Does the Political Power of Non-Financial Stakeholders Affect Firm Values? Evidence from Labor Unions*

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November 19, 2015

Abstract

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

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1. Introduction

Recent research has documented that the political connections and power of a firm's owners, executives, and directors can significantly influence firm valuation and 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, government policies, and decisions (Igan and Mishra, 2014; Laffont and Tirole, 1991; Peltzman, 1976; Stigler, 1971). A large body of research demonstrates a positive relationship between firm value and the political connections and power of a firm's officers, directors, and major shareholders (Cooper, Gulen, and Ovtchinnikov, 2010; Faccio, 2006; Goldman, Rocholl, and So, 2009; Jayachandran, 2006; 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 firm value and 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; 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 et al., 1988; Grout, 1984). There is ample anecdotal evidence that unions attempt to use their political connections to improve their baseline bargaining positions, increase their share of economic rents, and impose additional costs on the firm. Labor and organizational economists have documented cases (discussed in detail in Section 2) in which labor unions have effectively used their political connections during the collective bargaining process. Unions often use these connections to apply political pressure on a firm during industrial actions, block a firm's 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.

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 firm value? While

other studies find that the political connections of a firm's owners, executives, and directors can enhance firm value, union political connections may have the opposite effect. The policy implications of this relation are important since unions can increase their share of economic rents 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 firm value suggest that research into the political connections of all the firm's stakeholders is needed to properly inform 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). The Election Funding, Expenditure and Disclosures Amendment Act 2012 (the Act) forced political parties 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. In effect, the Act prohibited union representatives from directly participating in party governance and prevented unions from undertaking voter drives supporting candidates. It also prohibited labor unions, corporations, and other special interest groups 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 wages and firm value. This setting offers several desirable empirical qualities. The Act's passage was a surprise to investors (discussed in detail in Section 3), hinging on a close electoral victory in the legislature's upper house combined with an unlikely legislative alliance of rival political parties. The potential for endogeneity between political power and collective bargaining is reduced since the Act reduced the political influence of unions, but did not alter the ability of workers to unionize and bargain collectively. Moreover, our tests can control for unobservable state and industry

characteristics. This is possible because the Act restricted political activities and state-level donations within NSW, but not in other Australian states. Our cross-state identification strategy is aided by a relatively homogeneous national labor landscape: unionization rates do not vary systematically by state and workplaces are not permitted to require union membership as a condition for employment throughout Australia. Finally, our empirical methodology ties worksite-level wages to firm values. This allows us to leverage the benefits of panel data in removing the effects of firm- and union-specific characteristics in many of our tests and make relatively clean inferences.

The Act limited union political power by dramatically weakening political connections of unions with political parties and government officials. 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 firm values (Ashenfelter and Johnson, 1969; Grout, 1984).[1]

We provide three key results supporting the above hypothesis. First, the evidence is consistent with union political connections having 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, we find that union political power affects firm value. The value of unionized firms in NSW increased relative to their unionized peers in other states 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 firm 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 value by investors. We link the two preceding results and demonstrate that the increase in firm 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

[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 value or the bargaining position of firms that made political contributions. In addition, corporate political activity is not correlated with unionization in the data.

with lower guaranteed wage growth. Hence, wages operate as a mechanism tying firm value to union political connections and power.

Our analysis emphasizes wages as the principal outcome of bargaining between unions and firms. However, we conduct supplemental tests to demonstrate that the relation between union political connections and bargaining power influences firm financial policies. Bronars and Deere (1991), Matsa (2010), and Myers and Saretto (2011) demonstrate that firms increase leverage to reduce the bargaining power of unions. Consequently, unionized firms affected by the Act should have less incentives to use financial leverage to offset union bargaining power and, therefore, we expect to observe reduced leverage as unions become less politically influential. Our empirical evidence supports this implication: unionized firms in NSW significantly decreased financial leverage as a result of the law. Importantly, this effect is centered on firms that experienced positive abnormal returns around the events. Hence, the results suggest that market participants consider leverage as a real mechanism, in addition to wages, tying union political connections to firm value. It also suggests that firms may take costly actions to reduce union bargaining power, which also reduces shareholder wealth.

In further support of the hypothesis, we conduct a number of auxiliary tests to provide evidence against alternative explanations for our findings. Our inferences do not appear to be 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. In a falsification test, Monte Carlo analysis suggests that the estimated increase in the 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 firm value and wages is robust to a Monte Carlo falsification test. All the results are robust to using alternative specifications and various ways to measure variables of interest.

Additionally, we do not find evidence suggesting that the increase in unionized NSW firm values arose from investors anticipating a general pro-business policy shift or future union losses as a result of the transition from a labor-friendly to a business-friendly ruling party. During two other recent state elections in Australia, the Australian Labor Party (ALP) lost its majority to a Liberal-National Coalition government. However, legislative restrictions on union political power similar to those in the

Act were neither campaigned for nor proposed by either state Coalition party. Using these elections as counterfactuals, we do not observe a change in unionized firm values. Hence, these results suggest that the increase in NSW unionized firm values as a result of the law is due to the limitations on union political power, which subsequently reduced union bargaining power.

This paper provides new insights into the important effect of non-financial stakeholder political connections and power on the firm. Our results show that firm 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 firm value, we find that the political connections of organized labor are negatively related to firm value.[2] Our evidence also suggests that key corporate policies, such as wages, are affected by the political power of non-financial stakeholders. Importantly, we demonstrate that corporate policy responses designed to mitigate non-financial stakeholder political power, such as increasing leverage, can be costly to shareholders.

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 emphasized by empirical researchers. In general, political power and collective bargaining are interrelated.[3] 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 lobbying enabled the passage of the National Labor Relations Act of 1935 (Bernstein, 1950; Keyserling, 1960), which gave unions the nationwide legal right to bargain collectively.

Therefore, we enrich the existing literature by 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. Ashenfelter and Johnson (1969), Grout (1984), and Oswald (1982) provide important theoretical frameworks for examining

[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 firm 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]Using changes in "right-to-work" laws in the 1980s and 1990s, several studies find evidence that the ability to bargain collectively has an important effect on the relationship between shareholders and organized labor (Moore, 1998; Moore and Newman, 1984).

negotiations between unions and firms. Our paper provides important empirical support for these theories. We find that, holding union membership and collective bargaining rights constant, a change in union political power alters firm value and the contracted union wage, suggesting that political power is a key factor affecting the bargaining between firms and labor. We are not aware of any other study that directly tests the influence of union political power on wages or firm value.[4]

The relevance of union political power has broad implications for the literature on union wages and firm value. Lewis (1963, 1983, 1986) surveys the impact of unionization on wages, documenting a difference in wages between unionized and non-unionized workers. More recently, researchers have examined the size of the union wage gap and its evolution over time (Blanchflower and Bryson, 2004; DiNardo and Lee, 2004) and the impact of unions on the distribution of wages (Frandsen, 2012). Using this literature as motivation, several papers find that unionization is associated with a reduction in firm value (Bronars and Deere, 1991; Lee and Mas, 2012; Ruback and Zimmerman, 1984). While these papers hypothesize that the reduction in firm value arises, at least 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, therefore, provide this important link between wages and firm value. Our evidence shows that a decrease in union political power significantly decreases union wages, and we connect this finding to an increase in firm value.

Union interests are often not aligned with those of shareholders and other stakeholders (Agrawal, 2012; Cohen, Coval, and Malloy, 2012; Del Guercio and Woidtke, 2013; Faleye, Mehrotra, and Morck, 2006; Kim, Maug, and Schneider, 2014). Additionally, 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. Our results suggest that the relationships above may also be shaped by labor's ability to influence government.

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

[4]Blaylock, Edwards, and Stanfield (2015) find that the debt and equity values of unionized firms decreased as a result of the government intervention in the Chrysler bankruptcy. Several legal scholars and commentators have attributed the intervention to union political power.

Amendment Act 2012 is covered in Section 3. We detail the empirical methodology and sample selection in Section 4. Section 5 presents the main results on union wages and firm values. Section 6 provides results on the relationship between union political power and corporate policies. The robustness of the results to alternative explanations and specifications is covered in Section 7. Section 8 concludes.

2. 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 the effectiveness of their members in voting drives. Australian unions, for example, directly influence industrial relations policy through their involvement with the ALP, one of the nation's 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. These government channels into business can affect the bargaining relationship of unions relative to firms and impose costs on the owners of firms (Ashenfelter and Johnson, 1969; Bennett and Taylor, 2001; Grout, 1984).

Anecdotal evidence indicates that union political efforts can be very effective, 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 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 are examples of benefits to workers that are costly to the firm's owners.

Unions can also use political power during the bargaining process to extract contract terms that benefit members. Katz, Batt, and Keefe (2003) 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. Union political connections can also help unions gain support during and credibility for planned labor actions. Rudy (2004) describes how a custodial union cultivated political connections for many years before it ever needed to undertake labor action. When the union was locked in a contract battle with Apple Inc., it engaged its political machinery to secure the support of local politicians, isolate Apple, and, ultimately, obtain the wages its members desired. Finally, political connections can help unions when negotiating with stakeholders. During the Chrysler bankruptcy, the U.S. government was accused of supporting unsecured union pension liabilities over secured debt (Roe and Skeel, 2010). Several critics of the U.S. government's involvement argued that the intervention occurred due to the political power of unions.[5]

As labor negotiations occur in private, it is not possible to build a large dataset characterizing the strategic elements used in collective bargaining. The tactics underlying the give-and-take of collective bargaining are generally hidden to economists. However, Katz, Batt, and Keefe (2003) provide an argument that the use (or threat) of political tactics as in the preceding examples is likely to be common. Considering union bargaining within the context of organizational theory, they argue that success in the modern labor environment necessitates that unions complement traditional collective bargaining tactics with political action.

The theoretical, empirical, 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.

[5]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).

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 firms 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 and (ii) firm value will increase. Furthermore, these two implications should be linked: in efficient markets, firms with the greatest increase in value will negotiate the most favorable contracts.

In equilibrium, unions must optimize their efforts, allocating resources between collective bargaining and political influence. Consequently, unions may respond to a decrease in their ability to exert political influence by adjusting collective bargaining effort and tactics. However, unless resource adjustments are costless and collective bargaining is a perfect substitute for political influence, any change in the regulation of political activity would force unions to move from a first-best to a second-best resource allocation. Therefore, 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 be to reduce the bargaining power of unions relative to firms. Thus, any empirically estimated impact of such legislation may underestimate the full impact of union political influence on firm value.

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 Election Funding, Expenditure and Disclosures Amendment Act 2012 greatly reduced the political influence of unions, but did not materially change the political influence of corporations. 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. For completeness, our empirical approach includes controls for firm political contributions.[6]

[6]Reported political contribution data can be easily aggregated for firms. However, unions channel funds through a large number of affiliated organizations, making it difficult to accurately measure their total political contributions.

3. Background

On March 26, 2011, a Coalition consisting of the Liberal Party of Australia (Liberals) and the National Party of Australia (Nationals) prevailed over the incumbent Australian Labor Party (ALP) in the election of NSW's bicameral Parliament. The Coalition's campaign platform prominently featured a policy of restricting the political activities of unions, corporations, and special interest groups. To this end, the Coalition passed the Election Funding, Expenditure and Disclosures Amendment Act 2012 through the NSW Legislative Assembly (lower house) on October 12, 2011. The Act was then considered by the NSW Legislative Council (upper house). While the Coalition had an outright majority in the lower house, it held only a plurality in the upper house and required support from third-party members to pass the Act. Despite initially opposing the Act, members of the Australian Greens ultimately decided to support it, providing the critical swing votes needed for the Act to pass the Legislative Council on February 16, 2012 (Tobin, 2012; Tovey and Nicholls, 2012).

The Act weakened the political connections and power of unions in NSW by restricting union political activities and limiting political donations. Australian unions have traditionally maintained strong political influence through their affiliation with the ALP and support of various industrial relations issues. Both of these avenues of union political influence were restricted by the Act. It effectively made union representatives ineligible to serve on the governing bodies of political parties. It also disallowed the use of union fees for political activities, such as promoting an industrial relations platform and supporting labor-friendly candidates.

The political influence of firms in NSW, however, was not materially changed by the Act. The Coalition motivated 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 through lobbying efforts (Ansolabehere, Figueiredo, and Snyder, 2003), which were not affected by the Act. While corporations saw their ability to make political contributions limited, it does not appear that Australian firms use political donations to materially counter union efforts.[7] Moreover, the Act's clauses limiting

[7]Only 18% of the NSW firms in the sample made political donations in the state over the four-year election cycle prior to the

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.

The Act provides an ideal and unique setting for testing the hypothesis for two key reasons. First, the Act helps us make precise econometric inferences. As mentioned earlier, the Act reduced a union's political influence, but did not directly alter a union's size or its ability to bargain collectively. Therefore, we are able to disentangle the economic effects of union political connections and power on bargaining from the effects due to other sources of union bargaining power. Additionally, we are able to identify the economic impact of union political influence on firms separate from industry effects and confounding macroeconomic factors affecting all unionized Australian firms. The Act affected political activities and state-level donations within NSW, but not in other Australian states. Our empirical tests examine differences in outcomes across state boundaries, but within industries. This cross-state identification strategy is aided by a relatively homogeneous labor landscape: unionization rates do not vary systematically by state and workplaces are not permitted to require union membership as a condition for employment throughout Australia.

Second, we believe the results from analyzing the Act are relevant internationally. States in Australia have a level of political autonomy and regulatory authority typically reserved for federal governments elsewhere. Australian states, for example, have primary responsibility for workplace matters, such as employee 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 (once permits are sold by the federal government), and requires environmental controls on firms' exploration and extraction projects. Moreover, Australia is a large, common-law economy with a workforce that is representative

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., Milyo, Primo, and Groseclose (2000) document that money allocated to corporate lobbying activities exceeds that allocated to political contributions by an order of magnitude. Moreover, 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.

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.

3.1. Event Dates

We examine the two dates on which there was a significant "surprise" regarding the likelihood that the Act would be passed into law: March 26, 2011, the date of the Liberal-National Coalition election victory, and February 16, 2012, the date the Act passed the upper house. We predict that these events increased investors' perception that the political influence of unions had been weakened.

Despite opinion polls favoring the Liberal-National Coalition in the lead-up to the March 26, 2011 election, there was significant uncertainty as to whether the ultimate composition of the NSW Parliament would permit passage of Coalition legislation. Pre-election polls accurately predicted that the Coalition would easily secure a majority in the lower house. However, in the upper house, only half of the seats were up for election and the ALP held a plurality of the continuing seats. Experts were divided as to whether the left-of-center parties, consisting of the ALP and the Australian Greens, would be able to maintain a majority in the upper house or if the balance of power would shift to the Liberal-National Coalition and other right-of-center parties (Druery, 2011; Sydney Morning Herald 2011).

Membership in the upper house is determined by statewide proportional representation and a complex optional preferential voting (OPV) scheme. This system makes the composition of the upper house difficult to predict and enables third parties to have a significant presence. In NSW's OPV scheme, when a candidate is unable to secure a majority or certain proportion of the popular vote, the least popular candidate is removed from consideration and their votes may be reallocated to remaining candidates based on optional voter and/or party guidance. This procedure is repeated until all remaining candidates exceed a threshold proportion of the popular vote.

The results of the election epitomized the unpredictability of the OPV system. The Coalition earned a plurality in the upper house, with 19 of 42 total seats, and would only need to convert four of nine third-party seats to pass legislation. Critically, one seat determined the balance of power: the

left-of-center parties would have been able to band together to block all Coalition legislation had the election yielded them an additional senator. The final upper house composition was determined after 308 vote reallocation iterations, when one Coalition and two right-of-center third-party candidates reached the electability threshold based on differences of about one thousand votes out of the more than four million votes cast.[8]

Passage of the Election Funding, Expenditure and Disclosures Amendment Act 2012 required approval by both houses of Parliament. The coalition campaigned on a policy of political reforms and held an outright majority of seats in the lower house. Therefore, the Act's passage through the Legislative Assembly was largely a formality and was anticipated by the markets.

Passage of the Act by the upper house, however, was far from certain. The Liberal-National Coalition had to gain third-party support in the Legislative Council, which was complicated by the contrasting ideological and financial implications of the Act. While all the third parties supported principles focusing government on the interests of individual voters, those parties also relied on special interest groups and community organizations, whose support would have been curtailed by the Act. Parliamentary documents and relevant media reports prior to the final vote on the Act indicate there was significant uncertainty around the Coalition's ability to gain third-party support. The conservative third parties, consisting of the Shooters and Fishers and the Christian Democrats, decided to vote against the Act. This forced the Coalition to seek the support of the rival Australian Greens. The Greens strongly opposed the legislation initially, but they switched their position on the final vote to provide the deciding support for the Act. Therefore, it is likely that investors were surprised by the final passage of the Act through the Legislative Council on February 16, 2012.

4. Empirical Methodology and Sample Selection

We test the implications of the hypothesis on both wage contracts and firm value. The contract tests evaluate how the wage terms negotiated between firms and labor changed after the election and the passage of the Act. The firm value tests examine stock returns around the key event dates. We build a core sample consisting of all Australian publicly traded firms, with financial and price

[8] While the official certification of the OPV system took several weeks, the outcome was correctly predicted by the media (and known to investors) on the Sunday immediately following the Saturday election.

data collected from Bloomberg. In those instances where company financial data was missing in Bloomberg, we obtain financials from annual reports filed with the Australian Securities Exchange. The core sample is restricted to match the unique data requirements of each test as described in the sections that follow.

4.1. Wage Methodology

The hypothesis implies that the terms of negotiated contracts will be more favorable for firms, as the Act reduces union bargaining power by weakening union political connections and influence. To test this, we examine the wage terms of contracts negotiated between firms and labor.[9] 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.

We identify contracts negotiated between publicly traded firms, or their subsidiaries, and collective bargaining units that were filed 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 for which we have the firm's necessary financial information. This yields a sample of 110 unique firms and 643 contract pairs (1,286 contracts).[10]

The contracts generally use a standardized format to describe worker compensation. A contract initially specifies a base wage that will be in effect during the first year of the contract; wages for multiple types and levels of employees are almost always included in a single union contract. A contract will also enumerate all wage increases for the life of the contract. Nearly all the sample contracts stipulate a single guaranteed annual wage growth rate that is shared by all employees covered by the contract.

The tests emphasize the wage growth rate as the key negotiated monetary factor in observed contracts. While the initial wage may appear to be an important negotiated benchmark, it is, in

[9] 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 non-NSW unionized worksites around the event. The difference-in-differences between these NSW and non-NSW contract lengths pre- and post-event is also not significant.

[10] Our contract data runs 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.

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. Wage growth rate has the benefit of permitting comparisons across bargaining units and types of employees. Stated employee wage levels, on the other hand, are difficult to compare between collective bargaining units, even within the same firm.

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 non-NSW 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 non-NSW unionized firms before and after the events. The empirical model is

$$(1) \qquad Wage\ Growth_{i,j,t} = \beta_0 + \beta_1 NSW_{i,j} \times Post\text{-}Event_t + \beta_2 NSW_{i,j} + \beta_3 Post\text{-}Event_t + \beta_4 Controls_{i,j,t-1} + \epsilon_{i,j,t}.$$

$Wage\ Growth_{i,j,t}$ is defined for firm i, collective bargaining unit j, and year t. It is either (i) the average contracted annual wage growth rate over the life of the contract or (ii) the proximate contracted annual wage growth rate due to 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 event, the proximate annual wage growth rate is equal to the wage growth rate in the first year of the contract.

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 implies 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 control for factors that have been previously shown to affect collective bargaining or wages, such as firm cash holdings and general economic growth. Following Klasa, Maxwell, and Ortiz-Molina (2009), we control for cash holdings, defined as the amount of cash and short-term investments scaled by the book value of assets. We also include growth in annual gross state product as a control variable to capture differences in economic trends between states, which may be related to contracted wage growth. We also control for differences in firm-level factors that have been previously shown to influence unionization. These include size (Hirsch and Berger, 1984), the market-to-book ratio of equity (Connolly, Hirsch, and Hirschey, 1986; Salinger, 1984), and leverage (Myers and Saretto, 2011; Perotti and Spier, 1993). 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 divided by the book value of equity, and firm leverage as the book value of interest-bearing debt scaled by the book value of assets. Since the Act also restricted corporate political contributions to NSW parties, we include a control variable defined as the natural log of one plus the total value of corporate political contributions made to state parties within NSW in the previous four-year election cycle.[11] We include year, firm, and union fixed effects. Standard errors are double-clustered at the year and firm levels.[12]

4.2. Firm Value Methodology

The hypothesis implies that the Act decreases union bargaining power, resulting in an increase in unionized firm value. To test this, we perform short-window event tests of stock returns around the dates presented in Section 3. We begin with the sample of all publicly traded Australian firms and keep those that traded around the event dates and have financial data. From the roughly 370 firms that meet these criteria, we eliminate micro-cap stocks (often trading at less than one cent per share) 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

[11] 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. The results are robust to controlling for all corporate political contributions (at the federal level and in other states) as well as splitting corporate political contributions by political party.

[12] Given the clustering approach and that the sample comprises paired contracts, with one observation pre-event and one observation post-event, the 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. In addition, results are robust to interacting firm and year fixed effects.

at least one of the two events.

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

$$(2) \qquad CAR_{i,e} = \beta_0 + \beta_1 Union_{i,t} \times NSW_i + \beta_2 Union_{i,t} + \beta_3 NSW_i + \beta_4 Controls_{i,t} + \epsilon_{i,e}.$$

The dependent variable is cumulative abnormal return $CAR_{i,e}$ for firm i around event e. 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 when event days are analyzed individually. We also provide an analysis of the aggregate effect of the Act using an analogous definition of the cumulative abnormal return over the six-day period combining both three-day event windows. We define the market return as the Australian All Ordinaries Index, a value-weighted index that captures over 95% of the Australian stock market capitalization.[13] All other variables are measured as of the fiscal year-end preceding the event, denoted as t in the equation above.

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 non-pecuniary connections and power (such as party governance and voter drives). Both these factors should be highly correlated with the proportion of unionized workers. 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 non-pecuniary 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.

As Australian firms do not report unionization levels to investors, we define unionization as the percentage of unionized workers at the industry level. This approach is similar to that followed by

[13] In untabulated tests, the results are robust to performing a procedure similar to that of Sefcik and Thompson (1986). This approach detrends abnormal returns in the 12 months surrounding the event and accounts for cross-sectional correlation in the standard error estimates due to firms sharing event days. In addition, 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 non-synchronous trading between the United States and Australia (Newey and West, 1987)).

Chen, Kacperczyk, and Ortiz-Molina (2011, 2012) and Klasa, Maxwell, and Ortiz-Molina (2009).[14] Industry unionization data is 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 (sub-industry) GICS code. *NSW* is an indicator variable equal to 1 if the firm's headquarters is located in New South Wales and 0 otherwise.[15] The hypothesis predicts that unionized firm values in NSW should increase around the event days: the coefficient on the interaction of *Union* and *NSW* should be positive ($\beta_1 > 0$).

We control for the previously discussed firm-level factors that have been shown to influence unionization, wage contracting, and firm value, such as leverage (Myers and Saretto, 2011; Perotti and Spier, 1993), the market-to-book ratio of equity (Connolly, Hirsch, and Hirschey, 1986; Salinger, 1984), size (Hirsch and Berger, 1984), and cash holdings (Klasa, Maxwell, and Ortiz-Molina, 2009). We also control for corporate political contributions made to state parties within NSW in the previous four-year election cycle.[16] Growth in gross state product is included as a control variable that affects unionized employee wages. This variable is not spanned by the NSW indicator, as there is variation for the firms headquartered outside NSW. All control variables are defined as described in Section 4.1. Standard errors are clustered at the industry level.

The empirical approach is designed to mitigate concerns that industry-level unionization data acts 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 shows 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

[14] 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.

[15] In the sample, all firms with headquarters in NSW have operations in NSW. Results are robust to classifying affected firms as those with any operations in NSW, even if they are headquartered in a different state. Results are similarly robust to classifying affected firms as those with operations exclusively in NSW.

[16] The results are robust to controlling for all corporate political contributions (at the federal level and in other states), as well as to splitting corporate political contributions by political party.

GICS (sector) level. This allows us to include fixed-effects while estimating the effect of industry-level unionization. Finally, we perform a variety of robustness tests to ensure the results do not derive from unobserved industry effects.

4.3. Firm Value-Wage Link Methodology

The 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 firm 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 more favorable labor contracts and, thereby, provides an economic channel to increase equity value.

We test whether market returns predicted contracting outcomes using a two-step identification strategy. The first step obtains the firm-specific increase in value around the election. This is the cumulative abnormal return residual, $\epsilon_{i,CAR}$, from estimating Equation (2) with industry fixed effects.[17] 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 $NSW \times Post\text{-}Event$ indicators:

$$\begin{aligned} Wage\ Growth_{i,j,t} = \beta_0 &+ \beta_1 NSW_{i,j} \times Post\text{-}Event_t \times \epsilon_{i,CAR} + \beta_2 NSW_{i,j} \times Post\text{-}Event_t \\ &+ \beta_3 NSW_{i,j} \times \epsilon_{i,CAR} + \beta_4 Post\text{-}Event_t \times \epsilon_{i,CAR} \\ &+ \beta_5 NSW_{i,j} + \beta_6 Post\text{-}Event_t + \beta_7 Controls_{i,j,t-1} + \epsilon_{i,j,t}. \end{aligned} \tag{3}$$

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 ($\beta_1 < 0$).

The test uses the sample of contracts for which the firm traded around the first event date. This

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

contains 83 unique firms and 473 contract pairs (946 contracts). *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 the year and firm levels. The errors are also corrected for the two-step procedure with generated regressors as described in Murphy and Topel (1985).[18]

This combined analysis can support the previous tests by potentially mitigating empirical concerns that might arise when the wage growth and firm value tests are considered independently. First, it can provide 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 firm values can provide evidence that the changes in firm value do not simply arise from an unmodeled industry effect induced by using industry-level unionization rates in the value analysis. The combined analysis can link a firm-level value residual to worksite contract outcomes. It, therefore, suggests that the changes in firm value reflect a market expectation that firms will negotiate more favorable labor contracts in the future.

4.4. Descriptive Statistics

Panel A of Table 1 reports descriptive statistics for the sample of 1,286 collective bargaining agreements, which is derived from 643 contract pairs. Of these, 408 agreements (204 contract pairs) are in NSW. All 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 B performs a difference-in-differences analysis of the dependent and independent variables. The first set of statistics compares NSW and non-NSW contracts before the election. Prior to the election, there was not a significant difference in the average or proximate wage growth between

[18]Similar to the wage analysis, results are robust to using industry fixed effects and clustering at the industry level rather than firm level. In addition, results are robust to interacting firm and year fixed effects.

NSW and non-NSW contracts. The second set of statistics demonstrates that NSW contracts had significantly lower average and proximate wage growth than non-NSW contracts following the election. Difference-in-differences results, which compare the changes in NSW contracts pre- and post-election to non-NSW contracts pre- and post-election are found in the third row.

Panel A of Table 2 reports descriptive statistics for the 639 firm-event observations, where an observation represents a firm whose equity traded around an event day. All 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 years was A$310 thousand. Panel B compares the means of several variables of NSW and non-NSW firms. NSW firms have significantly higher book asset values, leverage, and political contributions within NSW. No other variables used in the analysis are significantly different between firms headquartered in NSW and those headquartered in other Australian states.

In support of the hypothesis, we find the wage growth difference-in-differences to be negative and significant. NSW union contracts had significantly reduced wage growth rates across the event relative to non-NSW union contracts. This evidence is consistent with union political power being an important determinant of labor's bargaining position relative to firms. The estimated difference-in-differences for all other variables is not significant, with the exception of gross state product growth.[19] NSW experienced significantly higher growth in gross state product across the event than other states. If the observed difference-in-differences in wage growth arose due to differences in gross state product growth, we would expect to see lower, instead of higher, economic growth in NSW compared to other states. We control for gross state product in the difference-in-differences regression models. In unreported univariate tests, we find that the average cumulative abnormal return of highly unionized firms in NSW is significantly greater than that of similarly unionized firms outside NSW.

[19]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 non-election 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 in 2010 and early 2011 in the run-up to the 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.

5. The Effects of Union Political Power on Wages and Firm Values

We examine whether the political connections (and the power that arises from these connections) of unions improves their bargaining position and provide a mechanism for unionization to affect contract outcomes and firm value. The analysis begins with a worksite-level test examining how collective bargaining units affected by the Act negotiated contracts systematically different from those negotiated by non-affected units. Next, a firm-level test quantifies the effect of the Act on unionized firm values by examining abnormal stock returns around the election and the Act's passage. Finally, we evaluate if the worksite-level and firm-level effects of the Act are connected: Did investors impound expected worksite contracting outcomes into firm value?

5.1. Wage Results

Table 3 presents the results examining the impact of the Act on collectively bargained contracts negotiated between firms and labor unions. 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). All regressions include year, firm, and union fixed effects. Standard errors are double-clustered by firm and by year.

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. Similar to the difference-in-differences findings in Table 1, Panel B, the wage growth of union contracts in NSW experienced a statistically significant decline (p-value less than 0.001) relative to non-NSW 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.

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 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).[20]

We do not find evidence that controlling for corporate political contributions in NSW significantly influences our results. The results hold in untabulated tests when controlling for contributions to federal political organizations and to state political groups outside NSW. 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. Growth in gross state product exhibits a statistically significant, positive relationship with wage growth. All other control variables are not statistically significant.

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.[21] Given this, an alternative explanation of the results of Table 3 is that they are influenced by a sample-selection bias. Firms with NSW bargaining units may have opportunistically chosen to negotiate contracts with weak unions following the election, which led to the observed reduction in NSW union wage growth. However, this alternative story requires that firms were more likely to choose to negotiate with weak unions in NSW than similar unions in other states for reasons unrelated to union political power. Any selection that arose due to a change in union political power would still provide evidence that firms believed union political power had weakened as a result of the election and the Act.

We conduct several untabulated robustness tests to ensure the results are not due to sample-selection bias. To do so, we exclude observations where firms and unions are most likely to select into

[20] 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. Also, we do not find a significant change in the length of NSW or non-NSW contracts following the event.

[21] Under Australian labor laws, a firm or a union may terminate a contract early, either by agreement or unilaterally, when it is in the public interest. Bargaining can be initiated unilaterally by either party when operating under an expired contract.

negotiating a contract due to changed economic or political conditions. First, we exclude contracts (and their matched pairs) that were terminated early or that had been expired for longer than a year before the parties agreed to a new contract. Second, we eliminate pairs where the pre- and post-event contracts had different lengths. Finally, we eliminate any contract pairs where one or both contracts are longer than 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 suggest that the relation between union political power and contracted wage growth seen in Table 3 is not significantly influenced by a sample-selection bias.

5.2. Firm Value Results

We now directly assess the second implication of the hypothesis: firm value should increase as union political power decreases. Table 4 presents cumulative abnormal return regression results from estimating Equation (2). Columns 1 and 2 report results for cumulative abnormal returns around the first event day, March 26, 2011, the date of the NSW election. Columns 3 and 4 present results for cumulative abnormal returns around the second event day, February 16, 2012, when the Act was passed by the upper house.[22] Columns 5 and 6 present results for combined cumulative abnormal returns around both event days. Standard errors are clustered by industry.

Consistent with the hypothesis, unionized firms in NSW experienced significantly positive abnormal returns relative to their non-NSW counterparts on both event days. This supports the idea that political connections and power enable unions to extract rents from equity holders. Given that the industrial composition of firms may differ between NSW and other states, we include industry fixed effects defined at the 2-digit GICS level in columns 2, 4, and 6. The results are robust to their inclusion. While not an explicit implication of the hypothesis, the negative and significant relationship between unionization rates and firm 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. Additionally, in

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

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) and to using Tobin's Q as the measure of firm value.

To ensure that the results are not affected by corporations losing the ability to make political contributions in NSW, the specifications include controls for corporate political contributions. 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 firm value, as discussed in Section 3. In untabulated tests, 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.

Economically, after controlling for industry fixed effects, the average unionized firm in NSW experienced positive abnormal returns relative to its non-NSW counterparts of 0.80% and 1.16% around March 26, 2011 and February 16, 2012, respectively, and 1.83% over the combined events.[23] This economic magnitude is consistent with the findings of Lee and Mas (2012), who estimate the average long-term total value impact of unionization on firms. They find that new unionization results in a 10% cumulative decline in firm value over the 15- to 18-month period following a union election. Consequently, we believe that our estimate of reduced union political power increasing firm value by 1.83% is both reasonable and significant.

The firm value results are robust to a number of alternative explanations. First, NSW unionized firm 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 return on assets excluding personnel expenses and asset turnover) significantly improved. This suggests the NSW unionized firm value increased due to investors expecting a transfer of rents from unions to equity and not 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

[23]The estimated increases in firm value were 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 firm value may be larger.

affected by the Act if it is headquartered in NSW. All sample firms headquartered in NSW have operations in the state and are classified correctly. However, this classification approach will consider firms headquartered outside NSW with operations inside the state as unaffected by the Act. 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 firm 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 non-NSW 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).[24]

These robustness results suggest that an unmodeled industry effect is not responsible for the observed increase in NSW unionized firm value around the event dates. Note that industry-level unionization is only necessary for analyzing firm 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 firm value by tying worksite contract outcomes to abnormal stock returns. In so doing, it leverages the relatively clean identification of the wage results to support the firm value results.

5.3. Results Linking Firm Values and Wages

We now demonstrate that the increase in firm value was, in part, the result of investors expecting firms to negotiate more favorable contracts with unions. Establishing this connection provides direct evidence that wages are a mechanism linking union political power and firm value.

Table 5 examines whether observed changes in firm value from the Act accurately predicted future

[24]To improve both matching procedures, whenever there are fewer than five non-NSW 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.

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 include all the control variables used in Table 3, but do not report their estimated coefficients or p-values for brevity. All regressions include year, firm, and union fixed effects. Standard errors are double-clustered by firm and by year. Standard errors are also corrected for the two-step procedure using generated regressors as described in Murphy and Topel (1985).

We find evidence consistent with our prediction that investors expected the reduction in union political power to reduce union bargaining power and allow firms to negotiate more favorable contracts, and investors expected these lower contracting costs to increase firm value. The wage growth of contracts in NSW declined significantly relative to non-NSW contracts following the event, even after including the interaction between the residual of the firm value analysis with *NSW* and *Post-Event*.

Critically, we find that the strength of this effect is larger for NSW firms with positive CAR residuals around the first event in columns (2) and (4).[25] The coefficients on the triple-interactions of NSW, *Post-Event*, and ϵ_{CAR} are negative and statistically significant (p-values of 0.004). Economically, a one standard deviation increase in the CAR residual from the value regression for a NSW firm is associated with an additional 0.26 percentage points lower average wage growth rate and 0.33 percentage points lower proximate wage growth rate than non-NSW 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.[26]

The connection between firm value and negotiated wages mitigates concerns that the Act was enacted because union bargaining power had declined in NSW. While this reverse causality argument might have merit when the wage results are considered separately from the firm value results, it goes against standard economic intuition when the two results are linked. Investors consider both the past

[25] In our setting, firms with lower contracting costs have higher values. Ouimet and Simintzi (2015) 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 sub-optimal 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.

[26] Results are robust to fully interacting all coefficients with *Post-Event*, including industry fixed effects rather than firm fixed effects, interacting year and firm fixed effects, and estimating the regressions without fixed effects.

and anticipated economic consequences of national and state events. Stock prices reflect how these events differentially affect each firm. If the Act was a response to an already established change in the bargaining relationship between firms and labor, then investors would not have been surprised and stock prices would not have moved. Consequently, stock returns should not have been correlated with unionization on the event days. Furthermore, stock returns would not be related to firm-specific contract terms negotiated after the event. Thus, the fact that stock returns predict contract outcomes provides strong evidence that the Act caused a change in the relative bargaining positions of firms and labor.

Moreover, the union wage-firm value connection formalizes conditions under which an industrial-level unionization measure is appropriate for determining how the political connections of unions affect firm values. As Australian corporate disclosure does not permit construction of a firm-level unionization measure, we use industry unionization rates measured at either the 4-digit, 6-digit, or 8-digit GICS levels. While the firm value specifications include industry fixed effects using 2-digit GICS codes, unmodeled industry effects may have driven stock returns on the event days. Linking wage growth back to abnormal stock returns, therefore, provides information about what types of omitted industry effects can influence our results. Specifically, any unmodeled industry effect must be correlated with the variation in industry unionization rates across states. And, this unmodeled effect must also be correlated with an increase in NSW union bargaining power relative to other states following the election.

To address this concern, we modify the analysis in Table 5 to account for differences in state-level industry unionization. First, we estimate Equation (2) using unique industry-level fixed effects for NSW and non-NSW firms. The specification subsumes the national industry unionization rates and, consequently, does not permit us to quantify the effect of union political power on firm value. However, it allows for an arbitrary correlation between state-level unionization and state-level industry factors. Second, the firm-level residuals of the value regression are used to predict contract outcomes. Our untabulated results are unchanged from those reported in Table 5. Firms that experienced the largest increase in value following the election were able to negotiate the most favorable contract terms with unions. This test provides further evidence that firm value changes around the event were related to

union political power and not omitted, state-specific industry factors.

6. The Effects of Union Political Power on Other Corporate Policies

We hypothesize that union political power may play an important role in shaping the bargaining relationship between firms and unions. Hence, our analysis emphasizes wages and firm value as the principal outcomes of bargaining interactions between firms and unions. However, union political connections, and therefore union bargaining power, may also affect other corporate decisions. Corporations, for example, may implement policies not directly related to labor if such policies can weaken union bargaining power. Evidence that corporate policies are shaped by union political power suggests that the political power of a non-corporate stakeholder can have far-reaching effects into corporations.

Previous studies find that union bargaining power impacts the leverage decision of firms. Bronars and Deere (1991), Matsa (2010), and Myers and Saretto (2011) find that unionized firms strategically adjust leverage to credibly reduce operating flexibility and weaken the bargaining power of their unionized workforce. Given these findings, a natural extension of the hypothesis is to examine the influence of union political connections and power on the use of leverage by firms. We predict that, if union political power increases union bargaining power and firms increase leverage to strengthen their bargaining positions relative to unions, union political power will be positively related to firm leverage. Moreover, the market should impound the cost of any distortion to firm leverage induced by union political power. That is, firms that increase in value around the event should subsequently reduce leverage.

In Table 6, we test whether a reduction in union political power causes firms to de-lever. To perform this analysis, we use an approach similar to Matsa (2010), estimating a difference-in-difference-in-differences regression model to examine the leverage of unionized NSW firms around the event. Control variables include those common in the leverage literature.[27] We are interested in the effect of the Act on unionized firms in NSW (the regression coefficient on $NSW \times Union \times$ *Post-Event*). In

[27] Control variables include profit variability (the standard deviation of the annual change in earnings before depreciation and amortization divided by lagged total assets over the prior 10 years), the proportion of fixed assets, the market-to-book ratio, size (the log of total sales), modified Altman's z-score (MacKie-Mason, 1990), and return on assets. All the aforementioned control variables are measured as of the beginning of each fiscal year. We also include year and industry fixed effects, as well as their interactions.

order to ensure the results do not arise from multicollinearity due to this triple-interacted variable, columns 1 and 2 present the results from estimating a non-interacted specification and a specification with double-interacted control variables, respectively. In column 3, we find that unionized firms in NSW significantly reduced their leverage relative to their unionized peers in other states following the election.

To establish leverage as a channel through which unionization affects firm value, we analyze whether firms that had positive abnormal returns around the event decreased leverage more than firms with negative abnormal returns. In columns 4 and 5, we find that unionized firms in NSW that experienced positive abnormal event returns de-leveraged following the event, while those with negative abnormal event returns did not. An F-test comparing the coefficients on the interaction of NSW, *Union*, and *Post-Event* confirms this difference is statistically significant (p-value of 0.015).[28] Additionally, in untabulated results, we do not find evidence that a parallel-trend assumption for leverage was violated, and the results are robust to aggregating pre-event years and post-event years as suggested by Bertrand, Duflo, and Mullainathan (2004). These findings are consistent with the market anticipating a value-increasing change in leverage following the reduction of union political power (in addition to the reduction in union wage growth as observed in Table 5). Hence, the results suggest leverage is a channel through which union political connections and power can affect firm value.[29]

The results of Table 6 are consistent with the union-bargaining-channel findings of Bronars and Deere (1991), Matsa (2010), and Myers and Saretto (2011). Simintzi, Vig, and Volpin (2015) provides evidence that may seem inconsistent with our results, showing that increases in labor protection lead to decreases in financial leverage in a cross-country study. The Act altered union political influence and, as a result, union bargaining power. Thus, the results should support bargaining channel arguments. Given that the Act did not affect legal labor protections in NSW and is within a single country, we test a fundamentally different effect than that analyzed in the cross-country setting of Simintzi, Vig, and Volpin. Therefore, we believe our findings complement the literature

[28] In untabulated results, the F-test comparing coefficients remains significant when we include firm fixed-effects.

[29] Agrawal and Matsa (2013) find that labor unemployment benefits are associated with increases in firm leverage. Unemployment benefits in Australia are mandated at the federal level and were not affected by the Act. Hence, it is unlikely that firms are reducing leverage to mitigate the employment risk of their workers.

by demonstrating that our hypothesis is applicable to the previously studied relation between union bargaining power and leverage.

The evidence suggests that as a result of the decline in union political power, corporations significantly increase in value, negotiate reductions in wage growth, and decrease leverage. The impact of these changes may significantly influence other corporate policies on the sources and uses of funds. Consistent with this notion, in untabulated results, we find that unionized firms affected by the Act significantly reduced total cash distributions to shareholders after union political power decreased. Moreover, due to the increased operating flexibility afforded to firms by a reduction in operating leverage (through reduced wage growth), financial leverage, and cash distributions to shareholders, firms can increase investment. In untabulated evidence, we estimate that affected unionized firms significantly increased capital expenditures following the reduction of union political power. In sum, we find strong evidence that union political connections and power not only influence union wages and firm value, but a number of other corporate policies including leverage, payout policy, and investment.

7. Robustness

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

7.1. Parallel-Trend and Falsification Tests

The results from the analysis in Section 4 and Section 5 may be affected by pre-existing relations among unionization, contracted wage growth, and stock returns. The estimated coefficients may then reflect long-term trends, rather than the impact of the Act. To address this concern, we run a series of tests to demonstrate the robustness of both the wage growth and the firm value results.

Parallel-Trend Analysis Comparing NSW and non-NSW Wages

We compare NSW and non-NSW contracted wage growth prior to and following the NSW Act using a difference-in-differences regression methodology. As such, a parallel trend assumption is implied in the analysis. A potential criticism of the wage results is that the relation we see (NSW wage growth to be roughly equal before the event and significantly lower afterwards) is a result of an unrelated reduction in wage growth over time due to differing economic conditions between NSW and the rest of the country and not due to the Act.

Our previous findings suggest that the results are not driven by a historical decline in NSW wage growth or changing economic conditions. As reported in Panel B of Table 2, we do not find a significant difference-in-differences in control variables known to influence unionization and wage growth between NSW and non-NSW contracts pre- and post-event, with the exception of the growth in gross state product. However, NSW gross state product was growing at a higher rate than other Australian states prior to the Act. It is unclear why an increase in economic growth would result in lower wage growth for NSW contracts. Additionally, we control for state-level economic growth (using annual gross state product growth) in the wage analysis. This reduces the likelihood that the passage of the law as well as the post-event decline in NSW contracted wage growth were both the result of common underlying economic factors (Bertrand and Mullainathan, 2003). In untabulated tests, the results of Tables 3 and 5 are robust to including an interaction between growth in gross state product and the *Post-Event* indicator and to defining gross state product growth as the trailing three-year average state product growth. Finally, Table 5 shows that the abnormal returns around the event were predictive of contract outcomes. Any long-term trend in contract outcomes should have been already impounded into prices by investors. Thus, abnormal returns reflect a change in market opinion.

To explicitly test the parallel trend assumption, we perform analysis similar to Table 3 using contracts from the pre-event period of the sample (prior to March 26, 2011). We create hypothetical pseudo-events for each year from 2007 through 2010. If NSW union wage growth rates were declining relative to other states before the Act, then NSW wages should be lower following each pseudo-event. The results in Table 7 do not support this alternative explanation as NSW union wage growth does not

appear to be declining relative to that in other states prior to the event. We also explore the dynamic effects of the Act on wages, using a procedure similar to the parallel-trend and reverse causality test of Bertrand and Mullainathan (2003). This untabulated test provides findings similar results to those reported in Table 3.[30] On the whole, this section's findings suggest that the parallel-trend assumption was not violated and help alleviate the concern that the empirical relations we observe were due to economic conditions that existed prior to the event.

Falsification Tests Comparing NSW and non-NSW Long-Run Changes to Firm Values

We test for changes in firm value as a result of the Act using short-window analysis of cumulative abnormal returns around the events. Potential alternative explanations of the results are that they do not represent the impact of the Act, but instead suggest a long-run trend in which unionized firms in NSW outperformed their non-unionized peers, which subsequently changed contracted wage growth. Another possibility is that any abnormal returns observed could be short-term effects that were subsequently reversed by the market.

We do not find evidence consistent with either of these alternative explanations. 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. 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 0.119 on $Union \times NSW$ from Table 4, column 6 (denoted with a vertical line in Figure 1) was greater than the observed estimated coefficients in all but 156 of the 10,000 simulations. This falsification test suggests that the statistical significance of the findings in Table 4 is not spuriously created by a long-term trend affecting unionized firms in NSW.

Second, 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 stan-

[30] Each contract pair in the sample consists of one pre-event observation and one post-event observation. There are no wage observations for the intervening years. Hence, the dynamic difference-in-differences methodology from Bertrand and Mullainathan (2003) may not have a clean economic interpretation or significant power in this setting.

dard errors created by firms sharing event days.[31] 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 non-event days in the 12 months surrounding the events.

Third, in untabulated results, 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 non-NSW firms did not significantly change in the three years prior to the event. In addition, 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.

Finally, the fact that stock returns around the election predict contract outcomes provides strong evidence that the Act caused a change in firm values that was not related to other economic trends. For completeness, we perform another falsification test to ensure that the estimated coefficient on the interaction between the residual of the firm value analysis with *NSW* and *Post-Event* in Table 5 is significantly less than similar coefficients where the residual was estimated on randomly chosen event dates in the year prior to the election. We perform 10,000 Monte Carlo simulations, randomly choosing three pseudo-event days during the 12-month window prior to the election. We obtain the residual estimated using the regression specification in column 2 of Table 4 and then re-estimate the regression specifications in columns 2 and 4 of Table 5. Panel A of Figure 2 studies average wage growth. It shows a histogram of the frequency of the estimated simulation regression coefficients on the interaction between the residual of the firm value analysis with *NSW* and *Post-Event*. The estimated coefficient on the triple-interaction using the residual from the actual election of -11.246 from Table 5, column 2 (denoted with a vertical line in Panel A of Figure 2) was less than the observed estimated coefficients in all but 56 of the 10,000 simulations. As seen in Panel B, the estimated coefficient for proximate wage growth from Table 5, column 4, displays a similar significance relative to simulated coefficients. This falsification test further suggests that the statistical significance of the findings in Table 4 is not spuriously created by a long-term trend affecting unionized firms in NSW.

[31] 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.

Taken together, the results of these tests suggest that the observed impact of the Act on the value of unionized firms in NSW and the wage contracts that firms negotiated was the result of the reduced political power and weakened political connections of unions and not some other long-term relationship. Moreover, these findings are consistent with the notion that the impact of the Act was not temporary.

7.2. Counterfactual Tests to Disentangle the Effects of the Act from those of the Election

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. When the Liberal-National Coalition won the 2011 NSW election, investors could have discounted the bargaining power of unions with a less union-friendly government in power. Additionally, investors could be anticipating future laws not friendly to unions that are not directly related to the Act. The second event date, while not representing an election, could be a signal that the ALP would have an even more difficult time returning to power without the direct support of unions. While this alternative explanation is still supportive of the hypothesis (the political connections and power of unions are an important determinant in the contracting relationship), it reduces the direct effect of the Act.

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 November 27, 2010, the ALP narrowly lost its majority to the Liberal-National Coalition in both the upper and lower houses of the Victoria, Australia Parliament. Similarly, on March 25, 2012, the ALP lost its Parliamentary majority by a large margin to the Liberal-National Coalition in Queensland, Australia 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 Act were neither campaigned for nor proposed by either state Coalition party. These two events allow us to test the effects of elections similar to that in NSW without any direct reduction of the political influence of labor unions. We perform event analysis on abnormal returns around these

elections using a variant of Equation (2). 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.

As can be seen in Table 8, we do not observe an effect in Victoria or Queensland around their elections similar to what was found in NSW. The coefficient on the interaction between *State* and *Union* is statistically insignificant (and always negative) for both elections. The removal of a party friendly to unions without an accompanying law restricting union political connections and power seems to have little effect on the value of unionized firms. These results suggest that the change in NSW unionized firm value documented in Table 4 is due to the limitations on union political power imposed by the Act, which subsequently reduced union bargaining power.

7.3. Robustness Tests Examining Other Events Affecting Union Political Connections and Power in NSW

The High Court of Australia declared key sections of the Act unconstitutional on December 18, 2013. This decision followed the initiation of the unions' legal challenge on April 8, 2013 and hearings that began on November 5, 2013. The High Court decision has unambiguous implications for the hypothesis only if it altered investor expectations of either (i) the likelihood of the Coalition passing alternative legislation or (ii) the effectiveness of any such legislation. However, it is not clear that the High Court decision accomplished either.

The Court ruling found issue with certain features of the Act, but did not preclude the NSW Parliament from passing revised legislation.[32] Prior to the Act's approval by the upper house, the NSW Parliament released a brief stating that, even if the Act were declared unconstitutional from a potential High Court challenge, a "modest variation" could be constitutional and implement the desired reforms (Griffith and Roth, 2012). Immediately following the High Court decision, both the Coalition and the Greens indicated a desire to quickly revisit the reforms in the Act and pass constitutionally valid legislation (Bibby and Hasham, 2013; Kaye, 2013). In fact, bridging legislation, designed to implement temporary reforms for the next NSW election until a permanent law could

[32]The Australian constitution does not contain an explicit right to free speech. High Court decisions have, historically, allowed laws to abridge any implicit right to political expression provided such limits achieve a "legitimate" purpose.

be developed, was introduced into Parliament on May 6, 2014. Therefore, we believe the High Court ruling did not significantly change investor beliefs that legislation limiting political advocacy and contributions would ultimately be enacted in NSW.

A reasonable assumption is that the Election Funding, Expenditure and Disclosures Amendment Act 2012 was the most restrictive legislation that could be passed by the NSW Parliament. Any alternative legislation would be less restrictive. We hypothesize that union political power should increase (relative to when the Act was in place) as a result of this ruling and, therefore, the value of unionized firms should decrease.

The results of repeating the firm value methodology for the High Court decision are presented in Table 9. We find evidence in support of the hypothesis. As predicted, we find a negative impact on firm value for unionized firms in NSW in all eight specifications, with the combined effect reported in columns 7 and 8 being statistically significant. However, if, as suggested by the NSW Parliament brief, only "modest" changes to the Act are necessary to implement constitutionally valid reforms, then investors may not perceive a significant difference in the effectiveness between the Act and alternative legislation. Thus, while we observe negative returns for unionized NSW firms that are statistically significant for the combined event days, the reduced economic magnitude of the High Court decision relative to the Act's enactment may limit the power of the tests to infer statistical significance on any individual event day.

8. Conclusion

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 (Cooper, Gulen, and Ovtchinnikov, 2010; Duchin and Sosyura, 2012; Faccio, 2006; Goldman, Rocholl, and So, 2009; Igan and Mishra, 2014; Jayachandran, 2006; Kim, Pantzalis, and Park, 2012). However, we have a limited understanding of how other stakeholders use political connections and power to achieve their own goals and influence firm values and 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 extract economic rents (Ashenfelter and Johnson, 1969;

Calmfors et al., 1988; Francia, 2012; Kerrissey and Schofer, 2013).

We use a recent law in NSW, Australia to examine how union political connections and power affect wages and firm value. This law provides a quasi-natural experiment with unique empirical qualities to examine the effects of union political connections and power on the contracting relationship between organized labor and the firm. The passage of Election Funding, Expenditure and Disclosures Amendment Act 2012 was a surprise to investors and significantly weakened unions' political connections and power while not materially altering the political power of corporations. Unions retained their ability to collectively bargain, and the Act did not change union membership levels. Thus, ceteris paribus, the Act impaired unions ability to bargain with firms. Our identification strategy allows us to disentangle the co-determined nature of unionization rates, the ability of unions to collectively bargain, and union political power from unobservable industry and state characteristics. We believe we are the first to directly examine union political connections and power as a determinant of contract outcomes and firm value.

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 firm value. These results are related: firms that experienced the largest increase in value around the Act's key event dates subsequently negotiated the most favorable contracts with unions. The results are robust to a number of alternative explanations, specifications, and supplemental tests. While the previous literature finds that organized labor is an important determinant of firm value and decision-making (for example, Blaylock, Edwards, and Stanfield, 2015; Chen, Kacperczyk, and Ortiz-Molina, 2011; Klasa, Maxwell, and Ortiz-Molina, 2009; Lee and Mas, 2012; Matsa, 2010), we show that an important mechanism underlying this relation is unions' political connections and power. In addition, since we provide previously undocumented evidence that explicitly connects changes in union wages to firm value, our results bolster previous findings in the literature studying the influence of unions on wages and firm value (DiNardo and Lee, 2004; Frandsen, 2012; Lee and Mas, 2012). Hence, our findings are consistent with union political power being a mechanism by which unions can extract rents from equity holders, holding unions' ability to collectively bargain

constant.

Our results indicate interesting avenues for future research, both specific to labor unions and, more generally, regarding the political connections and influence of the various stakeholders of a firm. We find that union influence on firms is not simply restricted to direct representation of its membership in contract negotiations, but is multifaceted. While union membership has been declining in recent years, union bargaining power need not decrease as unions can leverage political power and connections. Future research can identify other avenues through which unions derive bargaining power, in addition to the political channel highlighted here.

More broadly, our evidence suggests that comprehensive research into the political connections and activities of all of a firm's 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 non-financial stakeholder political power on the firm are widespread; our evidence demonstrates effects on firm values, employee wages, and corporate policies. Moreover, corporate policies designed to mitigate non-financial stakeholder political power can be costly to shareholders. These relations are not only important for understanding the mechanisms through which stakeholder political power influences firm value, but are also relevant for policy makers. For instance, it is unclear whether the political actions of secondary stakeholders, such as community and activist groups, affect firm value. Yet, these groups have recently increased their political prominence, using technological developments to organize political action in response to firm activities quickly and dynamically. Hence, the key role that politically connected stakeholders play in affecting firm value and behavior will remain 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 work-site 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. These data are matched to the corresponding firm's financial information and market values. *Mean* and *SD* reports the means and standard deviations. *p*1, *p*25, *Median*, *p*75, and *p*99 show the 1st, 25th, 50th, 75th, and 99th percentile values, respectively. Panel B presents summary statistics comparing 204 labor contracts negotiated in New South Wales (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 1%, 5%, and 10% level, respectively. Panel C presents the Pearson correlations of the variables at the contract level. *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 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; and *GSP Growth* is the annual gross state product growth in the year preceding contract negotiations. All continuous variables are winsorized at the 1st and 99th percentiles.

Panel A: Summary Statistics

			Distribution				
N = 1286	Mean	SD	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	0.028	0.014	0.009	0.020	0.024	0.034	0.073

(*Continued*)

Table 1: Continued

Panel B: Mean Comparison of NSW and non-NSW Contracts Pre- and Post-Event

	NSW (N=204)		Non-NSW (N=439)			
Pre-Event	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	0.020	0.006	0.031	0.015	–0.011***	<0.001
	NSW (N=204)		Non-NSW (N=439)			
Post-Event	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	0.023	<0.001	0.030	0.016	–0.007***	<0.001

Post-Event — Pre-Event	Difference	p-value	Difference	p-value	Difference in Difference	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	0.003***	<0.001	–0.001	0.170	0.004***	<0.001

(*Continued*)

Table 1: Continued

Panel C: Correlations

		1	2	3	4	5	6	7	8	9
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

Table 2: 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. *p*1, *p*25, *Median*, *p*75, and *p*99 show the 1st, 25th, 50th, 75th, and 99th percentile values, respectively. Panel B 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 1%, 5%, and 10% level, respectively. Panel C presents the Pearson correlations of variables at the firm-event level. *CAR* is the cumulative abnormal equity return for the 3-day window surrounding each event date 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

			Distribution				
N = 639	Mean	SD	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	0.024	0.011	0.009	0.016	0.022	0.023	0.042

Panel B: Mean Comparison of NSW and non-NSW Headquartered Companies

	NSW (N=226)		Non-NSW (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	0.021	0.002	0.025	0.013	–0.005***	<0.001

Panel C: Correlations

		1	2	3	4	5	6	7	8
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

Table 3: 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) March 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 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. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	Average Wage Growth		Proximate Wage Growth	
	(1)	(2)	(3)	(4)
NSW × *Post-Event*	−0.402***	−0.429***	−0.573***	−0.606***
	(<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	0.135
	(0.817)	(0.781)	(0.287)	(0.275)
Size		0.135		0.092
		(0.213)		(0.391)
MB		0.021		0.022
		(0.381)		(0.406)
Leverage		−0.285		0.097
		(0.421)		(0.793)
NSW CPC		−0.005		−0.005
		(0.606)		(0.646)
Cash		0.312		0.876
		(0.720)		(0.256)
GSP Growth		5.572***		6.530***
		(0.009)		(<0.001)
Constant	2.814***	1.684**	3.027***	2.060***
	(<0.001)	(0.024)	(<0.001)	(0.004)
Firm FE	Yes	Yes	Yes	Yes
Union FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted-R^2	0.360	0.364	0.252	0.255
N	1286	1286	1286	1286

Table 4: Union Political Power and Firm 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 firm 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. *NSW* is an indicator variable equal to 1 if the contract is negotiated 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 2. Columns 1 and 2 report estimated coefficients for March 26, 2011, the day of the Liberal-National Coalition electoral victory. Columns 3 and 4 report estimated coefficients for February 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. 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. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	March 26, 2011		February 16, 2012		Combined	
	(1)	(2)	(3)	(4)	(5)	(6)
NSW	0.083***	0.052*	0.107***	0.075***	0.175***	0.119***
× *Union*	(0.004)	(0.057)	(0.006)	(0.006)	(0.001)	(0.002)
NSW	−0.017***	−0.012**	−0.015***	−0.016***	−0.032***	−0.028***
	(0.009)	(0.024)	(0.002)	(0.002)	(0.001)	(<0.001)
Union	−0.048***	−0.019	−0.089**	−0.048	−0.123**	−0.063
	(0.009)	(0.448)	(0.049)	(0.264)	(0.025)	(0.250)
Size	0.003**	0.004***	0.002	0.001	0.004	0.004
	(0.021)	(0.003)	(0.320)	(0.586)	(0.113)	(0.152)
MB	−<0.001***	−<0.001***	<0.001	<0.001	−<0.001*	−<0.001*
	(<0.001)	(<0.001)	(0.399)	(0.398)	(0.062)	(0.079)
Leverage	−0.003	−0.004	0.026***	0.012	0.020*	0.005
	(0.587)	(0.654)	(0.003)	(0.196)	(0.060)	(0.771)
NSW CPC	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001
	(0.200)	(0.167)	(0.291)	(0.314)	(0.278)	(0.291)
Cash	0.002	−0.001	0.036*	0.035	0.001	−<0.001
	(0.935)	(0.956)	(0.079)	(0.139)	(0.973)	(0.993)
GSP Growth	−0.305	−0.207	−0.795**	−0.666*	−1.000***	−0.807**
	(0.227)	(0.393)	(0.033)	(0.053)	(0.009)	(0.021)
Constant	−0.007	−0.016	0.018	0.018	0.017	0.010
	(0.609)	(0.193)	(0.302)	(0.407)	(0.445)	(0.703)
Industry FE	No	Yes	No	Yes	No	Yes
Adjusted-R^2	0.036	0.063	0.048	0.060	0.065	0.102
N	328	328	311	311	329	329

Table 5: Did Abnormal Changes in Firm 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 3) 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) March 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 March 26, 2011 from the model presented in column 2 of Table 4. Control variables include those from Table 3; 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 are Union FE are fixed effects based on the firm and union(s) involved in each contract, respectively. Uninteracted ϵ_{CAR} is spanned by firm FE and, therefore, not explicitly included in the specifications. 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. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	Average Wage Growth		Proximate Wage Growth	
	(1)	(2)	(3)	(4)
NSW × *Post-Event* × ϵ_{CAR}		−11.246***		−14.885***
		(0.004)		(0.004)
NSW × *Post-Event*	−0.405***	−0.404***	−0.559***	−0.558***
	(<0.001)	(<0.001)	(<0.001)	(<0.001)
NSW × ϵ_{CAR}	−2.018	3.843	−3.432	4.326
	(0.602)	(0.376)	(0.390)	(0.333)
Post-Event × ϵ_{CAR}	4.277	7.148***	6.958*	10.758***
	(0.122)	(0.009)	(0.060)	(0.004)
NSW	0.056	0.058	0.136	0.138
	(0.620)	(0.607)	(0.278)	(0.263)
Post-Event	0.295	0.356*	0.387**	0.468***
	(0.148)	(0.066)	(0.027)	(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: Union Political Power and Firm Leverage

The table reports empirical results from ordinary least squares models similar to Matsa (2010) examining the relationship between union political power and firm leverage. The dependent variable is leverage, defined as the book value of interest-bearing debt scaled by the book value of total assets. *NSW* is an indicator variable equal to 1 if the contract is negotiated in NSW and 0 otherwise; *Union* is the industry-level unionization rate defined at either the 4-, 6-, or 8-digit GICS level; *Post-Event* is an indicator variable equal to 1 if the observation occurs the first event date and 0 otherwise; and ϵ_{CAR} is the firm's cumulative abnormal return (CAR) around March 26, 2011 from the model presented in column 2 of Table 4. Column 4 and 5 presents the results for those firms that had positive and negative ϵ_{CAR}, respectively. Following Matsa (2010), controls include the market-to-book ratio (as defined in Table 2); firm size (defined as the natural log of 1 + total sales (in A$ million)); the proportion of fixed assets (defined as net property plant and equipment divided by lagged total assets); modified Altman's *z*-score (MacKie-Mason, 1990); return on assets (defined as net income divided by lagged total assets); and profit variability (defined as the standard deviation of the annual change in earnings before depreciation and amortization divided by lagged total assets over the prior 10 years). Each specification includes fixed effects (FE) of the interaction between industry, defined at the 2-digit GICS level, and year. *p*-values are reported in parentheses. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	Leverage			Positive ϵ_{CAR}	Negative ϵ_{CAR}
	(1)	(2)	(3)	(4)	(5)
NSW × *Union* × *Post-Event*			−0.243**	−0.594***	−0.027
			(0.050)	(0.010)	(0.865)
NSW × *Union*		0.237	0.349	1.198***	0.463
		(0.455)	(0.317)	(0.002)	(0.137)
NSW× *Post-Event*		0.016	0.056**	0.093**	0.019
		(0.175)	(0.025)	(0.032)	(0.436)
Union× *Post-Event*		−0.005	0.094	0.322**	0.145
		(0.951)	(0.363)	(0.014)	(0.463)
NSW	−0.011	−0.059	−0.078	−0.205**	−0.110**
	(0.620)	(0.409)	(0.289)	(0.019)	(0.033)
Union	0.063	−0.034	−0.082	−0.423***	−0.323
	(0.597)	(0.740)	(0.494)	(<0.001)	(0.113)
Post-Event	0.036***	0.029	0.012	0.010	0.015
	(0.009)	(0.148)	(0.604)	(0.776)	(0.701)
MB	0.003	0.003	0.003	0.001	0.011
	(0.478)	(0.521)	(0.512)	(0.891)	(0.133)
Size	0.007	0.007	0.007	0.017***	0.008
	(0.542)	(0.516)	(0.525)	(0.005)	(0.508)
Fixed Assets %	0.108**	0.113**	0.112**	0.150*	0.119***
	(0.022)	(0.039)	(0.039)	(0.070)	(0.002)
Z-score	−0.034**	−0.034**	−0.034**	−0.044***	−0.046***
	(0.025)	(0.023)	(0.024)	(<0.001)	(0.001)
ROA	−0.002	−0.002	−0.002	−0.001	−0.002
	(0.167)	(0.170)	(0.169)	(0.474)	(0.205)
Profit variability	−0.052	−0.053	−0.053	−0.029	−0.018
	(0.254)	(0.255)	(0.252)	(0.681)	(0.522)
Constant	0.052	0.070	0.079	0.035	0.077
	(0.225)	(0.213)	(0.188)	(0.252)	(0.292)
Industry × *Year FE*	Yes	Yes	Yes	Yes	Yes
Adjusted-R^2	0.222	0.224	0.225	0.248	0.258
N	1361	1361	1361	488	561

Table 7: Was NSW Union Contract Wage Growth Declining Relative to that of Non-NSW Union Contracts Prior to the Act?

The table reports empirical results from robustness tests examining differences between NSW firms and non-NSW firms around pseudo-events. The dependent variable in all columns is the average wage growth over the life of the contract. For each year from 2007 through 2010, a pseudo-event is created in which a hypothetical law limited union political power. All contracts including and after the pseudo-event year are considered post-event. For example, a 2007 pseudo-event considers all contracts from 2007 up to the 2011 NSW election as post-event. All other variables are as defined in Table 2. Standard errors are robust to heteroskedasticity and 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. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	2007	2008	2009	2010
	(1)	(2)	(3)	(4)
NSW	0.143	0.092	0.311**	0.194
× *Post-Pseudo-Event*	(0.554)	(0.573)	(0.035)	(0.323)
NSW	−0.087	−0.033	−0.115	−0.016
	(0.735)	(0.839)	(0.373)	(0.917)
Post-Pseudo-Event	0.898**	0.954***	0.824**	0.936**
	(0.037)	(0.006)	(0.015)	(0.024)
Size	0.065	0.058	0.064	0.057
	(0.739)	(0.763)	(0.743)	(0.770)
MB	0.008	0.008	0.009	0.008
	(0.818)	(0.824)	(0.812)	(0.816)
Leverage	−0.294	−0.239	−0.281	−0.261
	(0.624)	(0.707)	(0.664)	(0.669)
NSW CPC	0.001	0.001	<0.001	<0.001
	(0.963)	(0.982)	(0.999)	(0.987)
Cash	−2.710	−2.616	−2.665	−2.743
	(0.182)	(0.185)	(0.155)	(0.169)
GSP Growth	3.846	3.511	1.231	2.746
	(0.482)	(0.531)	(0.848)	(0.662)
Constant	2.121	2.108	2.223	2.134
	(0.130)	(0.136)	(0.114)	(0.128)
Firm FE	Yes	Yes	Yes	Yes
Union FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Adjusted-R^2	0.278	0.278	0.284	0.279
N	643	643	643	643

Table 8: Does a Labor Party Electoral Defeat Increase Firm Values?

The table reports empirical results from robustness tests examining the relationships between firm values and Liberal-National Coalition victories in Victoria and Queensland. 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. Columns 1 and 2 report estimated OLS coefficients for November 27, 2010, the day of the state election in Victoria. Columns 3 and 4 report estimated OLS coefficients for March 25, 2012, the day of the state election in Queensland. The dependent variable in all specifications is Cumulative Abnormal Return (CAR) over the 3-day window surrounding each election day. In Columns 1 and 2, *State* is an indicator variable equal to 1 if the firm is headquartered in Victoria and 0 otherwise; *StateCPC* is the natural log of 1 + the total amount (in A$) of political contributions made to Victoria political parties over previous 4 years. In Columns 3 and 4, *State* is an indicator variable equal to 1 if the firm is headquartered in Queensland and 0 otherwise; *StateCPC* is the natural log of 1 + the total amount (in A$) of political contributions made to Queensland political parties over previous 4 years. *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 2. Industry fixed effects (FE) are defined at the 2-digit GICS level. Standard errors are robust to heteroskedasticity and within-industry correlation. *p*-values are reported in parentheses. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	Victoria Election November 27, 2010		Queensland Election March 25, 2012	
	(1)	(2)	(3)	(4)
State × *Union*	−0.007	−0.037	−0.162	−0.127
	(0.896)	(0.584)	(0.148)	(0.274)
State	−0.001	0.006	0.026	0.022
	(0.931)	(0.653)	(0.226)	(0.303)
Union	−0.024	0.028	0.001	0.005
	(0.531)	(0.678)	(0.980)	(0.924)
Size	−0.002	−0.002	0.001	0.001
	(0.499)	(0.488)	(0.737)	(0.616)
MB	−0.003	−0.003	0.002*	0.002*
	(0.119)	(0.178)	(0.070)	(0.078)
Leverage	0.024	0.020	−0.028	−0.030
	(0.428)	(0.528)	(0.270)	(0.288)
State CPC	<0.001	<0.001	−<0.001	−<0.001
	(0.377)	(0.622)	(0.864)	(0.819)
Cash	−0.001	0.002	−0.003	−0.003
	(0.983)	(0.957)	(0.916)	(0.924)
GSP Growth	0.271	0.200	0.234	0.288
	(0.369)	(0.535)	(0.663)	(0.556)
Constant	0.016	0.003	−0.013	−0.022
	(0.348)	(0.881)	(0.512)	(0.332)
Industry FE	No	Yes	No	Yes
Adjusted-R^2	0.001	−0.015	−0.009	−0.027
N	229	229	231	231

Table 9: The High Court Decision and Firm Value

The table reports empirical results from ordinary least squares models examining how firm values reacted to key events dates for the High Court of Australia's decision on the Election Funding, Expenditure and Disclosures Amendment Act 2012. The dependent variable is Cumulative Abnormal Return (CAR) over the 3-day window surrounding each event day in columns 1 through 6 and over the combined 9-day event window in columns 7 and 8. *NSW* is an indicator variable equal to 1 if the contract is negotiated 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 2. Columns 1 and 2 report estimated coefficients for April 8, 2013, the day a group of labor unions filed a writ of summons with the High Court of Australia. Columns 3 and 4 report estimated coefficients for November 5, 2013, the day of the initial High Court hearing on the Act. Columns 5 and 6 report estimated coefficients for December 18, 2013, the day the High Court ruled the Act unconstitutional. Columns 7 and 8 report estimated coefficients for a combined analysis using all three event day windows. 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. Coefficients marked with ***, ** and * are significant at the 1%, 5%, and 10% level, respectively.

	April 8, 2013		November 5, 2013		December 18, 2013		Combined	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NSW	−0.028	−0.041	−0.026	−0.035	−0.052	−0.050	−0.100*	−0.108*
× *Union*	(0.467)	(0.295)	(0.488)	(0.366)	(0.272)	(0.311)	(0.092)	(0.066)
NSW	0.013*	0.021***	−0.001	0.004	0.008	0.007	0.020*	0.029**
	(0.053)	(0.010)	(0.861)	(0.631)	(0.365)	(0.417)	(0.100)	(0.012)
Union	0.037	0.011	<0.001	−0.029	0.004	0.024	0.043	0.003
	(0.324)	(0.800)	(0.987)	(0.470)	(0.910)	(0.568)	(0.428)	(0.957)
Size	0.005***	0.007***	0.003*	0.004**	0.003**	0.002*	0.010***	0.011***
	(0.005)	(<0.001)	(0.054)	(0.042)	(0.026)	(0.064)	(0.003)	(0.001)
MB	−<0.001	−<0.001	−<0.001	−<0.001	<0.001***	<0.001***	<0.001	<0.001
	(0.631)	(0.124)	(0.475)	(0.244)	(<0.001)	(<0.001)	(0.137)	(0.590)
Leverage	−0.018	−0.014	−0.008	−0.004	0.014	0.008	−0.013	−0.009
	(0.213)	(0.358)	(0.416)	(0.742)	(0.139)	(0.409)	(0.454)	(0.647)
NSW CPC	−0.001*	−0.001**	−<0.001	<0.001	0.001*	0.001	−<0.001	−0.001
	(0.083)	(0.018)	(0.996)	(0.892)	(0.095)	(0.148)	(0.643)	(0.459)
Cash	0.017	0.027	−0.006	−<0.001	−0.033	−0.031	−0.012	0.005
	(0.426)	(0.187)	(0.716)	(0.981)	(0.356)	(0.393)	(0.721)	(0.890)
GSP Growth	0.419***	0.366***	0.123	0.118	0.166	0.194	0.660**	0.616***
	(0.001)	(0.004)	(0.487)	(0.403)	(0.193)	(0.119)	(0.015)	(0.007)
Constant	−0.055***	−0.077***	−0.032*	−0.041**	−0.037***	−0.046***	−0.112***	−0.147***
	(0.001)	(0.001)	(0.095)	(0.032)	(0.001)	(<0.001)	(<0.001)	(<0.001)
Industry FE	No	Yes	No	Yes	No	Yes	No	Yes
Adjusted-R^2	0.022	0.066	<0.001	0.028	0.029	0.012	0.046	0.096
N	343	343	333	333	323	323	356	356

Figure 1: Union Political Power and Firm Value. Monte Carlo Counterfactual Test

The figure presents the results of 10,000 Monte Carlo simulations, designed to analyze whether the relationship between firm value and unionization in NSW reported in Table 4 was due to unmodeled trends in the data. The simulations repeat the methodology used in column 6 of the table. For each simulation, 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 0.119 is plotted as a vertical line for reference. 1.56% of the estimated $NSW \times Union$ simulation coefficients are greater than the actual estimated coefficient using the event dates.

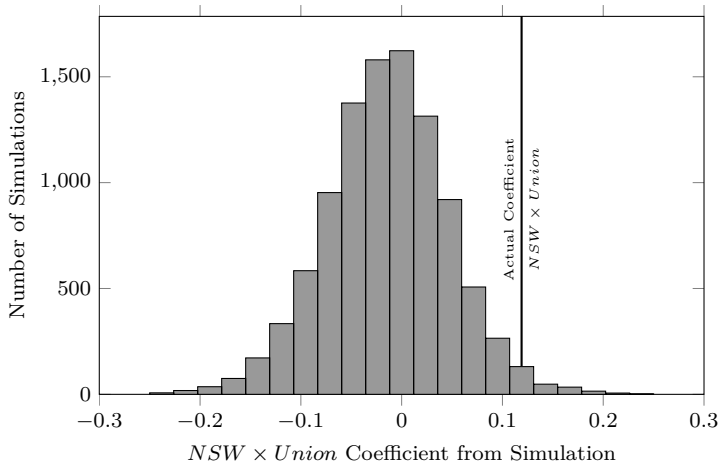

Figure 2: Did Abnormal Changes in Firm Value around the Election Predict Subsequent Changes in Contracted Wage Growth? Monte Carlo Counterfactual Tests

The figure presents the results of 10,000 Monte Carlo simulations, designed to analyze whether the relationship between abnormal stock returns and future labor contracts documented in Table 5 was due to unmodeled stock market trends. For each simulation, 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 columns 2 and 4 of Table 5. Panel A shows a histogram 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 -11.246 is plotted as a vertical line for reference. 0.56% of the estimated $NSW \times Union \times \epsilon_{CAR}$ simulation coefficients are less than the actual estimated coefficient. Proximate wage growth is the dependent variable for the simulations in Panels B. The actual coefficient estimate from Table 5, column 4, of -14.885 is plotted as a vertical line for reference. 0.55% of the estimated $NSW \times Union \times \epsilon_{CAR}$ simulation coefficients are less than the actual estimated coefficient.