Do Firms Leave Workers in the Dark Before Wage Negotiations?

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ABSTRACT

This paper examines managers' strategic use of financial disclosure in labor negotiations. Using the exogenous expiration date of collective bargaining contracts, I find that when wage negotiations are imminent, firms strategically redact information about material agreements. Strategic redaction is pronounced when unions cannot accurately predict firms' prospects, when firms have low growth opportunities, when liquidity is less constrained, and when the estimated cost of a work stoppage is low. These results suggest that firms strategically withhold information to balance the costs and benefits of information asymmetry. Consistent with this interpretation, strategic disclosure is statistically uncorrelated to *ex post* performance.

JEL classification: D82, J52, G35.

A firm's management team is better informed about its future prospects than other stakeholders, such as its investors and workers. This information asymmetry increases adverse selection costs and leads to unfavorable capital market outcomes. Despite these detrimental impacts, firms often choose to increase information asymmetry by strategically withholding information to reduce the costs associated with revealing proprietary information. For example, IPO firms redact information from their SEC registration filings to shield competitive advantages (Boone et al. (2016)). Game theory literature illustrates strategic information transmission in which conflict of interests exacerbates information asymmetry between the information sender and the information receiver (Crawford and Sobel (1982)).

This paper studies an important determinant of strategic disclosure: labor negotiations. Negotiations with labor unions are critical for a firm's performance. According to the Bureau of Labor Statistics, more than 16.4 million employees, or 12% of the total U.S. workforce, were represented by unions in 2018. Prior studies show that employees' rent-seeking behavior forces unionized employers to strategically reduce cash holdings (Klasa et al. (2009)), increase leverage (Matsa (2010)), and implement value-destroying worker-management alliance (Atanassov and Kim (2009); Kim and Ouimet (2014)). It is not obvious, however, whether unions cause firms to withhold information. Strategic disclosure might be too costly if it increases a firm's cost of capital.

Using a plausible identification strategy, this paper shows that labor negotiations cause employers to strategically manipulate their information environment to enhance their bargaining position with labor unions. I also show that theoretically motivated factors influence this behavior, including information uncertainty, growth opportunities, financial constraints, and the cost of a strike.

To establish a valid causal link between labor bargaining activities and strategic disclosure, I exploit within-firm variation in the management's incentive to withhold information contained in material business agreements. My identification strategy exploits collective labor contract expiration dates, which are presumably exogenous to firms' other business activities. To show that they are exogenous, I find that contract expirations are uncorrelated with the nature and occurrence of material business agreements. Therefore, changes in disclosure policy around contract expirations can be attributed to strategic disclosure in wage negotiations. I use a difference-in-difference analysis to compare the likelihood of strategic disclosure before imminent wage negotiations to the likelihood of strategic disclosure when negotiations are not imminent.

To measure strategic disclosure, I use confidential treatment orders (CTOs). A CTO is an SEC order that approves firms' requests to redact particular components of material business agreements from their public filings. It provides several advantages for analyzing strategic disclosures. First, a CTO is a clean signal of a firm's decision to withhold information. Second, redacting firms are required to note the omitted parts of their filings, using black-lining or asterisks. Therefore, the public can observe whether and which components of agreements a firm conceals. Also, since the SEC rarely denies CTO requests, the public can have almost a complete set of strategic disclosure decisions intended by management. Third, the information approved for a CTO is exempted from the Freedom of Information Act (FOIA) requests of employees and unions. This makes a CTO a powerful instrument for the management to shield information in labor negotiations.

For my identification strategy to be valid, I rely on the credibility of the following claim: the value of disclosure exogenously shifts in advance of a collective bargaining expiration date. In other words, firms facing expiring contracts bear higher costs of sharing information, even as the nature of material agreements is not systematically different. The following observations support this claim. First, neither managers nor unions are able to manipulate the timing of wage negotiations. The contracts usually keep their length in a given workplace and are rarely renegotiated before their original expiration dates (Rich and Tracy (2013); Matsusaka et al. (2018)). Second, firms are not allowed to time the filings of material contracts. According to the Sarbanes-Oxley Act (SOX) regulation, a firm shall file its material agreements on a rapid and current basis. I validate this claim by finding that the number of material contracts disclosed in the SEC filings does not significantly deviate from the mean during the contract expiration years.

The baseline analysis shows that the firm-years with expiring contracts exhibit higher frequencies of redactions than those without expiring contracts. In particular, firm-years with expiring contracts are $2.2 \sim 3.1$ percentage points more likely to redact material agreements. Considering the overall probability of redaction is 17% for the entire sample and 12% for unionized sample, this value is economically substantial. It suggests that union negotiations are a significant determinant of disclosure policy.

Next, cross-sectional analysis explores potential modifying factors of strategic disclosure. These modifying factors illustrate the trade-off between the benefit and the cost of CTOs. As a benefit, withholding information helps management preserve its information advantage over the employees

regarding a firm's future prospects. As a cost, it may also increase information asymmetry of other interested groups, such as capital market participants, and could lead to higher costs of capital. Unlike the baseline analysis, the cross-sectional analyses are not fully free from endogeneity concerns. They do not rule out the possibility that unionized workers may have heterogenous bargaining power, depending on the factors I explore.

First, I explore the pre-existing level of information asymmetry. Given that a CTO is a bargaining device to strengthen a firm's information advantage, the incentive to use this device will depend on the *status quo* information environment. If there is limited external information to predict an employer's future profitability, unions must rely on the employer's public disclosure. In this case, a CTO will significantly limit unions' wage demand, representing an effective bargaining device. To test this prediction, I run a triple-difference analysis which compares the redaction probability before expiring contracts for firms with high and low levels of analyst forecast errors. I find that firms with higher external information asymmetry increase CTOs more than firms with low external information asymmetry.

Second, I find that firms with low growth opportunities are more likely to strategically withhold information than firms with high growth opportunities. Theory suggests that the greater is the risk of losing employment, the stronger is management's bargaining power (Kuhn (1986); Freeman and Kleiner (1999)). Employees of firms with greater growth opportunities can be convinced to settle for lower wages and to wait for a bigger surplus in the future. Therefore, growth opportunities strengthen a firm's bargaining condition and weakens the management incentive to implement strategic disclosure. The empirical results confirm this implication.

Next, the cross-sectional tests find that financially unconstrained firms are more likely to strategically adopt CTOs before wage negotiations than financially constrained firms. Corporate liquidity hurts a firm's bargaining position since it raises wage demand (Bronars and Deere (1991); Klasa et al. (2009); Matsa (2010); Yi (2016)). Organized workers may demand a portion of employers' excess liquidity, which they interpret as extra surplus (Benmelech et al. (2012)). Therefore, gains from redaction will be higher in financially unconstrained corporations.

Last, I find that firms with low costs of work stoppages are more likely to conceal information than firms with high costs of work stoppages. Although the imbalance in information between firms and negotiating unions can strengthen a firm's bargaining position, it may lead to a costly

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work stoppage or holdups (Reder and Neumann (1980); Mauro (1982); Cramton (1984)). If firms strategically redact the information before wage negotiation, they will take into account the fact that it might increase the likelihood of contentious negotiations. Based on this observation, I hypothesize that when the cost of a work stoppage is low, strategic redaction is more advantageous, consistent with my empirical results.

Next, I perform additional analysis to show that the deviation in disclosure policy is indeed a strategic choice. First, I test the associations between strategic CTOs and *ex-post* firm performance. A firm will optimally choose to conceal information about material agreements, up to the point where the benefit matches the cost. Therefore, the reduced form analysis should not produce any impact on firm performance (Demsetz and Lehn (1985)). Consistent with this prediction, I do not find statistically significant associations between strategic CTOs and *ex-post* firm performance.

Second, I test how different types of managerial actions interact with each other. Prior literature shows that managers strategically cut liquidity to resist wage demand (Klasa et al. (2009); Matsa (2010); Yi (2016)). This paper shows that if a firm chooses to raise asset purchases in the year with contract expirations, it does not increase information asymmetry by redacting material contracts as much as it would do in the absence of a liquidity cut.

The central contribution of this paper is to provide causal evidence that management uses its information advantage as a bargaining device in wage negotiations. Prior studies focus on voluntary disclosure and its determinants, including market competition (Chung et al. (2015)) and exogenous shocks to information environments (Balakrishnan et al. (2014); Aobdia and Cheng (2018)). I contribute to this stream of research by exploiting the exogeneity of contract expirations on management's decision to circumvent mandatory disclosure of business agreements. My empirical results show that firms use mandatory disclosure as a strategic variable to improve their bargaining position.

My research also contributes to the growing literature on the causal implication of organized workers on unionized firms. Lee and Mas (2012) argue that unionization leads to lower firm value and substantial losses in market value. Prior literature has offered plausible explanations on the market value deterioration, such as principal-agent problem (Faleye et al. (2006); Chyz et al. (2013)), competitiveness loss in product market (Aobdia and Cheng (2018)) and corporate governance degeneration (Freeman and Kleiner (1990); Agrawal (2011); Matsusaka et al. (2018)). I

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highlight an increase in information asymmetry as another potential downside of unionization.

Last, I contribute to research on CTOs. Verrecchia and Weber (2006) suggest that CTOs help firms protect proprietary information. Boone et al. (2016) show that IPO firms redact proprietary information to shield competitive advantages. While firms in various life stages routinely use CTOs, their underlying motivations are rarely explored since it is hard to derive convincing causal implications. I overcome this problem by investigating contract expirations as an exogenous shift in information sharing costs. I find union bargaining as an essential determinant of redaction choice.

I. Institutional Background and Identification Strategy

A. Confidential Treatment Order

According to Regulation S-K, all SEC registrants are required to file material contracts or agreements with their SEC filings, 8-K, 10-K, 10-Q, or registration statements. The term "*material*" represents a level that would influence a reasonable investor's investment decision. Management has the discretion to assess the materiality level, while the SEC has a right to review the compliance.

A CTO enables firms to receive an exemption on this requirement, governed by Rule 406 under the Securities Act of 1933 and Rule 24b-2 under the Securities Exchange Act of 1934. Once firms can establish to the SEC that the full non-redacted disclosure causes competitive harm to their business and investors, they can request to conceal certain portions of contracts for a designated period. The confidential period may last for a maximum of ten years.

Although the SEC has authority to deny the requests, Meredith B. Cross, the former Director of Division of Corporation Finance of SEC, admits that the SEC rarely denies the requests (SEC (2010)). According to Lexis Securities Mosaic database, there are only nine confidential treatment requests denied out of more than 10,000 requests, from 1994 to 2015.[1] When managers submit the requests, they know that they have a high chance of being approved.

Once CTO-requests are granted, the redacted filings are exempted from FOIA. FOIA requires the government agencies, such as the SEC, to fully or partially disclose previously unreleased information if any individuals or institutions request. However, according to FOIA subsection (b)

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[1] The reasons of denial include the following: the requested contracts have been publicly disclosed already; other regulatory clauses require full disclosure; and the registrants fail to provide the information required by Rule 24b-2.

(4), trade secrets and confidential commercial or financial information are exempted from FOIA obligation. Therefore, the SEC cannot furnish information with a CTO to the public.

During a CTO-period, firms have the privilege to withhold specific contents of material contracts. However, they shall note the omitted parts of their public filings, using black-lining or asterisks. Appendices A, B, and C provide an example of a CTO filing, the corresponding contract documents, and the 10-K, respectively.

A CTO provides several advantages for analyzing the causal link between wage negotiation and the information environment. First, I can accurately measure whether a firm withholds any information or not. This represents a comparative advantage over voluntary disclosure, such as management forecasts or conference calls. Managers can have authority to choose the contents and timings of voluntary disclosure. On the other hand, SOX mandates firms to publish material contracts promptly. To withhold information on material contracts, firms cannot arbitrarily time the disclosure but should request a CTO. Moreover, the public can observe almost a complete set of strategic disclosure decisions intended by management. Firms' attempts to shield information using CTOs are likely to be approved without regulatory deterrence. Even though the SEC conducts an evaluation and comment process on each CTO request, it rarely denies the requests.

Second, a CTO helps management shield the most relevant information in wage negotiation. Prior literature shows that material contract disclosure is the most reliable information on future profitability (Li (2013)). Information sharing on future profitability is positively related to unfavorable wage negotiation outcomes (Kleiner and Bouillon (1988); Frost (2000)). Therefore, by withholding material contract information, firms can improve their information advantage over the labor unions and undermine unions' rent-seeking behavior. Since the information approved for a CTO is an exemption for an FOIA request, a CTO provides an effective device to deny FOIA requests and to reinforce the informational barrier of a union.

B. Collective Bargaining Contract

The expiration dates of collective bargaining contracts are crucial in my research design. They represent a firm's exposure to bargaining competition with labor unions. As Frost (2000) claims, the intensity of a union's rent-seeking behavior is not constant throughout time but rather dynamic. Consistent with this claim, unions take intensive opportunistic behavior around contract expiration

dates to win favorable wage contracts (Matsusaka et al. (2018)). Hence, it will motivate firms'
strategic behavior to achieve an advantageous bargaining condition.

C.   Identification Strategy

I test the implication of union bargaining power on the information environment by assessing the
causal effect of contract expirations on the likelihood of redacting business agreements. To make this
empirical strategy valid, the identification requires orthogonality between contract negotiations and
the nature and occurrence of material business agreements. The identifying assumption is justified
based on the following observations.

First, *ex ante* it is unlikely for unions or corporations to manipulate contract durations to cater
to their interests. Matsusaka et al. (2018) find that the newly negotiated contract usually retains
a similar duration as the expiring one for a given workplace.

Second, *ex post* negotiating parties do not time the contract expiration nor initiate the ne-
gotiation process. Once collective bargaining contracts are determined, both unions and firms
are obligated to follow the contractual terms and duration. The vast majority of new contracts
are rarely renegotiated before the due dates (Cramton and Tracy (1992); Rich and Tracy (2013);
Matsusaka et al. (2018)).

Third, it is unlikely for employers to have discretion on the occurrence and the nature of business
contracts. To validate this assertion, I test whether the number of exhibits for material contracts
is significantly different during the fiscal year with imminent contract expirations. Figure 2 shows
that the number of material contracts filed to the SEC does not significantly deviate from the mean
during the firm-years with upcoming contract expirations.

Last, a firm cannot arbitrarily choose which contracts to disclose and when to file to the SEC.
According to Regulation S-K, material contracts represent any binding agreements that would
influence reasonable information users' decision. Although the firm determines the materiality, the
decision is subject to SEC reviews. Also, SOX mandates that the SEC registrants file their material
agreements promptly (Sarbanes (2002)).

Collectively, these stylized facts make collective bargaining expiration dates an ideal setting
to analyze the incentives and consequences of a CTO. They preclude the possibility that either
unions or firms deliberately choose the timing of contract expirations or the timing and content of

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material agreement filings. Therefore, the empirical design to test the association between contract expirations and a CTO delivers a valid causal implication. If I find changes in the use of CTOs around expiring contracts, I can claim that union bargaining activities caused the corresponding change in CTOs.

II.   Data

A.   Contract Expiration

In collective bargaining negotiation, the negotiating parties are required to file a notice to the Federal Mediation and Conciliation Service (FMCS) at least 30 days prior to the expiration dates. This filed information includes employer names, union names, contract expiration dates, and the number of employees involved in collective bargaining. The Bureau of National Affairs (BNA) database compiles the information into a dataset available to the public. Since the dataset does not provide unique company identifiers, such as GVKEY or CIK, the data needs a manual match.

The comprehensive dataset, including matched employer identifiers, is provided by Irene Yi (Yi (2016); Matsusaka et al. (2018)). She manually matches the employer names to COMPUSTAT company names and assigns its GVKEY. To reduce noise, the matching process is limited to unique employer names which have contracts with more than 500 employees involved. The final sample includes every contract with these unique names. Also, when the employer name in the BNA database is on a subsidiary or a plant, the ultimate parent at the point of contract expiration is assigned. If a firm has expiring contracts in the following fiscal year, I assign a dummy variable which equals to one, and zero otherwise.

B.   Redacted Disclosure

To identify whether firms choose to withhold any material contracts or agreements from 10-K filings, I use Lexis Securities Mosaic database. I search 10-K's for terms representing CTOs, such as "confidential," "confidential request," "confidential treatment," "CT order," or "redacted." 10-K's found to have those terms are assigned with an indicator variable to represent a firm's redaction.

I also use SEC Analytics database to find a comprehensive list of 10-K's filed in the SEC EDGAR system. Out of this comprehensive list, if a filing is not identified in Lexis Securities

Mosaic database as having redacted disclosure, I assign zero for the redaction indicator variable.

Prior literature shows that union bargaining power influences strategic use of top management's wage concessions (DeAngelo and DeAngelo (1991)), debt financing (Matsa (2010)), and investment policy (Falato and Liang (2016); Yi (2016)). To reduce potential endogeneity concern, I exclude CTOs granted for employee-, credit-, or investment-related contracts, in some empirical analysis. To investigate what kinds of agreements unionized firms redact from their public disclosure, I read the redacted 10-K's of unionized firms and examine each exhibit with a CTO. Then, I classify redacted exhibits into eleven groups, based on the categories introduced by Boone et al. (2016): (i) "sales and purchase related" includes agreement on the firm's ordinary business, such as inventory and supply, manufacturing, distribution, marketing, reseller, vendor, production; (ii) "license or royalty" is for license or royalty agreements; (iii) "strategic alliance" involves joint ventures, partnerships, and transition; (iv) "research or consulting" includes research, consulting, or patent agreements; (v) "credit or leasing" is composed of debt contracts, loans, loan amendments, and guarantees; (vi) "employment related" involves contracts with employees or executives; (vii) "stockholder agreements" are for stock repurchase or buyback; (viii) "asset investment" is for agreement on investment, construction, or asset disposal; (ix) "outsourcing" includes outsourcing contracts; (x) "reorganization" is related to merger, acquisition, divestiture or structure reorganization; and (xi) "litigation" stands for legal actions or lawsuit outcomes.

C. Other Covariates

Firm-year specific financial data is collected from COMPUSTAT. I/B/E/S provides the information on analyst forecasts. Details on debt contracts are obtained from DealScan. SEC Analytics provides the list of exhibits which firms publish with SEC filings, such as 10-K, 10-Q or 8-K.

Based on previous studies, I construct a set of control variables which are standard controls in the financial disclosure literature. First, financial variables include the natural logarithm of total assets, the natural logarithm of market value, book to market, and return on assets. Second, to control for proprietary costs related to market competition, I consider the text-based competition measure of Hoberg and Phillips (2010, 2016).[2] The measure is negatively associated with product

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[2]The text-based measure is based on firm pairwise similarity scores from text analysis of firm 10-K product descriptions. It is available to the public in Hoberg-Phillips data storage: http://hobergphillips.usc.edu

market competition. Prior literature has shown that the competitive advantage influences a firm's redaction decision (Verrecchia and Weber (2006); Boone et al. (2016)).

For cross-sectional analysis, I implement the following proxies to measure information uncertainty, growth opportunities, financial constraints, and work stoppage costs, respectively. First, information uncertainty is measured by analyst forecast errors. Analyst forecast errors are the absolute value of the difference between a firm's reported earnings per share and the mean of most recent analyst forecasts. Second, backward-looking sales growth proxies for growth opportunities. It is calculated as $sale_t/sale_{t-1}$, where $sale_t$ and $sale_{t-1}$ are sales in years t and $t-1$, respectively. Third, Whited and Wu index (WW index) represents firms' financial constraints (Whited and Wu (2006) and Hennessy and Whited (2007)). It is constructed as $-0.091 \times [(ib+dp)/at] - 0.062 \times$ [indicator set to one if $dvc+dvp$ is positive, and zero otherwise] $+0.021 \times [dltt/at] - 0.044 \times [log(at)] + 0.102 \times$ [average industry sales growth, for three-digit SIC industry] $- 0.035 \times$ [sales growth], where all variables are based on COMPUSTAT data items. Last, I use the text-based similarity measure as the expected loss of contentious wage negotiation. The measure is borrowed from Hoberg and Phillips (2010, 2016).

Liquidity management is measured by the natural logarithm of loan amount and asset purchase amount in the following fiscal year. The asset purchase amount is measured as aqc_{t+1}/at_t, based on COMPUSTAT data items. The loan amount is measured by the debt which is newly financed in the following fiscal year. DealScan provides the related information. If more than two facilities are in the same package, then I use the largest facility in the package to obtain the information on initiation date and loan amount. I exclude the deals with primary purpose of financial restructuring, such as leveraged buyout (LBO), management buyout (MBO), recapitalization, restructuring, and takeover. I merge DealScan data with other data using the link file provided by Chava and Roberts (2008), which is available at Michael Robert's webpage.

III.   Summary Statistics

A.   Industry Distribution

Table A1 provides the final sample distribution over different industries, which are defined by two-digit SIC codes. The most common industry is manufacturing, which has 35.9% of nonunionized

observations and 53.4% of unionized observations. Compared to nonunionized firms, unionized firms are more clustered in manufacturing and transportation and public utilities industries. Nonunionized firms are more likely in the finance, insurance and real estate industries. I control for potential systematic difference in industry by adding firm fixed effects in every empirical specification.

B.   Time-Series Distribution

Table A2 shows the final sample distribution over the period of 1997 to 2013. These data help to ensure that year-specific common shocks do not drive the results. Panel A contains the fiscal year distribution of firm-year observations, separately for unionized firms and nonunionized firms. The observations are evenly distributed over the sample period.

Panel B provides the yearly distribution of redacted and nonredacted 10-K filings over the sample period. As the SEC Division of Corporate Finance states in the Legal Bulletin, CTOs have increased steadily.[3]

Panel C separates the firm-year observations of unionized firms depending on the existence of contract expirations in a certain fiscal year. Contract expirations slightly decrease over the sample period but are not concentrated in a particular time window.

Overall, there is no significant clustering in any fiscal years. Although any year-specific common shock will not drive empirical findings, I further relieve this concern by controlling for year fixed effects.

C.   Firm Specification and Entropy Balancing

Panel A in Table I provides summary statistics of unionized firms and nonunionized firms in terms of various firm-year specifications. It indicates that firms with unions have bigger size in terms of total assets, stockholders' equity, and market value. Also, they are more profitable, they are less likely to have negative net income, and their profit is less volatile. Unionized firms are less financially constrained and rely less on external financing. Unionized firms have less analyst forecast dispersion.

The *t*-test results imply that there are systematic differences between unionized firms and

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[3]See the SEC Division of Corporation Finance Staff Legal Bulletin No. 1 (with Addendum) "Confidential Treatment Requests" Action: Publication of CF Staff Legal Bulletin, February 28, 1997.

nonunionized firms. To reduce the endogeneity concern, I take two remedies. First, I include firm fixed effects to focus on within-firm variations of unionized firms and compare the years with and without contract expirations. Second, when I use the full sample, including both unionized and nonunionized firms, nonunionized firm-year observations are entropy-balanced by firm observables (Hainmueller (2012)). That is, nonunionized firms are assigned with different weights to match the moments of firm-year specifications. Panel B shows the balancing outcomes. It indicates that the entropy balancing technique is successful in matching two groups in every covariate. The number of firm-year observations of nonunionized firms is much larger than those of unionized firms. This improves the chance of finding matches.

D. Frequency and Types of Redacted Contracts

Table II provides general descriptions on redaction activities of the final sample. Panel A contains summary statistics on redaction practice for nonunionized firms and unionized firms. The simple mean probability of redaction indicates that nonunionized firms are more likely to withhold material contracts (17.7%) than unionized firms (12.1%). Out of every 10-K filings, 17.5% of filings have at least one material agreement concealed. This figure is close to the findings in Verrecchia and Weber (2006), who manually collect the redacted cases and identify a 16% redaction rate.

In order to understand what types of contracts firms withhold, I examine nonunionized firms' 10-K's and classify redacted contracts into eleven categories. Panel B reports the frequency distributions of each type of contracts redacted. Since the unit of observations is exhibit level, the total number of redacted contracts, 1,055, exceeds the number of redacted filings of unionized firms, 439. Similar to the findings in Boone et al. (2016), the contracts related to the sales and purchase are the most shielded, followed by credit agreements and strategic alliance contracts.

IV. Effect of Labor Negotiations on Firm Disclosure

A. Contract Expiration and Redaction

The first analysis focuses on the causal impact of contract expirations on CTOs. Theory predicts that contract expirations increase management incentive to hide information from employees to have a favorable bargaining condition. Information asymmetry strengthens firms' information advantage

and hinders union's rent-seeking behavior.

As a baseline empirical design, I run the following linear regression. Although the outcome variable is a dummy variable which indicates redaction activity, I use a linear probability model to control for firm and year fixed effects while avoiding the incidental parameter problem (Heckman (1987); Greene (2004)).

$$P(Redaction)_{it} = \beta_0 + \beta_1 Expiration_{it+1} + \beta' X_{it} + \gamma_i + \mu_t + \epsilon_{it},$$

where i and t represent a firm i and a fiscal year t. The dependent variable is $P(Redaction)_{it}$, which is a dummy variable to indicate whether firm i chooses to redact any material contracts or agreements from its 10-K filing in fiscal year t. The main explanatory variable is $Expiration_{it+1}$. It equals to one if firm i has collective bargaining contracts expiring in the following fiscal year $t + 1$. I also include firm-year specifications as control variables X_{it}, firm fixed effects γ_i, and year fixed effects μ_t. The unit of observation is a firm-year, and the panel runs from 1997 to 2013. Standard deviations are clustered by the firm in all regressions.

Table III presents the baseline results. In columns (1) and (2), the dependent variable is an indicator variable for CTOs, which equals to one if a unionized company redacts any material contracts from 10-K in year t. The coefficient estimates of expiring contract dummy verify my hypothesis. When a firm has collective bargaining contracts expiring in the following year, it shields material business contract information by requesting CTOs. It implies that bargaining competition during wage negotiation increases management's incentive to strategically conceal information. The point estimate of 3.1 percentage points is statistically significant. It is also economically important, considering the overall probability of redaction in unionized firms is 12.1%.

The identification strategy relies on the assumption of orthogonality between material contracts and union bargaining power. This assumption might be undermined by the prior literature, which finds the implication of union bargaining power on various firm policies. Union bargaining power influences the strategic use of top management's wage concessions (DeAngelo and DeAngelo (1991)), debt financing (Matsa (2010)), and investment policy (Falato and Liang (2016); Yi (2016)). Therefore, some types of business agreements might have systematically different nature and occurrence around contract expirations.

Columns (3) and (4) help to address this concern. I exclude the cases of CTOs for certain types of agreements, including lending-, employee-, or investment-related agreements. The dependent variable equals to one if a unionized company redacts any material contracts other than those types of agreements from 10-K in year t. I use the same sample observation and the explanatory variable as in columns (1) and (2). The point estimates are 2.6 percentage points and remain statistically significant. The economic magnitude is similar as in columns (1) and (2), given the mean value of outcome variable is 10.5%.

In columns (5) and (6), the sample consists of both unionized firms and entropy-balanced nonunionized firms. The dependent variable is an indicator variable for CTOs, which equals to one if a company redacts any material contracts from 10-K in year t. The point estimates and t-statistics are smaller than the previous specifications but remain close to being significant and positive. The results seem weaker in this specification than those in columns (1) to (4). This observation may suggest that the entropy-balancing cannot fully resolve any systematic differences between unionized and nonunionized firms.

Throughout various specifications, the results indicate that a company increases the redaction probability by $2.2 \sim 3.1$ percentage points. Considering the overall probability of redaction is 17.5% for the entire sample and 12.1% for unionized sample, this value is economically meaningful. The findings illustrate that union bargaining activities lead to an increase in proprietary costs of public disclosure. To strategically increase information asymmetry and strengthen their information advantage over unions, firms use CTOs as a bargaining device in wage negotiations.

B. Cross-Sectional Factor Analysis

In this section, I explore potential modifying factors for strategic disclosure policy that could affect managerial decision to exploit CTOs. While CTOs can improve a firm's information advantage, it may lead to detrimental market reactions, such as an increase in cost of capital. A firm may seek to the balance the benefits of information advantage against the costs of information asymmetry.

First, I show how the *status-quo* information advantage of firm insiders affects redaction practice as a strategic device. The theory provides two contradicting predictions: greater information asymmetry will either mitigate or amplify the benefits of CTOs. The current information asym-

metry may reduce the managerial incentive to exaggerate information asymmetry. In contrast, it may intensify the strategic redaction because unions cannot form a strong prior on future surplus based on past firm performance and become more cautious on its wage demand.

To verify which theoretical prediction the empirical tests support, I implement a triple-difference analysis to compare the group with high information asymmetry and the group with low information asymmetry. I proxy information uncertainty using analyst forecast errors. Analyst forecast errors represent sophisticated investors' difficulty in forecasting a firm's future performance (Zhang (2006)). The main explanatory variable is an interaction term of a dummy to indicate contract expiration and a dummy to identify higher-than median analyst forecast errors.

Table IV panel A reports the results. Throughout the various specifications, the triple interaction term preserves positive coefficient estimates. The empirical evidence supports the theory that *status quo* information asymmetry strengthens managements' incentive to strategically withhold information.

In the next factor analysis, I hypothesize that a firm with low growth opportunities uses CTOs more than a firm with high growth opportunities. The former is exposed to severe rent-seeking behavior of unions. As a rational bargainer, unions will agree on wage concessions now if they expect a higher surplus in the future. Therefore, growing firms have a better bargaining position with unions and will use a CTO less intensively in a union-management bargaining game.

Table IV panel B provides some evidence on the empirical prediction. The negative triple interaction terms imply that firms with high sales growth strategically redact less, compared to firms with low sales growth. Although the results are weak in some specifications, they imply that strategic disclosure policy is beneficial for the firms which cannot credibly convince employees to wait for future surplus.

Prior literature has shown that a high level of corporate liquidity weakens a firm's bargaining condition with labor unions (Bronars and Deere (1991); Matsa (2010); Yi (2016)). Union negotiators may interpret a employer's liquidity as extra surplus and demand higher wages. A strategy to enhance a firm's bargaining power will be more beneficial for the firm with more internal resources. Therefore, I expect that expiring contracts predict redactions mainly for financially affluent employers.

Table IV panel C provides weak empirical support for this prediction. The negative interactions

imply that the firms with below-median financial constraints increase redaction probabilities more than those with above-median financial constraints. Although the statistically insignificant coefficients restrict the interpretation, the analyses suggest that financially constrained firms are less likely to manipulate their information environment to preserve information advantage over unions.

Next, I explore how a threat from potential work stoppages affects strategic disclosure. Game theory literature and the corresponding empirical evidence illustrate that incomplete information may result in a costly delay in settlement (Reder and Neumann (1980); Mauro (1982); Cramton (1984)). Since contentious negotiations may result in a costly strike, the estimated costs of work holdups may deter firms from hiding information.

In panel D of Table IV, a firm's product type represents cost of delays in wage negotiations. To be specific, a delay results in higher costs when a firm's products have lower market power and have close substitutions (Reder and Neumann (1980)). The table only weakly confirms the empirical prediction with negative coefficient estimates for the triple interactions. The firms with above-median similarity measure increase redaction probabilities less than those with below-median similarity measure.

The cross-sectional analyses deliver some suggestive evidence that a firm strategically chooses to redact material agreements by considering the size of potential benefits. The *status quo* information asymmetry amplifies the strategic disclosure, while growth opportunities, financial constraints, and strike threat mitigate the strategic behavior. Overall, the coefficient estimates confirm my directional predictions but in some specifications, do not provide statistically significant results. One takeaway is that the main result stays significant throughout various specifications.

The cross-sectional analyses do not provide causal implications, as do the baseline analysis. For example, the union's bargaining power may vary systematically across the factors I explore. The results should be interpreted as correlations.

V.   Effect of Strategic Disclosure on Firm Performance

The results presented above show that contract expirations cause firms to strategically withhold information. A natural question following this analysis is whether the redaction choice leads to favorable negotiation outcomes for the redacting firms. To address this question, this section

16

explores the association between the strategic disclosure and *ex post* firm performance.

There is an empirical challenge to determine the causal impact of redaction on *ex post* firm performance. Although wage negotiations are exogenous events, disclosure policy is a firm's endogenous choice. As a rational player, a firm determines the right level of information disclosure by assessing the trade-offs between the benefit of information advantage in wage negotiations and the expected cost of asymmetric information.

Prior literature shows that if a firm optimizes its strategic variables to maximize the firm value, empirical tests do not detect any relation between these variables and firm value (Demsetz and Lehn (1985)). Thus, I predict that reduced-form empirical tests to detect the effect on future performance will not provide a relation between CTOs and firm performance.

To test this speculation, I run the following linear regression model.

$$
\begin{aligned}
FirmPerformance_{it+1} &= \beta_0 + \beta_1 CTO_{it} + \beta_2 Expiration_{it+1} + \beta_3 CTO_{it} \times Expiration_{it+1} \\
&+ \gamma_i + \mu_t + \epsilon_{it},
\end{aligned}
$$

where i and t represent a firm i and a fiscal year t. The dependent variable is $FirmPerformance_{it+1}$, which is measured by return on assets, operating cash flow scaled by total assets, and operating margin. CTO_{it} indicates whether firm i chooses to redact any material contracts or agreements from its 10-K filing in fiscal year t. $Expiration_{it+1}$ equals to one if firm i has collective bargaining contracts expiring in the following fiscal year $t+1$. I also include firm fixed effects γ_i, and year fixed effects μ_t. The main variable of interest is the interaction term of the CTO dummy and the contraction expiration dummy, which represents the net impact of CTO adapted before wage negotiations on firm performance.

Due to the empirical challenge mentioned above, one can interpret a predicted association between CTOs and *ex post* performance in two ways. First, it might imply that redaction alters a firm's bargaining power in wage negotiations and leads to a change in operating performance. Second, a manager has private information on future performance which motivates the manager to hide information from employees in a systematically different way.

Since the objective of this paper is to show the strategic value of disclosure as a bargaining device, the first channel will be the main interest. To alleviate the impact of the second channel, I

match redacting firms and non-redacting firms using entropy-balancing (Hainmueller (2012)). The idea is to make redacting and non-redacting groups look similar in terms of firm-year observables and make CTOs arguably be randomly assigned. It does not completely remove the endogeneity concern but might reduce it. I use the same set of firm-year specifications as in Section III to match two groups. To conserve space, I do not report the balancing outcomes but find that the matching process is successful.

Table V reports the findings. The interaction terms of CTOs and expiring contracts do not produce any statistically significant coefficients throughout various performance measures. The findings provide suggestive evidence that management strategically implements CTOs by counter-balancing the benefit and the cost. Although I reduce the endogeneity concern by matching firms with and without CTOs, the studies with *ex post* outcomes do not provide causal interpretation but should be interpreted as correlations.

VI. Robustness Tests and Additional Analyses

A. Substitution Effect between Strategic Disclosure and Liquidity Management

A union's rent-seeking behavior can incentivize managers to implement various strategic policies. In particular, strategic liquidity reduction is well-understood both in theory and empirical literature. A firm decreases internal resources either by increasing fixed interest payments (Matsa (2010)) or by purchasing additional assets (Yi (2016)).

While strategic disclosure and liquidity reduction can enhance a firm's bargaining position, they entail costs: the former increases capital market costs, and the latter increases financial distress costs. Unless we accurately formulate the cost and the benefit function of each strategy, it is an empirical question of whether two bargaining devices substitute or complement each other.

Table VI provides evidence on strategic substitutability between two strategies. In columns (1) and (2), I test whether debt financing in year $t+1$ reduces the causality of contract expirations on redaction probability. The interaction terms between contract expirations and debt financing have negative but statistically insignificant coefficient estimates. Although the results do not confirm any interaction between strategic financing and strategic disclosure, this finding does not contra-dict the argument made in Matsa (2010). Contract expirations represent a transitory shock in

union bargaining activities. However, Matsa (2010) measures the bargaining power using firm-level collective bargaining coverage and state changes in labor laws, which are more permanent. While debt financing and asset acquisition achieve the same goal, which is to reduce excess liquidity, the former changes liquidity for a long period. Asset acquisition can be a close substitute for disclosure policy since both produce short-lived impacts.

The interaction between two bargaining strategies becomes pronounced in columns (3) and (4). The columns test the substitution between redaction and asset purchase. The interaction terms between contract expirations and asset purchase amounts have statistically significant and negative coefficients. They illustrate the strategic substitution effect between disclosure policy and investment policy.

The findings indicate that strategic disclosure is a substitute for liquidity management using asset acquisition. We can explain strategic substitutability using the following rationale. First, a firm cannot cut wages below a certain point on which employees start to have better outside options. Therefore, the value of additional bargaining power is bounded. Second, while additional bargaining power helps a firm to obtain wage concessions, excessive wage cuts entails reputation costs. If a firm forces its current employees to settle on wage concessions, it may have a difficult time to recruit potential workers in the future (Hart (1983)). Collectively, the total benefit from strong bargaining position is canceled out by reputation loss in the labor market.

B.   Endogenous Financial Constraint

In the main empirical analysis, I use financial constraints as one of the mitigators for CTOs. The idea is that financial constraints will suppress wage demand and reduce the benefit of redaction. However, it is also possible that the firms with active union bargaining activities strategically choose to reduce excess liquidity and increase financial constraints (Klasa et al. (2009); Matsa (2010)).

In order to entirely remove the concern, I need an exogenous shock in union bargaining power, which exclusively influences the proprietary value of information and does not change the value of financial structure. Absent such a shock, I try to alleviate the concern by using financial constraints in lagged values.

In Table VII, I run the same experiment as Table IV panel C but use the median value of lagged WW index. The evidence preserves the main message in the cross-sectional analysis using

contemporary WW index. The interaction terms of the dummy for upcoming wage negotiations and the dummy for high lagged financial constraints are estimated to have negative and statistically significant coefficients.

VII. Conclusion

Managers are better informed about a firm's future prospects than other stakeholders, such as investors and labor suppliers. This inherent information asymmetry can be harmful because it leads to inefficient resource allocation and a higher cost of capital. However, it can also enhance a firm's competitive advantage in negotiations over wages or pricing contracts.

This paper analyzes the strategic use of public disclosure to improve a firm's bargaining condition with unions. To overcome endogeneity concerns and to establish causality, I use collective contract expiration dates. The results provide causal evidence that firms strategically withhold information to improve bargaining outcomes with labor unions. The analysis on various determinants on CTOs illustrates trade-offs of withholding confidential information between the benefits of information advantage over unions and the costs from information asymmetry in the capital market.

The paper contributes to the growing literature studying how labor forces influence a firm's policy. The findings suggest that labor negotiations have a significant impact on a firm's information environment. In particular, a firm with low bargaining power will further distort information asymmetry among management and investors. The findings also complement the existing studies on the strategic decision to withhold information using CTOs.

In light of the findings in this paper, there are potential directions for future research. First, it is important to better establish causality between strategic CTOs and operating outcomes. Second, future research could investigate wage settlement results to study the direct impacts of strategic information sharing on bargaining outcomes. Last, the cross-sectional findings are centered on the benefits of redaction, while the strategic decision is made considering a trade-off of the benefit and capital market concerns. To complete the picture, future research could explore how the capital market reacts to strategic disclosure.

Appendix A. Confidential Treatment Example

This is an example of a confidential treatment order form, requested by Progress Power, Inc. and then approved by the SEC. The redacted contract is Exhibit 10.1 "ENGINEERING, PROCURE-MENT AND CONSTRUCTION AGREEMENT" for "AP1000 NUCLEAR POWER PLANT." The firm timely disclosed the contract in Form 8-K, with some confidential information withheld.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

March 18, 2009

ORDER GRANTING CONFIDENTIAL TREATMENT
UNDER THE SECURITIES EXCHANGE ACT OF 1934

Progress Energy, Inc.
File No. 001-15929 - CF# 23240

Florida Power Corporation
d/b/a Progress Energy Florida, Inc.
File No. 001-3274 - CF# 23240

_____

Progress Energy, Inc. and Florida Power Corporation d/b/a Progress Energy Florida, Inc. submitted an application under Rule 24b-2 requesting confidential treatment for information they excluded from the Exhibit to a Form 8-K filed on March 2, 2009.

Based on representations by Progress Energy, Inc. and Florida Power Corporation d/b/a Progress Energy Florida, Inc. that this information qualifies as confidential commercial or financial information under the Freedom of Information Act, 5 U.S.C. 552(b)(4), the Division of Corporation Finance has determined not to publicly disclose it. Accordingly, excluded information from the following exhibit(s) will not be released to the public for the time period(s) specified:

Exhibit 10.1 through March 2, 2019

For the Commission, by the Division of Corporation Finance, pursuant to delegated authority:

Ellie Bavaria
Special Counsel

Appendix B.   Redacted Contract Filing

This is an excerpt from contract filed with confidential treatment by Progress Power, Inc., which is about "ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT" for "AP1000 NUCLEAR POWER PLANT." The agreement is timely disclosed in Form 8-K and then in Form 10-K for the fiscal year end.

EX-10.1 2 g17748exv10w1.htm EX-10.1

<div align="right">Exhibit 10.1</div>

Progress Energy, Inc. and Florida Power Corporation d/b/a Progress Energy Florida, Inc. ("PEF") have requested confidential treatment for certain portions of this document pursuant to an application for confidential treatment sent to the Securities and Exchange Commission. Progress Energy, Inc. and PEF have omitted such portions from this filing and filed them separately with the Securities and Exchange Commission.
Such omissions are designated as "[***]."

<div align="center">

ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT

BETWEEN

FLORIDA POWER CORPORATION DOING
BUSINESS AS:

PROGRESS ENERGY FLORIDA, INC.
(OWNER)

AND

A CONSORTIUM CONSISTING OF
WESTINGHOUSE ELECTRIC COMPANY LLC
AND
STONE & WEBSTER, INC.
(CONTRACTOR)

FOR AN

AP1000 NUCLEAR POWER PLANT

Progress Energy Contract No. 414310

</div>

<div align="center">[.......]</div>

<div align="center">ARTICLE 3 — SCOPE OF WORK AND SCHEDULE</div>

3.1 <u>General.</u>

    (a)   Contractor will perform the Work identified as Contractor's responsibility in the Scope of Work (<u>Exhibit A</u>) and will perform all other obligations and responsibilities of Contractor as set forth in this Agreement. The Work will be performed in two phases, as more fully described in <u>Sections 3.2 and 3.3</u> of this Agreement. Contractor agrees to design, engineer, supply, equip, construct and install a complete and fully operational Facility, including the Equipment to be incorporated therein and the Services to be provided in connection therewith.

    (b)   If there is a dispute as to whether certain work related to the Facility is within the Contractor's Scope of Work, then in exigent circumstances Owner shall have the right to require Contractor by written Notice to begin to perform such work and Contractor will be paid on a Time and Materials Basis for such work until the DRB makes a determination as to whether such work or a portion thereof is within the Contractor's Scope of Work. If there is also no agreement between the Parties on the pricing or the adjustment to the Contract Price in connection with such work, then either Party may also submit to Dispute Resolution the determination of the appropriate pricing or Contract Price change, as applicable, relating to such work. If the DRB determines that such work is within the Contractor's Scope of Work, then the DRB shall determine whether such work is priced [***], or on a Time and Materials Basis as set forth in <u>Exhibit H</u>. If, however, the DRB determines that such work is outside of Contractor's Scope of Work, then the DRB shall determine the appropriate adjustment to the Contract Price pursuant to <u>Section 9.4(c)</u>.

<div align="center">Page 21</div>

Appendix C.   Redacted 10-K

This is an excerpt from 10-K filing by Progress Power, Inc., which requested and received the approval for confidential treatment for its material contract filing. The corresponding contract is about "ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT" for "AP1000 NUCLEAR POWER PLANT." The agreement is timely disclosed in Form 8-K and then in Form 10-K for the fiscal year end.

10-K 1 form10k_2011.htm 2011 FORM 10K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

[…..]

Commission File Number	Exact name of registrants as specified in their charters, state of incorporation, address of principal executive offices, and telephone number	I.R.S. Employer Identification Number
1-15929	Progress Energy, Inc. 410 South Wilmington Street Raleigh, North Carolina 27601-1748 Telephone: (919) 546-6111 State of Incorporation: North Carolina	56-2155481

[.....]

EXHIBIT INDEX

Number	Exhibit	Progress Energy, Inc.	PEC	PEF
	[…..]			
*10d(2)	Engineering, Procurement and Construction Agreement, dated as of December 31, 2008, between Florida Power Corporation d/b/a/ Progress Energy Florida, Inc., as owner, and a consortium consisting of Westinghouse Electric Company LLC and Stone & Webster, Inc., as contractor, for a two-unit AP1000 Nuclear Power Plant (filed as Exhibit 10.1 to Current Report on Form 8-K filed on March 2, 2009). (The Registrants have requested confidential treatment for certain portions of this exhibit pursuant to an application for confidential treatment submitted to the SEC. These portions have been omitted from the above-referenced Current Report and submitted separately to the SEC.)		X	X

[…..]

Appendix D. Order Denying Confidential Treatment Example

This is an example of denied confidential treatment request form, initially requested by Corestream Energy, Inc. and then denied by the SEC.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
January 24, 2012

ORDER DENYING CONFIDENTIAL TREATMENT
REQUEST UNDER RULE 24b-2
AND
NOTICE OF OPPORTUNITY TO PETITION
FOR REVIEW UNDER THE
SECURITIES EXCHANGE ACT OF 1934

Corestream Energy, Inc.

File No. 0-26383 - CF#26575
_____

The Division of Corporation Finance denied your request for confidential treatment of the information excluded from exhibit 10.1 to the Form 8-K, as filed on March 15, 2011.

We denied your request because we concluded:

- the excluded information is material to those who make investment decisions concerning your securities; and

- the application failed to include information required to be included by Rule 24b-2, including an analysis of the applicable exemption from disclosure under the Commission's rules and regulations and a specific stated date through which confidential treatment is sought.

You may request that the Commission review this order by submitting a petition to the Office of the Secretary within five days, as required by 17 C.F.R. 201.430. Otherwise, we will make the information for which you requested confidential treatment available to the public.

For the Commission, by the Division of Corporation Finance, pursuant to delegated authority:

Michael McTiernan
Assistant Director

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Figure 1.
Changes in Redaction Tendency around Contract Expiration

This figure plots the point estimates and 95% confidence intervals by regressing redaction probability in year t on indicators for bargaining contracts which expire in different time windows: $[t+2, t+3)$, $[t+1, t+2)$, $[t, t+1)$, $[t-1, t)$ and $[t-2, t-1)$. Regressions include firm and year fixed effects. Standard errors are clustered by the firm. The sample consists of firm-year observations during the period 1997-2013 for unionized firms which have at least one expiring contracts in the sample period.
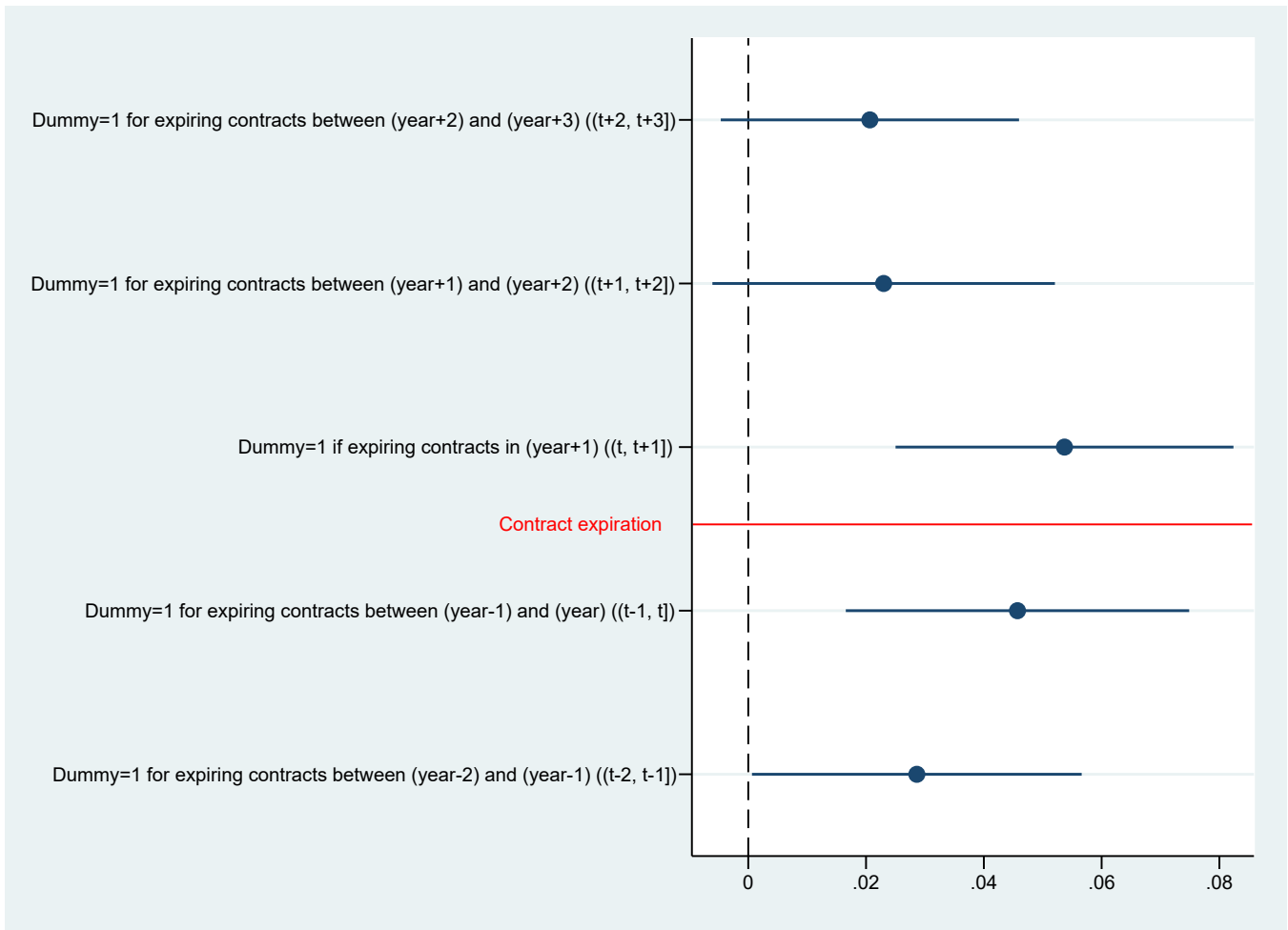
Figure 2.
Changes in Number of Exhibits around Contract Expiration

This figure plots the point estimates and 95% confidence intervals by regressing number of contract disclosed in year t on indicators for bargaining contracts which expire in different time windows: $[t+2, t+3)$, $[t+1, t+2)$, $[t, t+1)$, $[t-1, t)$ and $[t-2, t-1)$. The exhibits disclosed in SEC filings are collected from SEC Analytics. I count the list of exhibits which have titles as "Ex-10. XX" in 10-K, 10-Q and 8-K filings in fiscal year t. Regressions include firm and year fixed effects. Standard errors are clustered by the firm. The sample consists of firm-year observations during the period 1997-2013 for unionized firms which have at least one expiring contracts in the sample period.
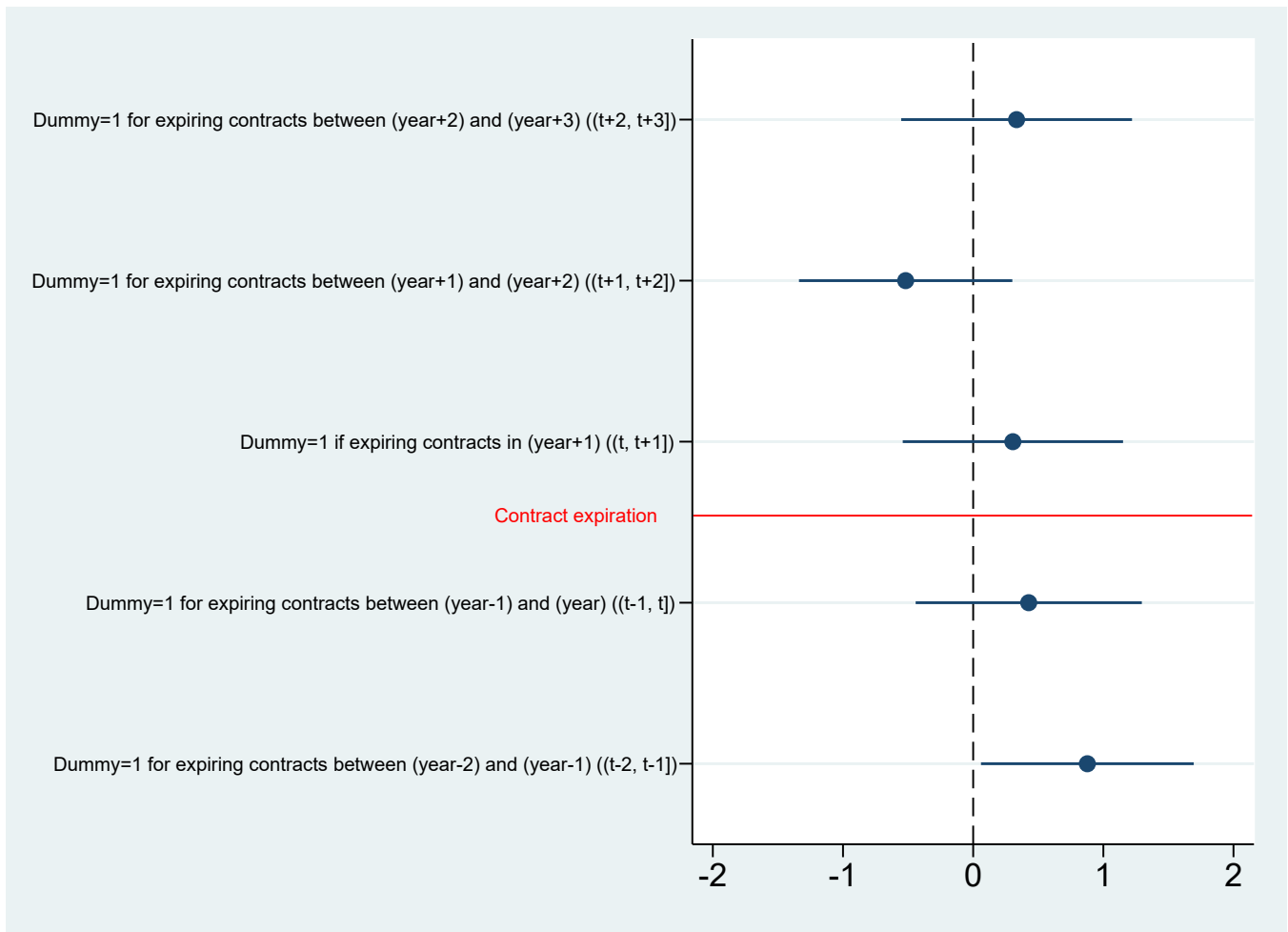
Table I
Summary Statistics and Entropy Balancing

This table summarizes firm-year specific covariates during the period 1997-2013, separately for unionized and nonunionized firms. Firms are classified as nonunionized firms if they do not have collective bargaining expirations in the sample period. Unionized firms consist of companies which have at least one contract expiration in the sample period. Columns (1) and (2) represent the mean value of each group. Column (3) shows the mean difference between two groups with statistical significance indicators. Panel A reports the summary statistics before entropy balancing for various firm-year specifications. Panel B shows the same list of covariates after matching unionized and nonunionized firm-year observations using entropy balancing. Financial data is collected from COMPUSTAT. The text-based measure is from Hoberg-Maksimovic data library. Analyst forecasts data is from IBES. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

Panel A: Before Entropy Balancing

	Unionized Firm Mean	Nonunionized Firm Mean	Difference
	(1)	(2)	(3)
Log (Total Assets)	8.878	5.002	−3.876***
Stockholders' Equity	6563.567	718.407	−5845.160***
Return on Assets	0.037	−3.894	−3.932
Dummy=1 for negative net income	0.154	0.420	0.267***
Log (Market Value)	8.405	4.727	−3.679***
Text-Based Competition Measure	0.191	0.226	0.035***
Profit Volatility	−3.527	−2.734	0.793***
Book to Market	35.635	−88.959	−124.595
Kaplan-Zingales Measure	1.270	−7.801	−9.071
Hadlock-Pierce Measure	−3.012	−0.238	2.774***
Whited-Wu Measure	−0.303	0.007	0.311*
Text-Based Financial Constraint Measure	−0.011	−0.000	0.011***
Analyst Forecast Dispersion	0.066	0.132	0.066***

Panel B: After Entropy Balancing

	Unionized Firm Mean	Nonunionized Firm Mean	Difference
	(1)	(2)	(3)
Log (Total Assets)	9.178	9.041	−0.137
Stockholders' Equity	7930.613	7934.630	4.017
Return on Assets	0.041	0.041	−0.000
Dummy=1 for negative net income	0.125	0.125	0.000
Log (Market Value)	8.800	8.801	0.000
Text-Based Competition Measure	0.182	0.182	0.000
Profit Volatility	−3.581	−3.581	−0.000
Book to Market	0.456	0.456	−0.000
Kaplan-Zingales Measure	1.358	1.358	−0.000
Hadlock-Pierce Measure	−3.183	−3.183	−0.000
Whited-Wu Measure	−0.314	−0.314	−0.000
Text-Based Financial Constraint Measure	−0.011	−0.011	0.000
Analyst Forecast Dispersion	0.005	0.005	0.000

Table II
Descriptive Information on CTO Practice

This table presents information on redaction practice of sample firms during the period 1997-2013. Panel A reports the overall redaction tendencies, separately for unionized and nonunionized firms. Firms are classified as nonunionized firms if they do not have collective bargaining expirations in the sample period. Unionized firms consist of companies which have at least one contract expiration in the sample period. The unit of observation is a firm-year 10-K. Panel B presents the frequency distribution for eleven types of redacted agreements for unionized firms. The unit of observation is an exhibit which stands for a material contract. The contract category is a modified classification of Boone et al. (2016). The total number of redacted contracts (= 3,640) exceeds the number of redacted 10-K's (= 439) of unionized firms since each 10-K can have more than one contract withheld.

Panel A: Redaction Tendency

	Nonunionized Firm		Unionized Firm		Total	
	No.	%	No.	%	No.	%
Non-Redacted 10-K's	94,429	82.3	3,201	87.9	97,630	82.5
Redacted 10-K's	20,251	17.7	439	12.1	20,690	17.5
Total	114,680	100.0	3,640	100.0	118,320	100.0

Panel B: Redacted Contract Types

		Redacted Exhibit	
Contract Type	Total Number	Average Number	Maximum Number
Sales or Purchase Related	574	0.158	17
License or Royalty	73	0.020	6
Strategic Alliance	114	0.031	3
Research or Consulting	11	0.003	3
Credit or Leasing	180	0.049	13
Employee Related	12	0.003	1
Stockholder Agreement	11	0.003	5
Asset Investment	40	0.011	7
Outsourcing	23	0.006	3
Reorganization	12	0.003	2
Litigation	5	0.001	1
Total	1,055		

Table III
Contract Expiration and Redaction

This table shows the estimates from linear regressions using various specifications. The unit of observation is a firm-year, and the panel runs 1997-2013. The main explanatory variable is a dummy variable to indicate whether the firm-year has expiring contracts in the following fiscal year $t + 1$. The reported numbers are coefficient estimates and their t-statistics (in parentheses). Standard errors clustered by the firm. All regressions include firm and year fixed effects. The financial controls include the natural logarithm of total assets, the natural logarithm of market value, book to market, return on assets, and the text-based competition measure (Hoberg and Phillips (2010, 2016)). In columns (1) and (2), the sample consists of unionized firms which have at least one contract expiration in the sample period. The dependent variable is an indicator variable for CTOs on any material contracts in year t. In columns (3) and (4), the sample consists of unionized firms which have at least one contract expiration in the sample period. The dependent variable is an indicator variable for CTOs on material contracts other than those related to debt financing, employees, or investment in year t. In columns (5) and (6), the sample consists of both unionized and non-unionized firms, which are entropy-balanced using firm observables describes in Table I. The dependent variable is an indicator variable for CTOs on any material contracts in year t. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

	Dummy=1 if firm redacted any material contracts		Dummy=1 if firm redacted material contracts other than lending, employee, or investment agreements		Dummy=1 if firm redacted any material contracts	
	(1)	(2)	(3)	(4)	(5)	(6)
Dummy=1 if expiring contracts in $t + 1$ fiscal year	0.031***	0.033***	0.026**	0.026**	0.022	0.025*
	(2.62)	(2.67)	(2.36)	(2.32)	(1.49)	(1.72)
Log (Total Assets)		−0.026		−0.006		−0.007
		(−1.01)		(−0.24)		(−0.36)
Log (Market Value)		−0.036**		−0.034**		−0.042***
		(−2.14)		(−2.06)		(−3.17)
Book to Market		0.001***		0.001***		−0.010**
		(3.75)		(3.70)		(−2.29)
Return on Assets		−0.012		−0.028		0.031
		(−0.36)		(−0.80)		(0.74)
Text-Based Competition Measure		−0.069		−0.079*		−0.033
		(−1.52)		(−1.88)		(−1.14)
Firm Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Entropy Balanced	No	No	No	No	Yes	Yes
Observations	3640	3468	3640	3468	35265	35265
Adjusted R^2	0.025	0.033	0.018	0.025	0.463	0.467

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table IV
Cross-sectional Analysis

This table shows the estimates from triple-difference regressions using various specifications. The unit of observation is a firm-year, and the panel runs 1997-2013. The main explanatory variable is the interaction terms of two dummy variables. The first dummy indicates whether the firm-year has expiring contracts in the following fiscal year $t+1$. And the second dummy is to identify higher-than median factor variables. The reported numbers are coefficient estimates and their t-statistics (in parentheses). Standard errors clustered by the firm. All regressions include firm and year fixed effects. The financial controls include the natural logarithm of total assets, the natural logarithm of market value, book to market, return on assets, and the text-based competition measure (Hoberg and Phillips (2010, 2016)). In columns (1) and (2), the sample consists of unionized firms which have at least one contract expiration in the sample period. The dependent variable is an indicator variable for CTOs on any material contracts in year t. In columns (3) and (4), the sample consists of unionized firms which have at least one contract expiration in the sample period. The dependent variable is an indicator variable for CTOs on material contracts other than those related to debt financing, employees, or investment in year t. In columns (5) and (6), the sample consists of both unionized and non-unionized firms, which are entropy-balanced using firm observables describes in Table I. The dependent variable is an indicator variable for CTOs on any material contracts in year t. Panel A uses analyst forecast errors as a proxy for information asymmetry. Analyst forecast errors are the absolute value of the difference between a firm's reported earnings per share and the mean of most recent analyst forecasts. Panel B uses backward-looking sales growth as growth opportunities proxy. Backward-looking sales growth is $sale_t/sale_{t-1}$, where $sale_t$ and $sale_{t-1}$ are sales in years t and $t-1$, respectively. Panel C uses Whited and Wu index (Whited and Wu (2006); Hennessy and Whited (2007)) as a financial constraint proxy. Whited and Wu index is constructed as $-0.091 \times [(ib + dp)/at] - 0.062 \times$ [indicator set to one if $dvc + dvp$ is positive, and zero otherwise] $+ 0.021 \times [dltt/at] - 0.044 \times [log(at)] + 0.102 \times$ [average industry sales growth, for three-digit SIC industry] $- 0.035 \times$ [sales growth]. Panel D uses the text-based product similarity measure, which represents pairwise similarities for given firm's products with their substitutions (Hoberg and Phillips (2010, 2016)). All the median values are determined among unionized firm-year observations. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

Panel A: Information Uncertainty

	Dummy=1 if firm redacted any material contracts		Dummy=1 if firm redacted material contracts other than lending, employee, or investment agreements	
	(1)	(2)	(3)	(4)
Dummy=1 if expiring contracts in $t+1$ fiscal year	0.008	0.013	−0.002	0.002
	(0.47)	(0.74)	(−0.11)	(0.10)
Dummy=1 for high analyst forecast error	−0.049***	−0.046***	−0.048***	−0.046***
	(−3.26)	(−2.98)	(−3.23)	(−3.03)
(Dummy=1 for expiring contracts in $t+1$ fiscal year) × (Dummy=1 for high analyst forecast error)	0.033*	0.031	0.040**	0.038**
	(1.76)	(1.63)	(2.28)	(2.16)
Log (Total Assets)		−0.030		−0.008
		(−1.18)		(−0.33)
Log (Market Value)		−0.038**		−0.035**
		(−2.16)		(−2.10)
Book to Market		−0.010		−0.010
		(−0.88)		(−0.91)
Return on Assets		0.011		−0.004
		(0.33)		(−0.14)
Text-Based Competition Measure		−0.064		−0.076**
		(−1.48)		(−1.97)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	3333	3287	3333	3287
Adjusted R^2	0.025	0.036	0.020	0.028

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel B: Growth Opportunities

	Dummy=1 if firm redacted any material contracts		Dummy=1 if firm redacted material contracts other than lending, employee, or investment agreements	
	(1)	(2)	(3)	(4)
Dummy=1 if expiring contracts in $t+1$ fiscal year	0.046***	0.051***	0.048***	0.052***
	(2.97)	(3.16)	(3.34)	(3.46)
Dummy=1 for high backward-looking sales growth	0.013	0.029	0.018	0.033*
	(0.66)	(1.45)	(1.04)	(1.84)
(Dummy=1 for expiring contracts in $t+1$ fiscal year) × (Dummy=1 for high backward-looking sales growth)	−0.032	−0.037*	−0.046**	−0.052***
	(−1.54)	(−1.76)	(−2.36)	(−2.61)
Log (Total Assets)		−0.026		−0.006
		(−1.00)		(−0.23)
Log (Market Value)		−0.037**		−0.034**
		(−2.16)		(−2.04)
Book to Market		0.001***		0.001***
		(3.81)		(3.74)
Return on Assets		−0.013		−0.028
		(−0.39)		(−0.79)
Text-Based Competition Measure		−0.070		−0.080*
		(−1.55)		(−1.92)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	3626	3466	3626	3466
Adjusted R^2	0.025	0.034	0.020	0.027

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel C: Financial Constraints

	Dummy=1 if firm redacted any material contracts		Dummy=1 if firm redacted material contracts other than lending, employee, or investment agreements	
	(1)	(2)	(3)	(4)
Dummy=1 if expiring contracts in $t+1$ fiscal year	0.048***	0.051***	0.048***	0.048***
	(2.80)	(2.92)	(2.87)	(2.98)
Dummy=1 for high WW measures	0.053**	0.037	0.062***	0.053**
	(2.40)	(1.57)	(3.03)	(2.50)
(Dummy=1 for expiring contracts in $t+1$ fiscal year) $\times$ (Dummy=1 for high WW measures)	−0.032	−0.033	−0.039*	−0.040*
	(−1.51)	(−1.46)	(−1.96)	(−1.92)
Log (Total Assets)		−0.024		−0.001
		(−0.91)		(−0.05)
Log (Market Value)		−0.036**		−0.033**
		(−2.12)		(−2.04)
Book to Market		0.001***		0.001***
		(3.70)		(3.66)
Return on Assets		−0.009		−0.022
		(−0.28)		(−0.63)
Text-Based Competition Measure		−0.070		−0.081*
		(−1.55)		(−1.95)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	3612	3452	3612	3452
Adjusted R^2	0.025	0.034	0.020	0.027

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel D: Cost of Strike

	Dummy=1 if firm redacted any material contracts		Dummy=1 if firm redacted material contracts other than lending, employee, or investment agreements	
	(1)	(2)	(3)	(4)
Dummy=1 if expiring contracts in $t+1$ fiscal year	0.050***	0.054***	0.036**	0.038**
	(2.84)	(3.08)	(2.10)	(2.28)
Dummy=1 for high text-based similarity measure	0.002	−0.002	−0.015	−0.022
	(0.07)	(−0.07)	(−0.52)	(−0.74)
(Dummy=1 for expiring contracts in $t+1$ fiscal year) × (Dummy=1 for high text-based similarity measure)	−0.040*	−0.042*	−0.020	−0.022
	(−1.69)	(−1.79)	(−0.89)	(−0.99)
Log (Total Assets)		−0.026		−0.005
		(−1.01)		(−0.22)
Log (Market Value)		−0.036**		−0.034**
		(−2.14)		(−2.07)
Book to Market		0.001***		0.001***
		(3.84)		(3.77)
Return on Assets		−0.013		−0.028
		(−0.38)		(−0.81)
Text-Based Competition Measure		−0.087*		−0.099**
		(−1.87)		(−2.30)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	3475	3468	3475	3468
Adjusted R^2	0.024	0.035	0.018	0.027

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table V
Redaction and *Ex-Post* Firm Performance

This table shows the estimates from linear regressions using various specifications. The unit of observation is a firm-year, and the panel runs 1997-2013. To balance unionized firms with and without implementing CTOs, I match redacting firms to non-redacting firms based on the firm-year specifications described in Table I. The main explanatory variable is the interaction terms of two dummy variables. The first dummy is an indicator variable for CTOs on any material contracts in year t. The second dummy is to identify whether the firm-year has expiring contracts in the following fiscal year $t+1$. The outcome variables are indicated at the top of each column. Return on assets is calculated as ib_{t+1}/at_{t+1}. Operating cash flow per asset is equal to $(ib_{t+1} + dp_{t+1})/at_{t+1}$. Operating margin is determined by $ib_{t+1}/sale_{t+1}$. The reported numbers are coefficient estimates and their t-statistics (in parentheses). Standard errors clustered by the firm. All regressions include firm and year fixed effects. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

	Return on Assets	Operating CF per Asset	Operating Margin
	(1)	(2)	(3)
Dummy=1 if CTO in t fiscal year	0.024**	0.021**	0.060***
	(2.14)	(2.09)	(2.62)
Dummy=1 if expiring contracts in $t+1$ fiscal year	−0.022**	−0.021**	−0.027**
	(−2.44)	(−2.44)	(−2.14)
(Dummy=1 if CTO in t fiscal year) × (Dummy if expiring contracts in $t+1$ fiscal year)	−0.000	0.005	−0.023
	(−0.02)	(0.44)	(−0.87)
Firm Fixed Effect	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes
Entropy Balanced	Yes	Yes	Yes
Observations	2770	2770	2770
Adjusted R^2	0.289	0.267	0.173

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table VI
Strategic Disclosure and Strategic Liquidity Management

This table shows the estimates from linear regressions using various specifications. The unit of observation is a firm-year, and the panel runs 1997-2013. The dependent variable is an indicator variable for CTOs on any material contracts in year t. The two main explanatory variables are a dummy variable to indicate whether the firm-year has expiring contracts in the following fiscal year $t + 1$ and its interaction terms with the strategic liquidity management devices. Liquidity management is either debt financing or asset purchases and is indicated at the top of each column. Standard errors clustered by the firm. All regressions include firm and year fixed effects. The financial controls include the natural logarithm of total assets, the natural logarithm of market value, book to market, return on assets, and the text-based competition measure (Hoberg and Phillips (2010, 2016)). Columns (1) and (2) use the natural logarithm of the loan amount as a proxy for liquidity management. The loan amount is measured by the debt which is newly financed in the following fiscal year $t + 1$. Columns (3) and (4) use asset purchase amount as a proxy for liquidity management. The asset purchase amount is measured as aqc_{t+1}/at_t. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

	Liquidity management using debt financing		Liquidity management using asset purchase	
	(1)	(2)	(3)	(4)
Dummy=1 if expiring contracts in $t + 1$ fiscal year	0.038***	0.039***	0.038***	0.038***
	(2.96)	(2.89)	(2.84)	(2.73)
Liquidity Management Amount	0.001	0.001	0.149*	0.151
	(0.67)	(0.51)	(1.86)	(1.43)
(Dummy=1 if expiring contracts in $t + 1$ fiscal year) × (Liquidity Management Amount)	−0.001	−0.001	−0.203**	−0.196*
	(−1.17)	(−1.14)	(−2.29)	(−1.82)
Log (Total Assets)		−0.026		−0.029
		(−1.02)		(−0.94)
Log (Market Value)		−0.036**		−0.027
		(−2.13)		(−1.53)
Book to Market		0.001***		0.000
		(3.72)		(0.30)
Return on Assets		−0.013		−0.022
		(−0.39)		(−0.62)
Text-Based Competition Measure		−0.070		−0.065
		(−1.55)		(−1.38)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	3640	3468	3258	3109
Adjusted R^2	0.025	0.033	0.026	0.030

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table VII
Redaction Tendency and Lagged Financial Constraint

This table shows the estimates from triple-difference regressions using various specifications. The unit of observation is a firm-year, and the panel runs 1997-2013. The main explanatory variable is the interaction terms of two dummy variables. The first dummy indicates whether the firm-year has expiring contracts in the following fiscal year $t+1$. And the second dummy is to identify higher-than median Whited and Wu index (Whited and Wu (2006); Hennessy and Whited (2007)) as of $t-1$ year-end. Whited and Wu index is constructed as $-0.091 \times [(ib+dp)/at] - 0.062 \times$ [indicator set to one if $dvc+dvp$ is positive, and zero otherwise] $+ 0.021 \times [dltt/at] - 0.044 \times [log(at)] + 0.102 \times$ [average industry sales growth, for three-digit SIC industry] $- 0.035 \times$ [sales growth]. The reported numbers are coefficient estimates and their t-statistics (in parentheses). Standard errors clustered by the firm. All regressions include firm and year fixed effects. The financial controls include the natural logarithm of total assets, the natural logarithm of market value, book to market, return on assets, and the text-based competition measure (Hoberg and Phillips (2010, 2016)). In columns (1) and (2), the sample consists of unionized firms which have at least one contract expiration in the sample period. The dependent variable is an indicator variable for CTOs on any material contracts in year t. In columns (3) and (4), the sample consists of unionized firms which have at least one contract expiration in the sample period. The dependent variable is an indicator variable for CTOs on material contracts other than those related to debt financing, employees, or investment in year t. In columns (5) and (6), the sample consists of both unionized and non-unionized firms, which are entropy-balanced using firm observables describes in Table I. The dependent variable is an indicator variable for CTOs on any material contracts in year t. All the median values are determined among unionized firm-year observations. Significance levels are indicated: * = 10 percent, ** = 5 percent, *** = 1 percent.

	Dummy=1 if firm redacted any material contracts		Dummy=1 if firm redacted material contracts other than lending, employee, or investment agreements	
	(1)	(2)	(3)	(4)
Dummy=1 if expiring contracts in $t+1$ fiscal year	0.054***	0.055***	0.055***	0.055***
	(2.89)	(2.96)	(3.07)	(3.10)
Dummy=1 for high lagged WW measures	0.036	0.024	0.046**	0.040*
	(1.54)	(1.00)	(2.01)	(1.74)
(Dummy=1 for expiring contracts in t+1 fiscal year) × (Dummy=1 for high lagged WW measures)	−0.042*	−0.040	−0.052**	−0.051**
	(−1.75)	(−1.61)	(−2.27)	(−2.14)
Log (Total Assets)		−0.030		−0.007
		(−1.14)		(−0.29)
Log (Market Value)		−0.035**		−0.033**
		(−2.07)		(−2.00)
Book to Market		0.001***		0.001***
		(3.69)		(3.65)
Return on Assets		−0.017		−0.033
		(−0.51)		(−0.91)
Text-Based Competition Measure		−0.066		−0.076*
		(−1.45)		(−1.81)
Firm Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	3593	3441	3593	3441
Adjusted R^2	0.024	0.033	0.019	0.026

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Internet Appendix to
"Do Firms Leave Workers in the Dark Before Wage Negotiations?"

Table A1
Industry Distribution of Sample Firms

This table reports the industry distribution of sample firms during the period 1997-2013, separately for unionized and nonunionized firms. Each column represents the number of firm-year observations belonging to the corresponding SIC industry group. Firms are classified as nonunionized firms if they do not have collective bargaining expirations in the sample period. Unionized firms consist of companies which have at least one contract expiration in the sample period.

Industry Description	Nonunionized Firm		Unionized Firm		Total	
	No.	%	No.	%	No.	%
Agriculture, Forestry, and Fishing (SIC 01 - 09)	419	0.4	0	0.0	419	0.4
Mining (SIC 10 - 14)	5,734	5.0	29	0.8	5,763	4.9
Construction (SIC 15 - 17)	1,085	0.9	65	1.8	1,150	1.0
Manufacturing (SIC 20 - 39)	41,119	35.9	1,944	53.4	43,063	36.4
Transportation and Public Utilities (SIC 40 - 49)	9,912	8.6	1,007	27.7	10,919	9.2
Wholesale Trade (SIC 50 - 51)	3,446	3.0	63	1.7	3,509	3.0
Retail Trade (SIC 52 - 59)	5,745	5.0	241	6.6	5,986	5.1
Finance, Insurance, and Real Estate (SIC 60 - 67)	24,213	21.1	39	1.1	24,252	20.5
Services (SIC 70 - 89)	20,590	18.0	201	5.5	20,791	17.6
Nonclassifiable Establishments (SIC 99)	2,417	2.1	51	1.4	2,468	2.1
Total	114,680	100.0	3,640	100.0	118,320	100.0

Table A2
Fiscal Year Distribution of Sample Firms

This table reports the fiscal year distribution of sample firms during the period 1997-2013. Each column represents the number of firm-year observations belonging to the corresponding fiscal year. Panel A presents the fiscal year distribution of firm-year observations, separately for unionized and nonunionized firms. Firms are classified as nonunionized firms if they do not have collective bargaining expirations in the sample period. Unionized firms consist of companies which have at least one contract expiration in the sample period. Panel B presents the fiscal year distribution of firm-year observations, separately for 10-K's without and with any redacted material agreements. 10-K filings are defined to have redacted exhibits if they have text-strings which represent a CTO, such as "confidential," "confidential request," "confidential treatment," "CT order," or "redacted." Panel C presents the fiscal year distribution of unionized firm-year observations, separately for without and with expiring contracts. The fiscal year is assigned with a dummy variable for expiring contracts if collective bargaining contract is scheduled to be expired in the following fiscal year. The contract expiration data is collected from the Bureau of National Affairs (BNA) by Irene Yi, who manually match employer names to unique company ID, such as GVKEY and CUSIP.

Panel A: Sample Firms

Fiscal Year End	Nonunionized Firm		Unionized Firm		Total	
	No.	%	No.	%	No.	%
1997	8,274	7.2	220	6.0	8,494	7.2
1998	8,176	7.1	227	6.2	8,403	7.1
1999	8,447	7.4	220	6.0	8,667	7.3
2000	8,321	7.3	221	6.1	8,542	7.2
2001	7,876	6.9	228	6.3	8,104	6.8
2002	7,344	6.4	224	6.2	7,568	6.4
2003	6,963	6.1	224	6.2	7,187	6.1
2004	6,740	5.9	220	6.0	6,960	5.9
2005	6,501	5.7	218	6.0	6,719	5.7
2006	6,319	5.5	215	5.9	6,534	5.5
2007	6,176	5.4	205	5.6	6,381	5.4
2008	5,808	5.1	204	5.6	6,012	5.1
2009	5,615	4.9	208	5.7	5,823	4.9
2010	5,515	4.8	206	5.7	5,721	4.8
2011	5,569	4.9	202	5.5	5,771	4.9
2012	5,521	4.8	199	5.5	5,720	4.8
2013	5,515	4.8	199	5.5	5,714	4.8
Total	114,680	100.0	3,640	100.0	118,320	100.0

Panel B: Confidential Treatment

Fiscal Year End	Without Redacted Exhibit		With Redacted Exhibit		Total	
	No.	%	No.	%	No.	%
1997	7,422	7.6	1,072	5.2	8,494	7.2
1998	7,322	7.5	1,081	5.2	8,403	7.1
1999	7,449	7.6	1,218	5.9	8,667	7.3
2000	7,251	7.4	1,291	6.2	8,542	7.2
2001	6,891	7.1	1,213	5.9	8,104	6.8
2002	6,420	6.6	1,148	5.5	7,568	6.4
2003	6,035	6.2	1,152	5.6	7,187	6.1
2004	5,745	5.9	1,215	5.9	6,960	5.9
2005	5,482	5.6	1,237	6.0	6,719	5.7
2006	5,280	5.4	1,254	6.1	6,534	5.5
2007	5,104	5.2	1,277	6.2	6,381	5.4
2008	4,794	4.9	1,218	5.9	6,012	5.1
2009	4,605	4.7	1,218	5.9	5,823	4.9
2010	4,488	4.6	1,233	6.0	5,721	4.8
2011	4,510	4.6	1,261	6.1	5,771	4.9
2012	4,456	4.6	1,264	6.1	5,720	4.8
2013	4,376	4.5	1,338	6.5	5,714	4.8
Total	97,630	100.0	20,690	100.0	118,320	100.0

Panel C: Collective Bargaining Expiration

Fiscal Year End	Without Expiring Contract		With Expiring Contract		Total	
	No.	%	No.	%	No.	%
1997	67	5.2	153	6.5	220	6.0
1998	65	5.0	162	6.9	227	6.2
1999	76	5.9	144	6.1	220	6.0
2000	74	5.7	147	6.3	221	6.1
2001	67	5.2	161	6.9	228	6.3
2002	79	6.1	145	6.2	224	6.2
2003	67	5.2	157	6.7	224	6.2
2004	66	5.1	154	6.6	220	6.0
2005	92	7.1	126	5.4	218	6.0
2006	80	6.2	135	5.8	215	5.9
2007	70	5.4	135	5.8	205	5.6
2008	83	6.4	121	5.2	204	5.6
2009	88	6.8	120	5.1	208	5.7
2010	68	5.3	138	5.9	206	5.7
2011	83	6.4	119	5.1	202	5.5
2012	85	6.6	114	4.9	199	5.5
2013	85	6.6	114	4.9	199	5.5
Total	1,295	100.0	2,345	100.0	3,640	100.0