A Negative Externality of Political Connection in Supply Chains: Evidence from Close Elections

by

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ABSTRACT

This study reveals that campaign contribution-based political connections benefit directly connected firms but have negative implications for their suppliers. Suppliers heavily reliant on customers unexpectedly winning political connections experience significant declines in stock prices, particularly when political connections are highly valuable, easily observable and when the supplier's bargaining power is weak. Post-election, connection-winning customers strategically reconstruct their supply chains, leaving dependent suppliers to suffer in unfavorable trade terms and profit margin squeeze. We suggest that while benefiting winning customers directly, political connections bolster their bargaining power, empowering them to extract rent from dependent suppliers.

Keywords: Political Connection, Spillover Effect, Supply Chain, Bargaining Power, Rent Extraction.

JEL classification: G32; L14; D72.

I. Introduction

Firms often establish political connections and gain access to politicians by making campaign contributions to political candidates (Herndon (1982); Kalla and Broockman (2016)). It has been well demonstrated that such political connections can increase the value of connected firms (Cooper, Gulen and Ovtchinnikov (2010); Akey (2015)) and benefit them in many ways.[1] While the direct effects on politically connected companies are widely explored, the impacts on their business partners remain relatively understudied. Effects on a particular company can propagate within these networks, leading to substantial economic consequences. The political connection could be one thing for benefits to the connected firms but another to their business partners. Yet, the extant literature lacks explicit studies on the value of political connections to other counterparties.[2]

Understanding how political connections spill over in explicit networks, such as a supply chain, is important in assessing the comprehensive value of political connections in the increasingly connected economy. If a supplier's valuation and business get impaired by the political connections of its customers, the benefits of political connections would appear largely private. Political connection does not only hurt social welfare through its interactions

[1]For example, they can bring more government contracts (Goldman, Rocholl and So (2008), Amore and Bennedsen (2013), and Tahoun (2014)), increase sales (Goldman, Rocholl and So (2013) and Akey (2015)), improve access to finance (Claessens, Feijen and Laeven (2008), and Boubakri, Guedhami, Mishra and Saffar (2012)), reduce business risk (Faccio, Masulis and McConnell (2006), and Duchin and Sosyura (2012)), and even help a firm avoid being detected or punished for corporate misbehavior (Yu and Yu (2011), Fulmer, Knill and Yu (2012) and Fulmer, Knill and Yu (2022)).

[2]Recent studies by Neretina (2019) and Babenko, Fedaseyeu and Zhang (2022) are perhaps exceptions. Using lobbying data, Neretina (2019) shows that lobbying firms gain value, but non-lobbying rivals lose value when the bills lobbied are passed, indicating a negative externality of corporate lobbying. Focusing on executives in politics, Babenko et al. (2022) provide indirect evidence about the spillover effects of political connections. They find that business politicians are more likely to vote for policies benefiting their industries.

with the government as documented in the literature (Cingano and Pinotti (2013), Amore and Bennedsen (2013), Fisman and Wang (2015)), but also through economic networks.

This paper investigates the externalities of corporate political connections in supply chains using the results of close elections as shocks to corporate political connections. Specifically, we examine and explain the stock market reactions of suppliers when their customers gain political connections in close elections, where the supported candidates win by a thin margin.[3] The literature argues that outcomes of close elections possess a substantial random component, making them plausible exogenous shocks to corporate political connections (Akey (2015) and Do, Lee and Nguyen (2015)). Focusing on close elections, we are able to identify a causal spillover effect of customers' political connections to suppliers.

Customers' political connections may generate two opposing effects on suppliers. On the one hand, customers' political connections could benefit suppliers and affect their market value positively. As political connections are consistently highlighted to be beneficial for firms, such as in sales and stability (Goldman et al. (2013), Akey (2015), Duchin and Sosyura (2012)), these benefits could extend upwards and profit their suppliers as well by improving their sales and operations. The effect should be more pronounced when the suppliers have greater sales exposure to connected customers (termed the *benefit-sharing hypothesis*). On the other hand, customers' political connections can be noninclusive and affect suppliers adversely. The benefits accrued through political connections could make connected customers more attractive to suppliers, thereby granting these customers enhanced bargaining power in their interactions with suppliers, ultimately facilitating their rent extraction (the *rent-extraction hypothesis*). A significant net effect tells which hypothesis is explicitly supported.

[3]Close elections are elections where the winner wins by no more than 5%.

To test the dominance of these two competing hypotheses, we use a comprehensive dataset encompassing American congressional elections from 2000 to 2016 and supply chain information from 1998 to 2018. We find that the winning of political connections, which typically triggers a positive stock market response for directly connected firms, leads to negative spillover effects for their suppliers. Suppliers' cumulative abnormal returns (CARs) around election days decrease significantly with their exposure to winning customers. The effects are also economically significant. A one standard deviation increase in a supplier's sales exposure to winning customers predicts an 88 basis points (bps) decrease in its five-day CAR. In contrast, the supplier's exposure to major customers who did not gain political connections in close elections demonstrates no significant announcement effect. Those results are more consistent with the *rent-extraction hypothesis* rather than the *benefit-sharing hypothesis*. Political connections seem to have negative externalities along supply chains.

Interestingly, if a supplier wins any political connections in close elections, the supplier gains immunity to the adverse spillover effects. A supplier's political connections can counteract the influence of customers' political connections, offering a balance of impact.

We also show that the rent-seeking effects vary with corporate bargaining power ex-ante. Firms with less bargaining power suffer more in their exposure to winning customers. Using different proxies for relative bargaining positions, we indeed find that the adverse value effect primarily impacts the dependent suppliers in a weak position, that is, firms producing standard goods(Porter (1997), and Giannetti, Burkart and Ellingsen (2011)), operating in a highly competitive industry (Schumacher (1991), and Snyder (1996)), making more relationship-specific investments (Fee, Hadlock and Thomas (2006), Kale and Shahrur (2007), and Brown, Fee and Thomas (2009)), or facing a concentrated customer base.

Furthermore, the value and the market's awareness of customers' political connections play a significant role in the adverse spillover effect. We find that the significance of the negative spillover effects is magnified when the political connection holds greater value. Specifically, the adverse spillover effect is more pronounced when customers belong to states with elevated corruption levels and heightened political risk, or in periods with increased political uncertainty. Additionally, we ascertain that the adverse spillover effect holds significance primarily when customers' political connections are more observable, that is when dependent suppliers are substantially held by more professional institutional investors, or when their customers are large and have high analyst coverage. This suggests that the effect of political connection can be quickly incorporated into stock price only when it is observable to the market.

Next, we delve into the mechanism underlying the negative spillover effect of political connections, providing more evidence for the rent-extraction hypothesis. We find that political connections change the business of both suppliers and customers. From the customers' perspective, we show that political connections directly improve customers' sales and performance to support a positive market reaction and seem to grant them an upper hand in their supply chain management. Following the elections, winning customers actively reconfigure their supplier relationships to disperse their sources of supply, thereby reducing input concentration. A less centralized supplier base is beneficial for customers, as it mitigates customers' reliance on specific suppliers and reduces input-related risks (Ahern, 2012; Fabbri and Klapper, 2016). It seems that political connections benefit customers and increase their ability to restructure their supply chains, which in turn, may further increase connected customers' bargaining power and rent-extracting ability.

As a result, dependent suppliers face higher rent extractions by the winning customers and underperform. Those suppliers with greater exposure to winning customers experience worse trading terms after elections. They extend more trade credit and encounter prolonged cash conversion cycles after elections.[4] In addition, they undergo more extensive profit margin squeezes, as their net profit margin and cash flow margin drop significantly more. Again, suppliers who themselves win political connections are immune. They do not encounter any of these repercussions. Taken together, evidence from both customers' and suppliers' perspectives indicates a more rent-seeking than benefit-sharing nature of winning customers.

The findings of this paper make contributions to the literature in three aspects. First, this paper contributes to the literature on corporate political connections by demonstrating the externalities of political connections beyond the connected firms themselves. Prior research has extensively explored the relevance of political connections to firm value (Roberts (1990), Fisman (2001), Johnson and Mitton (2003), and Faccio (2006)). Jayachandran (2006) and Akey (2015) highlighted the value-enhancing effects of political connections established through corporate donations. While political connections reflect the donor firms' self-interest and benefit themselves, the broader implications of political connection are less studied, which can be either positive or negative. To the best of our knowledge, research on the externalities of political connections in a broader economic network is still in its infancy.

[4]It has been shown that trade credit extended by suppliers is related to the relative bargaining power of suppliers and their customers. Fabbri and Klapper (2016) argue that powerful firms can extract more trade credit from their suppliers. Dass, Kale and Nanda (2015) have shown that trade credit provided by upstream firms increases with downstream firms' bargaining power. Suppliers seldom like providing trade credit and extending cash conversion cycles as this will tighten financial constraints on them. Murfin and Njoroge (2015) have documented that large customers often delay payments to the point that suppliers are forced to cut investment because of liquidity constraints.

The finding that what is a boon for connected customers can be a blight for their suppliers is new to this literature.

Second, this paper enriches the corporate finance literature on supply chains. Any effect can spread along supply chains, impacting related firms. For example, Hertzel, Li, Officer and Rodgers (2008) and Kolay, Lemmon and Tashjian (2016) document the contagion of financial distress within supply chains. Closely related to our study, Li and Tang (2016) examined the positive spillover effect of customers' CDS trading on suppliers' capital structure, using the suppliers' exposure to treated customers as its main measure. The study of this paper extends that literature by revealing an adverse spillover effect of political connections in supply chains due to bargaining power rebalancing. Moreover, it contributes to the literature by identifying political connections as a crucial determinant of supply chain dynamics.

Third, this paper sheds light on the sources of bargaining power in customer-supplier relationships and underscores its importance. Customer firms can establish or enhance their bargaining power over suppliers in various ways. Customer concentration has been recognized in earlier studies as one of the important determinants of bargaining power (Schumacher (1991), and Snyder (1996)). Corporate events such as leveraged buyouts and mergers are also identified to be influential for corporate bargaining power, exerting adverse effects on suppliers' investments, profitability, and even valuations (Fee and Thomas (2004), Brown et al. (2009), and Bhattacharyya and Nain (2011)). This study additionally highlights the political connections as an important source of bargaining power rebalancing in supply chain relationships. The introduction of political connections can reshape the relative bargaining positions of suppliers and customers. It can also affect their performance accordingly.

The remainder of the paper is organized as follows. Section 2 develops the hypotheses.

Section 3 provides an overview of the data and details the creation of the primary variables. Section 4 estimates the spillover effects of customers' political connections on suppliers. Section 5 explores important conditions that facilitate the spillover effects. Section 6 looks closely at the bargaining power rebalancing channel. Section 7 concludes.

II. Hypothesis Development

Firms with political connections often gain operational and financing advantages that enhance their overall value.[5] These advantages, while primarily benefiting the directly connected firms themselves, can also create ripple effects with the potential to either benefit or adversely impact their suppliers.

The benefits generated by political connections can be explicit and implicit. Prior research has shown that firms with political connections tend to win more government contracts (Amore and Bennedsen (2013), Goldman et al. (2013), Tahoun (2014), and Campello and Gao (2017)) and have larger sales revenue (Akey (2015)). Increased sales naturally translate to higher input demands from their suppliers. To the extent that connected customers allocate their expanded demand to their existing suppliers, those suppliers will benefit explicitly.

Implicit benefits emerge when customers exhibit enhanced stability and reduced likelihood of bankruptcy (Kolay et al. (2016), and Lian (2017)). There is evidence that politically connected firms enjoy easier access to capital (Khwaja and Mian (2005)), lower cost of equity (Boubakri et al. (2012), and Claessens et al. (2008)), and a better chance of being bailed out when in trouble (Faccio et al. (2006) and Duchin and Sosyura (2012)). Additionally,

[5]See Akey (2015), Claessens et al. (2008), and Cooper et al. (2010) among others for a more detailed explanation.

politically-connected customers are less susceptible to detection or punishment for misconduct (Yu and Yu (2011) and Fulmer et al. (2012)).[6] Being fair or not, those advantages collectively contribute to stabilizing connected customers and diminishing their bankruptcy risk.

Stable customers with more resources implicitly benefit suppliers in their operational risks, as losing customers drives tremendous losses to suppliers. As such, the benefits from political connections possess the potential to be shared within the supply chain. This is termed the *benefit sharing effect*.

Hypothesis A {the Benefit Sharing Hypothesis}**:** *When customers unexpectedly gain political connections, the more a supplier is dependent on winning customers, the stronger will be the* ***positive*** *impact on the supplier's share price.*

However, the benefits of political connections might bolster the relative bargaining power of connected customers and thus hurt the latter. Given that political ties enhance business for winning customers (Amore and Bennedsen (2013), Tahoun (2014), Goldman et al. (2013)), to the extent that the supplier-customer relationship is not static, how to distribute the expanded procurement among existing and perhaps new suppliers is at the discretion of the customers. Suppliers, in turn, may make concessions to secure large contracts from customers. This discretion would increase customers' relative bargaining power.

Similarly, customers' enhanced stability, as described in the literature (Faccio et al. (2006), Duchin and Sosyura (2012)), is also a two-edged sword. To the extent that po-

[6]Karpoff, Lee and Martin (2008) have shown that detection of and punishment for fraud and other financial misrepresentation can induce reputation losses, which are 7.5 times larger than the fines imposed.

litical connection helps stabilize winning customers, this heightened stability can augment their attractiveness as trading partners for suppliers, considering the severe burden induced by the loss of customers.[7] For example, Hertzel et al. (2008) show that suppliers expect large share price declines when a major customer files for bankruptcy. Other studies underscore the advantageous outcome of having stable customers (Burke, Convery and Skaife (2015), Cohen and Li (2016), Goldman (2020)). Given these dynamics, it becomes reasonable to anticipate that political connections will fortify the relative bargaining power of connected customers as suppliers strive to initiate or secure relationships with these stable customers.

Realizing that, winning customers possess both the motivation and capability to renegotiate their supply contracts. Customers who gain political connections would be better positioned to erode their suppliers' profit share rather than help. This is termed the *rent-extraction hypothesis*.

Hypothesis B {the Rent Extraction Hypothesis}**:** *When customers unexpectedly gain political connections, the more a supplier is dependent on winning customers, the stronger will be the* ***negative*** *impact on the supplier's share price, the* ***worse*** *the post-election trading terms the supplier can negotiate, and the* ***more*** *the supplier's profit margins will be squeezed.*

The spillover effect would vary with the relative bargaining power of suppliers in the supply chain. The relative bargaining positions in the supply chain should be relevant. In the *rent-extraction hypothesis*, we implicitly assume that the typical customers have the intention to take every strength to extract rents from their dependent suppliers when their bargaining

[7]In addition to the direct operational loss, losing a major customer could also induce reputation losses and the loss of relationship-specific investments that are usually difficult to redeploy (Williamson (1983), and Irvine, Park and Yıldızhan (2016)).

positions are enhanced by gaining political connections. The winning customers would make better utilization of the increased bargaining power over their suppliers. However, the effect may only work for some suppliers, as suppliers with higher bargaining power are anticipated to be more capable of safeguarding themselves. They should suffer less from customers' political connections.

Hypothesis B1: *The adverse value effects described in Hypothesis B are more pronounced if the dependent suppliers are in weaker bargaining positions.*

The importance and visibility of political connections also matter to the adverse value effect. If political connections underlie the documented negative externalities, we expect the detrimental effect to be more pronounced when political connections hold greater value. We expect political connections to be more pertinent to customers situated in states where corruption is less restrained and during periods when political uncertainty is high. In addition, as the adverse value effects are tested within short time windows, their prominence is expected to increase with the visibility of the political connections. For example, scenarios where the dependent supplier has high institutional holdings and customers have high analyst coverage. Under such conditions, the effect of political connections can quickly be incorporated into stock prices.

Hypothesis B2: *The adverse value effects described in Hypothesis B are more pronounced if political connections are more relevant and valuable to their customers and if political connections are more visible and stock price sensitive.*

The benefits of political connections exclusively accrued to the winning customers may

translate into higher bargaining power and motivate these customers to tailor their supplier network for further improvement in bargaining position. Ahern (2012) and Fabbri and Klapper (2016) have argued that a less concentrated supplier base could reduce firm risk. Thus, gaining political influence will tempt and empower a customer firm to rearrange its supply chains and diversify its supplier base, facilitating rent extraction from their dependent suppliers.

Hypothesis B3: *After unexpectedly gaining political connections, a customer will tend to rearrange its supply chains more actively to reduce the concentration of its supplier base.*

Hypotheses A and B make contradictory predictions but are not mutually exclusive. In the rest of this paper, we first ascertain the dominance of the two competing hypotheses, then delve into the precise channels and provide evidence for the preferred hypothesis.

III. Data, Main Variables, and Summary Statistics

We retrieve data from four sources. The campaign contributions are collected from the Center for Responsive Politics (CRP). CRP publishes campaign contribution data covering all firms and individuals to political candidates in U.S. congressional elections, including the identities of contributors and recipients, the dates, and the amounts contributed. The election results data comes from the Federal Election Commission (FEC). The supply chain-related information is drawn from Compustat's Segment file. Corporate daily stock returns are obtained from the Center for Research in Securities Prices (CRSP). Combining the campaign contribution data with the election data, we can trace connections between firms

and politicians in U.S. congressional elections and identify the corresponding margin of victory.

The sample covers nine congressional election cycles starting with all Compustat firms from 1998 through 2018.[8]. To be included in the sample, we require firms to report at least one customer within the two years before elections, as regular congressional elections take place every two years. We exclude financial firms (SIC codes 6000-6999) and utilities (4900-4999), and firm-year observations without valid stock return data around the election days.

We measure corporate connections based on campaign contributions in this paper. Previous research has considered campaign contributions to be one major way for firms to seek political connections (Claessens et al. (2008), Cooper et al. (2010), Ovtchinnikov and Pantaleoni (2012), Akey (2015), Bradley, Pantzalis and Yuan (2016), and Ovtchinnikov, Reza and Wu (2020)). To secure a clear campaign contribution track, we consider only direct contributions from political action committees (PACs) formed by single firms to election PACs of specific candidates.[9] We also consider individual contributions by corporate employees to candidates' election PACs, as employees' contributions tend to reflect corporate

[8]The 2000 election cycle is used as the starting point because a revision of Financial Accounting Standards No. 14 (FAS No.14) in 1997 made the pre- and post-1998 data not readily comparable. The revision significantly affects disclosure requirements for supply chain information. And the analysis requires supply chain relationships to exist in the two years before the election.

[9]U.S. law prohibits firms from contributing to election candidates directly and prohibits candidates from collecting contributions personally. For this purpose, firms and political candidates must form political action committees (PACs). A candidate election PAC can receive donations from the other three types and individuals. Firms can donate through corporate PACs to other PACs. We do not consider a corporate PAC formed jointly by several firms where funds can be transferred among corporate PACs before being sent to individual candidates, as that blurs the track from the original donor firms to individual receiving politicians. Direct contributions from corporate PACs to candidate election PACs are the analysis' focus.

preferences. Babenko, Fedaseyeu and Zhang (2020) have shown that firms and their CEOs can significantly influence the contributions of individual employees.[10] Contribution data is merged with the Compustat data by fuzzy company name matching with all matched names manually checked. The campaign contributions are aggregated to the firm-candidate pair level for each election cycle to identify political connections between firms and politicians.

Importantly, we focus exclusively on connections established in close elections for endogeneity concerns, as these connections serve as shocks to corporate political connections. The FEC reports election-related information for senators and house representatives, such as politicians' party affiliations, positions sought, and election outcomes. The average margin of victory for all such elections in the sample period is about 40%. Such landslide results are likely to be anticipated. However, the results of close elections where the winner wins by no more than 5% are marked by greater ex-ante uncertainty. Winning and losing in non-close elections is presumably well expected and already priced by the market, but results in close elections do surprise the market meaningfully (Akey (2015)). Following the literature, in each election cycle, we consider only close elections and define a firm as surprisingly connected or winning if it contributes to winners in close elections. Otherwise, a firm will be categorized as a "non-winning" firm.

To evaluate the spillover effect, we focus on a supplier's stock price reaction to its customers' unexpected winning of political influence. Compustat's segment file reports a firm's major customers and its sales to each of them.[11] We take the election day as the event

[10]In fact, all of the results remain qualitatively similar if employee contributions are not considered.

[11]Major customers are customers who account for at least 10% of a supplier's total sales. Financial Reporting for Segments of Business Enterprise in FAS No.14 requires firms to report their major customers and sales to each major customer. Firms can also voluntarily report sales to customers they consider

date (day 0) and compute daily cumulative abnormal returns (CARs) for each supplier from one day before the event to t days after the event date (CAR[-1,t]) using the Fama-French three-factor model. The estimation period is from -250 to -45 days relative to the event date, with a prerequisite of at least 30 non-missing observations.

We measure a supplier's exposure to winning customers by the percentage of the supplier's total sales to all of its winning customers. The greater the exposure, the greater the likelihood of having a spillover effect and the stronger the effect should be. Specifically, for each supplier in each election cycle, the exposure to winning customers is defined as follows:

$$\%salesW_t = \frac{1}{2}\sum_{h=t-1}^{t}\left[\sum_{c=1}^{M}\frac{sales\ to\ winning\ customer_c}{total\ sales\ of\ the\ supplier}\right]_h \tag{1}$$

where M is the number of winning customers to whom a supplier is exposed in an election cycle. The percentage of sales is averaged over the two years before the election (t and t-1). A two-year average makes the exposure measure less noisy.

To ensure that the spillover arises from customers' political connections rather than from the supplier's exposure to customers, we control the supplier's percentage of sales to non-winning customers.

$$\%salesX_t = \frac{1}{2}\sum_{h=t-1}^{t}\left[\sum_{c=1}^{N}\frac{sales\ to\ non\text{-}winning\ customer_c}{total\ sales\ of\ the\ supplier}\right]_h \tag{2}$$

where N is the number of non-winning customers reported. The procedure above produces two variables: $\%salesW$ and $\%salesX$. One is used to capture the relevant exposure to

important even if the sales share is less than 10%. We consider all reported customers. In a robustness test, we use only customers under mandatory disclosure, and the main results remain qualitatively similar.

winning customers, and the other is used to capture the effect of having major customers. Winning and non-winning customers are two mutually exclusive types of customers.[12]

Table I reports the sample structure for suppliers and customers in each election cycle. It reveals some interesting patterns. The total number of suppliers with major customers decreases notably over time. In contrast, the number of suppliers per customer (column 2) or the number of customers per supplier (column 3) stays roughly stable. The decrease in suppliers aligns with the overall decline in the number of firms within the Compustat database—a trend also demonstrated by Li and Tang (2016). Meanwhile, the average number of winning customers per supplier (column 4) increases slightly from 0.80 to 1.05 over time. On average, a supplier in the sample reports roughly two customers, of which one is a winning customer. The number of suppliers exposed to winning customers (column 5) also decreases. The decrease is slightly less than but still comparable to the decrease in the total number of suppliers in column (1).

Table II presents comprehensive statistics for the primary variables, with Panel A focusing on suppliers and Panel B on customers. On average, the sales to winning customers ($\%salesW$) account for 15.8% of a supplier's total sales. The average percentage of sales to non-winning customers, $\%salesX$, is 17.1%, roughly comparable. Suppliers could, of course, make campaign contributions of their own. Both winning and non-winning suppliers are defined in the same way as that for customers. $PCsup$ indicates winning suppliers. It equals one for winning suppliers and zero for other suppliers. As Panel A shows, 13.1% of all suppliers are winning suppliers. Panel B reports an indicator for winning customers, $PCcus$. It

[12]Note that we do not exclude the customers with no reported campaign contribution in the two years before the election to avoid a sample selection bias. Also, $\%salesW$ and $\%salesX$ do not normally add up to 100% because non-major customers are not required to be reported.

shows that 29.6% of customers are winning customers.

Panel C of Table II presents unconditional Cumulative Abnormal Returns (CARs) across different event windows surrounding the election days for both suppliers and customers. Suppliers generally experience CARs that are more negative with larger variance compared to those of customers.

IV. Value Effects of Political Connections along Supply Chains

In this section, we study the value effects of customers' political connections on their suppliers. First, we confirm the value-enhancing effect of political connections on connected customers. We then present empirical evidence on its spillover effects on suppliers. In the end, we provide various robustness checks.

A. A boon for winning customers

To study the spillover effect of political connections from customers to suppliers, it is necessary to confirm first the direct value-enhancing effect of political connection on winning customers (Goldman et al. (2008); Cooper et al. (2010); Amore and Bennedsen (2013); Akey (2015)). We estimate the value effect of political connections on the winning customers by the following form

$$CAR_{c,t} = \beta PCcus_{c,t} + \Lambda' Z_{c,t-1} + \alpha_c + \gamma_t + \epsilon_{c,t} \tag{3}$$

where the dependent variable is customer c's cumulative abnormal return in percent around the election day in election year t. It is estimated over various event windows based on the Fama-French three-factor model. The main predictor is the dummy variable $PCcus$, which equals one for winning customers and zero for non-winners. Λ is a vector of coefficients for Z, which is a vector of the control variables, including firm size, ROA, Tobin's Q, and leverage. α_c and γ_t represent firm and election cycle fixed effects, respectively. Standard errors are clustered by firm.

As shown in Panel A of Table III, political connections are indeed valuable for customers. The coefficients of the $PCcus$ term are significant and positive over all three event windows. After gaining political connection, the firm value for an average firm appreciates by 72 basis points (in the [-1,5] window).

We can also confirm a positive real effect in addition to the value effect. We use the change in firm sales and profitability from the two years before elections to the two years after elections as the dependent variables. Using the change would help mitigate the potential influence of time-variant firm characteristics. We also expand the control list to include firm size, ROA, Book-to-market ratio, leverage, the natural logarithm of firm age, tangibility, capital expenditure, sales growth, and R&D expenditure. As the dependent variables measure the change in firm performance, we control for industry-fixed effects and election-cycle fixed effects instead. We skip listing explicitly the related regression equation to save space.

Panel B of Table III presents the results. Columns (1), (2), and (3) examine the effects on corporate change in sales/Assets, change in net profit margin, and change in cash flow margin, respectively. Slope estimates for the dummy variable $PCcus$ are positive in general, and are significantly so for predicting net profit margin changes. Compared to non-winning

customers, there is evidence of a positive real effect for winning customers. Taken together, the results of Table III confirm that winning political connections is typically a boon for customers, as the literature has shown.

B. Spillover on suppliers

To quantify the spillover effect of customers' political connections on suppliers, we run regressions of the following form

$$CAR_{i,t} = \beta_1 \%salesW_{i,t} + \Lambda' Z_{i,t-1} + \alpha_i + \gamma_t + \epsilon_{i,t} \tag{4}$$

where i indexes suppliers and the main explanatory variable of interest is $\%salesW$ as specified in equation 1. The dependent variables are supplier i's stock market reactions (CAR in percent) around the election day in election year t. As before, Z is a vector of control variables, including the supplier i's firm size, ROA, Tobin's Q, and leverage.[13] α_i and γ_t represent firm and election cycle fixed effects, and the standard errors are clustered by firm. To disentangle the effects of customers' political connections from any effects due to exposure to customers (i.e., having major customers), sales exposure to non-winning customers, $\%salesX$ as specified in equation 2 is further included as a control variable. Supplier i's political connection status is also controlled using the $PCsup$ dummy, which equals one for winning suppliers and zero for non-winners.

Table IV reports the results for the general spillover effect of political connections from

[13]The results are very similar when more controls are considered, including a supplier's cash holdings, tangibility, and the Herfindahl-Hirschman index (HHI) of the primary 2-digit SIC industry in which it operates.

customers to suppliers. It shows that the slope β_1 estimates for a supplier's exposure to its winning customers are significant and negative over all three event windows. Higher sales exposure to winning customers predicts worse market price reactions of the supplier. For example, the CAR[-1,3] coefficient is -4.68 with a t-value of -3.04. With an average sales exposure to winning customers of 0.158, the average exposed supplier should expect its market value to lose by about 74 basis points (bps) ($-0.740 = -4.684 \times 0.158$ in percent) in the three days after the election. A one standard deviation increase in sales exposure would bring an extra decrease in CAR of 88 bps ($-0.881 = -4.684 \times 0.188$). These results suggest that the political connections of customers have sizable negative spillover effects along their supply chains. *Rent-extraction hypothesis* dominates the *benefit sharing hypothesis*.

Table IV also shows that suppliers' CARs are related to their own political connection status and other firm characteristics. The coefficients for the dummy variable $PCsup$ are positive and significant for window [-1,3], indicating a marginal CAR gain of 99 bps for winning suppliers. Winning political connections in close elections is good news for suppliers themselves. The results also show that a supplier's CARs are unrelated to its sales exposure to non-winning customers ($\%salesX$). This suggests that the negative spillover effect is primarily driven by customers' political connections rather than the extent of exposure to customers. After controlling for suppliers' political connection shocks, sales exposure to non-winning customers, firm fixed effects, and election cycle fixed effects, the main results remain qualitatively unchanged. Suppliers' stock reacts negatively when their customers surprisingly win political connections, as suggested by the *rent-extraction hypothesis*.

Table V confirms that suppliers possessing equivalent political connections tend to be less impacted by their customers' political connections. We show that the spillover effects

are prevalent among non-winning suppliers. The $\%salesW$ coefficients are negative and significant for non-winning suppliers ($PCsup = 0$) while insignificant for winning suppliers. For suppliers that did not win political connections, a one standard deviation increase in their sales exposure to winning customers results in a 1.03% drop in their stock value over the [-1,3] window. In sharp contrast, the $\%salesW$ coefficients are not significant for winning suppliers ($PCsup = 1$). It implies that the adverse value effect of supplying winning customers does not impact winning suppliers who seem to have similar countervailing power *vis a vis* their winning customers. Adverse spillover seems to occur only when the bargaining power in a supply chain relationship is disturbed and unbalanced at the disadvantage of suppliers.

C. Robustness

We first check if the main results are robust to alternative political connection exposure measures. The main explanatory variable of this study, %salesW, considers only a supplier's sales exposure to customers with or without political connection wins. We refine the measure by quantifying the net number of connections won by customers. The shock to suppliers tends to be stronger when customers gain more net political connections.

We define a new exposure measure, $\%salesW_{net}$, to consider the net effect of customers' political connection shocks in close elections. For each customer, we compute its net political connections by the number of supported winners minus the number of supported losers in close elections.[14] We then aggregate the net political connections to the supplier level using the supplier's percentage sales to each customer as weights. $\%salesW_{net}$ measures a

[14]The net number is zero if a customer has wins and losses equally or has no close election connections at all.

supplier's exposure to customers' net political connections. Unlike $\%salesW$, $\%salesW_{net}$ here effectively nests $\%salesX$. So we drop out $\%salesX$ in the regressions when we use $\%salesW_{net}$ as the main predictor.

Panel A of Table VI reports the results of regression 4 where $\%salesW$ is replaced by $\%salesW_{net}$, for winning ($PCsup = 1$) and non-winning ($PCsup = 0$) suppliers. As before, the coefficients of $\%salesW_{net}$ are negative and significant for non-winning suppliers while showing no significance for winning suppliers. The adverse spillover persists when both wins and losses in close elections are considered for each customer, and winning suppliers again seem to be protected from the adverse effects.

We next address the potential supplier-customer selection bias in the data. Supply chain relationships are not randomly formed. Firms may exhibit a preference for specific types of trading partners. As a result, suppliers supplying winning customers may differ systematically from those supplying other customers. The adverse spillover effect documented may arise simply from the self-selection of supplier-customer trading relationships rather than from customers' winning of political connections.

Although it is counterintuitive for suppliers to select trading partners who could potentially hurt their firm value, we still apply the propensity score matching (PSM) method to minimize this selection bias further. Similar to Li and Tang (2016), for each supplier with winning customers (treat), we identify a matched supplier without any winning customers in close elections (control). A one-on-one nearest neighbor matching with replacement between the treated and control groups is performed based on firm size, Tobin's Q, ROA, and two-digit SIC industry.

Panel B of Table VI shows the results of regression 4 using the matched sample. The

$\%salesW$ coefficients remain negative and significant for winning firms while showing no significant and even turn positive for non-winning firms. The results reaffirm the robustness of our findings. The negative externalities of political connections documented before are not driven by a selective establishment of trading relationships.

V. Conditional Analysis of the Spillover Value Effect

This section examines the conditional effects of the documented negative externalities. We test whether the spillover effects vary with suppliers' bargaining power, political connections' value, and political connections' visibility. If the negative spillover effects are indeed caused by political connections and the rent-extraction hypothesis under the line, we would expect the adverse effects to be stronger when political connections are more valuable, when suppliers have less counteractive power to customers' enhanced bargaining power, and when the phenomenon is more visible in the stock market.

A. Ex-ante Bargaining Positions

First, we test the differential effects of political connections for firms with different bargaining power ex-ante. Dependent suppliers have different bargaining positions to start with. The cross-sectional differences may interact with the adverse spillover effects of customers' political connections. According to Hypothesis B1, suppliers in weak bargaining positions are susceptible to greater disadvantages in their negotiations with customers. They are expected to suffer more when their customers gain further bargaining power. We proxy for suppliers' bargaining power based on their product market and supply chain characteristics.

A.1. Product Market Characteristics

Focusing on corporate product market characteristics, we expect the effect to be stronger for suppliers in competitive industries. Industrial organization literature shows that firms operating in highly competitive markets, characterized by low-profit margins and modest market shares, typically exhibit weak bargaining power (Schumacher (1991), Snyder (1996), Ahern (2012), and Fabbri and Klapper (2016)). Porter (1997) also argues that firms functioning within fragmented industries or facing intense competition are likely to possess reduced bargaining power because their counterparties have more choices and thus face relatively low switching costs. Accordingly, we use suppliers' relevant Herfindahl-Hirschman index (HHI), industry profit margin, and market share to describe their product market competitiveness. We split the sample into two subgroups according to the median value of these variables and run regression 4 accordingly.

Panel A of Table VII shows the regression results of subgroup tests. For simplicity, we only report results using CAR[-1,3] as the dependent variable.[15] Consistent with our prediction, the %salesW coefficients remain negative and significant for suppliers with a low HHI, a low profit margin, or a small market share. It suggests that the adverse effects of serving winning customers are predominantly observed in suppliers with weak bargaining power.

[15]The results for other event windows are qualitatively similar and available on request.

A.2. Product characteristics

We also reflect suppliers' bargaining power by relying on suppliers' product characteristics. Product characteristics in terms of similarity can indicate a firm's relative bargaining power. Porter (1997) argues that firms producing standard instead of differentiated goods are expected to be in a weak position because their customers have low switching costs. This vulnerability could make them more susceptible when their customers gain enhanced bargaining power.

We use three proxies for a supplier's product differentiation. One is an industry classification of standard or differentiated goods producers defined in Giannetti et al. (2011). It creates a dummy variable, which equals one if the supplier operates in an industry producing differentiated goods, and otherwise zero. The second proxy is the product similarity measure proposed in Hoberg, Phillips and Prabhala (2014). The third is a product market fluidity index developed in Hoberg et al. (2014), which captures the dynamic threat from rivals' similar products. If political connections increase customers' bargaining power to the detriment of suppliers, supplier firms producing relatively undifferentiated products would be expected to suffer more from their customers' gaining political connections. To test this hypothesis, we split the sample into two subgroups according to the median values of those three product similarity measures.

Panel B of Table VII reports the regression results. The coefficients for $\%salesW$ are negative and significant for the suppliers producing relatively undifferentiated (standard) goods, selling similar products as their competitors, or operating in very fluid product markets. These firms usually live with low barriers to entry and incur low switching costs to

trading partners. These disadvantages impair their bargaining power, leaving them more susceptible to customers' unexpected gaining of political connections.

A.3. Supplier-customer relationship characteristics

Finally, we check the characteristics of supplier-customer relationships to shed further light on the bargaining power effects of customers' political connections. We expect the adverse spillover effects of customers' political connections to be especially significant when the supplier-customer relationship appears valuable. Suppliers are more captured by customers when any disruption tends to bring more damage to the suppliers. They would be willing to make more concessions to avoid these potential damages.

We hypothesize that suppliers with more relationship-specific investments and higher customer concentration are disadvantaged in bargaining. As substantial relationship-specific investments have little value outside the specific customer-supplier relationship (Kale and Shahrur (2007), and Banerjee, Dasgupta and Kim (2008)), losing trading relationships with these customers incur tremendous losses. Suppliers with more relationship-specific investments are, to some extent, captive.

Following the same vein, a more concentrated customer base is another vulnerability for suppliers. Buyer industry concentration has long been known to be negatively correlated with seller profits (Clevenger and Campbell (1977), Schumacher (1991)). Losing a customer is particularly detrimental for firms with higher customer concentration (Stigler (1964), Galbraith (1993), and Snyder (1996)). Firms with higher customer concentration would find themselves to be at a disadvantage. On the contrary, suppliers whose customers rely more on them would worry less about relationship interruption and thus have higher

relative bargaining power.

Based on the arguments above, we construct three proxies for suppliers' relative bargaining power from the perspective of the supply chain relationship. Following the literature, we use a supplier firm's R&D intensity (R&D expenditure scaled by total assets) as an indicator of its relationship-specific investments (Kale and Shahrur (2007) and Dhaliwal, Judd, Serfling and Shaikh (2016)). We measure customer concentration using HHI based on the supplier's sales to each reported customer. We measure the input reliance of customers on suppliers by an average input concentration across all customers of a supplier. More precisely, we first calculate the input concentration of each customer based on the percentage of input from each supplier. Then, we aggregate customers' input concentration to the supplier level by averaging each customer's input concentration. Intuitively, the measure implies whether a supplier sells much or little to customers relying heavily on its products.

Table VIII shows the regression results conditional on the three measures above. The coefficients for $\%salesW$ are only negative and statistically significant for suppliers with high R&D spending, concentrated sales, and large sales to customers with low input concentration. Suppliers with specialized investments and highly reliant on their customers are vulnerable and thus more sensitive to their customers' gaining of political connections. In contrast, suppliers whose customers rely more on them possess greater resilience.

Taken together, these findings collectively provide substantial support for the *rent-extraction hypothesis* (via *Hypothesis B1*). An adverse spillover effect from customers' political connections is observed only for suppliers in a weak bargaining position, as these customers are less equipped in their counterattacking.

B. Value of Political Connections

If the adverse spillover effect is driven by political connections, we would expect it to be more pronounced when political connections are more relevant and valuable for customers (Hypothesis B2). Political connections are expected to be more relevant and valuable in states where corruption is less checked and firms face high political risk. Heightened political uncertainty also amplifies the value of political connections and makes political connections important. In this context, we check if the spillover effect is more prominent for firms in more corrupted and politically risky states or for periods marked by high political uncertainty as expected.

We collect the local corruption index from the US Department of Justice,[16] proxy local political risk by local political alignment index (PAI) from Kim, Pantzalis and Park (2012), and measure political uncertainty at the macro using the Economic Policy Uncertainty Index created by Baker, Bloom and Davis (2016). For each proxy, we aggregate it from customers to suppliers using the supplier's sales percentage to each customer as weights. A high value of the three measures indicates a high potential value of political connections. The sample is split into two subgroups based on the medians of these weighted average measures.[17]

Table IX shows the subgroup results for regression 4. We find that the coefficients for $\%salesW$ are negative and significant for suppliers whose customers are located in highly corrupted states (column 2), states with elevated political risk (column 4), and periods experiencing increased political uncertainty (column 6). In contrast, the slope estimates are

[16]The US Department of Justice Public Integrity Section(PIN) maintains data on public corruption convictions.

[17]The political uncertainty index is available monthly, so the sample is split based on the index on the election month.

insignificant for the other subgroups (columns 1, 3, and 5). This underscores that the detrimental value effect triggered by customers' political connections is particularly pronounced when the political connection is highly pertinent, thereby offering additional confirmation of the causal impact of political connections.

C. Visibility of Customers' Gaining of Political Connections

We also examine the visibility of customers' gaining of political connections. For the market to price the potential adverse effect of customers' political connections in a short window, customers' political connections should be easily noticeable. Thus, it is reasonable to expect a more pronounced adverse effect for suppliers when the visibility of customers' political connections is high in the stock market.

We propose three measures to assess the visibility. Firstly, sophisticated and well-informed institutional investors are expected to react more efficiently to new information. Thus, suppliers with high institutional holdings should have stock prices more responsive to customers' political connections. Likewise, large customers and customers with extensive analyst coverage tend to attract greater attention from the public. Their winning of political connections and trading relationships would be easily captured by the market. To test the visibility impacts, we categorize suppliers into subgroups based on the medians of their institutional holdings, sales-weighted customer size, and sales-weighted customer analyst coverage.[18]

Table X reports the results of the subgroup tests. As expected, the coefficients for

[18]The first two are measured in the year before the election, and the third is in October, just before the election.

$\%salesW$ are significantly negative only for suppliers with substantial institutional holdings (column 2), with sizable customers, and with customers extensively covered by analysts (columns 4 and 6). The adverse spillover effects are resoundingly significant only when the market can quickly recognize and incorporate relevant information.

In sum, the results in this section further reinforce the rent-extraction hypothesis. Customers' political connections are more detrimental to suppliers when suppliers are in weak bargaining positions, possessing less counteracting power.

VI. The Bargaining Power Channel

So far, we have unveiled the negative externalities of political connections along the supply chain. We also shed the first light on the bargaining power channel by illustrating how the effects differ with relative bargaining positions of suppliers and customers. In this section, we look closer at the bargaining power channel and try to provide some direct evidence underlying the adverse value effects from the viewpoints of both suppliers and customers.

A. Ex-post Supply Chain Management by Winning Customers

Political connections increase customers' rent-extraction ability likely through relative bargaining position changes in supply chains. As we have shown in Table III, gaining political connections improves firm performance and increases firm value for the winning customers. However, the winning customers may not be willing to let their suppliers share in these benefits. Worse, gaining political connections may change customers' business behaviors. Customers gaining political connections may exert their enhanced bargaining power to

reshape their supplier base. This, in turn, further reinforces its bargaining power.

Effective supplier-base management holds significant importance for customers. Customers always take the opportunity to switch purchases to the most efficient suppliers (Fee and Thomas (2004)). A less concentrated supplier base reduces a customer's reliance on any single supplier, mitigating its risks of being held up and thus reinforcing its bargaining power within the supply chain. If the customer, after gaining political influence, prioritizes rent-seeking over benefit-sharing, we would observe heightened engagement in supply chain management and a reduction in input concentration. Customers deliberately diversify their supplier base and bolster their bargaining power. This would hurt the existing suppliers with insufficient bargaining power to withstand the squeeze, consistent with the adverse spillover effect of political connections documented.

We illustrate the supply-chain management phenomenon from customers' perspective:

$$Y_{c,t+2} = \kappa PCcus_{c,t} + \Lambda' Z_{c,t} + \alpha_{sic} + \gamma_t + \epsilon_{c,t}, \tag{5}$$

where $Y_{c,t+2}$ captures the post-election supply chain management behaviors for customers.[19] It includes three elements: the number of new suppliers added, the number of existing suppliers dropped by customer c during the two years following elections, and the change in customer c's supplier base concentration (ΔInputHHI). A customer's input concentration (InputHHI) is the sum of the customer's squared percentage of input from each supplier.

[19]In this analysis, only major customers accounting for at least 10% of a supplier's sales are considered. The use of compulsorily disclosed customers helps limit the possibility that suppliers have different incentives to disclose customers voluntarily before and after elections, leading to changes in supply chain relationships unrelated to the political connections under investigation. Nevertheless, the results do not change qualitatively if voluntarily reported customers are included in the sample.

The change is then the difference between the average input concentration over the two years before (t-1 and t, the election year) and the two years after the election (t+1 and t+2). A negative ΔInputHHI value suggests that the customer's supplier base becomes less concentrated after the election, reducing the customer's reliance on any single supplier. A less concentrated supplier base lowers customers' costs and risks (Ahern (2012) and Fabbri and Klapper (2016)).

$PCcus$ is the main explanatory variable. It is a dummy variable set equal to one if customer c is a winning customer and zero otherwise. Z is a vector of control variables, including customer firm size, firm age, ROA, tangibility, cash holdings, leverage, sales growth rate, HHI, capital expenditure, and Tobin's Q. α_{sic} and γ_t control for industry (two-digit SIC industry level) and election cycle fixed effects. Standard errors are clustered by firm.

If winning customers enjoy higher bargaining power according to the *rent-extraction hypothesis*, customers unexpectedly gaining political connections would be more actively involved in supply chain reconstruction and supplier base diversification.

As shown in Table XI, the coefficients for $PCcus$ are positive and significant when either the number of new suppliers added ($\#NewSup$) or existing suppliers dropped ($\#DropSup$) is used as the dependent variable. It suggests that winning customers manage their supply chain relationships more actively after unexpectedly gaining political influence. They tend to add and drop significantly more suppliers after the election than other customers. Moreover, the PCcus variable exhibits a significant, negative correlation with changes in supplier-base concentration (ΔInputHHI). Winning customers' supply chains typically get significantly less concentrated post-election, making them less dependent on any one specific supplier. This outcome aligns with Hypothesis B3, which posits that customers who unexpectedly

gain political connections are empowered to make strategic changes in their supplier base, diversifying it for their advantage.

B. Worse Ex-post Business Environment for Dependent Suppliers

From the supplier's perspective, if political connections increase winning customers' relative bargaining power, we would expect suppliers at a disadvantage to suffer in their business environment. A customer with strengthened bargaining power would be tempted to renegotiate with its suppliers for better contract terms (Stigler (1964) and Snyder (1996)), including prices (Bhattacharyya and Nain (2011)), trade credit (Fabbri and Klapper (2016)) and payment terms (Murfin and Njoroge (2015)). The trading terms and operating performance reflect the bargaining results of trading partners in supply chains. It depends on relative bargaining positions of both parties. Deterioration in trading terms and performance often signifies a weakened bargaining position.

B.1. Trading Terms

We first investigate the trading terms of suppliers after elections. We examine the change in a supplier's trade credit and cash conversion efficiency after its customers win political connections. The *rent-extraction hypothesis* predicts that suppliers more exposed to winning customers that are deemed to be selfish typically would experience worse trading terms. They might be forced to extend more trade credit and face a prolonged cash conversion cycle. To test these predictions, we run the following specification.

$$\Delta Y_{s,t+2} = \beta_2 \%salesW_{s,t} + \Lambda' Z_{s,t} + \alpha_{sic} + \gamma_t + \epsilon_{s,t}, \tag{6}$$

where $\Delta Y_{s,t+2}$ represents the change in the supplier s's trade credit and cash conversion cycle from the two years before the election to the two years after. More precisely, the change is calculated as the difference between the average value over years t+1 and t+2 and the average value over years t-1 and t. Trade credit is computed as receivables divided by total sales. The cash conversion cycle is determined by the sum of 365/payable turnover, 365/inventory turnover, and 365/receivable turnover. As before, $\%salesW$ measures the supplier's exposure to winning customers. The control vector Z includes $\%salesX$, $PCsup$, the supplier's firm size, firm age, book-to-market ratio, leverage, ROA, tangibility, capital expenditure, R&D expenditure, and sales growth rate, all measured in election year t. α_{sic} and γ_t represent industry and election cycle fixed effects, and the standard errors are clustered by firm.

Table XII shows the regression results. With the full sample, the coefficients for $\%salesW$ are positive and significant for changes in trade credit (column 1) and the cash conversion cycle (column 4). When we split the full sample into winning ($PCsup = 1$) and non-winning suppliers ($PCsup = 0$), the coefficients are significant only in the subsample of non-winning suppliers (columns 3 and 6). These results suggest that suppliers more dependent on winning customers but not protected by political connections themselves experience a worsening of trade contract terms. They have to extend significantly more trade credit and bear lower cash conversion efficiency after elections. It reflects a weakened relative bargaining position for exposed suppliers and a strengthened bargaining position for winning customers, as suggested by the *rent-extraction hypothesis*.

B.2. Profitability

We next focus on the trade price, reflected in corporate profit margin. Weakened bargaining power is expected to go with a profit margin squeeze. Should political connections bolster winning customers' relative bargaining power while weakening that of exposed suppliers, such dynamics would decrease the suppliers' profit margins. To test the hypothesis, we use changes in net profit margin and cash flow margin around elections as proxies and re-run specification 6.

Results are presented in Table XIII. Columns (1) to (3) examine the real effects on suppliers' changes in net profit margin. Columns (4) to (6) investigate the effects on the change in cash flow margin. In Table XIII, the coefficient of %salesW is negative and statistically significant in columns (1) and (4) when using the full sample. Suppliers with extensive exposure to winning customers experience a notable decline in operating performance. The adverse effects are also economically significant. With the average change in net profit margin and cash flow margin as -0.078 and -0.086, a one standard deviation increase in a supplier's sales exposure to winning customers predicts a marginal decrease by 7.5% in the supplier's net profit margin ($-0.075 = -0.399 \times 0.188$) and a decrease by 7.6% in its cash flow margin ($-0.076 = -0.405 \times 0.188$). Splitting the sample into winning and non-winning suppliers, we show that the adverse effects are significant and concentrated among non-winning suppliers ($PCsup = 0$) only. Suppliers with political connections are relatively immune.

All of these findings are consistent with the predictions of *rent-extraction hypothesis*. The adverse performance effect, which manifests as trading terms deterioration and profit margin contractions, indicates that winning customers are exerting heightened pressure on

their dependent suppliers. As these customers leverage their political connections to bolster their bargaining power, the resulting consequences negatively impact the performance of their suppliers.

VII. Conclusions

This paper studies the value of political connections in the supply chain network. Using close election outcomes as shocks to corporate political connections, we find that political connection, which is a boon for directly connected firms as well documented in the literature, works as a curse for their suppliers in supply chains. Suppliers with higher exposure to customers unexpectedly gaining political influence experience worse stock market reactions. However, suppliers winning political connections themselves can counterbalance this effect. We also show that the adverse spillover effect is prominent when suppliers are in weak bargaining positions ex-ante and when political connections hold greater value and visibility.

We suggest a bargaining power channel for the adverse spillover effect and support it from both the supplier's and customer's viewpoints. Political connections benefit customers directly in their corporate performance and valuation. However, the winning customers seem to be unwilling to let their dependent suppliers share in these benefits. Their improved corporate positions seem to motivate them to strategically reshape their supply base. As a result, suppliers more exposed to winning customers experience unfavorable trade terms and profit margin squeeze post-election. Taken together, political connections increase the bargaining power of winning customers to the detriment of their dependent suppliers.

This study reveals the non-inclusive nature of political connections in the supply chain

network. Political connections exhibit negative externalities along the supply chain. It benefits directly connected firms while harming their suppliers. Given the ever-increasing corporate political activities, this study provides a new understanding of the value of political connections and underscores the necessity for heightened public scrutiny of political connections.

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Table I

Number of Supplier and Customer Firms by Election Cycle

This table shows the data structure across election cycles. It includes all Compustat firms reporting customer information during the two years preceding elections. Financial firms, utilities, and firms with missing return data over the five-day window (-1,+3) around election days are excluded. In each election cycle, winning firms are defined as those contributing to winners in close elections. The sample period is from 2000 through 2016, covering nine election cycles.

Election Cycle	Total Number of Suppliers	Average Number of Suppliers per Customer	Average Number of Customers per Supplier	Average Number of Winning Customers per Supplier	Number of Suppliers Exposed to Winning Customers
	(1)	(2)	(3)	(4)	(5)
2000	1,138	3.320	1.817	0.804	674
2002	1,170	3.552	1.900	0.805	654
2004	1,035	3.721	1.853	0.788	570
2006	1,005	3.304	1.836	0.867	584
2008	951	3.298	1.807	0.816	535
2010	819	3.133	1.794	0.894	494
2012	732	3.432	1.828	0.970	480
2014	711	3.303	1.880	0.987	470
2016	646	3.230	1.844	1.053	438

Table II

Summary Statistics

This table concisely summarizes key statistics for suppliers and customers under study. Panel A describes the suppliers. $\%salesW$ is a supplier's percentage of sales to winning customers. $\%salesX$ is the supplier's percentage of sales to non-winning customers. $PCsup$ is a dummy variable indicating whether the supplier wins political connections in close elections. Panel B offers customer statistics. Customers are firms reported by suppliers during the period from 1999 to 2016. $PCcus$ is a dummy variable that equals one for winning customers and zero for non-winning customers. Panel C shows the share price reactions of supplier and customer firms around election days, measured by cumulative abnormal returns (CARs). CAR[-1, t] is the cumulative abnormal return for a firm from one day before an election to t days after. The abnormal returns are calculated based on the Fama-French three-factor model. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles..

	Obs.	Mean	St.D.	25%	Median	75%
Panel A: Suppliers						
%salesW	8,207	0.158	0.188	0.000	0.107	0.255
%salesX	8,207	0.171	0.178	0.000	0.130	0.250
PCsup	8,207	0.131	0.337	0.000	0.000	0.000
Firm size	8,198	5.689	1.905	4.274	5.537	6.991
Q	8,041	2.334	2.107	1.175	1.624	2.583
Leverage	8,198	0.193	0.213	0.003	0.130	0.313
ΔTradeCredit	7,430	−0.003	0.085	−0.026	−0.001	0.020
ΔCashConversionCycle	6,314	1.451	50.352	−12.143	0.765	13.804
ΔNet Profit Margin	7,443	−0.078	2.118	−0.068	−0.001	0.061
ΔCash Flow Margin	7,435	−0.086	2.028	−0.062	0.000	0.056
Panel B: Customers						
PCcus	7,167	0.296	0.457	0.000	0.000	1.000
Firm size	7,166	7.947	2.061	6.571	8.024	9.440
Q	7,099	2.106	1.691	1.175	1.533	2.317
Leverage	7,166	0.255	0.215	0.084	0.229	0.369
Panel C: CARs						
Suppliers						
CAR[-1,3]	8,207	−0.279%	9.388%	−4.527%	−0.423%	3.469%
CAR[-1,5]	8,207	−0.644%	11.115%	−5.642%	−0.634%	3.975%
CAR[-1,7]	8,201	−1.207%	12.666%	−7.017%	−1.010%	4.332%
Customers						
CAR[-1,3]	7,167	−0.336%	6.912%	−3.315%	−0.250%	2.651%
CAR[-1,5]	7,163	−0.491%	8.039%	−3.891%	−0.238%	3.072%
CAR[-1,7]	7,161	−0.588%	9.307%	−4.483%	−0.255%	3.599%

Table III

Value Effect and Corporate Performance of Political Connection on Customers

This table presents the regression results of customers' value and real effects from political connections winning in close elections. The sample includes all firms reported as customers during the full sample period from 1999 to 2016. In Panel A, we use the firm stock reactions around election days (CARs) as the dependent variable. The CARs are calculated based on the Fama-French three-factor model. In Panel B, we use various financial performance measures of customers as the dependent variables, including customers' change in sales scaled by assets, Change in net profit margin, and change in cash flow margin around election days. The change is calculated from the two years before the election to the two years after. *PCcus* is a dummy variable that equals one for winning customers and zero for non-winning customers. Controls in panel A include firm size, ROA, Tobin's Q, and leverage. Controls in panel B include firm size, ROA, Book-to-market ratio, leverage, the natural logarithm of firm age, tangibility, capital expenditure, sales growth, and R&D expenditure. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

Panel A: Value Effect			
y =	CAR[-1,3]	CAR[-1,5]	CAR[-1,7]
	(1)	(2)	(3)
PCcus	0.621**	0.724**	0.593*
	(2.281)	(2.321)	(1.652)
Controls	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes
Observations	7,098	7,094	7,092
R^2	0.213	0.218	0.216
Panel B: Corporate Performance			
y =	ΔSales/Assets	ΔNet Profit Margin	ΔCash Flow Margin
	(1)	(2)	(3)
PCcus	0.012*	0.026**	0.020*
	(1.737)	(2.047)	(1.738)
Controls	Yes	Yes	Yes
Ind, Cycle FE	Yes	Yes	Yes
Observations	6,633	6,633	6,626
R^2	0.112	0.119	0.113

Table IV

Value Effect of Customers' Political Connections on Suppliers

This table presents the regression results of suppliers' stock market reactions to customers' unexpected gaining of political connections. The dependent variable (y) is suppliers' CARs calculated using the Fama-French three-factor model. $\%salesW$ is a supplier's average percentage of sales to winning customers during the two years before the election. $\%salesX$ is a supplier's percentage of sales to non-winning customers. $PCsup$ is a dummy variable that equals one for winning suppliers and zero otherwise. Firm and election cycle fixed effects (FE) are included. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

y =	CAR[-1,3]		CAR[-1,5]		CAR[-1,7]	
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−3.681***	−4.684***	−3.691***	−4.590***	−3.358**	−3.974**
	(−3.425)	(−3.709)	(−2.964)	(−3.142)	(−2.430)	(−2.447)
%salesX		−1.996*		−1.800		−1.504
		(−1.733)		(−1.290)		(−0.975)
PCsup		0.991**		0.876*		0.368
		(2.502)		(1.909)		(0.700)
Firm size		0.793***		0.726**		0.541
		(3.081)		(2.426)		(1.620)
ROA		−1.963**		−1.654		−2.293**
		(−2.172)		(−1.645)		(−2.005)
Q		−0.172*		−0.108		−0.218*
		(−1.767)		(−0.910)		(−1.714)
Leverage		−1.490		−1.422		−1.359
		(−1.402)		(−1.087)		(−0.925)
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,207	8,039	8,207	8,039	8,201	8,033
R^2	0.432	0.439	0.436	0.438	0.436	0.438

Table V

Value Effect of Customers' Political Connections on Winning and Non-winning Suppliers

This table presents regression results analyzing the valuation effects of winning customers on winning ($PCsup = 1$) and non-winning ($PCsup = 0$) suppliers separately. The dependent variable is the supplier's CARs around election days calculated using the Fama-French three-factor model. $\%salesW$ is the supplier's average percentage of sales to winning customers over the two-year pre-election period. The controls include the supplier's percentage of sales to non-winning customers ($\%salesX$), firm size, ROA, firm value (Q), and leverage. Firm and election cycle fixed effects (FE) are included as controls. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

y =	CAR[-1,3]		CAR[-1,5]		CAR[-1,7]	
	PCsup=1	PCsup=0	PCsup=1	PCsup=0	PCsup=1	PCsup=0
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−0.859	−5.471***	−2.169	−5.494***	−1.425	−4.623***
	(−0.266)	(−3.956)	(−0.549)	(−3.407)	(−0.356)	(−2.580)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,064	6,975	1,064	6,975	1,064	6,969
R^2	0.712	0.460	0.734	0.454	0.715	0.456

Table VI

The Value Effect of Customers' Political Connections on Suppliers: Robustness

This table presents regression results for two robustness tests. In Panel A, alternative exposure measures are employed, considering the net number of winning and losing politicians contributed by customers in close elections. $\%salesW_{net}$, the newly defined main explanatory variable, quantifies net wins of political connections, weighted by the supplier's sales percentage to each customer. Net wins represent the number of a customer's supported politicians who won minus those who lost in close elections. Panel B reports the results based on a pair-matched sample. A sample constructed by a one-on-one nearest neighbor propensity score matching (PSM). Suppliers with winning customers (treated group) are matched with suppliers without winning customers (control group) based on size, ROA, Tobin's Q, and industry in year t, with replacement. The CARs as the dependent variable are calculated using the Fama-French three-factor model. $\%salesW$ is the supplier's average percentage of sales to winning customers during the two years before an election. The sample is separated into winning suppliers and non-winning suppliers. The controls include $\%salesX$ (dropped in Panel A), firm size, ROA, Q, and leverage. Firm and election cycle fixed effects are also included. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

y =	CAR[-1,3]		CAR[-1,5]		CAR[-1,7]	
	PCsup=1	PCsup=0	PCsup=1	PCsup=0	PCsup=1	PCsup=0
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Alternative Exposure Measure Considering Net Political Connection Shocks						
$\%salesW_{net}$	0.711	−0.969***	0.344	−1.164***	0.169	−1.435***
	(1.092)	(−3.231)	(0.412)	(−3.221)	(0.179)	(−3.379)
Observations	1,064	6,975	1,064	6,975	1,064	6,969
R^2	0.711	0.459	0.732	0.453	0.715	0.457
Panel B: Propensity Score Matched Suppliers with (Treat) and without Winning Customers (Control)						
%salesW	−3.072	−8.635***	0.723	−10.329***	−4.233	−8.323*
	(−0.255)	(−2.623)	(0.056)	(−2.638)	(−0.291)	(−1.907)
Observations	434	3,958	434	3,958	434	3,953
R^2	0.872	0.612	0.891	0.612	0.867	0.606
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes

Table VII

Value Effects Conditional on Product Market Characteristics of Suppliers

This table reports the value effect of customers' political connection on suppliers conditional on suppliers' bargaining power proxied by their product market characteristics. The dependent variable is the suppliers' CAR over the window [-1,3]. Panel A focuses on market characteristics, employing three proxies for bargaining power: the industry Herfindahl-Hirschman Index (HHI), industry gross profit margin, and the supplier market share. The HHI and gross profit margin are based on sales within two-digit SIC industries. Market share is based on sales within the text-based network industries from (Hoberg et al., 2014). Panel B reports the results exploiting three product characteristics: industry product differentiation, firm product similarity, and market fluidity. *Differentiated Goods* is a dummy defined according to Giannetti et al. (2011), which equals to one if a firm operates in an industry producing differentiated goods. Similarity and market fluidity measures are borrowed from Hoberg et al. (2014) and Hoberg and Phillips (2016). The sample is bisected based on the medians of the above measures. $\%salesW$ measures a supplier's average percentage of sales to winning customers. Controls include the supplier's sales exposure to non-winning customers ($\%salesX$), a dummy for winning suppliers ($PCsup$), and the supplier's size, ROA, Q, and leverage. Firm and election cycle fixed effects are included. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. Standard errors are clustered by firm. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

Panel A: Product Market Competition Characteristics of Suppliers

y = CAR[-1,3]	HHI		Gross Profit Margin		Market Share	
	low	high	low	high	low	high
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−4.901***	−2.792	−6.591***	−3.177	−5.606***	−0.784
	(−2.579)	(−1.567)	(−3.689)	(−1.546)	(−3.126)	(−0.420)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,355	3,684	4,370	3,669	3,864	3,929
R^2	0.496	0.450	0.537	0.526	0.505	0.460

Panel B: Product Characteristics of Suppliers

y = CAR[-1,3]	Differentiated Goods		Product Similarity		Product Market Fluidity	
	low	high	low	high	low	high
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−5.107**	−3.103	−3.472*	−6.443***	−2.655	−6.470***
	(−2.525)	(−1.626)	(−1.655)	(−3.793)	(−1.346)	(−3.498)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,766	3,285	3,955	3,891	3,928	3,852
R^2	0.463	0.426	0.453	0.494	0.455	0.534

Table VIII

Value Effects Conditional on Supply Chain Relationships of Suppliers

This table reports the value effect of customers' political connection on suppliers conditional on suppliers' bargaining power given supply chain relationships. The dependent variable is the suppliers' CAR over the window [-1,3]. We exploit three relationship characteristics as proxies for bargaining power: suppliers' relationship-specific investments, sales concentration, and the average input concentration of their customers. The relationship-specific investments are measured by R&D expenditure divided by sales. Sales concentration is calculated based on the supplier's percentage of sales to each customer. Customers' mean input concentration is the mean InputHHI across all customers of a supplier, where the InputHHI is calculated based on customers' percentage of input from each supplier. The sample is bisected based on the medians of the above measures. $\%salesW$ is the supplier's average percentage of sales to winning customers. The controls include the supplier's sales exposure to non-winning customers ($\%salesX$), a dummy for winning suppliers ($PCsup$), and the supplier's firm size, ROA, Q, and leverage. Firm and election cycle fixed effects are included. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. Standard errors are clustered by firm. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10%, level of confidence, respectively.

y = CAR[-1,3]	Supplier's R&D		Supplier's Sales Concentration		Customers' Mean Input Concentration	
	low	high	low	high	low	high
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−2.544	−6.085***	−0.395	−6.521***	−6.463***	−2.048
	(−1.328)	(−3.569)	(−0.111)	(−3.509)	(−2.953)	(−1.082)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,039	4,000	4,031	4,008	4,028	4,011
R^2	0.449	0.491	0.561	0.507	0.546	0.524

Table IX

Value Effects Conditional on the Value of Political Connections

This table reports the value effect of customers' political connections on suppliers conditional on the relevance and value of political connections to customers. The dependent variable is suppliers' CAR over the window [-1,3]. We propose that political connections hold greater value when the local state corruption index, local political alignment index (PAI), and macro political uncertainty index are high. The sample is bisected based on the medians of the above measures. $\%salesW$ is the supplier's average percentage of sales to winning customers. The controls include the supplier's sales exposure to non-winning customers ($\%salesX$), a dummy for winning suppliers ($PCsup$), and the supplier's firm size, ROA, Q, and leverage. Firm and election cycle fixed effects are included. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. Standard errors are clustered by firm. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10%, level of confidence, respectively.

y = CAR[-1,3]	Customer's Local Corruption		Customer's Local PAI		Macro Political Uncertainty	
	low	high	low	high	low	high
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−3.947	−6.098***	−3.773	−5.917***	−2.673	−6.463***
	(−1.322)	(−3.262)	(−1.477)	(−3.500)	(−1.434)	(−3.024)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,027	4,012	4,036	4,003	4,143	3,896
R^2	0.565	0.510	0.570	0.533	0.513	0.656

Table X

Value Effects Conditional on Visibility of Customers' Political Connections

This table reports the value effect of customers' political connections on suppliers conditional on the visibility of customers' political connections. We posit customers' political connections to be more easily captured by the market when suppliers have institutional holdings and customers are large and extensively covered by analysts. The dependent variable is the suppliers' CAR over the window [-1,3]. The sample is bisected based on the medians of the above measures. $\%salesW$ is the supplier's average percentage of sales to winning customers. The controls are the supplier's sales exposure to non-winning customers ($\%salesX$), a dummy for winning suppliers ($PCsup$), and the supplier's firm size, ROA, Q, and leverage. Firm and election cycle fixed effects are included. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. Standard errors are clustered by firm. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10%, level of confidence, respectively.

y = CAR[-1,3]	Supplier's Institutional Holdings		Average Customer Firm Size		Average Customer Analyst Coverage	
	low	high	low	high	low	high
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−2.483	−5.558***	−0.785	−6.080***	−2.320	−5.696***
	(−1.255)	(−3.226)	(−0.192)	(−3.154)	(−0.676)	(−3.040)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,032	3,979	4,028	4,011	4,023	4,016
R^2	0.550	0.483	0.569	0.504	0.557	0.492

Table XI

Post-election Supply Chain Restructuring by Winning Customers

This table shows the effects of winning political connections on customers' supply chain management behavior. The sample is restricted to customers compulsorily reported in the four years around elections. The dependent variables are the number of new suppliers added($\#NewSup$), the number of existing suppliers dropped($\#DropSup$), and the change in customers' average input concentration from two years before the election to two years after (ΔInputHHI). A supplier is identified as new if the supply chain relationship is not reported during the two years before the election but emerges afterward. A supplier is considered dropped if the supply chain relationship is reported before the election but not afterward. A customer's input concentration (InputHHI) is calculated based on each supplier's input percentage. $PCcus$ is a dummy variable indicating winning customers. Industry and election cycle fixed effects are included. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

y =	#NewSup	#DropSup	ΔInputHHI
	(1)	(2)	(3)
PCcus	0.310^{**}	0.453^{**}	-0.004^{***}
	(2.256)	(2.407)	(-2.830)
Controls	Yes	Yes	Yes
Industry, Cycle FE	Yes	Yes	Yes
Observations	6,000	6,000	6,000
R^2	0.224	0.241	0.035

Table XII

Real Effects on Suppliers' Trade Terms

This table shows the real effect of customers' political connection on suppliers' trading terms, including changes in trade credit extended (ΔTradeCredit) and cash conversion cycle (ΔCashConversionCycle). The Changes are calculated as the averages over the two years post-election minus the averages over the two years pre-election. The sample is separated into winning and non-winning suppliers. $\%salesW$ is the supplier's average percentage of sales to winning customers. The controls include the supplier's sales exposure to non-winning customers ($\%salesX$), a dummy for winning suppliers ($PCsup$), and the supplier's firm size, book-to-market ratio, leverage, tangibility, capital expenditure, sales growth, ROA, R&D expenditure and the natural logarithm of the firm's age. Industry and election cycle fixed effects are included. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

y =	ΔTradeCredit			ΔCashConversionCycle		
	All	PCsup=1	PCsup=0	All	PCsup=1	PCsup=0
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	0.017***	0.004	0.018***	10.713**	−9.387	13.152***
	(2.641)	(0.236)	(2.631)	(2.494)	(−0.818)	(2.821)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,306	999	6,307	6,229	844	5,385
R^2	0.083	0.103	0.086	0.032	0.064	0.034

Table XIII

Real Effects on Suppliers' Profit Margins

This table shows the real effect of customers' political connection on suppliers' profit margins, focusing on changes in net and cash flow margins. The changes are calculated as the average margin after elections minus that before elections. The sample is separated into winning and non-winning suppliers. $\%salesW$ is the supplier's average percentage of sales to winning customers. The controls include $\%salesX$, $PCsup$, and the supplier's firm size, book-to-market ratio, leverage, tangibility, capital expenditure, sales growth, ROA, R&D expenditure, and the natural logarithm of the firm's age. Industry and election cycle fixed effects are included. Standard errors are clustered by firm. Definitions for variables are detailed in the appendix. Continuous variables are winsorized at the 1% and 99% levels. The analysis spans 2000 to 2016, encompassing nine election cycles. t-values are in parentheses. ***, **, * represent significance at 1%, 5% and 10% level of confidence, respectively.

y =	ΔNet Profit Margin			ΔCash Flow Margin		
	All	PCsup=1	PCsup=0	All	PCsup=1	PCsup=0
	(1)	(2)	(3)	(4)	(5)	(6)
%salesW	−0.399**	−0.002	−0.492**	−0.405**	−0.041	−0.496**
	(−2.023)	(−0.003)	(−2.264)	(−2.127)	(−0.083)	(−2.359)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry, Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,318	999	6,319	7,310	998	6,312
R^2	0.053	0.100	0.055	0.050	0.090	0.053

Appendix A. Variable Description

Variable	Definition
CAR[-1, t]	The cumulative abnormal return from one day before an election to t days after, calculated based on the Fama-French three-factor model. The estimation window is from -250 to -45, requiring a minimum of 30 observations.
PCcus	A dummy variable which equals one for winning customers, zero otherwise. Winning customers are those who contribute to winners in close elections where the margin of victory is no more than 5%.
PCsup	A dummy variable defined in the same way as PCcus but focuses on suppliers. It equals one for suppliers who contribute to winners in close elections.
%salesW	A supplier's percentage of sales to winning customers as defined in equation (1).
%salesX	A supplier's percentage of sales to non-winning customers as defined in equation (2).
%salesW$_{net}$	The sales-weighted net political connections of all customers of a supplier. A customer's net number of political connections is the number of winning politicians minus the number of losing politicians it contributes in close elections.
Customers' Mean Input Concentration	The average input concentration (InputHHI) across all customers of a supplier. A customer's InputHHI is calculated based on its percentage of inputs from each supplier, with the input percentage determined by the customer's purchases from a supplier over its total cost of goods.
Supplier's Sales Concentration	An HHI based on a supplier's sales to each customer.
#NewSup	The number of new suppliers added by a customer after an election. A supplier is considered "new" if the supplier-customer relationship was absent in the two years before an election but reported in the two years following the election.
#DropSup	The number of suppliers dropped by a customer after an election. An existing supplier is deemed "dropped" if the supplier-customer relationship was present in the two years before an election but not in the two years following the election.
ΔInputHHI	The change in a customer's input concentration (InputHHI) from the two years before an election to the two years after.
$\Delta TradeCredit$	The change in a supplier's average trade credit from the two years before an election to the two years after. Trade credit is the firm's receivables divided by sales

ΔCashConversion Cycle	The change in a supplier's cash conversion cycle from the two years before an election to the two years after. The cash conversion cycle is the sum of 365 divided by payable turnover (which carries a negative sign here), 365 by inventory turnover, and 365 by receivable turnover. Payable turnover is a firm's cost of goods divided by payables. Inventory turnover is the firm's cost of goods divided by inventory. Receivable turnover is the firm's sales divided by receivables.
ΔNet Profit Margin	The change in a supplier's average net profit margin from the two years before an election to the two years after.
ΔCash Flow Margin	The change in a supplier's average cash flow margin from the two years before an election to the two years after. Cash flow margin is calculated as income before extraordinary items divided by sales.