined abnormal returns around both events than those below the median in columns 1 and 2. An *F*-test comparing the coefficients on the interaction of *NSW* and *Union* confirms this difference is statistically significant (p-value of 0.049).

Similarly, NSW labor unions that had significant political clout prior to the election should experience a significant decline in their ability to extract rents afterwards. We classify a union as having high political power if it had a seat on the NSW ALP's top governing body at the time of the election (see the Internet Appendix for details). In columns 3 and 4, we find that firms that had more contracts (above the median) with politically powerful unions experienced significantly higher abnormal returns around both events (p-value of 0.064) than those that did not.

Finally, prior research shows that workers have higher bargaining power at firms in capitally intensive industries (Hirsch and Berger (1984)). Therefore, we expect that firms in industries with higher capital intensity (above the median) to experience higher abnormal returns around the events. Again, the evidence is consistent with the above prediction. In columns 5 and 6, we find

26

the combined abnormal returns are significantly higher for firms in capitally intensive industries (p-value of 0.003) than in less capitally intensive ones.

C. Falsification Tests

We test for changes in equity value as a result of the Act using short-window analysis of cumulative abnormal returns around the events. A potential alternative explanation is that the results suggest a long-run trend in which unionized firms in NSW outperformed their nonunionized peers, which subsequently changed contracted wage growth.

— *Insert Figure 1 about here.* —

We do not find evidence consistent with this alternative explanation. First, we perform a falsification test to ensure that the estimated results of Table 4 are significantly greater than randomly chosen event dates in the year surrounding the events. Specifically, we perform 10,000 Monte Carlo simulations, randomly choosing six pseudo-event days during the twelve-month window surrounding the events. We then estimate the regression specification used in column 6 of Table 4. Graph A of Figure 1 presents a histogram of the frequency of the estimated simulation regression coefficients on $Union \times NSW$. The coefficient using the actual event days of 0.116 on $Union \times NSW$ from Table 4, column 6 (denoted with a vertical line in the graph) was greater than the estimated coefficients in all but 157 of the 10,000 simulations.

Second, the fact that stock returns around the election predict contract outcomes provides strong evidence that the Act caused a change in equity values that was not related to other economic trends. Graph B reports results from Monte Carlo analysis in which we re-estimate column 2 of Table 5 using equity value residuals from randomly chosen event days in the year prior to the election. The histogram shows that the estimated coefficient on the triple-interaction using the residual from the actual election of -11.479 from Table 5, column 2 (denoted with a vertical line in the graph) was less than the estimated coefficients in all but 63 of the 10,000 simulations.

Third, in untabulated tests we perform a procedure similar to that of Sefcik and Thompson (1986). This procedure detrends the returns and accounts for the cross sectional correlation of standard errors due to firms sharing event days.[27] We find that the estimated relation between unionization for NSW firms and abnormal returns on the event days are significantly greater than those observed on nonevent days in the 12 months surrounding the events. The results of these three tests suggest that the statistical significance of the equity value findings are not spuriously created by a long-term trend affecting unionized firms in NSW.

Another possibility is that any abnormal returns observed could be short-term effects that were subsequently reversed by the market. However, in untabulated tests, there was no immediate reversal in firm values following the passage of the Act as the difference-in-differences of Tobin's Q across states and unionization levels is significant as of fiscal year end 2012. Further, we do not observe a historical decline in the value of highly unionized firms in NSW. The difference in Tobin's Q between highly unionized firms in NSW and highly unionized nonNSW firms did not significantly change in the three years prior to the event.

D.   Difference-in-Difference-in-Differences Analysis

Table 2 demonstrates that the average wage growth of NSW unionized worksites decreased relative to peers outside NSW. To ensure this result is not due to a general reduction in NSW wages, we include the annual growth rate in the state-level average nonunionized full-time earnings as a control variable in all our specifications. To provide additional evidence that the results reflect the treatment effect of the Act on labor unions and not a general reduction in NSW wages, we examine a firm-level wage measure for both unionized and nonunionized firms.

For each firm without a union contract, we collect data on personnel expenses and the average number of employees in each fiscal year. This data is used to compute average annual wage

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[27]This procedure generates a set of portfolio returns representing the daily return to an investor holding a portfolio with a unit loading on one firm characteristic and zero allocation to all other characteristics. The characteristics are the independent variables found in equation (2) and a constant. We then estimate a system of equations using a Seemingly Unrelated Regression (SUR) approach, which regresses each portfolio return on a constant, event indicators, and the daily market return.

growth rates for these firms. For firms with union contracts, we compute average annual wage growth rates from the union contracts. When a firm has contracts with bargaining units within and outside NSW, we create a treatment and a control observation by separately averaging wage growth rates for contracts with NSW bargaining units and for those with bargaining units outside NSW, respectively. Given data limitations, our sample is restricted to firms that provided reliable and consistent personnel expenses and employment figures in annual reports for each of the four years from 2010 through 2013.[28]

— Insert Table 8 about here. —

We examine differences in average wages based on pre- and post-Event, NSW and nonNSW firms, and firms with and without a collectively bargained union contract in Table 8. We estimate quantile regressions at the median due to the high variance and presence of outliers in financial report-based average wage growth rates. The results demonstrate that the coefficient on the difference-in-difference-in-differences is negative and negative and significant in column 1. This triple difference is similarly negative and significant in column 2 when we include the control variables used in the paper's main specifications. These results further suggest that the Act significantly impacted unionized wage growth in NSW.

E.   Tests on Other Corporate Policies

Union political connections may also affect other corporate decisions. For example, firms may increase leverage to limit union negotiating power (Bronars and Deere (1991) and Matsa (2010)). In support of this notion, we find that unionized firms significantly reduced leverage following the NSW election. This result is consistent with Act allowing firms to reduce leverage with the surplus obtained from lower union wage expenses.[29] We also find that the market impounded these

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[28]Unfortunately, a large proportion of Australian firms do not report employee expenses. Furthermore, those firms that provide the data often change the definition of employee expenses over time. For example, a firm may provide data only on retirement (superannuation) contributions one year and only on total personnel expenses the following year. Additionally, firms are not required to report their number of employees, either in total or by state, and, as a result, employment data are commonly absent.

[29]In the online appendix, we do not find that firms significantly changed capital expenditures, investment in R&D, cash holdings, or CEO compensation as a consequence of the Act.

reductions into equity values around the event: firms that experienced the greatest increase in value subsequently reduced leverage the most. These findings are detailed in the Internet Appendix.

F. Additional Robustness Tests

Finally, we perform several other robustness tests in the Internet Appendix. First, our difference-in-differences wage analysis implicitly assumes that NSW and nonNSW wage growth followed parallel trends prior to the election. Consistent with this assumption, we find that NSW wage growth prior to the election did not significantly vary relative to other states. Thus, it is unlikely that our wage results are the result of an unrelated reduction in wage growth over time due to differing economic conditions between NSW and the rest of the country.

Second, our equity value results are robust to analyzing other events affecting union political connections and power in NSW. We document that unionized firms in NSW decreased in value around key events involving a High Court challenge of the Act. These results provide further assurance that the equity value results were due to the Act itself and not other omitted factors.

VIII. Conclusion

The existing literature finds that a firm's political connections and power are associated with higher valuation and beneficial regulatory outcomes, and evidence suggests that firms strategically cultivate political influence. However, we have a limited understanding of whether other stakeholders use political connections and power to achieve their own goals and influence equity values and firm decisions. Unions are a key firm stakeholder that wield significant political influence, which we hypothesize is used to improve the bargaining relationship of unionized workers relative to firms and thereby extract economic rents from shareholders.

Using a recent law in the state of New South Wales, Australia, as a quasi-natural experiment, we provide evidence that union political power is positively associated with organized labor's ability to negotiate more favorable contract terms. Also, unlike the political connections of a firm's

owners, executives, and directors, we find that union political connections and power are negatively associated with equity value. These results are related: firms that experienced larger increases in value around the Act's key event dates subsequently negotiated larger reductions in union wages. The results are robust to a number of alternative explanations, specifications, and supplemental tests.

The previous literature hypothesizes and finds that organized labor is an important determinant of equity value and firm decision-making (for example, Ashenfelter and Johnson (1969) and Blaylock, Edwards, and Stanfield (2015), Chen et al. (2011), Klasa et al. (2009), Lee and Mas (2012) and Matsa (2010)). We provide new insights into these findings by showing that unions' political connections and power are an important determinant of these relations. We also present previously undocumented evidence that explicitly connects changes in union wages to equity value. These results bolster existing findings in the literature studying the influence of unions on wages and equity value (DiNardo and Lee (2004), Frandsen (2012), and Lee and Mas (2012)), which examine wages and values in isolation. Our evidence shows that union political power is a causal mechanism by which unions can extract rents from equity holders, while holding unions' ability to collectively bargain constant by experimental design.

This work suggests that comprehensive research into the political connections and activities of all of a firm's major stakeholders is needed. Our results show that firms can be significantly influenced by the political connections of powerful stakeholders other than the firm's owners and management. The effects of nonfinancial stakeholder political power on the firm are widespread; our evidence demonstrates effects on employee wages, equity values, and an important corporate policy, financial leverage. These relations are not only important for understanding the mechanisms through which stakeholder political power influences firm value, but are also relevant for policymakers. Moreover, it is unclear whether the political actions of secondary stakeholders, such as community and activist groups, affect firm value. These groups have recently increased their political prominence, using technological developments to quickly and dynamically organize political action in response to firm

31

activities. Hence, the key role that politically connected stakeholders play in affecting firm value

and behavior is an important consideration for future research.

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Table 1: Contract Sample Summary

Panel A presents summary statistics on 1,286 labor contracts and their associated firms. The sample consists of matched contract pairs at the worksite level. For each contract filed after the New South Wales (NSW) Coalition victory, we find the matching contract agreed upon before the election between the same collective bargaining unit and firm. These data are matched to the corresponding firm's financial information and market values. *Mean* and *SD* reports the means and standard deviations. *p1*, *p25*, *Median*, *p75*, and *p99* show the 1st, 25th, 50th, 75th, and 99th percentile values, respectively. Panel B presents the Pearson correlations of the variables at the contract level. Panel C presents summary statistics comparing 204 labor contracts negotiated in NSW prior to (following) the event and 439 labor contracts negotiated outside of NSW prior to (following) the event. It also reports the difference between the means of variables for contracts negotiated in NSW and contracts negotiated outside NSW and the *p*-value of this difference. Differences marked with *, **, and *** are significant at the 10%, 5%, and 1% level, respectively; state-year-level differences are clustered by state-year. *Ave. Wage Growth* is the average contracted annual wage growth rate (in %) over the life of the contract; *Prox. Wage Growth* is the annual wage growth rate (in %) of the last (first) year of the contract for contracts agreed upon prior to (following) the event; *Contract Length* is in years; *NSW* is an indicator variable equal to 1 if the contract is negotiated in NSW, and 0 otherwise; *Post-Event* is an indicator variable equal to 1 if the contract was negotiated after March 26, 2011, the date of the Liberal-National Coalition electoral victory, and 0 otherwise; *NSW × Post-Event* is the interaction of *NSW* and *Post-Event*; *Size* is the natural log of 1 + the total book value of the firm's assets (in millions A\$); *MB* is the firm's market value of equity divided by the book value of equity; *Leverage* is the firm's book value of interest-bearing debt divided by the book value of total assets; *NSW CPC* is the natural log of 1 + the total amount (in A\$) of a firm's corporate political contributions made in NSW over the previous 4 years; *Cash* is the total value of the firm's cash and marketable securities divided by the book value of total assets; *GSP Growth* is the annual gross state product growth (in %) in the year preceding contract negotiations; and *Nonunionized State Wage Growth* is the year-over-year growth rate (in %) in average nonunionized adult weekly earnings (excluding overtime). All continuous variables are winsorized at the 1st and 99th percentiles.

Panel A. Summary Statistics

N = 1286	Mean	SD	Distribution				
			p1	p25	Median	p75	p99
Ave. Wage Growth	3.901	0.827	2.000	3.333	4.000	4.500	6.000
Prox. Wage Growth	3.928	0.955	2.000	3.400	4.000	4.500	7.000
Contract Length	2.546	0.868	<1.000	2.000	3.000	3.000	5.000
NSW	0.317	0.466	0	0	0	1	1
Post-Event	0.500	0.500	0	0	0.5	1	1
NSW × Post-Event	0.159	0.365	0	0	0	0	1
Size	7.876	1.511	4.284	6.768	8.127	8.823	10.653
MB	2.169	2.073	0.334	1.065	1.552	2.563	10.524
Leverage	0.240	0.131	0.000	0.159	0.227	0.300	0.624
NSW CPC	5.943	6.349	0	0	0	12.293	15.609
Cash	0.059	0.065	<0.001	0.020	0.040	0.078	0.322
GSP Growth	2.793	1.380	0.087	1.996	2.367	3.417	7.342
Nonunionized State Wage Growth	4.444	2.321	–1.938	2.941	4.033	5.794	10.892

Panel B. Correlations

		1	2	3	4	5	6	7	8	9	10
1	Ave. Wage Growth	1									
2	Prox. Wage Growth	0.887	1								
3	Contract Length	0.107	0.088	1							
4	Size	–0.116	–0.089	–0.039	1						
5	MB	0.051	0.031	0.125	–0.118	1					
6	Leverage	0.052	0.039	0.108	0.169	0.114	1				
7	NSW CPC	–0.041	–0.026	0.005	0.572	–0.056	–0.126	1			
8	Cash	0.106	0.093	0.047	–0.188	0.264	–0.225	–0.078	1		
9	GSP Growth	0.169	0.136	0.185	–0.026	0.138	0.053	–0.019	0.013	1	
10	Nonunionized State Wage Growth	0.096	0.097	0.116	–0.341	–0.084	0.113	–0.010	0.084	0.359	1

(*Continued*)

Panel C. Mean Comparison of NSW and nonNSW Contracts Pre- and Post-Event

| Pre-Event | NSW (N=204) | | NonNSW (N=439) | | | |
	Mean	SD	Mean	SD	Difference	*p*-value
Ave. Wage Growth	3.893	0.826	3.950	0.831	−0.057	0.415
Prox. Wage Growth	3.940	1.020	3.890	0.864	0.050	0.517
Contract Length	2.544	0.838	2.508	1.002	0.036	0.655
Size	7.930	1.505	7.706	1.562	0.224[*]	0.088
MB	2.693	2.694	2.663	2.330	0.029	0.888
Leverage	0.288	0.153	0.267	0.135	0.021[*]	0.074
NSW CPC	5.894	6.389	5.540	6.317	0.354	0.510
Cash	0.051	0.053	0.059	0.080	−0.008	0.172
GSP Growth	2.046	0.567	3.143	1.521	−1.097[**]	0.019
Nonunionized State Wage Growth	4.239	2.339	4.736	2.555	−0.497	0.664

| Post-Event | NSW (N=204) | | NonNSW (N=439) | | | |
	Mean	SD	Mean	SD	Difference	*p*-value
Ave. Wage Growth	3.549	0.756	4.021	0.812	−0.472[***]	<0.001
Prox. Wage Growth	3.586	0.930	4.119	0.977	−0.534[***]	<0.001
Contract Length	2.539	0.815	2.588	0.756	−0.048	0.461
Size	8.103	1.427	7.915	1.485	0.188	0.131
MB	1.649	1.540	1.673	1.404	−0.024	0.844
Leverage	0.220	0.104	0.202	0.115	0.018[*]	0.053
NSW CPC	6.648	6.193	6.042	6.423	0.606	0.261
Cash	0.058	0.047	0.064	0.060	−0.007	0.172
GSP Growth	2.346	0.021	2.998	1.615	−0.652	0.215
Nonunionized State Wage Growth	2.623	0.856	5.094	2.082	−2.471[**]	0.024

Post-Event — Pre-Event	Difference	*p*-value	Difference	*p*-value	Difference-in-Differences	*p*-value
Ave. Wage Growth	−0.343[***]	<0.001	0.071	0.202	−0.414[***]	<0.001
Prox. Wage Growth	−0.355[***]	<0.001	0.229[***]	<0.001	−0.584[***]	<0.001
Contract Length	−0.005	0.952	0.080	0.184	−0.085	0.404
Size	0.174	0.233	0.209[**]	0.042	−0.036	0.840
MB	−1.044[***]	<0.001	−0.990[***]	<0.001	−0.054	0.832
Leverage	−0.068[***]	<0.001	−0.065[***]	<0.001	−0.003	0.846
NSW CPC	0.754	0.227	0.502	0.243	0.251	0.740
Cash	0.007	0.142	0.005	0.254	0.002	0.783
GSP Growth	0.300	0.334	−0.145	0.808	0.445	0.500
Nonunionized State Wage Growth	−1.616	0.208	0.358	0.695	−1.974	0.181

Table 2: Union Political Power and Contracted Wage Growth

The table reports empirical results from regressions examining how union political power affects wages negotiated between firms and labor unions. The sample consists of matched contract pairs at the worksite level. For each contract filed after the Coalition victory, we find the matching contract agreed upon before the election between the same collective bargaining unit and firm. The dependent variable in columns 1 and 2 is the average annual wage growth rate (in %) over the life of the contract. The dependent variable in columns 3 and 4 is proximate annual wage growth rate (in %). For contracts agreed upon prior to (following) Mar. 26, 2011, the day of the Liberal-National Coalition electoral victory, proximate annual wage growth is the wage growth in the last (first) year of the contract. *NSW* is an indicator variable equal to 1 if the contract is negotiated in NSW, and 0 otherwise. *Post-Event* is an indicator variable equal to 1 if the contract is agreed upon following the election, and 0 otherwise. All other variables are as defined in Table 1. Standard errors are robust to heteroskedasticity and double clustered to allow for both within-year and within-firm correlation. *Firm FE* are *Union FE* are fixed effects based on the firm and union(s) involved in each contract, respectively. *Year FE* are fixed effects based on the year in which the firm and union(s) agreed to the contract. p-values are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

	Average Wage Growth		Proximate Wage Growth	
	(1)	(2)	(3)	(4)
NSW × Post-Event	−0.402***	−0.430***	−0.573***	−0.611***
	(<0.001)	(<0.001)	(<0.001)	(<0.001)
NSW	0.015	0.084	0.127	0.211**
	(0.880)	(0.434)	(0.195)	(0.035)
Post-Event	0.026	0.031	0.125	0.137
	(0.817)	(0.768)	(0.287)	(0.272)
Size		0.135		0.091
		(0.222)		(0.394)
MB		0.021		0.022
		(0.383)		(0.401)
Leverage		−0.284		0.099
		(0.440)		(0.795)
NSW CPC		−0.005		−0.005
		(0.605)		(0.644)
Cash		0.312		0.877
		(0.719)		(0.256)
GSP Growth		0.056**		0.066***
		(0.011)		(0.001)
Nonunionized State Wage Growth		−0.001		−0.002
		(0.972)		(0.849)
Constant	2.814***	1.690**	3.027***	2.081***
	(<0.001)	(0.035)	(<0.001)	(0.005)
Firm FE	Yes	Yes	Yes	Yes
Union FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted-R^2	0.360	0.363	0.252	0.254
N	1,286	1,286	1,286	1,286

Table 3: Equity Sample Summary

Panel A presents summary statistics on 639 firm-event observations. The sample consists of all Australian publicly traded firms with market capitalizations greater than $100 million that traded around the event dates. The events are March 26, 2011, the date of the Liberal-National Coalition electoral victory, and February 16, 2012, the date the Election Funding, Expenditure and Disclosures Amendment Act 2012 was passed by the upper house of the New South Wales (NSW) Parliament. *Mean* and *SD* reports the means and standard deviations. *p1*, *p25*, *Median*, *p75*, and *p99* show the 1st, 25th, 50th, 75th, and 99th percentile values, respectively. Panel B presents the Pearson correlations of variables at the firm-event level. Panel C presents summary statistics comparing 226 firm-event observations for firms headquartered in NSW and 413 firm-event observations for firms headquartered outside NSW. It also reports the difference between the means of firms located in NSW and firms not located in NSW and the *p*-value of this difference. Differences marked with *, **, and *** are significant at the 10%, 5%, and 1% level, respectively; state-year-level differences are clustered by state-year. *CAR* is the cumulative abnormal equity return for the 3-day window surrounding each event date; *NSW* is an indicator variable equal to 1 if the firm is headquartered in New South Wales, and 0 otherwise; and *Union* is the industry-level unionization rate. All other variables are as defined in Table 1. All continuous variables are winsorized at the 1st and 99th percentiles.

Panel A. Summary Statistics

| N = 639 | Mean | SD | Distribution | | | | |
			p1	p25	Median	p75	p99
CAR	−<0.001	0.042	−0.090	−0.020	−0.002	0.015	0.126
NSW	0.354	0.478	0	0	0	1	1
Union	0.159	0.092	0.019	0.094	0.170	0.213	0.423
Size	6.613	1.660	4.654	5.352	6.188	7.556	11.891
MB	4.653	30.236	0.003	0.873	1.652	3.380	18.927
Leverage	0.204	0.193	0.000	0.050	0.168	0.294	0.842
NSW CPC	1.366	3.988	0	0	0	0	15.368
Cash	0.105	0.126	<0.001	0.025	0.059	0.137	0.656
GSP Growth	2.377	1.056	0.873	1.605	2.212	2.325	4.218
Nonunionized State Wage Growth	3.708	1.662	1.109	2.771	3.751	4.111	7.464

Panel B. Correlations

		1	2	3	4	5	6	7	8	9
1	CAR	1								
2	Union	−0.059	1							
3	Size	0.086	0.096	1						
4	MB	−0.032	−0.039	−0.015	1					
5	Leverage	0.072	−0.064	0.204	0.172	1				
6	NSW CPC	−0.004	0.060	0.476	−0.027	−0.001	1			
7	Cash	−0.009	0.108	−0.263	−0.016	−0.297	−0.087	1		
8	GSP Growth	−0.130	0.110	−0.198	−0.021	−0.039	−0.112	0.079	1	
9	Nonunionized State Wage Growth	−0.126	0.085	−0.229	−0.031	−0.080	−0.159	0.119	0.550	1

Panel C. Mean Comparison of NSW and nonNSW Headquartered Companies

| | NSW (N=226) | | NonNSW (N=413) | | | |
	Mean	SD	Mean	SD	Difference	*p*-Value
CAR	0.001	0.034	−0.001	0.047	0.002	0.551
Union	0.154	0.105	0.161	0.085	−0.007	0.358
Size	6.984	1.729	6.410	1.587	0.574***	<0.001
MB	3.823	16.339	5.108	35.627	−1.285	0.608
Leverage	0.245	0.224	0.182	0.170	0.062***	<0.001
NSW CPC	2.194	4.888	0.912	3.317	1.282***	<0.001
Cash	0.086	0.119	0.116	0.129	−0.030***	0.004
GSP Growth	2.076	0.246	2.542	1.272	−0.466	0.398
Nonunionized State Wage Growth	2.778	0.993	4.217	1.733	−1.439	0.187

Table 4: Union Political Power and Equity Value

The table reports empirical results from ordinary least squares models examining the relationship between a change in union political power on key event dates and equity values. The sample consists of all Australian publicly traded firms with market capitalizations greater than $100 million that traded around the event dates. The dependent variable is Cumulative Abnormal Return (CAR) over the 3-day window surrounding each event day in columns 1 through 4 and over the combined 6-day event window in columns 5 and 6. Columns 1 and 2 report estimated coefficients for Mar. 26, 2011, the day of the Liberal-National Coalition electoral victory. Columns 3 and 4 report estimated coefficients for Feb. 16, 2012, the day the Act was passed by the NSW Parliament's upper house. Columns 5 and 6 report estimated coefficients for a combined analysis of both event day windows. *NSW* is an indicator variable equal to 1 if the firm is headquartered in NSW, and 0 otherwise. *Union* is the industry-level unionization rate defined at either the 4-, 6-, or 8-digit GICS level. All other variables are as defined in Table 1. Standard errors are robust to heteroskedasticity and within-industry correlation. Industry fixed effects (FE) are defined at the 2-digit GICS level. p-values are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

	Mar. 26, 2011		Feb. 16, 2012		Combined	
	(1)	(2)	(3)	(4)	(5)	(6)
NSW × Union	0.083***	0.051*	0.106***	0.076***	0.175***	0.116***
	(0.004)	(0.052)	(0.006)	(0.007)	(0.001)	(0.001)
NSW	−0.017**	−0.012**	−0.018	−0.017	−0.032***	−0.027***
	(0.011)	(0.028)	(0.360)	(0.494)	(0.001)	(<0.001)
Union	−0.049***	−0.019	−0.088*	−0.048	−0.124**	−0.063
	(0.010)	(0.430)	(0.059)	(0.279)	(0.024)	(0.208)
Size	0.003**	0.004***	0.002	0.001	0.004	0.004
	(0.032)	(0.005)	(0.455)	(0.682)	(0.134)	(0.158)
MB	−<0.001***	−<0.001***	<0.001	<0.001	−<0.001*	−<0.001*
	(<0.001)	(<0.001)	(0.444)	(0.456)	(0.069)	(0.092)
Leverage	−0.003	−0.004	0.027***	0.012	0.021**	0.007
	(0.605)	(0.680)	(0.004)	(0.198)	(0.048)	(0.712)
NSW CPC	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001
	(0.202)	(0.172)	(0.275)	(0.289)	(0.262)	(0.273)
Cash	0.002	−0.001	0.035	0.034	0.001	−0.001
	(0.935)	(0.948)	(0.129)	(0.182)	(0.973)	(0.986)
GSP Growth	−0.004	−0.005	−0.008	−0.007	−0.014*	−0.015*
	(0.284)	(0.182)	(0.109)	(0.163)	(0.087)	(0.079)
Nonunionized State Wage Growth	0.001	0.002	−0.002	−0.001	0.003	0.005
	(0.759)	(0.358)	(0.872)	(0.951)	(0.610)	(0.384)
Constant	−0.009	−0.020	0.024	0.021	0.012	0.001
	(0.629)	(0.152)	(0.597)	(0.714)	(0.692)	(0.973)
Industry FE	No	Yes	No	Yes	No	Yes
Adjusted-R^2	0.034	0.063	0.046	0.057	0.064	0.104
N	328	328	311	311	329	329

Table 5: Did Abnormal Changes in Equity Value around the Election Predict Subsequent Changes in Contracted Wage Growth?

The table reports empirical results from regressions examining how union political power affects contracts negotiated between firms and labor unions and whether market participants anticipated contracting outcomes. The sample consists of the intersection of the matched contract pairs (Table 2) and publicly traded firms (Table 4). The dependent variable in columns 1 and 2 is the average annual wage growth rate (in %) over the life of the contract. The dependent variable in columns 3 and 4 is proximate annual wage growth rate (in %). For contracts agreed upon prior to (following) Mar. 26, 2011, the day of the Liberal-National Coalition electoral victory, proximate annual wage growth is the wage growth in the last (first) year of the contract. *NSW* is an indicator variable equal to 1 if the contract is negotiated in NSW, and 0 otherwise; *Post-Event* is an indicator variable equal to 1 if the contract is agreed upon following the election, and 0 otherwise; and ϵ_{CAR} is the firm's cumulative abnormal return (CAR) residual around Mar. 26, 2011 from the model presented in column 2 of Table 4. Control variables include those from Table 2; coefficients and p-values are suppressed for brevity. Standard errors are robust to heteroskedasticity, clustered to allow for both within-year and within-firm correlation, and corrected for generated regressors in 2-step procedures per Murphy and Topel (1985). *Firm FE* and *Union FE* are fixed effects (FE) based on the firm and union(s) involved in each contract, respectively. *Year FE* are fixed effects based on the year in which the firm and union(s) agreed to the contract. Uninteracted ϵ_{CAR} is spanned by firm FE and, therefore, not explicitly included in the specifications. p-values are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

	Average Wage Growth		Proximate Wage Growth	
	(1)	(2)	(3)	(4)
NSW × Post-Event × ϵ_{CAR}		−11.479***		−15.293***
		(0.003)		(0.003)
NSW × Post-Event	−0.417***	−0.413***	−0.574***	−0.569***
	(0.001)	(0.001)	(<0.001)	(<0.001)
NSW × ϵ_{CAR}	−1.931	4.056	−3.348	4.627
	(0.632)	(0.370)	(0.415)	(0.316)
Post-Event × ϵ_{CAR}	4.540	7.410***	7.363**	11.186***
	(0.103)	(0.006)	(0.048)	(0.002)
NSW	0.057	0.057	0.137	0.137
	(0.612)	(0.612)	(0.271)	(0.265)
Post-Event	0.300	0.358*	0.392**	0.469***
	(0.132)	(0.058)	(0.026)	(0.006)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Union FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted-R^2	0.383	0.387	0.298	0.304
N	946	946	946	946

Table 6: Counterfactual Tests: Does a Labor Party Electoral Defeat Decrease Wage Growth and Increase Equity Values?

The table reports empirical results from counterfactual tests examining the effect of and Liberal-National Coalition victories in Victoria and Queensland on both wages negotiated between firms and labor unions (Panel A) and stock returns (Panel B). In these elections, the state Coalition had not proposed limits on union political connections and power similar to those embodied in the NSW Election Funding, Expenditure and Disclosures Amendment Act 2012. In both panels, Columns 1 and 2 report estimated coefficients for Victoria election and Columns 3 and 4 report estimated coefficients for the Queensland election. In Panel A, the dependent variable in columns 1 and 3 is the average annual wage growth rate (in %) over the life of the contract. The dependent variable in columns 2 and 4 is proximate annual wage growth rate (in %). For contracts agreed upon prior to (following) each election, proximate annual wage growth is the wage growth in the last (first) year of the contract. *State* is an indicator variable equal to 1 if the contract is negotiated in the state of the election, and 0 otherwise. *Post-Event* is an indicator variable equal to 1 if the contract is agreed upon following the relevant election, and 0 otherwise. Control variables are those used in Table 2. However, we compute corporate political contributions to political parties in the state holding the election. *Firm FE* are *Union FE* are fixed effects (FE) based on the firm and union(s) involved in each contract, respectively. *Year FE* are fixed effects based on the year in which the firm and union(s) agreed to the contract. Standard errors are robust to heteroskedasticity and clustered to allow for both within-year and within-firm correlation. In Panel B, the dependent variable in all specifications is Cumulative Abnormal Return (CAR) over the 3-day window surrounding each election day. *State* is an indicator variable equal to 1 if the firm is headquartered in the state holding the election, and 0 otherwise; *Union* is the industry-level unionization rate defined at either the 4-, 6-, or 8-digit GICS level. Control variables are those used in Table 4 with the adjustment to state political contributions described above. Industry fixed effects are defined at the 2-digit GICS level and standard errors are robust to heteroskedasticity and within-industry correlation. p-values are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Panel A. Contracted Wage Growth

| | Victoria Election Nov. 27, 2010 | | Queensland Election Mar. 25, 2012 | |
| | Average | Proximate | Average | Proximate |
	(1)	(2)	(3)	(4)
State × Post-Event	−0.042	−0.031	0.240***	0.254
	(0.560)	(0.679)	(<0.001)	(0.106)
State	0.086	0.108*	−0.088***	−0.116
	(0.230)	(0.100)	(0.005)	(0.345)
Post-Event	0.155	0.255**	−0.494**	−0.335
	(0.238)	(0.014)	(0.038)	(0.599)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Union FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted-R^2	0.308	0.263	0.374	0.301
N	1,090	1,090	586	586

Panel B. Equity Value

| | Victoria Election Nov. 27, 2010 | | Queensland Election Mar. 25, 2012 | |
	(1)	(2)	(3)	(4)
State × Union	−0.017	−0.049	−0.171	−0.139
	(0.766)	(0.485)	(0.125)	(0.218)
State	0.010	0.019	0.045*	0.039*
	(0.463)	(0.197)	(0.074)	(0.088)
Union	−0.015	0.045	0.005	0.009
	(0.715)	(0.509)	(0.872)	(0.831)
Controls	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes
Adjusted-R^2	0.011	−0.002	−0.008	−0.027
N	229	229	231	231

Table 7: Cross Sectional Evidence of Union Political Power and Equity Value

The table reports empirical results from ordinary least squares models examining the differential effects of a change in union political power on equity values. The sample consists of all Australian publicly traded firms with market capitalizations greater than $100 million that traded around the event dates. The dependent variable is all specifications is the total Cumulative Abnormal Return (CAR) over both 3-day windows surrounding Mar. 26, 2011, the day of the Liberal-National Coalition electoral victory, and Feb. 16, 2012, the day the Act was passed by the NSW Parliament's upper house. Columns 1 and 2 report results from a Seemingly Unrelated Regression (SUR) model in which firms with a proportion of independent directors above (below) the sample median are assigned to the high (low) board independence group. Columns 3 and 4 report results from a SUR model in which firms that had an more (less) than the sample median number of contracts with NSW unions on the NSW ALP top governing body are assigned to the high (low) ALP governance group. Columns 5 and 6 report results from a SUR model in which firms whose capital to labor ratio is above (below) the sample median are assigned to the high (low) capital intensity group. *NSW* is an indicator variable equal to 1 if the firm is headquartered in NSW, and 0 otherwise. *Union* is the industry-level unionization rate defined at either the 4-, 6-, or 8-digit GICS level. The difference between the high and low group coefficients for *NSW × Union* are reported with their associated *p*-values from F-tests. All other variables are as defined in Table 1. Standard errors are robust to heteroskedasticity and within-industry correlation. Industry fixed effects (FE) are defined at the 2-digit GICS level. *p*-values are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

| | Board Independence | | ALP Governance | | Capital Intensity | |
	High	Low	High	Low	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)
NSW × Union	0.182***	0.008	0.226***	0.108***	0.154***	0.052***
	(0.002)	(0.880)	(<0.001)	(0.005)	(<0.001)	(0.004)
NSW	−0.045***	−0.009	−0.054***	−0.027***	−0.035***	−0.013*
	(0.001)	(0.173)	(<0.001)	(<0.001)	(<0.001)	(0.076)
Union	−0.079	−0.028	−0.030	−0.110*	−0.135	−0.034
	(0.110)	(0.541)	(0.432)	(0.082)	(0.288)	(0.356)
Size	0.002	0.007***	0.002	0.004	0.001*	0.011*
	(0.592)	(<0.001)	(0.530)	(0.118)	(0.085)	(0.052)
MB	<0.001	−<0.001***	−0.001	−<0.001*	−<0.001**	−<0.001
	(0.485)	(<0.001)	(0.781)	(0.055)	(0.019)	(0.743)
Leverage	0.049	−0.017***	0.002	0.003	0.013	−0.013
	(0.262)	(0.006)	(0.965)	(0.888)	(0.229)	(0.269)
NSW CPC	−<0.001	−0.001	−<0.001	−0.001	−<0.001	−0.002
	(0.551)	(0.689)	(0.975)	(0.142)	(0.338)	(0.113)
Cash	−0.030	0.035	0.150	−0.007	−0.029	0.070
	(0.604)	(0.228)	(0.195)	(0.843)	(0.393)	(0.331)
GSP Growth	−0.021*	−0.012	−0.030**	−0.012	−0.017***	−0.013
	(0.055)	(0.280)	(0.015)	(0.119)	(<0.001)	(0.363)
Nonunionized State Wage Growth	0.007	0.003	0.015***	0.003	0.004**	0.006
	(0.299)	(0.637)	(0.002)	(0.643)	(0.013)	(0.581)
Constant	0.032	−0.034	−0.021	0.017	0.046*	−0.059
	(0.399)	(0.128)	(0.270)	(0.594)	(0.060)	(0.240)
Difference in NSW × Union	0.174**		0.118*		0.102***	
	(0.049)		(0.064)		(0.003)	
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted-R^2	0.109	0.127	0.051	0.115	0.151	0.040
N	157	172	58	271	189	140

Table 8: Union Political Power and Average Wages

The table reports empirical results from quantile (median) regressions examining how union political power affects employee wage growth rates. The sample consists of all Australian publicly traded firms with market capitalizations greater than $100 million. The dependent variable in all specifications is the growth rate in average employee wages. For firms that do not have union contracts, we first compute average employee wages (defined as the reported personnel expenses divided by the average number of employees over a fiscal year). The growth rate in average employee wages is the growth rate from 2010 to 2011 for the pre-event period and from 2012 to 2013 in the post-event period. For firms with union contracts, average employee wage growth rate is defined as the average of the proximate growth rate in negotiated union contracts. These are averaged separately for both NSW and nonNSW contracts when a firm has contracts both within NSW and outside the state. The specification in column 1 is equivalent to a univariate difference-in-difference-in-differences estimate; the specification in column 2 is a regression that include control variables. *NSW* is an indicator variable equal to 1 if the firm (contract) is headquartered (negotiated) in NSW, and 0 otherwise; *Union Contract* is an indicator variable equal to 1 if the wage growth rate is computed from collectively bargained contracts provided to the Australian Fair Work Commission and 0 if the wage growth rate is computed from information provided by corporate annual reports; and *Post-Event* is an indicator variable equal to 1 if the observation occurs after the NSW election, and 0 otherwise. All other variables are as defined in Table 1. All continuous variables are winsorized at the 1st and 99th percentiles. p-values are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)
NSW $\times$ Union Contract $\times$ Post-Event	-3.917***	-4.055**
	(0.008)	(0.012)
NSW $\times$ Union Contract	0.555	0.866
	(0.593)	(0.437)
NSW $\times$ Post-Event	3.500***	3.547**
	(0.009)	(0.014)
Union Contract $\times$ Post-Event	3.446***	3.387***
	($<$0.001)	(0.001)
NSW	-0.638	-0.888
	(0.497)	(0.378)
Union Contract	1.039*	0.961
	(0.100)	(0.170)
Post-Event	-3.446***	-3.342***
	($<$0.001)	($<$0.001)
Size		-0.011
		(0.918)
MB		-0.020
		(0.774)
Leverage		0.210
		(0.856)
NSW CPC		$<$0.001
		(0.988)
Cash		0.439
		(0.819)
GSP Growth		0.021
		(0.898)
Nonunionized State Wage Growth		-0.036
		(0.723)
Constant	2.961***	3.114***
	($<$0.001)	(0.003)
N	356	356

Figure 1: Monte Carlo Falsification Tests

The figure presents the results of two Monte Carlo simulations, designed to analyze whether the relationships between (i) equity value and unionization in NSW (Table 4) and (ii) abnormal stock returns and future labor contracts (Table 5) were due to unmodeled trends in the data. In graph A, the simulations repeat the methodology used in column 6 of Table 4. For each of 10,000 simulations, six return dates are chosen at random in the year surrounding the events. An OLS regression of cumulative abnormal returns on control variables and industry fixed effects is performed. The histogram shows the distribution of the estimated coefficient on the explanatory variable $NSW \times Union$ for the simulations. The actual coefficient estimate from Table 4, column 6, of 0.116 is plotted as a vertical line for reference. 1.57% of the estimated $NSW \times Union$ simulation coefficients are greater than the actual estimated coefficient using the event dates. In graph B, three return dates are chosen at random in the year preceding the events. An OLS regression of cumulative abnormal returns on control variables and industry fixed effects is performed using the specification in column 6 of Table 4. The residual from this regression is then used to examine contracting outcomes using the specifications found in column 2 of Table 5. The histogram shows the distribution of the estimated coefficient on the explanatory variable $NSW \times Union \times \epsilon_{CAR}$ from these simulations when average wage growth is the dependent variable. The actual coefficient estimate from Table 5, column 2, of -11.479 is plotted as a vertical line for reference. 0.63% of the estimated $NSW \times Union \times \epsilon_{CAR}$ simulation coefficients are less than the actual estimated coefficient.

Graph A: Cumulative Abnormal Return

Graph B: Average Wage Growth