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**It's a Sweetheart of a Deal:
Political Connections and Federal Contracting**

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Abstract: We examine whether political connections measured by political contributions influences the choice of terms included in government contracts awarded to firms. We construct an index of four "sweetheart" contract terms that are highly favorable to the firm, but not obviously advantageous to the government. We find that firms making larger political contributions more frequently have these terms included in their contracts. We then examine how changes in a firm's political contributions influence the terms of subsequent contracts. We find that firms which increase their contributions are more likely to have these terms as part of their contract. We conclude that there is a political effect on the choice of terms included in federal contracts awarded to firms.

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A sweetheart deal or sweetheart contract is an abnormally favorable contractual arrangement

-----Wikipedia

1. Introduction

There exists a robust literature that examines the effect of political connections on business behavior and value. For instance, Abdulmanova (2016) and Lu, Pan and Zhang (2016) examine the effect of federal and state political influence on the litigation process and outcomes while Correia (2013) relates political connections to SEC enforcement activity. The effect of political connections on access to capital and loan pricing is analyzed in studies by Claessens, Feijen and Laeven (2008), Francis, Hasan, and Sun (2009), Cooper, Gulen and Ovtchinnikov (2010) and Infante and Piazza (2014). You and Du (2012) explore CEO turnover and political connections while Fan, Wong and Zhang (2007) investigate the effect of political connections on firm performance.

This study, however, focuses on a narrower aspect of how political connections affect the firm. Specifically, we examine the relation between political connections and federal contracting. In this study, however, we extend the analysis beyond the issue of whether political connections by firms result in more contracts (Goldman, Rocholl and So, 2013). We focus on an issue that heretofore has remained unexamined in the literature: the terms included in the contracts that are awarded. That is, we explore whether a firm's political connections result in the inclusion of contract terms that are highly favorable to the firm and less so for the government. We investigate whether the effect of political connections can extend beyond influencing the award

of government contracts as reported by Goldman, Rocholl and So (2013) and affect the actual terms of the contract itself.

To undertake our analysis, we construct an index of four contract terms that we believe are highly favorable to the firm but not obviously advantageous to the government. We refer to this index as the Sweetheart index since it reflects the extent to which the contract is a “sweetheart” deal. We then examine with both a univariate and multivariate analysis the extent to which a firm’s political connections, which we proxy with its level of political contributions, influence the level of this index. Finally, we examine how changes in a firm’s political contributions influence the terms of subsequent contracts. We conclude that our results are consistent with the existence of a political effect on the choice of terms included in federal contracts.

2. The Government Contracting Process

Essentially, the federal acquisition process begins when an agency determines that it has a requirement and then develops a plan on how best to purchase the particular good or service. If the agency’s contracting officer determines that the appropriate method for procuring the goods or services is a contract, and the contract amount is greater than \$25,000, then the agency posts a solicitation on the Federal Business Opportunities (FedBizOpps) Website. At a minimum, a solicitation identifies what an agency wants to buy, provides instructions to would-be suppliers, identifies the source selection method that will be used to evaluate offers, and includes a deadline for the submission of bids or proposals. Agencies can also post solicitations on their own websites and, in exceptional circumstances, may post solicitations on their websites instead of on FedBizOpps. Following the deadline for companies to submit their offers, agency personnel evaluate the suppliers’ submissions by using the methods and criteria described in the original solicitation.

3. Government Contract Provisions and the Sweetheart Index

3.1 Sweetheart Provisions

As noted above, federal contracting can be extremely complex with numerous provisions, clauses and terms. Based upon a review of the Federal Acquisition Regulation and the contracting literature, we identify four provisions that are: (a) not uncommon in contract design, (b) clearly beneficial to the contracting firm, and (c) not obviously preferred by the government for inclusion. These four provisions are described below and serve as the focus of our analysis of whether politically connected firms receive more favorable contracting terms. For the purposes of this study, favorable contracting occurs when at least one of these four terms are present in a contract.

A no-bid contract is a popular phrase for what is officially known as a "sole source contract". This means that there is only one person or firm that can provide the required contractual services needed. Thus any attempt to obtain bids would only result in that person or firm submitting a bid. The corporate advantage of such a contract term occurs from the firm's status as a monopolist supplier and its greater ability to become entrenched in that product or service market.

A cost-plus contract, also termed a cost reimbursement contract, is a contract where a contractor is paid for all of its allowed expenses up to a set limit plus additional payment to allow for a profit. Such a contract guarantees the firm a profit and provides it with insulation from price shocks or other unanticipated changes to its cost structure. The attractiveness of this provision is that it allows the firm to earn a pre-determined profit regardless of its expenses or the costs it ultimately experiences.

A multiyear contract refers to a contract for the purchase of supplies or services for more than 1, but less than 5 years. The benefits to the contracting firm with this provision are many

and include predictable revenue streams, an ability to forecast production volumes and supply requirements, insulation from competition in that product or service market, and a capacity to amortize capital expenditures over a longer horizon.

Our final sweetheart provision is whether the contracting firm is exempt from providing cost and/or pricing data. Cost and pricing data refers to the set of facts known at the time of the contract that can be reasonably expected to affect price negotiations. This data is more than historical accounting information and represent all the facts that contribute to the validity of future cost estimations. Exemption from this requirement is advantageous to the contracting firm for several reasons. First, the firm avoids the time and expense associated with the preparation of this material. Presentation of this data can also narrow the channel in which price negotiation between the firm and the government can occur. Finally, exemption from this requirement can remove explicit benchmarks when negotiating future prices, discussing current expenses, or explaining cost over-runs.

3.2 Sweetheart Index

We measure the attractiveness of terms in a federal contractor with an index we refer to as the Sweetheart Index". Consistent with a number of other researchers in the corporate finance and governance literatures (e.g., Gompers, Ishii, and Metrick 2003; Bebchuk and Cohen 2005; Aggarwal, Erel, Stulz and Williamson, 2010) we use an additive index to assess the favorableness of contract terms to the winning firm. The Sweetheart Index is increased by one for each of the four provisions that are included in a given contract. The range therefore extends from zero to four. The Sweetheart Index is calculated as:

$$\text{Sweetheart Index} = \text{Nobid} + \text{Costplus} + \text{Multiyear} + \text{Nodata}$$

Hence, higher values of the contract indicate a more favorable contract from the view of the winning firm.

Data on each of the four contracting terms which comprise the Sweetheart Index is provided by the Federal Procurement Data System. *Nobid* is a binary variable indicating whether the contractor faces competition in the award of the contract. If the winning firm was the only business competing for the contract, then *Nobid* equals 1, otherwise 0. The *Costplus* term is another binary variable and captures whether a contractor is paid using a cost-plus method or not. If cost-plus pricing is used, then *Costplus* equals 1 and otherwise 0. *Multiyear* is a binary variable that indicates whether the firm receives a contract which was initially expected to conclude more than a year from the effective start date. If the contract exceeds a year in length, then *multiyear* equals 1 and otherwise 0. *Nodata* is a binary variable that measures whether the contractor is exempt from providing cost or pricing data. If the contract exempts the contractor from providing cost or pricing data, then *Nodata* equals 1 and otherwise 0.

4. Measuring Political Connections

We assess a firm's political connections by measuring its level of political contributions. We obtain Political Action Committee (PAC) contribution data from the Federal Election Commission through the Center for Responsive Politics. A PAC connected to a publicly traded firm often only accepts contributions from the firm's managers, directors, shareholders, and employees. The PAC will then make contributions to politicians, political parties, or other PACs on the donors' behalf. We match these PACs to our sample firms based upon both a series of fuzzy matching procedures and direct observation.

We use this data to construct four measures of a firm's political connections. Our first measure, PC1, is the total PAC contributions made during year t-1 to candidates, political parties,

and other PACs. PC2 is the total dollar value of contributions made to the party in year $t - 1$ that holds the Presidency. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. We restrict firm-year observations to those which make at least \$1 of PAC contributions during year t .

5. Data and Sample Construction

5.1 Data

We use the CRSP and Compustat datasets to obtain our required financial and accounting data. Share price and related data is drawn from the CRSP dataset. Accounting information is taken from the Compustat dataset.

Our data on government contractors comes from the Federal Procurement Data System (FPDS). The FPDS Federal Procurement Data System contains information on all government contracts and contract modifications beginning with fiscal year 2004¹ and continuing onward. The data includes information on the firm or firms which receive the contract, a DUNS number as an identifier, the contract characteristics, the date the contract was signed, the agency providing the contract, and demographic information concerning the contract recipient. We match contract DUNS numbers to firms using the BECRS dataset provided by Capital IQ. The BECRS dataset contains both DUNS numbers and GVKEYs of publicly traded firms in the Compustat database.

To account for contracts received by the subsidiaries of our sample firms, we create a hierarchy which matches the DUNS numbers of wholly owned subsidiaries to their ultimate parent. For example, if IBM owns the entire equity stake of Rational Software Corporation,

¹ The start date of the federal government's fiscal year is October 1st of the prior calendar year.

contracts received by any Rational Software Corp. location would be recorded as contracts received by IBM. If Rational Software Corp. is noted as having acquired a company, like Attol Testware, we then match Attol Testware's DUNS numbers to IBM.² We extend this hierarchy of firm ownership to the eighth degree to match as many DUNS numbers with our sample firms.

5.2 Sample Description

Our sample includes all S&P 1500 firms listed in Compustat from 2006 to 2013. We match each firm to return information from the Center for Research in Security Prices (CRSP) database. In Table 1 we provide comparative descriptive statistics for our sample firms.

We compare the financial/accounting profile of contributing and non-contributing firms relative to two benchmarks in the panels of Table 1. In Panel A we compare firms that make at least one dollar in contributions to those that make no contributions. We find that the contributing firms are significantly larger in size, regardless whether we measure size by total assets, sales, or equity market capitalization. We further observe that contributing firms make more capital expenditures, but spend less in research and development. Finally, we note that contributing firms report a higher level of accounting profitability.

In Panel B we separate those firms who make contributions into high and low subsets. The low subset are those firms who make below the median level of contributions while those in the high subset contribute an above median amount. We observe comparable results with a few differences. We find that the level of capital expenditures is statistically the same across the

² We employ SDC data to account for historical mergers and acquisitions. The BECRS dataset is a snapshot of ownership as of December, 2015. We create an annual hierarchy using SDC data on mergers and acquisitions to account for survival bias. If a parent company acquires a subsidiary after year $t-1$, then the subsidiary's DUNS numbers are not assigned to the parent company in year t .

subsamples. Also, we discover that the above-median contributors invest more in research and development than do the less generous contributors.

Overall, we conclude that there are two consistent differences between firms that make political contributions and those that do not or make only limited contributions. Specifically, contributing firms are larger across several different size proxies. They are also more profitable.

6. Contract Activity and Political Connections

In this section we provide our initial analysis of the effect that political connections have on corporate contracting activity. Specifically, we compare various aspects of contract activity by the firm across our measures of political connections. We then test whether corporate political connections influence the likelihood of a firm receiving a federal contract.

6.1 Contract activity and political connections

In Table 2 we investigate the extent to which political connections are related to the number and value of federal contracts that a firm receives. We separately examine the effect of total political contributions (PC1), contributions made to the party holding the Presidency (PC2), contributions made to Senate candidates (PC3) and contributions made to Congressional candidates (PC4). We stratify our sample firms into high and low subgroups based on the median value of contributions for each measure.

We begin with an analysis of the number of contracts received by each subgroup of firms in panel A. We find that regardless of the measure of how we measure political connections, the better connected firms receive more contracts. The differences between the two groups are consistently large, with firms making above median contributions receiving between 6.1 and 8.6 times more contracts than those making below median contributions.

We present our results for the average size of federal contracts and political contributions in Panel B. We find that the larger contributors receive large contracts, on average, than firms who make less in political contributions. The difference between groups in the average size of the contract is remarkably consistent. It ranges between \$1,950,000 (PC1) to \$2,045,000 (PC4). The average contract for the above median contributors is about five times larger than that of the below median contributors.

In panel C we compare the dollar value of all federal contracts received by the firms based on their contribution level. We find that the larger political contributors report a total value of federal contracts is, on average, 16.8 times greater than that of the below median contributors. In dollar terms, the above median contributors are awarded \$595,500,000 more in federal contracts than firms in the below median subgroup.

Our last exploratory analysis is a comparison of the total federal contracts as a percent of the firm's total sales. That is, how important are federal contracts to these firms? We find that federal contracts are consistently a larger percentage of total sales for the more politically connected firms. Federal contracts are about twice as important relative to total sales for the above median contributors as they are for the below median firms.

6.2 Likelihood of receiving a contract

If political contributions are useful in directing federal contracts to a firm as the above results appear to suggest, then we should observe a positive relation between a firm's political connections and the likelihood of contract award. In Table 3 we present our findings from a logistic regression analysis where the dependent variable is a binary indicator variable that assumes a value of one if the firm receives a federal contract and zero otherwise.

Consistent with the prior literature regarding government contracts (e.g., Goldman, Rocholl and So, 2013), we introduce a number of control variables into our model. Total assets

accounts for firm size, since larger firms manufacture a wider variety of products and are more capable of producing the volume levels that government contracts often require. The book-to-market ratio captures the growth opportunities of the firm and reflects the ability of the firm to respond to expand production. The Herfindahl index is included to control for the intensity of competition in the firm's industry and by implication, the cost efficiency of the firm. Rocholl et al. (2013) note that capital expenditures standardized by sales accounts for the possibility that a firm that has recently invested in its facilities is expected to increase its production. Standardized R&D expenses are included to control for the firm's innovation level since innovative firms with new products or services might be more likely to received government contracts.

Our results are presented in Table 3. We observe that each measure of political connection is significantly and positively related to the receipt of a federal contract. That is, firms having made in political connections in year t are significantly more likely to be awarded a government contract in the following year. Although the effect is statistically significant for all four measures of political connections, the magnitude of the effect as measured by the regression coefficient is the greatest for political contributions made to Senate candidates. This might reflect the greater statewide connections that such individuals have relative to Congressional candidates.

7. Contract Terms and Political Connections

Political connections might offer the firm advantages beyond simply being awarded a government contract. The contract itself might contain more favorable provisions than would otherwise be present. That is, the contracts of politically connected firms might be more of a sweetheart deal than would otherwise be negotiated. We test for such a possibility by comparing the average values of the Sweetheart Index between firms with political connections and those without. We present these comparisons on an annual basis in Table 4.

We observe that contract terms are consistently more favorable for firms with stronger political connections. The overall sweetheart index across all measures of political connectivity is 1.12 for firms making below median political contributions. The corresponding value for those firms making above median contributions is 1.41. The difference in these index values is statistically significant. We further find that this pattern of better connected firms receiving more favorable contracting terms holds with equivalence significance for each of our sample years. Finally, we discover that regardless of the type of political contribution that the firm makes, the above-median contributors receive more favorable contracting terms.

7.1 Specific contract terms

In this section, we examine more closely what are the specific terms that politically connected firms receive in their contracts. In particular, we compare the distribution of no-bid, cost-plus, multiyear, and pricing data contracts across corporate political contribution levels. Our findings are presented in Table 5.

7.1.1. No Bid

Because a no-bid contract means that there is only one person or organization that can provide the contractual services needed, the supplying firm has no competitors. Thus, designing a contract as no-bid essentially guarantees its award to the sole source firm. Such a contract term is of great value to the firm. Our results presented in Panel A of Table 5 shows that there is a tendency for politically connected firms to receive a higher proportion of their total contracts as no-bid contracts. The difference between the groups, however, is not statistically significant.

7.1.2 Cost Plus Contracts

A cost plus contract guarantees a profit to a contracting firm since all allowable expenses are covered. Such a contract is advantageous to a firm since profit uncertainty due to unanticipated expenses is eliminated. Panel B shows that cost plus contracts are more commonly

awarded to firms making above-median political contributions. On average, 17.5% of the contracts awarded to the larger contributors are cost-plus while only 12.4% of the contracts to the smaller contributors are cost-plus. These differences are statistically significant and hold across all four measures of political connections.

7.1.3 Multiyear Contracts

A multiyear contract is clearly advantageous to the contracting firm since it provides guaranteed sales for a number of years. Such contracts help to ensure corporate sales stability and thus allows the firm to better plan for its future. We find that the more politically connected firms report a greater incidence of multiyear contracts. This difference is significant across all four of our measures of political contributions. Thus it appears that politically connected firms are better able to negotiate long-term contracts with the U.S. government that contributes to their sales and profit stability.

7.1.4 Cost and Pricing Data Requirement

Exemption from the cost and pricing data requirement is a benefit for the contracting firm. Beyond avoiding the costs associated with its preparation, presentation of this data can narrow the range of price negotiations between the firm and the government. Finally, exemption from this requirement can remove explicit benchmarks that can affect negotiations about future prices, discussions regarding current expenses, or explanations about cost over-runs. We find that firms making more political contributions less frequently have the cost-price data requirement in their contract. This result is statistically significant across all four measures of political contributions.

7.1.5 Sweetheart Index

We conclude our univariate analysis of contract firms and political connections by examining how the Sweetheart Index compares between above and below median contributors. Our findings are presented in Panel E. We find consistent evidence across all four contribution measures that large contributors enjoy higher index values for their contracts than do the below-median contributors.

7.2 *Multivariate Analysis of Firm Contracts*

We continue our analysis of whether a firm's political connections influence the terms contained in the contract it is able to negotiate with the federal government. We now estimate a multivariate logistic model where the dependent variable is a set of binary indicator variables capturing the presence or absence of the four sweetheart contract provisions. This approach also allows us to introduce a number of control variables that might influence the likelihood that a given provision is present in the contract. We also provide an aggregate analysis by using the contract's overall sweetheart index value as a dependent variable.

In Panel A of Table 6 we examine the effect of political connections as measured by contributions on the likelihood that a federal contract contains a no-bid provision. Our findings show a consistently positive relation between the level of political connections and the likelihood that a contract contains a no-bid provision. We find this relation holds across all four measures of political contributions, although the coefficient for Senate contributions is noticeably larger than the others. We find that the larger size of the Senate contributions (i.e. PAC3) generally holds across our analysis of the other provisions as well. We conjecture that this might be due to the greater influence of Senators given their general longer tenure in office and their extensive networks both within their state and on Capitol Hill.

We investigate whether political connections influence the likelihood of cost-plus contracting in Panel B. We find that political contributions are significantly and positively related to the likelihood that a contract contains a cost-plus provision. Again, we find the largest coefficient appearing on the contributions made to Senate candidates.

Panel C contains our findings for a multiyear contract. The results are inconsistent with a political connections effect for this specific provision. Each of the coefficients for the four measures of political contributions are statistically insignificant. This result might suggest that political influence is transitory, with limited ability to affect more distance horizons which can exceed their projected term in office.

Our last provision is the requirement for cost or pricing data. Since the dependent variable is coded as one if the requirement for this data is part of the contract, we hypothesize that political contributions will possess a negative coefficient. That is, greater political connections due to more political contributions will make it more unlikely that a contract will contain this requirement. Indeed, we observe that the coefficient for each of the four political contribution variables is significantly negative. These findings are consistent with the argument that political connections make it less likely that contracting firms will be subject to providing cost or pricing data.

We conclude our analysis of contract terms and a firm's level of political contributions by examining the sweetheart index for each contract. We conjecture that a firm's political contributions should positively influence the contract's Sweetheart index value. A contract should be more advantageous to the winning firm to the extent it is more politically connected. Our findings in Panel E are consistent with such a view. Unlike the four preceding panels, these findings are estimated from an OLS regression. Each of the coefficients are positive and

statistically significant. That is, increased political contributions are associated with an increase in contract attractiveness as measured by our Sweetheart Index.

8. Changes in Political Contributions Levels

In the preceding analysis we have determined that political connections matter for contracting. That is, firms that have made political contributions in the past are more likely to be awarded a government contract. Further, these contracts are more likely to contain provisions that are favorable to the firm. In this section, we examine whether changes in a firm's level of political connections are related to the terms they receive when contracting with the government. As firms change their political contributions, their level of political influence and access is also likely to change. As a firm becomes more generous with its political contributions, it can expect that politicians will show increased interest in accommodating them. In the following section, we examine the dynamic nature of political influence by comparing changes in political contributions with corresponding changes in the presence of favorable terms in the contracts they are awarded.

8.1 Comparison of Contract Terms

In this section we examine how the sweetheart index changes in response to a change in political contributions. Specifically, we investigate how a change in political contributions over years $t-t$ to t produces changes in the sweetheart index for contracts received one, two and three years in the future.

Table 7 contains our univariate analysis of how changes in political connections affects the favorability of contracting terms. In Panel A we compare changes in the sweetheart index for contracts received one year following a change in political contributions for two subsamples. The subsamples are constructed on the basis of the median change in political contributions. We

observe that for all four measures of political contribution, the change in the sweetheart index is larger for firms in the above median subsample. That is, firms making bigger increases in their political contributions enjoy larger increases in the sweetheart index association with their contract. These differences are all statistically significant.

In Panel B we undertake a comparable analysis, but examine the change in the sweetheart index two years out. We find very similar results to those above. Firms which increase their contributions above the median continue to benefit from more favorable contracts.

In Panel C we extend our analysis out one more year. At this point, we find that the effect of the increased contributions has largely dissipated and there is essentially no difference in the level of the sweetheart index across the subsamples.

8.2 Further Analysis of Changes in Political Contributions

In this section we provide a multivariate analysis of the effect that a change in political contributions can exert on contract terms. We use the same model as that in section 6 which examines the determinants of contract award. In this model, however, we use changes in the control variables rather than their level. In unreported robustness tests, the use of levels in the control variables yields statistically equivalent results. More specifically, we regress changes in the dollar weighted value of the Sweetheart Index against changes in our four different measures of political contributions.

We present our empirical findings in Table 8. Models (1) through (4) present our findings for the first year following the change in political contributions. We observe that regardless of how we measure political contributions, we find that its coefficient is significantly positive. Changes in political connections have a direct and positive effect on changes in the Sweetheart Index, confirming our univariate analysis that contract terms are influenced by the extent of a

firm's political connections. Models (5) through (8) examine the effect of these political contribution changes on terms for contracts two years subsequent. Again, we find a positive and significant effect of political connections on contract terms. In our last set of regressions, models (9) through (12), we examine the effect of these increased political contributions three years out. Unlike the univariate findings, we continue to observe a significant effect on contract terms in the third year. With this more comprehensive analysis, we conclude that there is a persistence in the ability of political connections to effect contract design.

9. Conclusion

This study is an analysis of the effect of political connections on a firm's federal contracting activity. Consistent with the limited research in the literature, we confirm that political connections are associated with more contracting activity by the connected firm. In particular, we find that connected firms are more likely be awarded a government contract. Further, their contracts are more frequent in occurrence, larger in size, and represent a higher portion of their total sales. This result is robust across all four of our measures of political connections.

But the real contribution of this study is its examination of the terms included in the contracts won by connected firms. We believe that the power of a firm's political connections as it relates to government contracting goes beyond mere award of the contract, but includes the terms of the contract as well. Indeed, the terms of a contract have the potential to make a mediocre contract very attractive to a firm.

This study focuses on four "sweetheart" terms which are clearly beneficial to the firm, but not so obviously preferred by the government. We aggregate the presence or absence of a no-bid, cost-plus, multi-year and cost/pricing data exclusion terms into a Sweetheart Index. We find

that firms with stronger political connections more frequently enjoy these terms in their awarded contracts. In the empirical analysis of this study, this is reflected with higher values of the Sweetheart Index for these connected firms. We also find that increases in political contributions are associated with an increase in the Sweetheart Index for these firms. Overall, these results are consistent with the premise that there is a political effect influencing both the decision to award a contract as well as the terms that are offered to the winning firm. It suggests that the true effect of political connections on the ability of a firm to enjoy a contracting advantage with the government might be understated in the existing literature.

Appendix

COSTPLUS: This is a binary variable identifying whether the contract is cost-plus or fixed fee. If the contractor is paid using cost-plus pricing, then COSTPLUS=1. We defined cost-plus contracts as those where the compensation method is 'Cost Plus Award Fee', 'Cost No Fee', 'Cost Plus Fixed Fee', or 'Cost Plus Incentive Fee'. If the contractor is paid using fixed fee pricing, then COSTPLUS=0.

NOBID: This is a binary variable. If the contract is a no-bid contract, then NOBID=1. We define a contract as no-bid if the "EXTENTCOMPETED" noted in the FPDS is "Not Available for Competition", "Not Competed", "Not Competed under SAP", or a "Non-Competitive Delivery Order". If the contract is available for open competition, then NOBID=0.

MULTIYEAR: This is a binary variable. If the contract is defined as a multi-year contract in the Federal Procurement Data System, then MULTIYEAR=1. If the contract is not defined as a multi-year contract in the Federal Procurement Data System, then MULTIYEAR=0.

NODATA: This is a binary variable indicating whether the contractor is required to provide cost or pricing data to the government as a result of winning the contract. If the contractor is not required to submit cost or pricing data, then NODATA =1; Otherwise, NODATA =0.

SWEETHEART_INDEX: The Sweetheart Index is an index which counts the number of sweetheart terms included in a contract. The index takes a value between zero and four.

OBLIGATED AMOUNT: Amount reported in the Federal Procurement Data System as the value received by the firm for each award or modification to an award.

TOTAL CONTRACT VALUE AMOUNT: Sum of all cash flows received by the firm from the contract.

VALUE WEIGHTED SWEETHEART INDEX: The Value-weighted Sweetheart Index is the Sweetheart Index of the firm weighted based upon the sum of all funds received by each contract.

PC1: Total outflows by the firm-connected PAC during the calendar year. PAC contributions are made to candidates, political parties, and other PACs. We sum all contributions to arrive at our number.

PC2: Total dollar value of contributions to the party in the White House during the majority of the calendar year.

PC3: Total PAC contributions made to Senate candidates during the majority of the calendar year by the firm-connected PAC.

PC4: Total PAC contributions made to Congressional candidates during the majority of the calendar year.

LNAT: Natural log of total assets.

LNMCAP: Natural log of total market capitalization.

LNSALE: Natural log of total sales

BM: Book-to-market ratio.

CAPX_SALE: Capital expenditure divided by total sales.

XRD_SALE: Research and development expenditures / total sales. If this number is a blank, indicating the firm has no research and development expenditure, we set this number equal to zero.

HERF_SIC2_SALE: Herfindahl index for the firm's primary two-digit SIC code during the year. We calculate the sum of the (percentage of industry sales)² for each firm during the year. We define industry sales as sales by firms whose primary 2-digit SIC code is the same during the year.

ROA: Firm return on assets.

References

- Abdulmanova, A., 2016, The value of political connections, Working Paper, University of Missouri.
- Aggarwal, R., Erel, I., Stulz, R. and R. Williamson, 2010, Differences in governance practices between U.S. and foreign firms, measurement, causes and consequences, *The Review of Financial Studies*, 22, 3131-3169.
- Goldman, E., Rocholl, J. and J. So, 2013, Politically connected boards of directors and the allocation of procurement contracts, *Review of Finance* 17, 1617-1648.
- Claessens, S., Feijen, E., and Laeven, L., 2008, Political connections and preferential access to finance: the role of campaign contributions, *Journal of Financial Economics* 88(3), 554-580.
- Cooper, M., Gulen, H., and Ovtchinnikov, A., 2010, Corporate political contributions and stock returns, *Journal of Finance* 65(2), 687-724.
- Correia, M., 2013, Political connections and SEC enforcement, *Journal of Accounting and Economics* 57(2-3), 241-262.
- Fan, J., Wong, T. J., and Zhang, T., 2007, Politically connected CEOs, corporate governance, and post-IPO performance of China's newly partially privatized firms, *Journal of Financial Economics* 84(2), 330-357.
- Francis, B. B., Hasan, I., and Sun, X., 2009, Political connections and the process of going public: evidence from China, *Journal of International Money and Finance* 28(4), 696-719.
- Goldman, E., Rocholl, J., and So, J., 2013, Politically connected boards of directors and the allocation of procurement contracts, *Review of Finance* 17(5), 1617-1648.
- Infante, L., and Piazza, M., 2014, Political connections and preferential lending at local level: some evidence from the Italian credit market, *Journal of Corporate Finance* 29, 246-262.
- Lu, H., Pan, H., and Zhang, C., 2011, Political connections and judicial bias: evidence from Chinese corporate litigations, working paper.
- Wu, W., Wu, C., and Rui, O. M., 2010, Ownership and the value of political connections: evidence from China, *European Financial Management* 18(4), 695-729.
- You, J., and Du, G., 2012, Are political connections a blessing or a curse? Evidence from CEO turnover in China, *Corporate governance: An international review* 20(2), 179-194.

Table 1: Descriptive Statistics

This table provides comparative statistics for our sample firms based on PAC contributions. In Panel A we provide descriptive statistics for all of our sample firms. Panel B contains descriptive statistics for firms divided into subsamples based on the median of total PAC contributions. PC1 is the total PAC contributions made by a firm during year t-1 to all candidates, political parties, and other PACs. All variables are Winsorized at the 1% and 99% levels. t-tests are used to examine the difference in means between each sample. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Panel A: Aggregate Sample

Variable	Firms making no PAC contributions in year t		Firms making at least \$1 in contributions in year t		t-stat	p-value
	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>		
LNAT	6621	7.44	3225	9.24	-56.11	<.0001***
LNMCAP	6621	7.31	3225	8.77	-47.66	<.0001***
LNSALE	6621	7.07	3225	8.68	-55.17	<.0001***
BM	6621	0.60	3225	0.60	0.08	0.9347
CAPX_SALE	6621	0.06	3225	0.09	-10.86	<.0001***
XRD_SALE	6621	0.04	3225	0.02	11.27	<.0001***
HERF_SIC2_SALE	6621	0.07	3225	0.08	-1.60	0.1097
ROA	6621	0.04	3225	0.05	-2.69	0.0071***

Panel B: Above and below median subsamples

<u>Variable</u>	PC1 Less than or Equal to Median		PC1 Greater than Median		t-stat	p-value
	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>		
LNAT	1617	8.45	1608	10.04	-33.46	<.0001***
LNMCAP	1617	7.95	1608	9.60	-37.34	<.0001***
LNSALE	1617	7.88	1608	9.48	-39.57	<.0001***
BM	1617	0.62	1608	0.58	2.59	0.0097***
CAPX_SALE	1617	0.09	1608	0.08	0.93	0.3401
XRD_SALE	1617	0.02	1608	0.03	-3.70	0.0002***
HERF_SIC2_SALE	1617	0.08	1608	0.08	-0.15	0.881
ROA	1617	0.04	1608	0.05	-4.08	<.0001***

Table 2: Contract Activity and Political Connections

This table compares total contract value (Panel A), percent contract value (Panel B), number of contracts (Panel C) and contract size (Panel D) between subsamples based on the median political contribution. PC1 is the total PAC contributions made during year t-1 to candidates, political parties, and other PACs. PC2 is the total dollar value of contributions made to the party in the White House in year t-1. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. We restrict firm-year observations to those which make at least \$1 of PAC contributions during year t (PC1>0). *, **, and *** indicate significance at the 10%, 5%, and 1% levels. measures.

A: Total Contract Value (amount)

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	561,523,447.7	593,936,726	582,935,518.9	574,864,540.2
Lo	20,295,480.3	24,675,572.2	48,874,685.8	19,731,138.4
t-stat	-8.16	-8.04	-7.31	-8.18
p-value	<0.001***	<0.001***	<0.001***	<0.001***
Num. of Obs.	3225	3225	3225	3225

B: Contract Value as a Percent of Total Sales

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	2.97	3.07	2.58	3.08
Lo	1.00	1.03	1.49	0.93
t-stat	-6.08	-6.05	-3.27	-6.55
p-value	<0.001***	<0.001***	0.001***	<0.001***
Num. of Obs.	3225	3225	3225	3225

C: Number of Contracts Awarded

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	1,186.28	1,258.85	1,228.14	1,202.47
Lo	149.09	148.35	203.17	156.91
t-stat	-6.21	-6.23	-5.60	-6.12
p-value	<0.001***	<0.001***	<0.001***	<0.001***
Num. of Obs.	3225	3225	3225	3225

D: Average Size of Contracts

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	2,267,638.39	2,359,812.77	2,410,967.08	2,314,019.24
Lo	422,258.65	453,222.76	461,750.98	419,486.42
t-stat	-3.30	-3.20	-3.18	-3.32
p-value	0.001***	0.001***	0.002***	0.001***
Num. of Obs.	3225	3225	3225	3225

Table 3: Likelihood of receiving a contract

Table 4 estimates a series of logistic regressions to determine whether firms which make larger PAC contributions are more likely to receive government contracts. We regress an indicator variable for lagged award of a government contract on political connections, control variables, and fixed effects. Our dependent variable, RECEIVE_CONT, equals one if the firm receives at least one federal government contract in year t+1 and is zero otherwise. The control variables are drawn from Goldman, Rocholl, and So (2013). Year and industry fixed effects are also included. PAC contribution variables measured in millions of dollars are used to improve the interpretability of the results. PAC contributions are divided by \$1,000,000. PC1 is the total PAC contributions made during year t-1 to candidates, political parties, and other PACs. PC2 is the total dollar value of contributions made to the party in the White House in year t-1. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. All control variables are Winsorized at the 1% and 99% levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels. P-values are reported below the coefficients.

Parameter	(1)	(2)	(3)	(4)
Intercept	0.486	0.632	0.841	0.422
	0.998	0.997	0.996	0.998
PC1 _{t-1}	1.358***			
	<.0001			
PC2 _{t-1}		2.476***		
		<.0001		
PC3 _{t-1}			5.204***	
			<.0001	
PC4 _{t-1}				1.657***
				<.0001
ln(Total Assets) _{t-1}	0.208***	0.217***	0.211***	0.214***
	<.0001	<.0001	<.0001	<.0001
Book/market _{t-1}	-0.077	-0.080	-0.081	-0.078
	0.313	0.290	0.284	0.304
Capital Expenditures/Sales _{t-1}	-0.752**	-0.728**	-0.753**	-0.759**
	0.013	0.016	0.013	0.012
R & D / Total Sales _{t-1}	-2.269***	-2.281***	-2.301***	-2.250***
	0.000	0.000	0.000	0.001
Herfindahl Index of firm's 2-digit Industry _{t-1}	4.085**	3.990**	4.110**	4.055**
	0.037	0.041	0.034	0.038
Return on Assets _{t-1}	1.054**	1.040**	1.041**	1.068**
	0.029	0.031	0.030	0.027
Num. of Obs.	3225	3225	3225	3225
Year F.E.	Yes	Yes	Yes	Yes
Industry F.E.	Yes	Yes	Yes	Yes

Table 4: Annual Distribution of Average Index

This table reports the annual mean value of the Sweetheart Index for subsamples based on the median PAC contribution. t-statistics are estimated for differences in the mean Sweetheart Index values between the above and below median PAC contribution subsamples. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Year	Num. of Obs.	PC1			PC2			PC3			PC4		
		Lo	Hi	t-statistic	Lo	Hi	t-statistic	Lo	Hi	t-stat	Lo	Hi	t-statistic
2007	85891	1.10	1.33	-64.37***	1.10	1.33	-65.42***	1.20	1.23	-10.77***	0.98	1.45	-150.39***
2008	66857	1.10	1.34	-58.19***	1.10	1.33	-55.88***	1.11	1.33	-54.63***	1.10	1.33	-56.65***
2009	58969	1.21	1.34	-30.73***	1.06	1.48	-103.71***	1.23	1.31	-18.58***	1.21	1.34	-30.89***
2010	52316	1.11	1.57	-117.07***	1.10	1.57	-119.13***	1.15	1.53	-93.32***	1.11	1.57	-115.77***
2011	54785	1.11	1.60	-126.16***	1.25	1.46	-48.92***	1.13	1.58	-114.34***	1.11	1.60	-126.11***
2012	50680	1.10	1.48	-95.87***	1.15	1.43	-67.90***	1.15	1.43	-66.13***	1.10	1.48	-95.68***
2013	48943	1.12	1.33	-52.23***	1.12	1.33	-52.01***	1.13	1.32	-6.59***	1.12	1.33	-52.25***
Average	418441	1.12	1.42	-191.77***	1.12	1.41	-187.42***	1.17	1.37	-127.26***	1.10	1.44	-230.43***

Table 5: Contract terms and political connections

In Panel A we report the difference in the percentage of no-bid contracts (value-weighted) per firm as a percentage of all contracts received by each firm in year t. In Panel B we report the difference in the percentage of cost-plus contracts (value-weighted) per firm as a percentage of all contracts received by each firm in year t. In Panel C we report the difference in the percentage of multiyear contracts (value-weighted) per firm as a percentage of all contracts received by each firm in year t. In Panel D we report the difference in the percentage of contracts requiring cost or pricing data (value-weighted) per firm as a percentage of all contracts received by each firm in year t. We separate our sample based upon whether the firm makes more or less than the median PAC contribution during year t. We restrict these observations to only observations which include the NOBID, COSTPLUS, MULTIYEAR, and NODATA variables. We further restrict our sample to observations where PC1 is greater than 0. A contract is ascribed to the year in which the agreement was signed. PC1 is the total PAC contributions made during year t-1 to candidates, political parties, and other PACs. PC2 is the total dollar value of contributions to the party in the White House in year t-1. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

A: Value-weighted Percentage of No Bid Contracts

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	50.55%	50.15%	49.06%	50.36%
Lo	46.78%	47.21%	48.27%	46.97%
t-test	-1.33	-1.04	-0.28	-1.19
p-value	0.184	0.301	0.780	0.233
Num. of Obs.	919	919	919	919

B: Value-weighted Percentage Cost plus Contracts

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	17.70%	18.07%	16.94%	17.52%
Lo	11.93%	11.61%	12.69%	12.11%
t-test	-2.86	-3.20	-2.10	-2.68
p-value	0.004***	0.001***	0.036**	0.007***
Num. of Obs.	919	919	919	919

C: Value-weighted Percentage of Multiyear Contracts

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	8.57%	8.28%	8.27%	8.96%
Lo	5.52%	5.84%	5.82%	5.13%
t-test	-2.14	-1.70	-1.71	-2.68
p-value	0.033**	0.089*	0.087*	0.007***
Num. of Obs.	919	919	919	919

D: Value-weighted Percentage of Contracts Requiring Cost or Pricing Data

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	81.28%	81.19%	82.04%	81.00%
Lo	84.96%	85.01%	84.20%	85.24%
t-test	1.81	1.88	1.06	2.08
p-value	0.071*	0.060*	0.287	0.037**
Num. of Obs.	919	919	919	919

Panel E: Value-weighted Sweetheart Index of Firm Contracts

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	1.58	1.58	1.56	1.58
Lo	1.49	1.50	1.51	1.49
t-test	-2.55	-2.29	-1.52	-2.40
p-value	0.011**	0.022**	0.129	0.017**
Num. of Obs.	919	919	919	919

Table 6: Multivariate Analysis of the Effect of Political Connections on Contract Terms

This table examines the effect that a firm's political connections have on the likelihood that its federal contract contains one of the following four sweetheart terms: no bid, cost plus, multiyear, or cost/price data exemption. We regress a binary indicator variable representing the presence or absence of a specific contract term against the firm's lagged political contributions, control variables, and year fixed effects. In Panel A, the dependent variable is an indicator variable capturing whether the contract in question is a no-bid contract. In Panel B, the dependent variable is an indicator variable for a cost plus contract. In Panel C the dependent variable is an indicator variable representing whether the contract is a multiyear contract. In Panel D our dependent variable is an indicator variable for whether the contract exempts the firm from providing cost or pricing data. In Panel E our dependent variable is the Sweetheart Index. Panels A through D estimate logistic regressions, while Panel E presents OLS estimates. PAC contributions are divided by \$1,000,000 for easier interpretability. PC1 is the total PAC contributions made during year t-1 to candidates, political parties, and other PACs. PC2 is the total dollar value of contributions to the party in the White House in year t-1. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. All control variables are Winsorized at the 1% and 99% levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. P-values are reported below the coefficients.

Panel A: Logistic Regression of No-bid Contracts

Parameter	(1)	(2)	(3)	(4)
Intercept	1.536***	1.650***	1.699***	1.476***
	<.0001	<.0001	<.0001	<.0001
PC1 _{t-1}	0.911***			
	<.0001			
PC2 _{t-1}		1.764***		
		<.0001		
PC3 _{t-1}			5.249***	
			<.0001	
PC4 _{t-1}				1.051***
				<.0001
ln(Total Assets) _{t-1}	-0.231***	-0.228***	-0.234***	-0.223***
	<.0001	<.0001	<.0001	<.0001
Book/Market _{t-1}	0.175***	0.095*	0.029	0.177***
	0.002	0.080	0.587	0.001
Capital Expenditures/Sales _{t-1}	2.775***	2.718***	2.685***	2.741***
	<.0001	<.0001	<.0001	<.0001
R & D /Total Sales _{t-1}	3.528***	3.204***	3.108***	3.505***
	<.0001	<.0001	<.0001	<.0001
Herfindahl Index of firm's 2-digit SIC Code _{t-1}	0.003	0.011	-0.029	-0.028

	0.991	0.967	0.912	0.916
Return on Assets $t-1$	2.896***	2.816***	2.820***	2.967***
	<.0001	<.0001	<.0001	<.0001
McFadden R ²	0.220	0.218	0.213	0.220
Num. of Obs.	16257	16257	16257	16257
Year and Industry F.E.	Yes	Yes	Yes	Yes

Panel B: Logistic Regression of Cost-plus Contracts

Parameter	(1)	(2)	(3)	(4)
Intercept	-0.501***	-0.305**	-0.090	-0.602***
	0.001	0.040	0.546	<.0001
PC1 $t-1$	1.005***			
	<.0001			
PC2 $t-1$		2.017***		
		<.0001		
PC3 $t-1$			6.914***	
			<.0001	
PC4 $t-1$				1.115***
				<.0001
ln(Total Assets) $t-1$	-0.133***	-0.137***	-0.169***	-0.118***
	<.0001	<.0001	<.0001	<.0001
Book/Market $t-1$	0.218***	0.134**	0.104	0.197***
	0.001	0.045	0.117	0.004
Capital Expenditures/Sales $t-1$	-4.900***	-5.038***	-4.635***	-5.116***
	<.0001	<.0001	<.0001	<.0001
R & D /Total Sales $t-1$	-2.731***	-3.131***	-2.730***	-2.897***
	<.0001	<.0001	<.0001	<.0001
Herfindahl Index of firm's 2-digit SIC Code $t-1$	1.483***	1.468***	1.487***	1.409***
	<.0001	<.0001	<.0001	<.0001
Return on Assets $t-1$	4.548***	4.432***	4.008***	4.719***

McFadden R ²	<.0001	<.0001	<.0001	<.0001
Num. of Obs.	0.163	0.162	0.164	0.160
Year and Industry F.E.	16257	16257	16257	16257
	Yes	Yes	Yes	Yes
<i>Panel C: Logistic Regression of Multiyear Contracts</i>				
Parameter	(1)	(2)	(3)	(4)
Intercept	-1.526***	-1.502***	-1.471***	-1.528***
	<.0001	<.0001	<.0001	<.0001
PC1 _{t-1}	-0.126			
	0.107			
PC2 _{t-1}		-0.163		
		0.293		
PC3 _{t-1}			-0.247	
			0.628	
PC4 _{t-1}				-0.161
				0.760
ln(Total Assets) _{t-1}	-0.034	-0.041*	-0.047**	-0.033
	0.134	0.070	0.046	0.143
Book/Market _{t-1}	-0.138	-0.106	-0.080	-0.147
	0.226	0.343	0.470	0.198
Capital Expenditures/Sales _{t-1}	1.749***	1.780***	1.809***	1.742***
	<.0001	<.0001	<.0001	<.0001
R & D /Total Sales _{t-1}	-0.793	-0.681	-0.610	-0.820
	0.357	0.427	0.477	0.341
Herfindahl Index of firm's 2-digit SIC Code _{t-1}	0.875*	0.892*	0.919*	0.870*
	0.065	0.061	0.053	0.066
Return on Assets _{t-1}	0.674	0.656	0.628	0.673
	0.284	0.298	0.321	0.284
McFadden R ²	0.067	0.067	0.066	0.067
Num. of Obs.	16257	16257	16257	16257
Year and Industry F.E.	Yes	Yes	Yes	Yes

Panel D: Logistic Regression of Contracts with No Cost or Pricing Data Requirement

Parameter	(1)	(2)	(3)	(4)
Intercept	1.808***	1.731***	1.626***	1.836***
	<.0001	<.0001	<.0001	<.0001
PC1 _{t-1}	-0.242***			
	<.0001			
PC2 _{t-1}		-0.582***		
		<.0001		
PC3 _{t-1}			-2.373***	
			<.0001	
PC4 _{t-1}				-0.248***
				<.0001
ln(Total Assets) _{t-1}	-0.165***	-0.156***	-0.137***	-0.170***
	<.0001	<.0001	<.0001	<.0001
Book/Market _{t-1}	0.548***	0.534***	0.504***	0.566***
	<.0001	<.0001	<.0001	<.0001
Capital Expenditures/Sales _{t-1}	5.089***	5.011***	4.794***	5.164***
	<.0001	<.0001	<.0001	<.0001
R & D /Total Sales _{t-1}	1.839***	1.807***	1.589***	1.914***
	<.0001	<.0001	0.001	<.0001
Herfindahl Index of firm's 2-digit SIC Code _{t-1}	1.039***	0.978***	0.884***	1.076***
	0.001	0.001	0.003	0.000
Return on Assets _{t-1}	3.365***	3.495***	3.701***	3.292***
	<.0001	<.0001	<.0001	<.0001
McFadden R ²	0.201	0.201	0.202	0.200
Num. of Obs.	16257	16257	16257	16257
Year and Industry F.E.	Yes	Yes	Yes	Yes

Panel E: Multivariate Regression of Sweetheart Index

Parameter	(1)	(2)	(3)	(4)
Intercept	2.367*** <.0001	2.431*** <.0001	2.468*** <.0001	2.336*** <.0001
PC1 _{t-1}	0.467*** <.0001			
PC2 _{t-1}		0.907*** <.0001		
PC3 _{t-1}			2.734*** <.0001	
PC4 _{t-1}				0.537*** <.0001
ln(Total Assets) _{t-1}	-0.144*** <.0001	-0.144*** <.0001	-0.148*** <.0001	-0.141*** <.0001
Book/Market _{t-1}	0.204*** <.0001	0.164*** <.0001	0.130*** <.0001	0.205*** <.0001
Capital Expenditures/Sales _{t-1}	1.423*** <.0001	1.388*** <.0001	1.376*** <.0001	1.406*** <.0001
R & D /Total Sales _{t-1}	1.180*** <.0001	1.004*** <.0001	0.958*** <.0001	1.167*** <.0001
Herfindahl Index of firm's 2-digit SIC Code _{t-1}	0.436*** 0.000	0.437*** 0.000	0.410*** 0.001	0.423*** 0.000
Return on Assets _{t-1}	2.509*** <.0001	2.484*** <.0001	2.492*** <.0001	2.548*** <.0001
McFadden R ²	0.460	0.458	0.453	0.460
Num. of Obs.	16257	16257	16257	16257
Year and Industry F.E.	Yes	Yes	Yes	Yes

Table 7: Effect of a change in PAC contributions on the Sweetheart Index for subsequent contracts

In this table we examine the change the weighted Sweetheart Index after a change in rolling annual PAC contributions in year t-1. We calculate the difference in PAC contributions from months (t-24 to t-13) to (t-12 to t-1) for each firm. We bisect our sample based on the median change in PAC contributions over that period and examine the change in the dollar weighted Sweetheart Index after a change in PAC contributions. If the firm did not make PAC contributions in the year 12 months prior to month t then is not included. If there exists a missing change in the Sweetheart Index from (t-12 to t-1) to (t+24 to t+35), we do not include the observation in the analysis. In Panel A we report the change in the weighted Sweetheart Index from (t-12 to t-1) to (t to t+11). In Panel B we examine the change in the Sweetheart Index from (t-12 to t-1) to (t+12 to t+23). In Panel C we examine the change in the Sweetheart Index from (t-12 to t-1) to (t+24 to t+35). The values reported are the mean values for each bisected subsample. PC1 is the total PAC contributions made during year t-1 to candidates, political parties, and other PACs. PC2 is the total dollar value of contributions to the party in the White House in year t-1. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First year post increase

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	0.020	0.028	0.018	0.020
Lo	0.009	0.004	0.012	0.010
p-value	<0.001	<0.001	0.043	<0.001
Num. of Obs.	18,408	18,408	18,408	18,408

Panel B: Second year post increase

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	0.033	0.044	0.033	0.035
Lo	0.026	0.017	0.027	0.024
p-value	0.028	<0.001	0.083	0.002
Num. of Obs.	18,408	18,408	18,408	18,408

Panel C: Third year post increase

<u>PC Level</u>	<u>PC1</u>	<u>PC2</u>	<u>PC3</u>	<u>PC4</u>
Hi	0.051	0.056	0.053	0.055
Lo	0.053	0.049	0.052	0.050
p-value	0.570	0.083	0.660	0.224
Num. of Obs.	18,408	18,408	18,408	18,408

Table 8: Multivariate Analysis of Changes in PAC Contributions on the Weighted Sweetheart Index

This table regresses the change in the dollar-weighted Sweetheart Index on the change in PAC contributions, control variables, and year and firm fixed effects. In models 1 through 4 our dependent variable is the change in the Sweetheart Index from the year of the contract to one-year post contract (i.e., (t-12 to t-1) to (t to t+11)). In models 5 through 8 our dependent variable is the change in Sweetheart Index from the year of the contract to the second year post contract (i.e., (t-12 to t-1) to (t+12 to t+23)). In models 9 through 12 our dependent variable is the change in Sweetheart Index from the year of the contract to the third year post contract (i.e., (t-12 to t-1) to (t+24 to t+35)). The dependent variable is multiplied by 100 and PAC contributions are divided by \$1,000,000 for easier interpretation. PC1 is the total PAC contributions made during year t-1 to candidates, political parties, and other PACs. PC2 is the total dollar value of contributions to the party in the White House in year t-1. PC3 is the total PAC contributions made to Senate candidates. PC4 is the total PAC contributions made to Congressional candidates. All control variables are Winsorized at the 1% and 99% levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. P-values are reported below the coefficients.

Parameter	First Year Post Increase				Second Year Post Increase				Third Year Post Increase			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Intercept	-0.23	-0.19	-0.25	-0.22	-0.72	-0.67	-0.73	-0.71	-0.73	-0.70	-0.74	-0.72
	0.962	0.969	0.959	0.964	0.895	0.902	0.893	0.897	0.898	0.903	0.896	0.899
$\Delta PC1_{(t-24 \text{ to } t-13) \text{ to } (t-12 \text{ to } t-1)}$	6.80***				8.46***				6.76***			
	<0.001				<0.001				0.001			
$\Delta PC2_{(t-24 \text{ to } t-13) \text{ to } (t-12 \text{ to } t-1)}$		15.76***				17.30***				12.39***		
		<0.001				<0.001				<0.001		
$\Delta PC3_{(t-24 \text{ to } t-13) \text{ to } (t-12 \text{ to } t-1)}$			21.88***				18.42**				16.47**	
			0.001				0.012				0.031	
$\Delta PC4_{(t-24 \text{ to } t-13) \text{ to } (t-12 \text{ to } t-1)}$				6.93***				9.68***				7.90***
				0.001				<0.001				0.001
$\Delta \ln(\text{Total Assets})_{(t-1 \text{ to } t)}$	3.36***	3.35***	3.38***	3.39***	3.30***	3.30***	3.35***	3.33***	4.55***	4.56***	4.59***	4.58***
	0.002	0.002	0.002	0.002	0.008	0.008	0.007	0.008	0.001	0.001	0.000	0.000
$\Delta \text{Book/Market}_{(t-1 \text{ to } t)}$	0.02	-0.01	0.04	0.04	1.48**	1.46**	1.52***	1.49**	1.02*	1.01*	1.05*	1.03*
	0.962	0.991	0.934	0.937	0.011	0.012	0.009	0.010	0.091	0.094	0.082	0.088
$\Delta \text{Capital Expenditures/Sales}_{(t-1 \text{ to } t)}$	1.11	1.11	1.16	1.04	-4.96	-4.97	-4.97	-5.02	-15.81***	-15.84***	-15.80***	-15.86***
	0.730	0.729	0.717	0.745	0.174	0.172	0.172	0.168	<.0001	<.0001	<.0001	<.0001
$\Delta \text{R\&D/Total Sales}_{(t-1 \text{ to } t)}$	-55.55**	-54.68**	-57.17**	-55.84**	7.52	8.08	5.06	7.54	-16.98	-16.86	-18.86	-16.91
	0.014	0.015	0.011	0.013	0.769	0.753	0.844	0.769	0.524	0.527	0.479	0.526
$\Delta \text{Herfindahl Index}_{(t-1 \text{ to } t)}$	23.29*	23.64*	23.06*	23.38*	53.81***	54.19***	53.62***	53.92***	8.99	9.26	8.82	9.08
	0.074	0.069	0.077	0.073	0.000	0.000	0.000	0.000	0.559	0.547	0.567	0.555
$\Delta \text{Return on Assets}_{(t-1 \text{ to } t)}$	-3.43	-3.22	-3.55	-3.45	-10.03***	-9.83***	-10.21***	-10.04***	-10.66***	-10.53***	-10.79***	-10.66***

	0.173	0.201	0.158	0.171	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
R ²	0.140	0.141	0.140	0.140	0.300	0.301	0.299	0.300	0.458	0.458	0.458	0.458
Num. of Obs.	18,408	18,408	18,408	18,408	18,408	18,408	18,408	18,408	18,408	18,408	18,408	18,408
Year and Firm F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes