Does political risk influence wage theft?

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Abstract

We study the effect of firm-level political risk on wage theft. On one hand firms exposed to political risk might engage in wage theft to lower their expenses and to improve their financial flexibility. On the other hand, political risk increases firm transparency and scrutiny, hence reducing management incentives to undertake wage theft. Using a firm-level measure of political risk and wage theft data from the WHISARD database of the US Department of Labour, we show that firm political risk increases wage theft. Using the redrawing of US congressional districts, as a plausible exogenous shock, we show that this relation is likely causal. This effect is short-term and is attenuated in the presence of monitoring by major customers and government contractors, employee power, and internal corporate governance monitoring. Further, we provide evidence that firms undertaking wage theft in response to political risk increase their cash holdings. Finally, in line with the investment under uncertainty theory, we show that wage theft is a substitute rather than a complement to a reduction in investment when uncertainty increases.

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1. Introduction

One of the most common types of theft committed by U.S. corporations is wage theft (EPI, 2017). It is estimated that wage theft, which includes the non-payment of overtime and underreporting of hours worked, amounts to more than $15 billion per year (Raghunandan, 2021). Some of the most well-known perpetrators of wage theft include Bank of America, FedEx and Amazon. These firms have paid millions of dollars in fines to settle wage theft violations (FTC 2021, GJF 2018). Notwithstanding, the various legislative and executive steps taken by the U.S. Department of Justice to stem wage theft in U.S. corporations, wage theft is still pervasive (GQ, 2019). Thus, understanding the determinants of wage theft is important to shape effective actions to limit this type of criminal activity (Chircop et al., 2023).

One potential determinant of wage theft is political risk. Political risk refers to uncertainty arising from political activities (Watts and Zimmerman, 1990) and its increased prevalence is partly attributed to the deepening polarization in society (Gad et al., 2023). Prior research shows that political risk impacts firms' financing, investment, and dividend decisions (Jens 2017, Julio and Yook, 2012, Bonaime et al., 2018, Colak et al., 2017). While this literature has taken a macro-perspective to the examination of the consequences of political risk, more recent literature has noted that firms' might be exposed to political risk even in the absence of industry or economy-wide political events (Hassan et al., 2019; Gad et al., 2023).

Recent literature examining the consequences of firm-level political risk on firms' operations finds mixed results. For example, Chatjuthamard et al. (2021) and Chu et al. (2021) find that firms most exposed to political risk invest more in corporate social responsibility activities and seek to reduce their environmental impact by closing polluting plants to attenuate the potential negative consequences of political risk with socially responsible actions. Hassan et al. (2019) find that firms exposed to political risk fundamentally change their corporate policies. In particular, they reduce hiring and capital investment, while increasing lobbying and

donations to politicians. Regarding the debt market, Huang et al. (2023) find that political risk increases firm reliance on private debt, while Gad et al. (2023) finds that political risk is not only priced in debt contracts but raises spillover effects across lending contracts. Further, El Ghoul et al. (2023) show that weaker firm performance due to political risk leads to higher real earnings management. While the above studies suggest that firm-level political risk has consequences for firm level corporate policies, no study has to our knowledge examined the potential consequences of firm-level political risk on firms' behaviour towards its employees. Therefore, the aim of this paper is to study the effect of firm-level political risk on employees as captured by wage theft.

In order to study this research question we develop two competing hypotheses for the relation between firm-level political risk and wage theft. Political risk influences the firms' stability and sustainability. It increases the cost of doing business (Gad et al. 2023) and the retrenchment of investments (Hassan et al., 2019). The increased cost of doing business and simultaneous reduction in investment can lower the likelihood of the firm meeting short-term earnings expectations, hence increasing the likelihood that management is challenged (Chen et al., 2015). To address this increased political uncertainty, firms increase their capacity to stabilize financial resources during uncertain times (Cao et al., 2013). They can do this through increasing their cash holdings (Duong et al. 2020) or achieving their target capital structure in a shorter period of time (Wu and Lai, 2021). Firms can also reduce investments and increase debt to raise a cash buffer during uncertain times. However, such corporate policies would typically be associated with higher adjustment costs among other alternatives such as wage theft. We therefore posit that in the first instance a firm exposed to high political risk shores up its financial resources through wage theft. We refer to this conjecture as the *precautionary savings conjecture*.

However, there are also reasons why political risk might have no effect or a negative effect on wage theft. Firm-level political risk is visible to outsiders, i.e., market participants are aware of firm level political risk since this is disclosed by managers in conference calls. Such understanding likely leads market participants to lower their expectations about future corporate earnings, hence reducing the incentives for management to undertake wage theft. Further, political risk leads to increased scrutiny of the firms' operations by its stakeholders. Firms mitigate the negative consequences of such scrutiny by increasing transparency and reducing the social costs of their operations (Chatjuthamard et al. 2021). For example, firms reduce their environmental impact and improve CSR performance (Chu et al., 2021; Peng et al., 2023), adopt more conservative accounting (Dai and Ngo, 2021) and provide more frequent and informative disclosures (Boone et al., 2021). Therefore, faced with political uncertainty increased stakeholder scrutiny reduces the benefits of wage theft to the firm. Finally, firms with socially responsible workforce policies have lower operational loses (Curti et al., 2022), hence mitigating the potentially negative consequences of political uncertainty. Given the arguments above, we expect firms exposed to high political risk will have no or a negative effect on wage theft. We refer to this conjecture as the *transparency and sustainability conjecture*.

Which of the above effects dominates is the empirical question we address in this study. Specifically, using a sample of 42,564 observations for the period 2003-2021 we examine the relation between firm-level political risk and wage theft. We measure firm-level political risk using the Hassan et al. (2019) measure of political risk that captures the share of a firms' quarterly conference call devoted to political risk. The greater the incidence of political conversation close to words indicating risk or uncertainty, the greater the firm-level political risk. Wage theft is measured using data from the U.S. Labor Department's WHISARD database. This database identifies firms undertaking wage theft, the period in which wage theft occurred and the penalties levied against the company for undertaking wage theft. Using this

information, we compute three measures of wage theft. The first variable captures the incidence of wage theft, the second variable captures the severity of wage theft by accounting for the size of the penalties, and the third measure captures the severity of wage theft as a function of the number of employees involved in wage theft. In our empirical analysis, we control for firm specific characteristics, and firm and year fixed effects. In doing so, our analysis is essentially a within-firm analysis, and our results are driven by changes in wage theft within the firm.

Baseline results, using panel data for our sampled firms, show a positive association between firm-level political risk and wage theft. Specifically, a one standard deviation increase in firm-level political risk increases our measures of wage theft for the mean firm in our sample by 8.7%. While these baseline results provide support for a relation between firm-level political risk and wage theft, care should be taken in interpreting these results since some variation in political exposure is endogenous. Specifically, management decisions about the firms' location, markets in which it operates and competes, political connections and operations influence the firm political exposure. Similarly, wage theft is endogenous to managerial decision-making since management chooses to undertake wage theft. To address the endogenous nature of our setting, we undertake several tests.

First, we run our baseline analysis for only sampled firms that feature in the WHISARD database. This analysis attenuates the possibility that our results are driven by selection bias and ensures that all firms in our analysis are supervised by the U.S. Labor Department thus having an equal chance of being identified as undertaking wage theft. Inferences from this analysis are in line with our baseline results. Second, like Gad et al. (2023) and Chu et al. (2021) we exploit a plausibly exogenous shock to firm-level political risk, by examining variations in political risk arising from the congressional redistricting following the 2010 decennial census. In this difference-in-differences analysis, we compare firms which were affected by congressional redistricting, and which as a result experienced an increase in

political risk, to firms which were not influenced by congressional redistricting. To ensure that any systematic differences between firms affected by congressional redistricting and firms not affected by congressional redistricting do not affect our results, we use an entropy-balanced sample. We find that firms affected by congressional redistricting engage in significantly more wage theft relative to firms not affected by congressional redistricting. Third, in other robustness tests we test the robustness of our baseline results to controlling for CEO and year-industry fixed effects. Results for these analyses are in line with the baseline results.[1]

In other analysis we show that in line with the precautionary savings conjecture, undertaking wage theft in response to political risk increases firm cash holdings. Further cross-sectional results for the effect of stakeholder oversight on our baseline results, suggests that oversight attenuates the positive relation between firm-level political risk and wage theft. Specifically, we find that the prevalence of customer monitoring in the form of government contracts and major customers attenuates the effect of political risk on wage theft. Lower employee oversight as captured by right-to-work states increases the effect of political risk on wage theft, while greater director oversight as captured by director diversity reduces the effect of political risk on wage theft.

Finally, we examine whether wage theft is a complement or substitute to a reduction in investment. Theoretical literature on investment under uncertainty predicts that an increase in risk leads to a decrease in investment and employment growth (Dixit and Pindyck, 1994). We find that the expected effect of risk on investment is only present in the sample of non-violator firms, thus suggesting that firms might use wage theft to mitigate the negative effects of uncertainty on firm's investment.

[1] Finally, note that our measure of wage theft is capturing the time when wage theft is occurring as opposed to when it is identified and investigated. This allows us to accurately capture the moment of management response to changes in political risk.

This study contributes to multiple streams of literature. First our findings complement studies examining the consequences of political risk on corporate outcomes. Prior studies show that political risk influences equity returns (Brogaard and Detzel, 2015), market information asymmetry and liquidity (Nagar et al. 2019, Berger et al., 2022). Recent studies using measures of firm-level political risk find that firm-level political risk is associated with greater investment in corporate social responsibility (Chatjuthamard et al. 2021, Chu et al 2021); a reduction in hiring and capital investment (Hassan et al., 2019) and changes in the cost of capital (Gad et al. 2023). We contribute to this stream of literature by providing evidence on the effects of firm-level political risk on an often-overlooked company stakeholder, i.e., employees. We show that firm-level political risk is related to wage theft.

Second, we contribute to the literature on the drivers of corporate misconduct. Prior literature shows that firms are more likely to engage in corporate misconduct when under pressure to meet earnings targets (e.g., Caskey and Ozel 2017; Raghunandan 2021; Chircop, et al. 2023). In this study we provide evidence that firm-level political risk is another driver of corporate misconduct. Unlike drivers of corporate misconduct examined in prior studies, political risk results from uncertainty relating to policy and the firms' response to such uncertainty. Hence, in the case of political risk, pressure on management to perform is not arising from the need to meet or beat an earnings threshold but is arising from the need to ensure that the firm has the financial flexibility required to address the increased uncertainty.

This study continues as follows: Section 2 sets out pertinent literature and presents the hypotheses; Section 3 discusses the variables of interest and the research design; Section 4 presents the main findings and Section 5 shows the robustness tests. Section 6 concludes.

2. Literature Review

2.1 Wage theft

Wage theft refers to violations of the Fair Labor Standard Act (FLSA). The FLSA sets out requirements relating to minimum wage, youth employment standards, overtime, and recordkeeping. The Department of Labor, Wage and Hour Division (WHD) ensures that the requirements laid out in the FLSA are followed by undertaking proactive and reactive audits of firms. Specifically, the WHD undertakes both random audits and investigations in response to workers' complaints. Violations of the FLSA identified by WHD include the failure or incorrect payment of overtime and minimum wages, the failure to keep adequate employment records or non-compliance with the terms of the employment contract, and failure to pay commensurate rates to employees with disabilities among others (Raghunandan, 2021).

Instances where WHD identifies violations of the FLSA lead to the issue of penalties, which typically include the back pay due to employees and additional fines. Identified violations and the relevant penalties are publicly disclosed such that violations of FLSA lead to both financial and reputational costs (Johnson, 2020).

2.2 Political risk

Political risk refers to the risk arising from the political environment in which firms operate (Dymsza 1972; Hassan et al. 2019). Early research that takes a macro-economic view to the study of political risk finds that political risk is associated with a reduction in foreign direct investment (Kobrin, 1979), gross domestic product (Alesina et al., 1996), international trade (Handley and Limao, 2015) and investment (Julio and Yook, 2012). Recent literature examining political risk from a micro-economic perspective finds that political risk impacts firm decision making. Firm-level political risk is related to lower levels of innovation (Bhattacharya et al., 2017), retrenchment in hiring and capital investment (Hassan et al., 2019); lower R&D investment (Bloom, 2007) and a lower propensity of paying dividends (Huang et al., 2015) and engaging in M&A transactions (Bonaime et al., 2018).

Finally, Chatjuthamard et al. (2021) find that firms most exposed to political risk increase their investment in corporate social responsibility while Chu et al. (2021) find that political risk is related to a reduction in toxic emissions. While the above studies find that political risk influences several firm stakeholders, no study has yet examined the impact of political risk on the firms' relation with its employees. This paper aims to fill this gap in extant literature.

2.3 Hypothesis development

On the one hand we posit that political risk increases wage theft. Political risk increases uncertainty about the future operations and financial viability of the firm. It negatively affects earnings and cash flows as captured by the increase in stock volatility (Hassan et al., 2019; Huang et al., 2015). This increase in risk leads to an increase in the cost of capital (Pham et al., 2019; Gad et al., 2023), which in turn causes further downward pressure on the profitability of the company. To address this increase in uncertainty, prior literature has shown that during periods of heightened political risk, managers retrench hiring and capital investment, and reduce R&D and M&A activities (Dixit and Pindyck, 1994; Bloom 2007, Bonaime et al., 2018; Hassan et al., 2019). In so doing firms increase their cash holdings (Duong et al., 2020) and improve their financial flexibility (Wu and Lai, 2021). We posit that one way in which firms increase their cash holdings, hence improving their financial flexibility, is by lowering their employee costs through wage theft. Given employees tend to be dispersed and knowledge about individual employee wages tends to be limited, wage theft tends to be less visible than other forms of theft. In this respect, wage theft has lower adjustment costs than alternative actions that management might take to improve the firms' financial flexibility. Further, management will undertake wage theft irrespective of whether wage theft is material for the firm, provided it perceives that wage theft will somewhat improve the firms' financial

flexibility (Bhattacharya and Marshall, 2012). We call this conjecture the *precautionary savings conjecture*.

On the other hand, there are reasons why political risk may lead to a reduction in wage theft. First, political risk is visible to outsiders since managers discuss political risk in conference calls (Hassan et al., 2019). Thus, outsiders likely lower performance expectations when sensing increased political risk hence attenuating management incentives to undertake wage theft. Further, firms exposed to greater political risk attract more stakeholder scrutiny leading such firms to improve the quality and frequency of disclosures (Boone et al., 2021) hence improving their transparency (Mitton, 2002). This increased transparency and scrutiny reduces managerial incentives to undertake wage theft. Second, firms exposed to higher political risk seek to improve their operations by reducing the costs of their operations to society at large. For example, both Chatjuthamard et al. (2021) and Chu et al. (2021) find that firms exposed to political risk seek to reduce negative spillovers arising from their operations. Also, firms experience lower operational losses when they have socially responsible workforce policies (Curti al., 2020). This is consistent with firms building their moral capital to mitigate the negative effects of political risk. We call this conjecture the *transparency conjecture*.

Since the above arguments are not mutually exclusive, the direction of the relation between firm-level political risk and wage theft is an empirical question we seek to examine in this study. Specifically, given ex-ante it is unclear which of the above two effects dominate we turn to empirical analysis to determine the relation.

3. Data

3.1 Sample selection

To examine the relation between political risk and wage theft we combine data from several sources. We begin constructing our sample by considering the complete population of firms with data on firm-level political risk measures from Hassan et al (2019).[2] Next, we merge the data with firm-level controls from Compustat. Subsequently, we merge these data with information on wage theft sourced directly from the Wage and Hour Division of the Labor Department's WHISARD database[3], by using the parent-subsidiary cross-link provided by Violation Tracker Database of Good Jobs First.[4] In doing so we assume that firms which do not feature in Violation Tracker have zero wage theft. As wage theft violations are recorded on a calendar year basis, to align the observations with financial and accounting data based on a fiscal year, we limit our sample to companies with fiscal year ending on December 31st. In doing so, we obtain a sample of 42,564 annual observations covering the period from 2003 to 2021 for 4,621 unique firms.

The distribution of observations is presented in Appendix 3 and reveals a consistent representation across the years. In examining the distribution across sectors, we employ the Fama-French 12-sector industry classification. We find that finance holds the highest representation, accounting for 21.2% of the dataset, followed by business equipment constituting 16.95% of the observations. Conversely, consumer durables and chemicals and allied products display the lowest representation, representing 2.21% and 2.46%, respectively.

3.2 Wage theft measures

We measure wage theft using the data on wage and hour violations collected directly from the Wage and Hour Division of the US Labor Department's Wage and Hour Investigative System Retrieval Data (WHISARD) database.[5] The database contains information on all

[2] Data are available at firmlevelrisk.com
[3] Data are available at https://enforcedata.dol.gov/views/data_summary.php
[4] Data are available at https://violationtracker.goodjobsfirst.org
[5] Data are available at https://enforcedata.dol.gov/views/data_summary.php

concluded investigations and provides details on the nature of violations, the amount of back wages due, the number of employees affected, as well as the start and end date of each violation.

Detailed information on the duration of the violation allows for aggregation of wage theft periodically. To match with firm-level data, similar to Raghunandan (2021), we aggregate the data on violations at the calendar year level. We do so, by first evenly distributing the US dollar value of back wages (WHISARD item *bw_atp_amt)* and the number of employees (WHISARD item *ee_violtd_cnt*) over the violation period to then aggregate at a calendar year frequency for a subject firm. Using this data we create three proxies of wage theft, i.e. *WageTheft (log $ value),* which is a natural logarithm of the dollar value of back wages owed to employees of firm *i* during year *t*, *WageTheft (log $ value per ee),* which is the natural logarithm of the dollar value of back wages paid attributable to firm *i* during year *t* per employee involved, and finally *WageTheft*, which is an indicator variable that takes the value of one, otherwise zero, if there was a wage theft identified in a year *t* for a firm *i.*

3.3 Political risk measures

In our study, we employ firm-level, time-varying measures of political risk proposed by Hassan et al. (2019). Their measures of risk are derived from transcripts of quarterly conference calls of publicly listed firms, capturing their unique sensitivity to political events. To derive these measures Hassan et al. (2019) employ machine learning algorithms that are trained to identify the proportion of conversations in earnings calls that are dedicated to discussing risks in general but also risks associated with political topics, thereby proxying for political risk (for details on the construct of the measure refer to Hassan et al. (2019)). In our research, we employ measures of political risk (*PRisk),* non-political risk (*NPRisk),* and political sentiment (*Psentiment).* The latter measure is included to ensure that our results do not reflect political sentiment about past or future events. To employ these measures in our

analysis, we aggregate them by averaging the quarterly observations, aligning them with the annual frequency of our dataset.

3.4 Control variables

In our analysis, we include several time-varying control variables pertinent to corporate misconduct. First, to control for size, we include *Size* and *Employees. Size* is measured by the natural logarithm of market value. *Employees,* the natural logarithm of the number of employees, captures the size of the company's workforce. *Leverage* is computed as the ratio of long-term debt relative to total shareholders' equity. Return on assets, *ROA,* is a ratio of net income scaled by total assets. Additionally, to measure sales dynamics, we include *SalesGrowth,* the percentage change in sales. Next, we include market-to-book ratio, *MB,* which is calculated as the firm's market capitalization at fiscal year-end scaled by net assets. *Loss,* provides insights into the firms' financial losses, is a binary indicator, equal one if income is negative and zero otherwise. To control for market concentration, we include the Herfindahl-Hirschman Index, *HHI,* based on total sales per two-digit SIC code industry and fiscal year. Lastly, to shed light on the intensity of labour employment, we include *LaborIntensity,* the standardized ratio of the number of employees to total assets.

We include firm fixed effects to control for time-invariant firm characteristics and year fixed effects to control for time trends in corporate wage theft. This fixed effects structure serves to mitigate the influence of unaccounted correlated variables on our findings. By employing these fixed effects, we essentially undertake a within-firm analysis where we examine the association between firm-level political risk and wage theft for a particular firm. Definitions of all the variables used in the analysis can be found in Appendix 2.

3.5 Summary statistics

Table 1 shows summary statistics. In Panel A we focus on a sub-sample of 1,758 observations that include years marked by wage theft, to understand the severity as well as variation of the phenomenon. The logarithmic measure of wage theft, *WageTheft (log $ value),* suggests a substantial variation in misconduct, ranging from 7.52 in 10th percentile, to 10.20 in 90th percentile. The variation is better understood via raw measures of the theft, *WageTheft ($ value winsorised)* and *WageTheft ($ value unwinsorised),* which report back wages of $1,842 in 10th percentile (for both measures) and $26,907.04 and $105,150.40 in 90th percentile for winsorised and unwinsorised measures, respectively.

Panel B shows descriptive statistics for the variables and sample used in our baseline model consisting of 42,564 observations. First, we report on wage theft measures. *WageTheft(indicator)* has a mean value of 0.04 suggesting that on average the frequency of wage theft in our sample is low, and a standard deviation of 0.19 suggesting substantial variation consistent with the findings presented in Panel A. The mean (median) dollar values of wage theft for both total and per-employee measures of wage theft are 0.37 (0.00) and 0.28 (0.00), respectively. As evident from the descriptive statistics, the distributions of all three proxies for wage theft are right-skewed.

Second, we report on risk measures. In our sample, the mean (median) firm's political risk *PRisk* is 130 (88), indicating a significant right skew. The mean (median) for non-political risk, *NPRisk*, and political sentiment, *PSentiment*, are 902.91 (170.65) and 1,150.48 (1,106.10). Following previous literature including Gad et al. (2023), in our subsequent analysis we employ standardized values of political risk for ease of interpretation. We refer to these measures as *PRisk (standardized), NPRisk (standardized)* and *Psentiment (stanardised).*

The last section of Panel B reports statistics for financial controls. The mean and median values of *Size* are similar, suggesting a normal distribution of firms in terms of their size. Specifically, the value of mean (median) *Size* is 7.28 (7.29) translating to an average market

capitalisation of $1.46 billion ($1.47 billion), and the standard deviation of 2.02 implies diversity in terms of firms' size within the dataset. The wide range of companies is further captured by two labour-related metrics employed as controls, specifically mean (median and standard deviation) of *LaborIntensity* and *Employees* are 3.50 (1.68 and 7.05), and 0.84 (0.86 and 2.10), respectively. Further, the mean (median) *Leverage* is 0.60 (0.59). The mean (median) values of financial performance indicators *ROA, SalesGrowth, MB,* and *Loss* are -0.024 (-0.17), 0.12 (-0.17), 2.97 (0.63), and 0.29 (0.00), respectively. Finally, the mean (median) industry concentration captured by the Herfindahl–Hirschman Index is 0.06 (0.02).

[Insert Table 1]

4. Results

4.1 Baseline results

We examine the effect of political risk on wage theft by estimating the following OLS regression model:

$$WageTheft_t = \alpha_0 + \alpha_1 PRisk_{t-1} + \alpha_2 Controls_t + FEs + \varepsilon_t \quad (1)$$

where *WageTheft* is measured as either (1) *WageTheft (indicator)*, (2) *WageTheft (log $ value)*, or 3) *WageTheft (log $ value per ee)*. The main independent variable of interest is political risk measured by *PRisk (standardized)* and we also include control variables as previously defined. We apply a one-year lag to all measures of risk (i.e., *PRisk (standardized)*, *NPRisk (standardized), Psentiment (stanardised)*), and to all measures based on information derived from the balance sheet (i.e., *Size*, *Leverage, Employment*). All remaining variables are included contemporaneously with wage theft. *FE* refers to firm and year fixed effects. We estimate this regression model with standard errors clustered by firm.

We present the results of estimating Eq. (1) in Table 2 Panel A for the full sample and in Panel B for a sample of firms that violated at least once throughout the sample period. We observe positive and economically significant association between political risk and wage theft

for both groups supporting the *precautionary savings conjecture*. In Panel A, column 1, the estimated coefficient on *PRisk* is 0.003 (t-stat.= 2.16), in column 2, the estimated coefficient on *PRisk* is 0.027 (t-stat.= 2.26), and in column 3, the estimated coefficient on *PRisk* is 0.021 (t-stat.= 2.07). These results suggest that a one standard deviation increase in firm-level political risk is associated with a 7% increase in wage theft for the full sample of firms. In Panel B, column 1, the estimated coefficient on *PRisk* is 0.016 (t-stat.= 2.17), in column 2, the estimated coefficient on *PRisk* is 0.149 (t-stat.= 2.29), and in column 3, the estimated coefficient on *PRisk* is 0.112 (t-stat.= 2.06). These results suggest that a one standard deviation increase in firm-level political risk is associated with around 6.5% increase in wage theft for violators only.

[Insert Table 2]

4.2 Difference-in-difference analysis

Having established that political risk is positively associated with wage theft we now address causality. It is possible that political risk might be correlated with unobservable firm characteristics that also affect wage theft and lead to correlated omitted variable bias. Therefore, following Gad et al. (2023) we exploit the exogenous variation in political risk that is firm and time specific and we employ the 2010 redrawing of federal electoral districts as a natural experiment. Redrawing of congressional districts occurs every decade because of 1960s U.S. Supreme Court ruling requiring that legislative districts should consist of equal populations. Therefore, district boundaries are regularly adjusted to account for changes in population, after each decennial census. For individual firms, the process of redrawing district boundaries can be considered a plausibly exogenous occurrence since it is unlikely that firms can influence the outcome of redistricting. Thus, the process of drawing new electoral boundaries gives rise to plausibly exogenous variation in firm political risk (Denes et al., 2017). For example, a firm prior to the census might be represented in Congress by a moderate

politician and following the redistricting by a partisan politician. Gad et al. (2023) claim that redistricting poses implicit political uncertainty for firms. They show anecdotal evidence suggesting that firms discuss redistricting in their conference calls as a source of concern.

Therefore, exogenous variation in political risk due to redistricting allows us to estimate the causal effect of political risk on wage theft using a difference-in-difference approach. Following Gad et al. (2023) we collect data on congressional redistricting from the US Census Bureau website and from Lewis et al. (2013) shapefiles[6]. Next, we download the historical location of firm headquarters, and we geocode it using Google Sheets to obtain coordinates (latitude and longitude). These coordinates of the firm headquarters are then matched to the appropriate congressional district to check if the firm's district has changed.

We identify *Treatment* firms as those that were affected by changes in 2010 district boundaries i.e., firms that found themselves in a new congressional district after the 2010 redistricting. The control firms are those that did not experience a change in congressional district. Panel A in Table 3 presents the sample of firms that experienced redistricting following the 2010 decennial Census. Our sample of redistricting firms is comparable to previous studies. For example, Gad et al. (2023) show that about 39% and 45% of firms in their full and loan sample, respectively were in different congressional districts after 2010 decennial Census. In this study the percentage is 49% for the full sample of firms and 40% for the wage and hour violators.

Using this sample, we examine the effect of political risk on wage theft by estimating the following difference-in-difference model:

$$WageTheft_{i,t} = \alpha_0 + \alpha_1 Treatment_{i,t} x\ Post_t + \alpha_2\ Controls_{i,t} + FEs + \varepsilon_{i,t} \quad (2)$$

[6] https://www2.census.gove/geo/tiger/ and http://cdmaps.polisci.ucla.ed

We define *Treatment* as one for firms whose headquarters experiences a change in the congressional district it belongs to after the 2010 decennial Census, and zero otherwise. *Post* is equal to one after the 2010 decennial Census, and zero otherwise. *FE* refers to the firm and industry-year fixed effects. We estimate this regression model with standard errors clustered at year and state level.

To ensure that our identification strategy effectively captures change in political risk we regress Eq. (2) but we replace *WageTheft* with *PRisk* as the dependent variable in three periods: 1) before the change in 2010 decennial Census ($PRisk_{t-1}$), 2) at the time of the change in 2010 decennial Census ($PRisk_t$), and 3) after the change in 2010 decennial Census ($PRisk_{t+1}$). In Panel A of Table 3 we present the results. We show that the coefficient on *Treatment x Post* is only positive and statistically significant at the time of the change. This shows that political risk increases only at the time when we expect it to be affected and not before. The effect also disappears afterwards.

Further, we test for the parallel trend assumption to ensure that the effect is not driven by trend differences between treated and control firms (Angrist and Pischke 2009). We decompose *Treatment* × *Post* into separate time periods for evidence of the parallel trend assumption (Bertrand and Mullainathan, 2004) and estimate the following equation:

$$WageTheft_t = \alpha_0 + \alpha_1 Treatment_t x\, Year_t + \alpha_2\, Controls_t + FEs + \varepsilon_t \qquad (2a)$$

where $Year_t$ is an indicator variable equal to one in year t, where t is for the period -3 to +3 relative to period 0, and zero otherwise. We show the results in Panel C of Table 3. The time trends show that results are driven by 2010 redrawing of federal electoral districts. Prior to the redistricting event the estimated coefficients are not statistically different from zero, which is consistent with the parallel trend assumption. After redistricting, we find a positive and statistically significant effect for three measures of wage theft. We also plot the estimated coefficients and the five percent confidence intervals in Figure 1. The effect of redistricting

holds in the following three years although its magnitude decreases suggesting short term response to redistricting event.

[Insert Figure 1]

In Panel D of Table 3 we show the main effect of *Treatment x Post* on three measures of wage theft from estimating Eq. (2). In each column the coefficient is positive and significant suggesting that firms increase wage theft after the 2010 redrawing of federal electoral districts. This is consistent with our baseline results. In Panel E of Table 3 we show the main effect of *Treatment x Post* on three measures of wage theft from estimating Eq. (2) for entropy balanced sample of *Treatment* and *Control* firms. We match firms on three moments (Mean, Median, and SD) and balance covariates relating to *Size*, *Leverage*, *Employees*, *ROA*, *Sales_Growth*, *MB*, *Loss*, *LaborIntensity*, *HHI*, and industry. After entropy balancing there are no significant differences in covariates between the *Treatment* and *Controls* firms. The main effect on *Treatment x Post* in each column is again positive and significant suggesting that firms increase wage theft after the 2010 redrawing of federal electoral districts.

In Panel F of Table 3, we repeat the same exercise for the entropy balanced sample of *Treatment* and *Control* firms as above but now we only limit the sample to firms that committed wage and hour violation at least once throughout the sample period. The main effect of *Treatment x Post* on the three measures of wage theft is positive and significant. In Panel G of Table 3 we show the results from *Placebo test.* We repeat our analysis using the year 2008 as the placebo year of exogenous change for a sample of -3 to +3 years relative to 2008. We find no evidence of any effect on wage theft.

[Insert Table 3]

4.3 Mechanism

In the presence of financial frictions firm's investment is sensitive to the external or internal funding available to the company. We aim to identify why firms engage in wage theft

when they are exposed to higher political risk. Previous literature shows a positive association between investment and available cash (Lamont, 1997). Firms need to have sufficient cash buffer to maintain a certain investment level (Pindyck, 1988; Dixit and Pindyck, 1994). Therefore, based on the precautionary saving motive firms would use wage theft to increase cash reserves in order to maintain a certain investment level. To confirm this channel we test if in the presence of political uncertainty, wage theft affects cash holdings.

To test the precautionary savings channel, we use a model for cash holdings presented by equation 3. Following existing literature on cash holdings, including Bates et al. (2009), and McLean (2011) we include *Size, Leverage, CashFlow, NetWorkingCapital, R&D, CAPEX and Dividend* in addition to *NPRisk (standardized), PSentiment (standardized)* as control variables measured at time *t* in our specification. The model includes time and firm fixed effects.

$$Cash_{t+1} = \alpha_0 + \alpha_1 WageTheft_t x\ PRisk_t + \alpha_2\ Controls_t + FEs + \varepsilon_t \quad (3)$$

We present the results in Table 4. Our main variable of interest is the interaction term *WageTheft x PRisk*. The coefficient on the interaction term is positive and statistically significant. It confirms that in the presence of political risk wage theft serves to increase cash buffer.

[Insert Table 4]

4.4 Cross-sectional analysis

4.3.1 Customer monitoring

Non-investor stakeholders, such as customers, are important monitors of the firm. They can influence firms' accounting policies through demand for financial information. For example, Hui, Klasa, and Yeung (2012) show more conservative accounting as a result of a firm having powerful suppliers and customers. Banerjee, Dasgupta, and Kim (2008) show firms with large principal customers use less debt. In general, customers monitor firm financial and

investment policies, thus mitigating corporate misconduct (Chircop et al. 2023; Chen et al. 2022). We therefore test if having important customers has any effect on the relationship between political risk and wage theft. We expect that if firms have important customers the effect of political risk on wage theft would be weaker.

To test this conjecture, we proxy for important customers using two measures. First, following previous literature we measure important customers with the presence of government contracts (Chircop et al. 2023; Samuels 2021). We create a variable that proxies for the importance of government contracts for the firm (*Contract/Sales)* that is the total value of government contracts obligated to a firm *i* in year *t* scaled by firm sales. We introduce an interaction variable between political risk and the importance of government contracting, *PRisk x Contract/Sales* in our specification. We present the results in Table 5 Panel A. The coefficient on the interaction term is negative and significant across all specifications suggesting the higher the proportion of government contracts to sales the lower the effect of political risk on wage theft.

Second, we create a variable that measures the importance of any major customer (*MajorCustomer/Sales*) that is total value of sales to major customers for a firm *i* in year t scaled by firm sales. We present the results in Table 5 Panel B. Our main variable of interest is again the interaction term - *PRisk x MajorCustomer/Sales*. Similarly, we find that the interaction term is negative and statistically significant across all specifications. The higher the proportion of sales to major customers the lower the effect of political risk on wage theft. Overall, this evidence shows that the effect of political risk on wage theft is less pronounced due to monitoring by important customers.

4.3.2 Employee Power

In this section, we explore heterogeneity in firms' bargaining power relative to employees by using the staggered adoption of Right-to-work (RTW) laws across U.S. states.

RTW laws restricted union security agreements as either all employees had to join the union or pay their fees to be represented by the union. Effectively, in states that adopted RTW, workers had less bargaining power (e.g., Holmes, 1998; Johnson, 2020). RTW laws limited unions' organization capabilities, power of unions, and employee salaries (e.g., Ellwood and Fine, 1987; Moore, 1998. Farber, 1984; Garofalo and Malhotra, 1992). In this respect, Cohen et al. (2023) show that in states that adopted RTW laws the probability of avoiding paying for overtime increases.

Our expectation is that the relationship between political risk and wage theft should be stronger in RTW states. We therefore define *RTW*, as an indicator variable equal to one for states that passed RTW laws in year *t* and zero otherwise. We observe substantial heterogeneity across states in the adoption of RTW laws, i.e., the majority of states adopted RTW laws before our sample period started (e.g., Arizona, Florida, and Texas), several states adopted RTW laws during our sample period (e.g., Indiana, Michigan, Kentucky, Wisconsin, and West Virginia), and there are states that never adopted RTW laws (e.g., California, Massachusetts, and New York).

As many states adopted RTW laws before our period starts, we use cross-sectional analysis to empirically test for the effects of reduction in employee power. We present our results in Table 5 Panel C. Our variable of interest is *PRisk x RTW*. As expected, we observe a positive and statistically significant effect on the interaction term. These findings suggest that when employees have less power they are more exposed to negative effects of political risk on wage theft.

4.3.3 Internal monitoring

Extant literature on the effects of internal governance on corporate misconduct is mixed (Eugster et al., 2022). The one emerging mechanism that is consistently reported to reduce

misconduct is board diversity (Neukirchen et al., 2022). It is possible that diverse boards reduce misconduct through improvements in firm risk and corporate policies (Bernile et al., 2018). Given that diverse boards serve as effective internal monitors we expect that in firms with diverse boards, the effect of political risk on wage theft will be less pronounced. We create a variable *NationalityMix* as the proportion of directors from different countries in a year *t* to measure board diversity. We present our results in Table 5 Panel D. Our variable of interest is the interaction term *PRisk x NationalityMix* and as expected it is negative and significant. These findings suggest that when boards are more diverse employees are less exposed to negative effects of political risk on wage theft.

4.3.4. Financial constrains

Financial constraints might affect the flexibility with which firms can react to political risk. Previous literature established that in general firms that are more financially constrained experience more workplace safety. Cohn and Wardlaw (2016) show that firms that have higher leverage underinvest in safety and thus have higher number of accidents and injuries. Financially constrained firms might, therefore, have greater incentives to engage in cost cutting through wage theft when they are exposed to high political risk.

To measure financial constraints we create a variable *FinConstrained* that is an indicator based on the Kaplan-Zingales index (Kaplan and Zingales, 1997). The index is constructed in accordance with Lamont et al. (2001)[7]. Each year, firms are classified as financially constrained if they fall within the top tercile of the index and as unconstrained when they fall within the bottom tercile. We present our results in Table 5 Panel E. Our variable of interest is the interaction term *PRisk x FinConstrained* and as expected it is positive and

[7] KZ Index=-1.001909[(*ib*+*dp*)/$ppent_{t-1}$]+0.8286389[(*at*+*prcc_f* x *csho*-*ceq*-*txdb*)/*at*]+3.139193[(*dltt*+*dlc*)/(*dltt*+*dlc*+*seq*)]-39.3678[(*dvc*+*dvp*)/$ppent_{t-1}$]-1.314759[*che*/$ppent_{t-1}$]. All variables in italics represent Compustat data items.

statistically significant. It suggests that when firms are financially constrained employees are more exposed to negative effects of political risk on wage theft.

[Insert Table 5]

4.4. Is wage theft a substitute or complement for a reduction in investment?

In this section we test how political risk affects other actions taken by the firm. Theoretical literature on investment under uncertainty predicts that if risk increases one should expect a decrease in investment and employment growth (e.g., Bernanke, 1983; Pindyck, 1988; Dixit and Pindyck, 1994; Bloom, Bond, and Van Reenen, 2007). In this subsection, we investigate if the effect of political risk on wage theft substitutes or complements the changes in real investments resulting from increased uncertainty such as change in employment or capital expenditures.

We therefore test the effect of political risk on change in employment and CAPEX for two groups: 1) firms that committed wage theft at least once and 2) firms that never committed wage theft. We present the results in Table 6. We find that the expected positive effect predicted by the theory of investment under uncertainty of political risk on investment and employment growth is positive and statistically significant only for the group of non-violator firms (column 2 and 4). In the case of firms that at least committed wage theft once we do not observe such relationship. This evidence suggests that firms use wage theft to mitigate the effects of uncertainty in the short term. In other words, firms substitute the expected decrease in investment and employment growth with increases in wage theft.

[Insert Table 6]

5. Robustness tests

5.1 Alternative regression models

We present the results for alternative regression models in Table 7. In the first set of robustness tests, we apply a more demanding specification with year, firm and CEO fixed

effects. Including CEO fixed effect does not change our results. Second we control for general level of risk faced by the firm and we include as additional controls the standard deviation of monthly stock returns (*ReturnVol*) over the past two years and our results hold. Third, we control for time industry level variation in political risk to control for macro- and industry-level trends. Results are consistent with the baseline results. We also run several untabulated tests with additional controls. Specifically, we run our main specification with controls for a number of corporate governance characteristics such as board independence, board size, board diversity, staggered boards, and entrenchment index. We find that only the coefficient on board independence is positive and significant. Most importantly they do not change our inferences.

[Insert Table 7]

6. Conclusion

Employee mistreatment in the form of wage theft is the largest form of crime against workers in the US yet little is known about its determinants. In this paper, we study the effects of political risk on wage theft. We test two competing views on this issue. On one hand firms might respond to political risk by undertaking wage theft, to reduce operational costs, hence increasing their financial flexibility. On the other hand, political risk increases stakeholder scrutiny of the company's operations, hence increasing the costs of undertaking wage theft.

We document that there is a positive association between political risk and wage theft suggesting the precautionary savings conjecture. To mitigate the causality concerns, we use a difference-in-differences design in which we exploit exogenous variation in the boundaries of congressional districts resulting from the 2010 decennial Census redistricting. We show that the relationship is likely to be causal. We further find that the internal and external monitoring by firm stakeholders weakens the association between firm political risk and wage theft. Also, in firms that are financially constrained the relationship is more pronounced. Firms likely

engage in wage theft when political risk increases as a precautionary savings motive. Finally, our further results show that firms use wage theft as a substitute to reduction in investment further supporting the precautionary savings view in short term.

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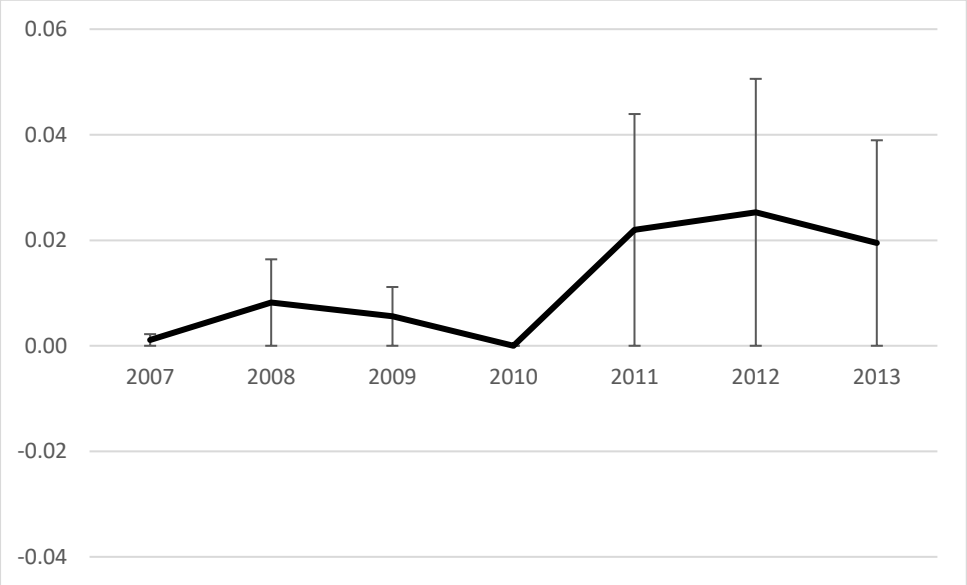
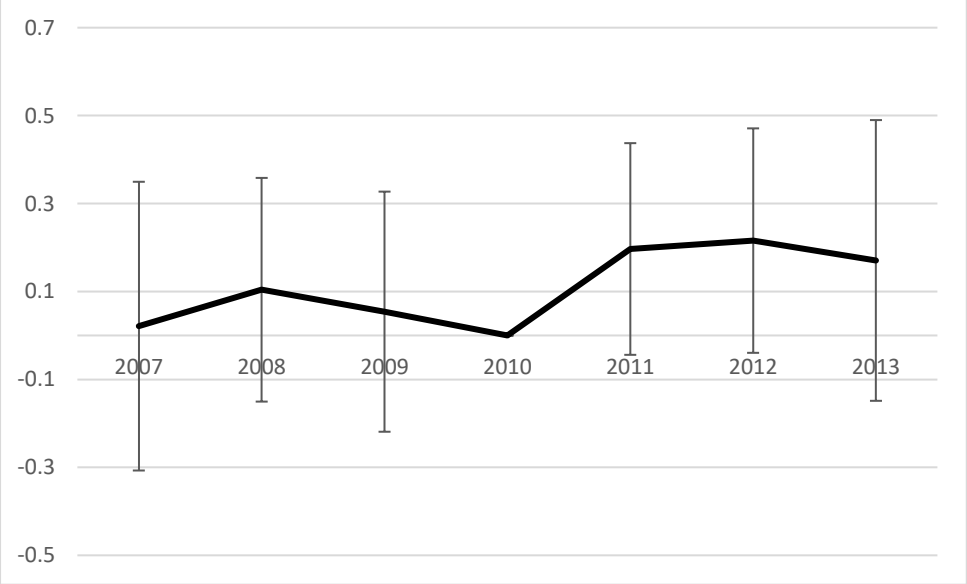
FIGURE 1

Changes in Wage Theft around Redistricting

Panel A: Treatment effect on *WageTheft (indicator)*



Panel B: Treatment effect on *WageTheft (log $ value)*



Panel C: Treatment effect on *WageTheft (log $ value per ee)*

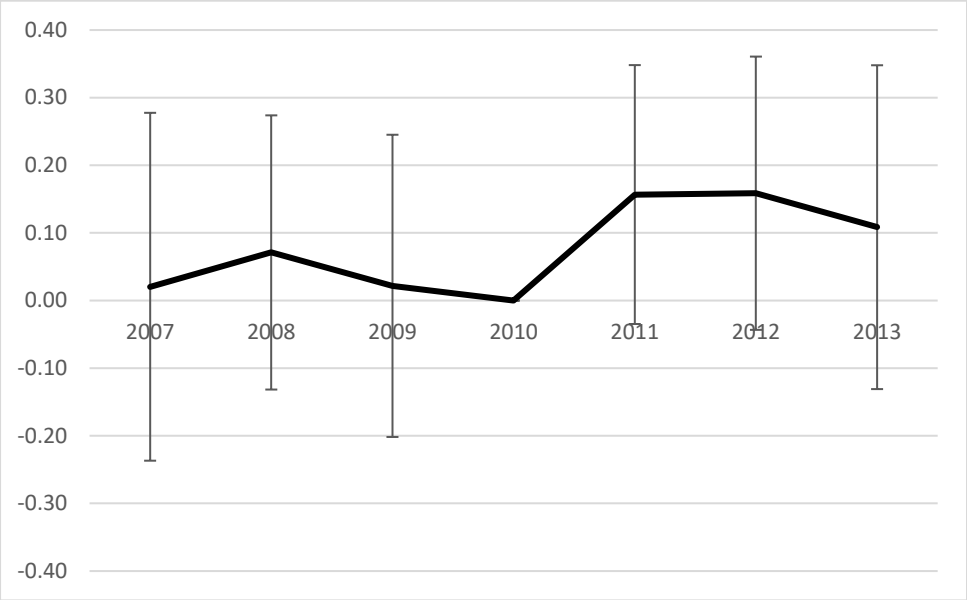


TABLE 1
Summary Statistics

The table presents summary statistics for the sample containing 42,564 observations for the period 2003-2021. The definitions of all variables are provided in the Appendix 2.

	Mean	Std. dev.	10th	Median	90th
Panel A. Wage theft severity within wage theft incidence years (n = 1,758)					
Wage Theft measures					
log $ value	8.95	1.38	7.52	9.22	10.20
$ value winsorised	13,382.77	10,270.65	1,842.00	10,144.59	26,907.04
$ value unwinsorised	61,436.48	301,812.80	1,842.00	10,144.59	105,150.40
Panel B. Summary statistics (n = 42,564)					
Wage Theft Variables					
WageTheft (indicator)	0.04	0.19	0	0	0
WageTheft (log $ value)	0.37	1.80	0	0	0
WageTheft (log $ value per ee)	0.28	1.40	0	0	0
Political Risk					
PRisk	130.30	134.86	21.21	88.28	286.71
NPRisk	902.91	863.22	170.65	641.77	1,939.63
PSentiment	1,150.48	997.97	2.86	1,106.10	2,389.43
Financial Controls					
Size	7.28	2.02	4.66	7.29	9.97
Leverage	0.60	0.36	0.24	0.59	0.91
ROA	-.024	0.29	-0.17	0.02	0.11
SalesGrowth	0.12	0.38	-0.17	0.07	0.41
MB	2.97	5.30	0.63	1.94	6.55
Loss	0.29	0.46	0.00	0.00	1.00
HHI	0.06	0.06	0.02	0.03	0.11
LaborIntensity	3.50	7.05	0.12	1.68	7.18
Employees	0.84	2.10	-1.92	0.86	3.63

TABLE 2
Political Risk and Wage Theft

This table reports the results from estimating Eq. (1). In column (1) the dependent variable is an indicator for whether firm i engaged in wage theft in year t; in column (2) the dependent variable is the natural logarithm of $ value of wage theft in year t; in column (3) the dependent variable is the natural logarithm of $ value of wage theft in year t scaled by number of employees involved. All variables are defined in Appendix 2. The sample spans the period 2003-2021. The values reported in parentheses below coefficients represent t-statistics. Standard errors are clustered at firm level. *, **, *** represent significance at 1%, 5%, and 10% respectively.

Panel A: Full Sample

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	**0.003****	**0.027****	**0.021****
	(2.16)	**(2.26)**	**(2.07)**
NPRisk (standardized)	-0.000	-0.003	-0.001
	(-0.18)	(-0.23)	(-0.11)
PSentiment (standardized)	0.000	0.003	0.004
	(0.31)	(0.19)	(0.39)
Size	-0.001	-0.014	-0.011
	(-0.58)	(-0.73)	(-0.75)
Leverage	-0.005	-0.043	-0.026
	(-0.86)	(-0.73)	(-0.60)
Employees	0.018***	0.155***	0.122***
	(4.48)	(4.37)	(4.28)
ROA	0.002	0.024	0.016
	(1.21)	(1.42)	(1.26)
SalesGrowth	0.001	0.011	0.008
	(0.45)	(0.60)	(0.58)
MB	0.000	0.001	-0.000
	(0.26)	(0.34)	(-0.10)
Loss	-0.001	-0.009	-0.012
	(-0.45)	(-0.38)	(-0.62)
HHI	-0.332***	-2.848***	-2.150***
	(-3.01)	(-2.94)	(-2.92)
LaborIntensity	0.001	0.014	0.007
	(1.47)	(1.62)	(1.12)
R-squared	0.416	0.419	0.400
Observations	42,564	42,564	42,564
Constant	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Panel B: Wage and Hour Violators Sample

	(1) *WageTheft (indicator)*	*(2)* *WageTheft (log $ value)*	*(3)* *WageTheft (log $ value per ee)*
PRisk (standardized)	**0.016****	**0.149****	**0.112****
	(2.17)	**(2.29)**	**(2.06)**
NPRisk (standardized)	-0.003	-0.032	-0.017
	(-0.44)	(-0.48)	(-0.32)
PSentiment (standardized)	0.014	0.115	0.100
	(1.57)	(1.46)	(1.59)
Size	0.005	0.019	0.010
	(0.34)	(0.16)	(0.10)
Leverage	-0.058	-0.438	-0.303
	(-1.01)	(-0.81)	(-0.73)
Employees	0.082***	0.672***	0.541***
	(3.98)	(3.69)	(3.68)
ROA	0.049	0.477	0.447
	(0.61)	(0.66)	(0.81)
SalesGrowth	0.020	0.228	0.165
	(0.83)	(0.99)	(0.90)
MB	0.000	0.003	-0.002
	(0.22)	(0.29)	(-0.18)
Loss	0.012	0.126	0.075
	(0.65)	(0.72)	(0.55)
HHI	-0.752***	-6.292***	-4.784***
	(-2.85)	(-2.72)	(-2.69)
LaborIntensity	-0.000	0.005	-0.007
	(-0.17)	(0.25)	(-0.51)
R-squared	0.298	0.305	0.284
Observations	7,131	7,131	7,131
Constant	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

TABLE 3
Redistricting, Political Risk, and Wage Theft

This table reports the results from estimating Eq. (1). In column (1) the dependent variable is an indicator for whether firm i engaged in wage theft in year t; in column (2) the dependent variable is the natural logarithm of $ value of wage theft in year t; in column (3) the dependent variable is the natural logarithm of $ value of wage theft in year t scaled by number of employees involved. All variables are defined in Appendix 2. The sample spans the period 2003-2021. The values reported in parentheses below coefficients represent t-statistics. Standard errors are clustered at *year x state* level. *, **, *** represent significance at 1%, 5%, and 10% respectively.

Panel A: Sample Distribution

Sample	# of unique firms	# of unique redistricted firms	% of unique redistricted firms
Full Sample	5937	2901	49%
Wage and Hour Violators	258	103	40%

Panel B: Political Risk in Redistricted Firms

	(1) *PRisk (t-1)*	*(2)* *PRisk (t)*	*(3)* *PRisk (t+1)*
Treatment x Post	**0.074***	**0.052**	**-0.006**
	(1.88)	**(1.53)**	**(-0.13)**
R-squared	0.546	0.502	0.541
Observations	7,044	11,174	6,516
Constant	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

Panel C: Time-trends

	(1) *WageTheft (indicator)*	*(2)* *WageTheft (log $ value)*	*(3)* *WageTheft (log $ value per ee)*
2013 x Treatment	0.020	0.174	0.111
	(1.11)	(1.08)	(0.89)
2012 x Treatment	0.025*	0.212	0.156
	(1.75)	(1.63)	(1.57)
2011 x Treatment	**0.022****	**0.193****	**0.153****
	(2.03)	**(2.00)**	**(2.13)**
2009 x Treatment	0.005	0.052	0.021
	(0.55)	(0.59)	(0.30)
2008 x Treatment	0.008	0.099	0.069
	(0.54)	(0.75)	(0.64)

2007 x Treatment	0.001	0.019	0.019
	(0.05)	(0.12)	(0.14)
R-squared	0.625	0.631	0.613
Observations	8,139	8,139	8,139
Constant	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

Panel D: Difference-in-Difference

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
Treatment x Post	**0.019****	**0.152***	**0.117***
	(2.24)	**(1.93)**	**(1.96)**
R-squared	0.625	0.631	0.613
Observations	8,083	8,083	8,083
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

Panel E: Entropy Matched Difference-in-Difference

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
Treatment x Post	**0.019****	**0.164****	**0.133****
	(2.24)	**(2.06)**	**(2.15)**
R-squared	0.723	0.731	0.723
Observations	5,529	5,529	5,529
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

Panel F: Entropy Matched Difference-in-Difference: Wage and Hour Violators

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
Treatment x Post	**0.109****	**0.915****	**0.689****
	(2.52)	**(2.21)**	**(2.21)**

R-squared	0.522	0.531	0.515
Observations	1,325	1,325	1,325
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

Panel G: Placebo test

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
Treatment x Post (Placebo)	**0.003**	**0.042**	**0.030**
	(0.28)	**(0.48)**	**(0.45)**
R-squared	0.638	0.644	0.631
Observations	7552	7552	7552
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

TABLE 4
Precautionary Savings

The table reports the results for an analysis examining the effect of wage theft on cash holdings in the presence of political risk. The dependent variable is $Cash_{t+1}$, defined as a ratio of cash and short-term investment to total assets. All independent variables are captured at time t. Controls include *NPRisk (standardized), PSentiment (standardized), Size, Leverage, CashFlow* (cash flow as earnings after interest, dividends, and taxes but before depreciation divided by book assets), *NetWorkingCapital* (working capital minus cash by book assets), *R&D* (ratio of research and development expense over sales, zero if missing), *CAPEX* (ratio of capital expenditure to total assets), and *Dividend* (indicator variable equal one if a firm paid a dividend in time t, zero otherwise). All models include time and firm fixed effects. Standard errors clustered at firm. The sample spans the period 2003-2021. The values reported in parentheses below coefficients represent t-statistics. Standard errors are clustered at firm level. *, **, *** represent significance at 1%, 5%, and 10% respectively.

	(1) *Cash*	(2) *Cash*	(3) *Cash*
WageTheft x PRisk	**0.004***	**0.000***	**0.001***
	(1.80)	**(1.75)**	**(1.80)**
PRisk (standardized)	-0.001	-0.001	-0.001
	(-1.48)	(-1.48)	(-1.48)
WageTheft (indicator)	-0.007**		
	(-2.51)		
WageTheft (log $ value)		-0.001**	
		(-2.42)	
WageTheft (log $ value per ee)			-0.001**
			(-2.26)
NPRisk (standardized)	0.001	0.001	0.001
	(1.49)	(1.49)	(1.49)
PSentiment (standardized)	-0.001	-0.001	-0.001
	(-1.18)	(-1.19)	(-1.19)
Size	-0.005***	-0.005***	-0.005***
	(-2.84)	(-2.84)	(-2.84)
MB	0.001***	0.001***	0.001***
	(3.08)	(3.09)	(3.08)
Leverage	-0.024***	-0.024***	-0.024***
	(-3.48)	(-3.48)	(-3.48)
CashFlow	-0.090***	-0.090***	-0.090***
	(-4.60)	(-4.59)	(-4.60)
NetWorkingCapital	0.147***	0.147***	0.147***
	(8.93)	(8.93)	(8.93)
R&D	0.000	0.000	0.000
	(0.00)	(0.00)	(0.00)
CAPEX	-0.053***	-0.053***	-0.053***
	(-4.60)	(-4.60)	(-4.59)
Dividend	-0.005	-0.005	-0.005
	(-1.49)	(-1.49)	(-1.49)

Constant	0.238***	0.238***	0.238***
	(16.83)	(16.83)	(16.82)
R-squared	0.864	0.864	0.864
Observations	29,026	29,026	29,026
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

TABLE 5
Political Risk and Wage Theft: cross section tests

This table reports the results from estimating Eq. (1). In column (1) the dependent variable is an indicator for whether firm i engaged in wage theft in year t; in column (2) the dependent variable is the natural logarithm of $ value of wage theft in year t; in column (3) the dependent variable is the natural logarithm of $ value of wage theft in year t scaled by number of employees involved. All variables are defined in Appendix 2. The sample spans the period 2003-2021. The values reported in parentheses below coefficients represent t-statistics. Standard errors are clustered at firm level. *, **, *** represent significance at 1%, 5%, and 10% respectively.

Panel A: Government Contractors

	(1) *WageTheft (indicator)*	*(2)* *WageTheft (log $ value)*	*(3)* *WageTheft (log $ value per ee)*
PRisk (standardized)	0.0023*	0.0216*	0.0163*
	(1.75)	(1.82)	(1.67)
PRisk (standardized) x Contract/Sales	**-0.0001****	**-0.0011****	**-0.0009****
	(-2.20)	**(-2.13)**	**(-2.25)**
Contract/Sales	-0.0001***	-0.0012***	-0.0009**
	(-2.79)	(-2.89)	(-2.52)
R-squared	0.413	0.415	0.397
Observations	41,849	41,849	41,849
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Panel B: Major Customers

	(1) *WageTheft (indicator)*	*(2)* *WageTheft (log $ value)*	*(3)* *WageTheft (log $ value per ee)*
PRisk (standardized)	0.003*	0.027*	0.020*
	(1.78)	(1.86)	(1.75)
PRisk (standardized) x MajorCustomer	**-0.005***	**-0.043***	**-0.038***
	(-1.71)	**(-1.69)**	**(-1.78)**
MajorCustomer	0.002	0.022	0.014
	(0.42)	(0.42)	(0.33)
R-squared	0.427	0.430	0.411
Observations	39,330	39,330	39,330
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Panel C: Employees (Right-to-Work States)

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	0.003*	0.027	0.020
	(1.68)	(1.64)	(1.54)
Prisk x RTW	**0.008**	**0.083***	**0.066***
	(1.62)	**(1.74)**	**(1.85)**
RTW	0.029***	0.255***	0.209***
	(5.34)	(5.15)	(5.55)
R-squared	0.086	0.084	0.082
Observations	43,119	43,119	43,119
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Panel D: Diversity

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	0.012***	0.114***	0.086***
	(3.89)	(3.85)	(3.89)
PRisk x NationalityMix	**-0.026*** **	**-0.251*** **	**-0.185*** **
	(-2.69)	**(-2.75)**	**(-2.62)**
NationalityMix	-0.040***	-0.380***	-0.262***
	(-3.40)	(-3.54)	(-3.24)
R-squared	0.112	0.110	0.107
Observations	32,889	32,889	32,889
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Panel E: Financial Constraints

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	-0.001	-0.003	-0.006
	(-0.23)	(-0.15)	(-0.36)
PRisk x FinConstrained	**0.007***	**0.057***	**0.050***
	(1.93)	**(1.85)**	**(1.96)**
FinConstrained	0.000	-0.013	-0.005
	(0.07)	(-0.23)	(-0.11)
R-squared	0.459	0.460	0.448
Observations	25,675	25,675	25,675
Constant	Yes	Yes	Yes

Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

TABLE 6
Political Risk and Wage Theft: Complementary or Substitute

This table reports the results from estimating Eq. (1). In column (1) and (2) the dependent variable is *Employment Decrease*; in column (3) and (4) the dependent variable is *CAPEX Decrease*. All variables are defined in Appendix 2. The sample spans the period 2003-2021. The values reported in parentheses below coefficients represent t-statistics. Standard errors are clustered at firm level. *, **, *** represent significance at 1%, 5%, and 10% respectively.

	(1) *Employment Decrease*	*(2)* *Employment Decrease*	*(3)* *CAPEX Decrease*	*(4)* *CAPEX Decrease*
PRisk (standardized)	**-0.002**	**0.007***	**0.009**	**0.007***
	(-0.29)	**(1.96)**	**(1.08)**	**(1.77)**
R-squared				
Observations				
Constant	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes	Yes

TABLE 7
Political Risk and Wage Theft: Robustness

This table reports the results from estimating Eq. (1). In column (1) the dependent variable is an indicator for whether firm i engaged in wage theft in year t; in column (2) the dependent variable is the natural logarithm of $ value of wage theft in year t; in column (3) the dependent variable is the natural logarithm of $ value of wage theft in year t scaled by number of employees involved. All variables are defined in Appendix 2. The sample spans the period 2003-2021. The values reported in parentheses below coefficients represent t-statistics. Standard errors are clustered at firm level. *, **, *** represent significance at 1%, 5%, and 10% respectively.

Panel A: Controlling for CEO fixed effects

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	**0.003****	**0.027****	**0.021****
	(2.16)	**(2.26)**	**(2.07)**
R-squared	0.416	0.419	0.400
Observations	42,564	42,564	42,564
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
CEO fixed effects	Yes	Yes	Yes

Panel B: Controlling for Volatility

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	**0.004****	**0.037****	**0.029***
	(2.01)	**(2.09)**	**(1.95)**
R-squared	0.422	0.426	0.406
Observations	28,150	28,150	28,150
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes

Panel C: Controlling for industry time-varying heterogeneity

	(1) WageTheft (indicator)	*(2) WageTheft (log $ value)*	*(3) WageTheft (log $ value per ee)*
PRisk (standardized)	**0.003***	**0.029****	**0.025****
	(1.95)	**(2.03)**	**(2.06)**

R-squared	0.458	0.461	0.442
Observations	35,797	35,797	35,797
Constant	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Year *x* Industry fixed effects	Yes	Yes	Yes

APPENDIX 1

Sample Selection

This table reports sample selection.

	#observations dropped	#observations
Number of firms available on Compustat between 2003-2021		149,598
Less :		
Missing political risk data	83,226	
Missing data to compute control variables	23,808	
Final sample		**42,564**

APPENDIX 2

Definitions of variables

Variable	Definition	Source
WageTheft (indicator)	A dummy variable equal to 1 if back wages paid attributable to firm *i* during year t, and zero otherwise.	WHISARD
WageTheft (log $ value)	The logarithm of $ value of back wages paid attributable to firm *i* during year t.	WHISARD
WageTheft (log $ value per ee)	The logarithm of $ value of back wages paid attributable to firm *i* during year t per employee involved.	WHISARD
PRisk (standardized)	Standardized firm-level political risk as defined in HHLT. *PRisk* is measured as the average firm-level political risk over the four quarters and standardized to have a mean equal to zero and a standard deviation of one.	HHLT
NPRisk (standardized)	Standardized firm-level political risk as defined in HHLT. *NPRisk* is measured as the average firm-level non-political risk over the four quarters and standardized to have a mean equal to zero and a standard deviation of one.	HHLT
Psentiment (standardized)	Standardized firm-level political sentiment in a conference call, defined as in HHLT. *Psentiment* is measured as the average firm-level sentiment over the four quarters and standardized to have a mean equal to zero and a standard deviation of one.	HHLT
Size	Natural logarithm of market value.	Compustat
Leverage	Long-term debt scaled by total shareholders' equity.	Compustat
ROA	Net income scaled by total assets.	Compustat
SalesGrowth	End of fiscal year sales minus beginning of fiscal year sales, divided by beginning of fiscal year sales.	Compustat
MB	Market-to-book ratio is calculated as the firm market capitalization at financial year end scaled by net assets.	Compustat

Loss	A dummy variable equal to 1 if income is negative and zero otherwise.	Compustat
HHI	Herfindahl-Hirschman Index based on total sales per two-digit SIC code industry and fiscal year.	Compustat
LaborIntensity	The standardized ratio of a number of employees to total assets.	Compustat
Employees	Natural logarithm of the number of employees.	Compustat
Subsidies	Binary indicator variable for whether the firm received any subsidies from the government.	Subsidy Tracker
ReturnVol	Standard deviation of monthly stock returns (ret) over the past two years.	CRSP
Contract/Sales	Total value of contracts obligated to a firm *i* in year t scaled by firm sales.	USAspending.gov, Compustat
MajorCustomer/Sales	Total value of sales to major customers for a firm *i* in year t scaled by firm sales.	Compustat
Emp_Decrease	An indicator variable equal to one if employment in *t* less employment in *t-1*, divided employment in *t-1* is negative, and zero otherwise	Compustat
Inv_Decrease	An indicator variable equal to one CAPEX in *t* less CAPEX in *t-1*, divided CAPEX in *t-1* is negative, and zero otherwise.	Compustat
RTW	Binary indicator that takes the value of one when a state has enacted right-to-work laws during a particular year and zero when such laws are not in effect in that state for the same year.	National Conference of State Legislatures
NationalityMix	Proportion of board members representing different countries in a year.	BoardEx
FinConstrained	Indicator variable based on the Kaplan-Zingales Index created in accordance with Lamont et al (2001). Firms in the top tercile of KZ-Index are defined as constrained, and those in the bottom tercile are defined as unconstrained.	Compustat

APPENDIX 3
Sample Composition

This table reports the composition of the sample by fiscal year in Panel A and by industry (in accordance with the Fama-French Industry Classification Type-12) in Panel B.

Panel A. Sample Composition by Year

Year	*Freq.*	*Percent*
2003	1,404	3.3
2004	1,784	4.19
2005	1,902	4.47
2006	2,060	4.84
2007	2,161	5.08
2008	2,293	5.39
2009	2,359	5.54
2010	2,342	5.5
2011	2,369	5.57
2012	2,386	5.61
2013	2,206	5.18
2014	2,224	5.23
2015	2,361	5.55
2016	2,338	5.49
2017	2,327	5.47
2018	2,505	5.89
2019	2,563	6.02
2020	2,553	6
2021	2,427	5.7

Panel B. Sample Composition by Industry

Industry Name	*Freq.*	*Percent*
Consumer Non-Durables	1,500	3.52
Consumer Durables	942	2.21
Manufacturing	3,807	8.94
Oil, Gas, and Coal Extraction and Production	2,409	5.66
Chemicals and Allied Products	1,048	2.46
Business Equipment	7,211	16.94
Telephone and Television Transmission	1,802	4.23
Utilities	1,522	3.58
Wholesale, Retail, and Some Services	2,363	5.55
Healthcare, Medical Equipment, and Drugs	4,990	11.72
Finance	9,023	21.2
Other (Mines, Constr, BldMt, Trans, Hotels, Bus Serv, Entertainment)	5,947	13.97

APPENDIX 4
Correlation Table

	Variable Name	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*	*(15)*
(1)	*WageTheft (indicator)*	1.000														
(2)	*WageTheft (log $ value)*	0.988*	1.000													
(3)	*WageTheft (log $ value per ee)*	0.981*	0.981*	1.000												
(4)	*PRisk (standardized)*	0.019*	0.021*	0.021*	1.000											
(5)	*NPRisk (standardized)*	0.007	0.007	0.007	0.354*	1.000										
(6)	*PSentiment (standardized)*	0.005	0.003	0.005	-0.129*	-0.150*	1.000									
(7)	*Size*	0.135*	0.133*	0.134*	0.040*	0.018*	0.044*	1.000								
(8)	*Leverage*	0.030*	0.029*	0.029*	0.052*	0.068*	-0.045*	0.001	1.000							
(9)	*ROA*	0.043*	0.043*	0.043*	-0.033*	0.021*	-0.023*	0.308*	-0.395*	1.000						
(10)	*Sales_Growth*	-0.025*	-0.024*	-0.024*	-0.031*	-0.048*	0.085*	0.008	-0.073*	-0.002	1.000					
(11)	*MB*	0.002	0.002	0.001	-0.029*	-0.050*	0.096*	0.139*	-0.091*	0.029*	0.094*	1.000				
(12)	*Loss*	-0.074*	-0.073*	-0.074*	0.005	-0.035*	0.017*	-0.442*	0.044*	-0.400*	-0.011*	-0.004	1.000			
(13)	*HHI*	0.062*	0.056*	0.057*	-0.047*	-0.020*	0.013*	-0.010*	-0.010*	0.056*	-0.013*	0.005	-0.044*	1.000		
(14)	*LaborIntensity*	0.106*	0.102*	0.089*	-0.052*	-0.054*	0.061*	-0.176*	0.014*	-0.023*	-0.039*	0.028*	0.006	0.141*	1.000	
(15)	*Employees*	0.214*	0.211*	0.208*	-0.013*	-0.013*	0.037*	0.692*	0.109*	0.296*	-0.129*	0.007	-0.353*	0.167*	0.225*	1.000