

# The Regressive Effects of Worker Protection: The Role of Financial Constraints

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## Abstract

I exploit the adoption of U.S. state-level employment protection legislation (EPL) to study its effects on labor earnings and firms' profits. I find that EPL has unintended regressive consequences. EPL harms financially constrained firms and their workers, while only benefiting the most unconstrained firms and their workers. The effects on financially constrained firms are driven by EPL limiting access to credit and raising debt costs, forcing them to reduce investment and employment. Conversely, unconstrained firms expand their operations due to a decrease in their cost of debt. A model with heterogeneous firms and endogenous financial constraints guides the empirical analysis.

**Keywords:** EPL, labor earnings, firm profits, financial constraints.

**JEL:** G32, J63, K31

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# 1 Introduction

Employment protection legislation (EPL) encompasses a set of rules governing the termination and hiring of workers, including severance payments, notice periods, and reinstatement possibilities. The primary motivation of EPL is to shield workers from unfair dismissal and protect their earnings in the event of job loss. However, the intended benefits of EPL may not materialize if firms cannot adapt to the increased labor costs. In such cases, firms may resort to cost-cutting measures such as reducing hiring or lowering wages. In particular, firms' capacity to absorb unanticipated shocks, such as an exogenous increase in labor costs, is limited by their access to credit (Benmelech et al., 2019; Mehrotra and Sergeyev, 2021). Thus, the extent to which workers benefit from higher protection may be limited by their firms' financial constraints. This raises the question: Who actually benefits from worker protection?

This paper addresses this question from both a theoretical and empirical perspectives. I begin by developing a model in which investment decisions are limited by endogenous credit constraints that depend on firms' assets and the strength of EPL. From the model, I derive testable implications regarding the effects of strengthening EPL on labor earnings and firms' profits. To test the model's predictions, I exploit the staggered adoption of U.S. state-level EPL, which improved the standards and fairness of employee dismissals.

The main empirical finding is that EPL has unintended regressive consequences. The impact of EPL on labor earnings and firms' profits depends on the severity of firms' financial constraints. EPL harms the most financially constrained firms and their workers, while mainly benefiting unconstrained firms and their workers. The evidence suggests that the effects on constrained firms are driven by EPL limiting their access to external capital and raising their cost of debt, forcing them to cut investment and employment. In contrast, EPL reduces the cost of debt for unconstrained firms, allowing them to expand their operations. These results align with the model's predictions.

My model captures the findings of the empirical literature on labor and finance, which show that EPL crowds out external finance, reducing leverage (Simintzi et al., 2015; Serfling, 2016), discouraging investment (Bai et al., 2020), decreasing employment (Autor et al., 2006, 2007), and increasing the cost of debt (Alimov, 2015).<sup>1</sup> The model predicts that these distortions are larger in more financially constrained firms that have less room to accommodate EPL, and thus, experience a greater decline in profits. For workers in constrained firms, the increased expected labor payment due to higher protection is counteracted by a reduction in employment, leading to a decrease in their labor earnings.

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<sup>1</sup>The idea that reduced credit availability or higher financing costs force firms to cut investment and hiring constitutes the typical "credit channel" explored in most of the macro-finance literature, starting with Bernanke and Gertler (1989) and Kiyotaki and Moore (1997).

Perhaps surprisingly, the model predicts that there is a range of financially unconstrained firms that benefit from EPL. The decline in the demand for credit by constrained firms leads to a reduction in the cost of debt for unconstrained firms, allowing them to expand their operations and increase their profits after the adoption of EPL. At the same time, labor earnings in unconstrained firms increase, as workers now receive a higher expected payment and employment expands.

In order to test the theoretical predictions of the model, it is necessary to overcome the endogeneity concerns associated with the fact that a firm's labor costs are related to its decisions. Following Acharya et al. (2014), I exploit the quasi-natural experiment created by the adoption of Wrongful Discharge Laws (WDLs) by U.S. states over the 1967-1995 period.<sup>2</sup> These laws were adopted by states' courts in the form of exceptions to the "at-will employment" principle, which allows employers to freely terminate any employee without prior notice and without risk of legal liability. The rationale for the passage of WDLs was to ensure fairness and justice in employment practices, providing employees with job security and a legal recourse against unjust terminations (Walsh and Schwarz, 1995).

WDLs matured into three common law exceptions to the at-will employment doctrine. I focus the analysis on one particular WDL: the good faith exception. This law applies when a court considers that an employer discharged a worker out of bad faith, malice, or retaliation. Of all the WDLs, this law is the largest deviation from at-will employment since termination must always be for just cause (Dertouzos and Karoly, 1992; Kugler and Saint-Paul, 2004). Importantly, the good faith exception effectively strengthens employment protection and raises firms' firing costs due to an increase in wrongful termination lawsuits (Jung, 1997; Boxold, 2008).

To test the theoretical results, I implement a triple differences-in-differences research design for Compustat firms. The treated and control groups consist of financially constrained and unconstrained firms headquartered in states that have and have not passed the good faith exception. I start by exploiting the adoption of the good faith exception to identify the impact of an exogenous improvement of EPL on labor earnings and firm profits among firms with different levels of financial constraints. Then, I test whether these effects are explained by changes in the cost of debt, investment, and employment, as predicted by the model. I employ panel regression techniques that control for firm, state, and industry-firm fixed effects.

In my baseline econometric model, I begin by using firms' assets to proxy financial constraints, which are a particularly useful predictor of financial constraints (Beck et al., 2005). The results are also robust when using alternative measures of financial constraints such as the Hadlock and

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<sup>2</sup>The adoption of WDLs has been extensively used in the literature to identify the effects of increased worker protection on the real economy and various firm-level decisions. See, for instance, Dertouzos and Karoly (1992, 1993); Autor (2003); Autor et al. (2004, 2006, 2007); Serfling (2016); Bai et al. (2020); Fairhurst et al. (2020); Dang et al. (2021); Bena et al. (2022).

Pierce (2010) index, Whited and Wu (2006) index, and an indicator variable for whether a firm is a non-dividend payer.<sup>3</sup>

The main empirical results are as follows. First, following the adoption of the good faith exception, labor earnings in firms with assets at the 25th percentile fall by 35% percent, while they increase by 1% percent at firms with assets at the 75th percentile. In terms of firms' earnings, the adoption of EPL results in a reduction of 27% percent for firms at the 25th percentile of size and an increase of 4% percent for firms at the 75th percentile. All these magnitudes are statistically significant. These results remain robust after controlling for the traditional firm-level characteristics commonly used in the literature and state-level economic and political factors. Alternatively, I also include state-year fixed effects to account for any state-year omitted variables.

Second, I find empirical evidence that the decrease in labor earnings and firm profits following the adoption of EPL is due to EPL limiting access to credit and increasing the cost of debt in financially constrained firms, forcing them to reduce investment and employment. Conversely, the adoption of EPL allows financially unconstrained firms to expand investment and employment due to a decrease in their cost of debt. Consistent with the model's predictions, these findings suggest that EPL has unintended regressive consequences arising from its interaction with financial frictions.

The crucial assumption for giving a causal interpretation to these results is that, in the absence of EPL adoption, the change in labor and firms' earnings for constrained and unconstrained firms would have been the same for both treated and non-treated firms. Many features of WDLs identified in the literature and several robustness tests suggest that this common-trend assumption holds.

First, WDLs are based on common law, thus their recognition by judges is more likely to be driven by the merits of the case rather than political and economic factors. Hence, lobbying activities are unlikely to have influenced judges' decision to pass such laws (Walsh and Schwarz, 1995; Autor, 2003).

Second, a main concern is whether, during periods where firms' profits are declining more than labor earnings, the at-will termination principle allows firms to adjust by dismissing more workers. In that case, courts may adopt WDLs to protect workers from unfair dismissal. To test for pre-existing trends, I follow Bertrand and Mullainathan (2003) to explore the timing of the change in labor and firms' earnings relative to the passage of the good faith exception and among firms with different levels of financial constraints. I find that earnings decline more in

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<sup>3</sup>There is a long-standing debate on which indices effectively identify financially constrained firms (Farre-Mensa and Ljungqvist, 2016). Firms' assets, the Hadlock and Pierce (2010) index, the Whited and Wu (2006) index, and non-dividend-paying firms are commonly used proxies for financial constraints in recent empirical studies on the interaction between financial frictions and labor regulations. See, for instance, Ellul and Pagano (2019); Bai et al. (2020).

financially constrained firms only after the enactment of EPL, suggesting that the main results of the paper do not suffer from reverse causality.

Third, the passage of the good faith exception and the movements of firm-level interest variables may spuriously correlate with fundamental economic and political factors. While the main results are robust to controlling for states' per capita GDP and GDP growth, these variables are not comprehensive. Thus, I control for additional factors such as political leaning, unionization rates, the adoption of other state-level labor laws, and the adoption of the good faith exception within the same federal circuit. This last measure accounts for the fact that the adoption of WDLs may be influenced by whether states from the same federal court have passed the laws (Bird and Knopf, 2009).

Finally, the gradual and staggered adoption of EPL over time implies that firms can be in both the treatment and control groups in the time horizon considered, which alleviates concerns about large differences between treated and non-treated firms. To further address these concerns, I show that the results are robust to using propensity score matching based on a large set of firms' characteristics. Additionally, a limitation of Compustat is that it provides only the latest headquarters locations. To account for headquarters relocation, I supplement Compustat data with information on historical headquarters. Overall, the main empirical findings are robust to accounting for a variety of econometric concerns.

The contribution of this paper is threefold. Firstly, it identifies firms' financial constraints and their interaction with EPL as a key channel determining the effectiveness of the adoption of EPL.

Secondly, this paper provides evidence that the adoption of EPL has unintended regressive effects. The empirical results indicate that EPL primarily benefits financially unconstrained firms and their workers, but harms the most financially constrained sector. Thus, the adoption of EPL is expected to create a conflict of interest between different groups of firms and workers. These findings point out the need to factor in these incentive effects when designing EPL.

Finally, these results provide empirical support for the implementation of size-contingent EPL across many countries, which imposes stricter EPL on larger firms while leaving smaller firms under more flexible regulations. Overall, the firm-dependent distortions that originate from financial frictions represent a promising avenue for future research on the determinants and distributional effects of various size-contingent regulations that are widespread worldwide. Examples of these regulations include special tax treatments, subsidized credit, and restrictions on business expansion.

## 1.1 Related literature

This paper contributes to three strands of literature that study the impact of labor regulation at firm and aggregate levels. First, a predominant stream of research examines how EPL affects various corporate decisions. EPL crowds out financial leverage (Simintzi et al., 2015; Serfling, 2016), discouraging investment and reducing firms' growth (Bai et al., 2020). To mitigate the impact of stricter EPL, firms invest more in innovation (Acharya et al., 2014; Griffith and Macartney, 2014; Bena et al., 2022), increase share buybacks (Dang et al., 2021), reduce tax aggressiveness (Fairhurst et al., 2020), cut trade credit (Li et al., 2023), and increase cash holdings (Cui et al., 2018; Karpuz et al., 2020; Beuselinck et al., 2021).<sup>4</sup>

A second strand of the literature explores the impact of other labor regulations on firms' corporate decisions. Agrawal and Matsa (2013) analyze unemployment benefits, Chava et al. (2020) study right-to-work laws, Ellul and Pagano (2019) focus on employee' rights in bankruptcy, Geng et al. (2022) examines minimum wage policies, Micco and Muñoz (2024) analyze employment protection to temporary agency workers, and Jeffers (2024) examines noncompete agreements.

A third body of literature, starting with Dertouzos et al. (1988) and Dertouzos and Karoly (1992), examines the real effects of the adoption of WDLs. Miles (2000) and Autor (2003) study the effects on outsourcing jobs, Autor et al. (2006) explore the effect on state-employment, and Autor et al. (2007) focus on the impact on productivity. The contribution of this article to the first three strands of literature is to provide empirical evidence that EPL creates unintended regressive effects that arise from its interaction with financial frictions.

Finally, this paper adds to a fourth line of research on the political economy of labor policies. Botero et al. (2004) argue that labor regulations respond to the pressure of economic interest groups. Pagano and Volpin (2005), Perotti and von Thadden (2006), and more recently Fischer and Huerta (2021), formalize models where equilibrium employment regulations arise from a political process that aggregates different interests. This article contributes to this literature by providing empirical evidence of the existence of such interest groups, as EPL has differential effects across groups of workers and firms. This evidence supports the adoption of size-contingent EPL, which is widespread across the world and which has received significant attention in the quantitative macro literature (Gourio and Roys, 2014; Garicano et al., 2016; Aghion et al., 2023). Along the same lines, Huerta (2024) formalizes a political theory for the emergence of size-contingent EPL founded on the existence of similar interest groups identified in this paper.

The paper is organized as follows. Section 2 presents the model. Section 3 derives the main testable theoretical predictions. Section 4 provides background information regarding WDLs.

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<sup>4</sup>This article also relates to an important body of literature that examines the impact of financial constraints on firms' employment. See, for instance, Pagano and Pica (2012); Chodorow-Reich (2014); Duygan-Bump et al. (2015); Benmelech et al. (2021); Mehrotra and Sergeyev (2021); Fonseca and Van Doornik (2022).

Section 5 describes the data and empirical methodology. Section 6 presents the main empirical findings. Section 7 tests the mechanisms. Section 8 discusses the main econometric concerns and reports the robustness tests conducted to alleviate these concerns. Section 9 concludes.

## 2 The Model

This section describes the model. I build on the setting developed by Fischer and Huerta (2021), which incorporates endogenous financial constraints, occupational choice, and firms' heterogeneity in labor and capital in a tractable way. I adapt their framework to study the effects of employment protection legislation (EPL) across different groups of workers and firms.

My model incorporates three new important features relative to Fischer and Huerta (2021). First, it distinguishes between individual and collective dismissal regulations (EPL). Second, the wage rate and interest rate arise jointly in equilibrium as a function of the strength of EPL and the wealth distribution. Third, it incorporates wage rigidities that prevent the equilibrium wage from fully adjusting in response to changes in EPL. These rigidities, such as minimum wages and the coverage of collective bargaining agreements, are particularly relevant at the state level in the U.S. (De Ridder and Pfajfar, 2017). They influence the responsiveness of the equilibrium wage to improvements in EPL, and thus, the extent to which wage adjustments can mitigate the impact of EPL on the real economy.

Citizens are heterogeneous in wealth (assets) and are endowed with one unit of labor. The probability density function of wealth  $g(a)$  is continuously differentiable, has support in  $[0, a^M]$  and mean  $A > 0$ . Agents decide either to be workers or entrepreneurs. An entrepreneur who invests  $k$  units of capital and hires  $l$  units of labor produces  $f(k, l) = k^\alpha l^\beta$ , with  $\alpha + \beta < 1$ . Agents are price takers in both the capital and labor markets. The endogenous price of capital and labor are denoted by  $\rho$  and  $w$ , respectively. The price of the single good is normalized to one.

### 2.1 Timeline

The single period is divided into three stages (see Figure 1). In what follows, I describe the events that take place at each stage.

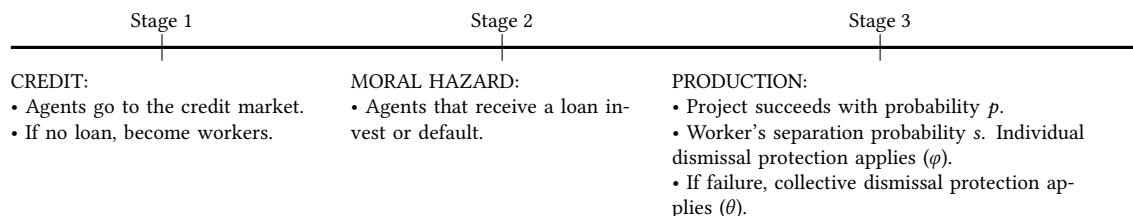


Figure 1: Timing.

#### 2.1.1 Stage 1: Credit

There is a competitive banking system that provides credit to potential entrepreneurs. The bank finances debt through deposits. The equilibrium interest rate  $\rho$  clears the supply and demand for



capital (see equation (2.10)). Due to credit market imperfections, banks restrict access to credit in three ways. First, they establish a minimum collateral required for a loan ( $\underline{a}$ ). Second, they define a debt limit depending on assets ( $d(a)$ ). Third, they charge differentiated interest rates ( $r(a)$ ) depending on assets. Section A.1 in the Appendix, presents the conditions that define these credit constraints. Excluded agents become workers ( $a < \underline{a}$ ), while the rest can obtain credit to invest in firm ( $a \geq \underline{a}$ ).

### 2.1.2 Stage 2: Moral Hazard

Banks provide credit to entrepreneurs while facing a moral hazard problem: investment decisions are not contractible and banks are imperfectly protected against default. Agents that receive a loan ( $a \geq \underline{a}$ ) have two options. First, they can honor the credit contract and invest in a firm to become entrepreneurs. Second, they may decide to default with the loan to finance private consumption. In this last case, only a fraction  $1 - \phi$  of capital is recovered by the legal system, where  $1 - \phi$  represents the loan recovery rate or, more broadly, the strength of creditor rights.<sup>5</sup>

### 2.1.3 Stage 3: Production

In the last stage, firms succeed with probability  $p \in (0, 1)$ . In that case, they produce  $f(k, (1 - s)l)$ , where  $k = a + d$  is the capital invested by an entrepreneur with wealth  $a$ , who asks for a loan  $d$ , and hires  $l$  units of labor.

There is an exogenous job separation probability,  $s \in [0, 1]$ . Therefore,  $(1 - s)l$  is the “effective” labor used for production of a firm that hires  $l$  units of labor. When a worker is fired, with probability  $s$ , entrepreneurs must pay her a fraction  $\varphi$  of her labor income  $wl$ . Hence,  $\varphi$  represents the strength of individual dismissal regulation.

With probability  $1 - p$ , production fails and bankruptcy procedures take place. The legal system can only recover a fraction  $\eta$  of total invested capital  $k$ . The recovered capital is distributed among creditors, i.e. between banks and workers. First, a fraction  $\theta$  of labor income is paid to workers. Then, the rest  $\eta k - \theta wl$ , goes to banks. Hence,  $\theta$  can be interpreted as the strength of employees’ rights in bankruptcy, or more broadly, as the strictness of collective dismissal regulation.

In sum, the strength of EPL is represented by the pair  $(\varphi, \theta)$ , which measures the strictness of individual and collective regulations, respectively.

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<sup>5</sup>Fischer et al. (2019) develop a model with a similar financial structure where the amount recovered by the legal system is a general function of  $\phi$  and debt. The qualitative predictions of the model would not change under this more general specification.

## 2.2 Payoffs

The expected profits of a bank from lending  $d$  to an entrepreneur with assets  $a$ , who hires  $l$  units of labor, at the interest rate  $r$  is:

$$\Pi^B = p(1+r)d + (1-p)(\eta k - \theta wl) - (1+r)d. \quad (2.1)$$

The firm's profits of such entrepreneur are given by:

$$\Pi^E = p[f(k, (1-s)l) - (1-s)wl - s\varphi wl - (1+r)d], \quad (2.2)$$

while the total workers' earnings in that firm are:

$$\Pi^W = p[(1-s)wl + s\varphi wl] + (1-p)\theta wl = \bar{w} \cdot l, \quad (2.3)$$

where  $\bar{w} \equiv (p[(1-s) + s\varphi] + (1-p)\theta) \cdot w$  is the expected labor payment per unit of labor supplied, referred as to *expected wage* for simplicity. Note that entrepreneurs use their own labor to form a firm, and thus, must hire labor from other agents (workers).

## 2.3 Equilibrium

This section describes the equilibrium given the strength of EPL,  $(\varphi, \theta)$ . In Sections 2.3.1 and 2.3.2, I describe banks' and entrepreneurs' decisions taking as given the factor prices  $w$  and  $\rho$ . In Section 2.3.3, I obtain the conditions that define these factor prices.

### 2.3.1 Banks' decisions

Imposing the zero profit condition, equation (2.1) gives the interest rate charged to an entrepreneur who borrows  $d$ , invests  $k$ , and hires  $l$  units of labor:

$$1+r = \frac{1+\rho}{p} - \frac{1}{pd}(1-p)[\eta k - \theta wl]. \quad (2.4)$$

Banks charge differentiated interest rates  $r \equiv r(a)$  because in case of bankruptcy the loss that they incur depends on the share of investment and labor that is financed through debt.

### 2.3.2 Entrepreneurs' decisions

The entrepreneur's problem is,

$$\begin{aligned} & \max_{d,l} \Pi^E \\ \text{s.t. } & \Pi^E \geq \bar{w}, \\ & \Pi^E \geq \phi k, \end{aligned} \tag{2.5}$$

$$\tag{2.6}$$

where (2.5) and (2.6) are the occupational and incentive compatibility constraints, respectively. Condition (2.5) asks that the agent prefers to form a firm instead of becoming a worker, while (2.6) states that the entrepreneur does not have incentives to default with the loan.<sup>6</sup> The unconstrained problem leads to the firm's optimal size given by capital  $k^*$  and labor  $l^*$ :<sup>7</sup>

$$p f_k(k^*, (1-s)l^*) = 1 + r^*, \tag{2.7}$$

$$p(1-s)f_l(k^*, (1-s)l^*) = \bar{w}. \tag{2.8}$$

where  $1 + r^* \equiv 1 + \rho - (1-p)\eta$ . Note that  $(k^*, l^*)$  corresponds to the operation level that any agent will reach if loans were not limited by financial constraints. However, only sufficiently wealthy agents will attain the efficient operation scale.

In Section A.1 in the Appendix, I characterize the optimal debt contract. There are two endogenous wealth thresholds that define credit constraints. First, there is a minimum wealth required to obtain a loan,  $\underline{a} > 0$ . Second, there exists a wealth threshold,  $\bar{a} > \underline{a}$ , such that an agent with  $\bar{a}$  is the first to obtain a loan to invest efficiently. Thus, in equilibrium there is an endogenous range of entrepreneurs,  $[\underline{a}, \bar{a})$ , who have restricted access to credit and operate at an inefficient scale. Because in this range the marginal return to capital is larger than the marginal cost of debt, these agents decide to ask for their maximum allowable loan,  $d$ .

To sum up, agents are endogenously classified into four groups, 1) those with  $a < \underline{a}$  become workers and deposit their wealth, 2) financially constrained agents,  $a \in [\underline{a}, \bar{a})$ , who form inefficient firms, 3) those with  $a \in [\bar{a}, k^*)$  who obtain an optimal loan and form an efficient firm, and 4) rich agents with  $a > k^*$  who self-finance an optimal firm and deposit the rest of their wealth. Figure 2 summarizes these features. The supply of capital comes from agents in groups (1) and (4), while the demand for capital comes from entrepreneurs in groups (2) and (3).

<sup>6</sup>Note that condition (2.6) implies that debt limits depend endogenously on firms' profits. This modeling approach is consistent with the findings of Lian and Ma (2021) which indicate that firms' debt is predominantly based on cash-flows in the US.

<sup>7</sup>Note that replacing equation (2.4) in (2.2) gives:  $\Pi^E = p f(k, (1-s)l) + (1-p)\eta k - \bar{w}l - (1+\rho)d$ . Differentiating in terms of  $k$  and  $l$  gives conditions (2.7) and (2.8).

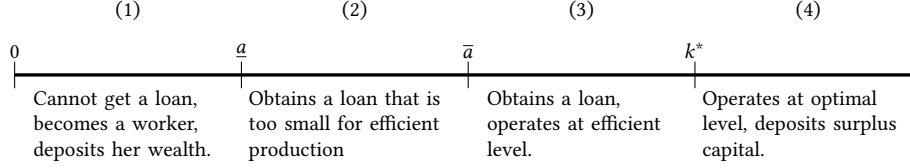


Figure 2: Agents' choices as a function of initial wealth.

### 2.3.3 Equilibrium prices

The labor market equilibrium wage  $w$  arises from:

$$G(\underline{a}) = \int_{\underline{a}}^{\bar{a}} l g(a) \partial a + l^*(1 - G(\bar{a})), \quad (2.9)$$

where the left-hand side is total labor supply and the right-hand side is the labor demand. This condition uniquely defines the equilibrium wage  $w$ . The equilibrium interest rate  $\rho$  is defined by:

$$A = \int_{\underline{a}}^{\bar{a}} k g(a) \partial a + k^*(1 - G(\bar{a})), \quad (2.10)$$

where  $A$  is the aggregate capital in the economy which is given by the wealth distribution  $g(\cdot)$ , while the right-hand side is the demand for capital coming from firms.

## 3 Improving Employment Protection Legislation

In this section, I analyze the welfare effects of improving EPL across the different groups of workers and firms. The experiment of study consists into three stages. Initially, the economy is subject to labor regulations  $(\varphi^0, \theta^0)$ , which determine the initial interest rate  $\rho^0$  and wage  $w^0$ . In the second stage, an unexpected labor reform increases  $\varphi$  or  $\theta$ , or both. In the last stage, the economy operates under the new regulations. The interest rate fully adjusts to satisfy (2.10) giving rise to a new interest rate,  $\rho$ . However, there are wage rigidities that prevent the equilibrium wage from fully adjusting to changes in regulations. In particular, the new wage rate is  $w^i = w + i(w^0 - w)$ , where  $w$  is the wage that satisfies (2.9) given the new EPL, and  $i$  measures the degree of wage inflexibility.<sup>8</sup>

The parameter  $i$  captures wage rigidities that are present in many states in the U.S. and that prevent wages to fully adjusting in response to EPL (De Ridder and Pfajfar, 2017). These wage rigidities include, for instance, minimum wages or the share of employees covered by collective bargaining agreements. The inclusion of wage rigidities to the model implies that when EPL

<sup>8</sup>For a similar modeling approach to capture wage rigidities see Garicano et al. (2016).

increases, it generates unemployment ( $u$ ). Thus, the labor market condition after the adoption of EPL becomes:

$$G(\underline{a}) + u = \int_{\underline{a}}^{\bar{a}} l g(a) \partial a + l^*(1 - G(\bar{a})), \quad (3.1)$$

which, given the new equilibrium wage  $w^i$ , determines unemployment  $u$ .

### 3.0.1 Effects on wages and the equilibrium interest rate

**Lemma 1** *Consider a marginal increase in the strength of EPL, then the wage rate  $w^i$  goes down. If  $i \in (0, 1)$ , then the expected wage  $\bar{w}^i$  increases and the interest rate  $\rho$  decreases. If  $i = 1$ , then both measures do not change.*

Lemma 1 shows that when there is some degree of wage inflexibility (i.e.  $i \in (0, 1)$ ), the equilibrium interest rate ( $\rho$ ) and the wage rate ( $w$ ) decrease when EPL improves. Despite this last effect, the expected wage  $\bar{w}^i$  increases. In what follows, I provide an intuition for these results.

First, raising  $\varphi$  means that firms face higher individual dismissal costs, i.e. higher operating leverage due to larger expected labor payments. Therefore, entrepreneurs have more incentives to behave maliciously. Second, a higher  $\theta$  means that less capital is recovered by banks in case of bankruptcy. In both cases, banks tighten credit requirements for less capitalized firms. Thus, the minimum wealth to obtain credit  $\underline{a}$  increases and debt limits of less capitalized firms decrease.

From the perspective of labor markets, a higher  $\underline{a}$  reduces the mass of agents who can start a firm, raising the number of workers. Additionally, higher labor costs due to improved worker protection reduce firms' demand for labor. The combination of increased labor supply and decreased labor demand results in a lower equilibrium wage. In the credit market, the increase in the number of workers raises total deposits, while loan demand declines, causing the interest rate to go down.

The net impact of improved EPL on the expected wage  $\bar{w}^i$  depends on two opposing effects: i) a decrease in the equilibrium wage  $w^i$ , but ii) an increase in the labor payment in case of dismissal. Lemma 1 shows that effect ii) dominates in general (even when wage inflexibility is minimal). However, when wages are perfectly flexible ( $i = 0$ ) both effects exactly counteract, and thus,  $\bar{w}^i$  does not change in equilibrium (i.e. EPL is neutral).

## 3.1 Effects on firms' profits

**Proposition 1** *Consider a marginal improvement of EPL. Then, there are two critical wealth thresholds  $a^L > \underline{a}$  and  $a^H > a^L$  such that:*

1.  $\Pi^E$  decreases for firms with  $a \in [\underline{a}, a^L]$ .

2.  $\Pi^E$  increases for firms with  $a \in [a^H, \bar{a}]$ .

Proposition 1 describes the effect of improving EPL on firms' profits. Financially constrained firms ( $a \in [\underline{a}, a^L]$ ) suffer from EPL while the most unconstrained firms benefit ( $a \in [a^H, \bar{a}]$ ). Improving the strength of EPL generates three effects: i) the expected wage ( $\bar{w}^j$ ) increases, ii) the equilibrium interest rate ( $\rho$ ) decreases, and iii) credit constraints become more binding for more financially constrained firms, i.e. the minimum collateral ( $\underline{a}$ ) and their cost of debt ( $r(a)$ ) go up, while debt limits ( $d$ ) go down. Hence, the net effect of increased EPL on firms' profits depends on two opposing effects: I) higher labor costs and reduced access to credit for constrained firms, but II) a lower equilibrium interest rate.

In more financially constrained firms effect I) dominates. After an improvement of EPL, these firms face considerably tighter credit restrictions. Moreover, some of them lose access to credit and close. The firms that survive must shrink to continue operating. As a result, they invest less capital and reduce their labor, leading to decreased output and profits. Additionally, the reduced investment decreases the firms' profitability as a fraction of debt. Therefore, despite that the equilibrium interest rate  $\rho$  decreases, banks raise the cost of debt ( $r$ ) for constrained firms.

In financially unconstrained firms, effect II) dominates. After an improvement of EPL, the credit capacity of better-capitalized firms deteriorates less. Many of these firms have unused credit capacity which they utilize to adjust to higher labor costs and maintain their operations close to the efficient scale. Moreover, stricter EPL reduces the interest rate at which these firms obtain credit, allowing them to expand their investment and employment. Thus, financially unconstrained firms benefit from EPL because their reduced cost of debt counteracts the higher labor costs.

### 3.2 Effects on labor earnings

**Proposition 2** Consider a marginal improvement of EPL. Then, there are two critical wealth thresholds  $\tilde{a}^L > \underline{a}$  and  $\tilde{a}^H > \tilde{a}^L$  such that:

1.  $\Pi^W$  decreases for workers in firms with  $a \in [\underline{a}, \tilde{a}^L]$ .
2.  $\Pi^W$  increases for workers in firms with  $a \in [\tilde{a}^H, \bar{a}]$ .

Proposition 2 predicts that strengthening employment protection harms workers in financially constrained firms while benefiting only those in the least constrained sector. Two opposing effects determine this outcome: I) a higher expected wage ( $\bar{w}^j$ ), but II) reduced employment in more financially constrained firms.

Labor earnings in more financially constrained firms ( $a \in [\underline{a}, \tilde{a}^L]$ ) decline because effect II) dominates. Improved worker protection reduces their already limited access to credit, forcing

them to substantially reduce investment and hiring. As a result of the large decline in employment, labor earnings decrease in more financially constrained firms. On the other hand, improved EPL benefits workers in financially unconstrained firms ( $a \in [\tilde{a}^H, \bar{a}]$ ) because effect I) dominates. These firms can absorb EPL without significant reductions in hiring due to their easier access to credit. Moreover, the most unconstrained firms can expand their employment due to a decrease in their cost of debt, which leads to an even larger increase in their total workers' earnings.

### 3.3 Main testable hypotheses

To sum up, the model leads to the following testable hypotheses:

**Hypothesis 1:** *An improvement of EPL decreases labor earnings in more financially constrained firms, while this effect is reversed for financially unconstrained firms.*

**Hypothesis 2:** *An improvement of EPL hurts financially constrained firms by decreasing profits. This negative effect is decreasing in the level of financial constraints. Eventually, financially unconstrained benefit from EPL.*

**Hypothesis 3:** *An improvement of EPL crowds out external finance and increases the cost of debt for financially constrained firms, forcing them to reduce investment and employment. In contrast, financially unconstrained firms can increase investment and employment after an improvement of EPL due to their easier access to credit and reduced cost of debt.*

In Section 6, I test Hypotheses 1 and 2 by exploring the effect of improving EPL on labor earnings and profits across firms with different levels of financial constraints. In Section 7, I test Hypothesis 3, which is the mechanism behind Hypotheses 1 and 2. Overall, the model predicts that the interaction between labor and financial frictions has unintended regressive effects, as stricter EPL benefits unconstrained firms at a high cost for the most vulnerable firms and workers.

## 4 Wrongful Discharge Laws

### 4.1 Institutional background

The “at-will” employment rule in the United States allows employers to freely terminate any employee for any cause without the risk of legal liability. Thus, the presumption of employment at will shielded employers from legal challenges to their dismissal decisions. The at-will termination rule emerged from the case law in the late nineteenth century and became the generally accepted default rule for employment contracts by the early twentieth century (Morriss, 1994). Since the middle of the twentieth century, the history of American employment laws have been dominated

by the emergence of exceptions to the the at-will rule, denominated as Wrongful Discharge Laws (WDLs).

WDLs are part of the common laws, that is, exceptions to the at-will termination principle created by state courts decisions. The at-will rule was first modified by a California court in 1959. Between the 1970s and the 1990s, an important shift in the legal environment came as many states courts recognized one or more of three basic exceptions to the at-will principle. The literature describes these three exceptions as: i) the *implied contract* exception, ii) the *public policy* exception, and iii) the *good faith* exception (see, for instance Autor et al., 2004).

The implied contract exception protects workers from termination when the employer has implicitly promised that workers will not be discharged without good cause. Written statements in employee handbooks, oral statements, history of promotions, general company policies, and standard industry practices, all potentially become indicators of enforceable promises of job security (Walsh and Schwarz, 1995).

The public policy exception states that an employee has a cause of action against his employer when termination contravenes some established public policy. Hence, employers are prohibited from dismissing workers for actions supportive of public policy, such as refusing to violate the law or commit and illegal act. The public policy doctrine recognizes that employers' interests may be in conflict with the public good. Thus, it is necessary that employees are prohibited from retaliating against workers for performing a public service.

The good faith exception is rooted in the basic principle of contract law that employers should not take actions that would deprive employees of the benefit of the contractual relationship. Thus, the good faith doctrine implies that employers treat workers in a fair manner. Termination cannot be out of bad faith, malice, or retaliation. This doctrine also means that employers cannot discharge workers before receiving the benefits and payments they are entitled to. In the broadest sense, this law is interpreted to imply that dismissal decisions are subject to 'just cause' standards.

Of the three doctrines, the good faith exception is the largest deviation to at-will employment since termination must always be for just cause (Dertouzos and Karoly, 1992; Kugler and Saint-Paul, 2004). This law should therefore create the largest impact on firms' decisions and outcomes. In fact, Autor et al. (2007) show that the adoption of the good faith exception reduces employment volatility and entry, while the public policy and implied contract exceptions may not have material effects on firms. Thus, in this paper, I focus on the adoption of the good faith exception which is expected to generate the greatest increase in firms' dismissal costs.



## 4.2 Wrongful Discharge Laws and firing costs

An important assumption in this paper is that the adoption of WDLs effectively increases employment protection and firms' firing costs due to an expected increase in litigations. Various studies in the literature suggest that the adoption of WDLs raised hiring and firing costs. Miles (2000) and Autor (2003) find evidence that in response to WDLs employers substituted from permanent to temporary workers, presumably in an effort to reduce litigation risks. Kugler and Saint-Paul (2004) build a matching model with asymmetric information to show that an increase in firing costs increases discriminations against unemployment job seekers. To test their theoretical prediction, they use the National Longitudinal Survey of Youth (NLSY) and show that the passage of the WDLs, especially the good faith exception, increased discrimination in hiring against the unemployed.

A second strand of the literature has focused on estimating the financial costs of wrongful terminations lawsuits. Dertouzos et al. (1988) study WDL trials in California from 1980 to 1986 and show that plaintiffs won in 68% of the trials and were awarded on average \$0.66 million. These amounts are significant, since in their sample the annual average salary of a plaintiff amounts to \$0.036 million. Similarly, Jung (1997) examines WDL jury verdicts in California and Texas between 1992 and 1996. They estimate that plaintiffs prevailed in 46.5% of wrongful dismissal cases brought to trial and won \$1.29 million on average. Boxold (2008) reports average and maximum awards of \$0.59 millions and \$5.4 million between 2001 and 2007. Overall, the evidence suggests that WDL trials can create significant costs for employers.

## 4.3 Adoption of Wrongful Discharge Laws

In order to identify which court cases at each state set the precedent for the adoption of a particular WDL, I largely follow Autor et al. (2006). In practice, they search for the first major appellate-court decision that indicates the sustained adoption of a given exception. Thus, a lower court decision adopting a WDL that was reversed on appeal is not counted, while a lower court or supreme court decision not reversed is counted as the enactment of the law. However, in contrast with Autor et al. (2006), I follow Walsh and Schwarz (1995) and code Utah as recognizing the good faith doctrine in 1989.

Table 1 reports the dates each state adopted each particular WDL. The adoption of WDLs started in 1959 when California recognized the public policy exception. The majority of the states adopted WDLs between the 1970s and 1990s. As indicated in parenthesis, some states also reversed their positions. New Hampshire in 1980 and Oklahoma in 1989 reversed the good faith exception, while Arizona in 1984 and Missouri in 1988 reversed the public policy exception. Figure 3 shows the number of states that adopted each particular exception between 1959 and

1998. In total 43 states adopted the implied contract exception, 43 the public policy doctrine and 14 the good faith exception.

## 5 Sample Selection and Empirical Methodology

### 5.1 Sample selection

I use Compustat data for firms headquartered in the United States that have nonmissing data for the main variables of interest over the years 1967 to 1995. The sample period starts five years before the second-earliest enactment of a WDL, when California adopted the implied contract exception in 1972. The sample period ends five years after the enactment of the public policy exception in Ohio in 1990. I exclude utility firms (SIC code 49000-4999), financial firms (SIC codes 6000-6999), and quasi-public firms (SIC codes greater than 9900). Additionally, I require that firms have at least two years of data to estimate firm fixed effects. In order to estimate industry-year fixed effects, I require that 3-digit SIC industries have at least two observations in a given year.

Sample selection results in 89,852 observations, which is comparable to the sample size reported by Serfling (2016) (88,997 observations), who uses the Compustat to test the impact of WDLs on leverage. From this sample, I define the sub-sample of firms that disclose total labor earnings (item *XLR* in Compustat). This restriction leaves 8,613 observations. I refer to this sample as the *restricted sample* while the unrestricted sample is named as the *full sample*.

In the first two columns of Table 2, I report statistics of firms that disclose labor earnings (restricted sample) and of those firms that do not disclose labor earnings in Compustat. The average assets, sales, and employment of disclosing firms are about 4 to 5 times larger than that of non-disclosing firms. Only 11.6% of the firms in Compustat report labor earnings.<sup>9</sup>

The fact that the restricted sample is biased towards larger firms may compromise the identification strategy. Larger firms tend to be less financially constrained, and thus, can more easily adapt to stricter employment regulations. In order to identify the effect of the adoption of EPL on labor earnings across different firms, I require sufficient variation in financial constraints within the group of disclosing firms. The results presented in Section 6.1 suggest that this is the case. I find statistically significant evidence that labor earnings of workers in more financially constrained firms within the restricted sample decrease after the enactment of the good faith exception, while they increase in unconstrained firms. Sample size is a constraint only when I study the impact of EPL on labor earnings. In Section 6.2, when I test the impact of worker protection

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<sup>9</sup>That Compustat lacks of data on labor earnings is not new. Consistently with Table 2, Ballester et al. (2002) find that only 10% of firms report labor earnings. Moreover, they find that disclosing firms are disproportionately large and belong to more regulated industries.

on firm’s earnings, I make use of the full sample. In Section 7, when I test the main mechanism driving the results I also use the full sample.

To address the concern that sample restrictions may bias the results regarding labor earnings, I construct an alternative measure for labor expenses by following Bresnahan et al. (2002) and Bloom and Van Reenen (2007). Specifically, I obtain a firm’s labor expenses by multiplying the annual average wages and benefits at the four-digit SIC industry level by the firm’s employment level reported in Compustat (item *EMP*). The data on worker annual payroll at the four-digit level comes from the National Bureau of Economic Research (NBER) and the U.S. Census Bureau’s Center for Economic Studies (CES)(Becker et al., 2021).<sup>10</sup> The last two columns of Table 2 show that firms that have and do not have available NBER data are similar in terms of assets, sales, and employment, which helps to alleviate selection bias concerns. Moreover, the number of firms with data on labor earnings increases to 35%.

In sum, I employ two proxies for labor earnings: i) item *XLR* in Compustat, referred as to *Labor earnings (Compustat)*, and ii) the constructed total labor expenses based on the average annual payroll at the four-digit industry level from NBER and CES times the firm’s employment level from Compustat, *Labor earnings (Compustat+NBER)*.

## 5.2 Empirical methodology

I adopt a triple difference-in-difference research design to examine the effect of the passage of the good faith exception on five variables and among firms with different levels of financial constraints. The dependent variables are: i) labor earnings, ii) firm earnings, iii) employment, iv) investment, and v) the cost of debt. I estimate the following panel regression model:

$$y_{i,s,t} = \alpha_0 + \alpha_1 \text{Good faith}_{s,t} + \alpha_2 \text{Good faith}_{s,t} \times \text{FC}_{i,s,t-1} + \alpha_3 \text{FC}_{i,s,t-1} + X_{i,s,t-1}\beta + v_i + \delta_s + \eta_k \times \omega_t + \varepsilon_{i,s,t}, \quad (5.1)$$

where  $y_{i,s,t}$  is one of the five variables i) to v) for firm  $i$  in state  $s$  in year  $t$ .  $\text{Good faith}_{s,t}$  is an indicator variable for whether the state in which the firm is headquartered has adopted the good faith exception as of year  $t$ .  $\text{FC}_{i,s,t-1}$  corresponds to some measure of financial constraints for firm  $i$  in state  $s$  at the beginning of the year. In Sections 6.1 and 6.2, I use the natural logarithm of the beginning of year book assets ( $\text{Log Assets}_{t-1}$ ) as a proxy for firms financial constraints. According to Beck et al. (2005), firm size is one particularly useful predictor of financial constraints (see also Hadlock and Pierce, 2010).

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<sup>10</sup>Alternatively, to fill in the missing pieces, Michaels et al. (2019) employs the Bureau of Labor Statistics (BLS)’ Longitudinal Database of Establishments (LDE), which provides data on establishments’ employment and wage bill. This data is available from 1992 to the present. Since my sample starts in 1967, I cannot use the same approach and opt for the approach used by Bresnahan et al. (2002) and Bloom and Van Reenen (2007).

There is a long-standing debate regarding the most effective measure for identifying financially constrained firms (Farre-Mensa and Ljungqvist, 2016). In Section 7, I use four alternative measures for the severity of financial constraints: i) the SA index by Hadlock and Pierce (2010), ii) the Kaplan and Zingales (1997) index (KZ index) of constraints (Lamont et al., 2001), iii) the Whited and Wu (2006) index (WW index), and iv) an indicator variable for whether the firm is a non-dividend payer. Firms' assets and these four indexes are common measures of financial constraints used in the recent literature on labor and finance (Ellul and Pagano, 2019; Bai et al., 2020).

The interaction term,  $\text{Good faith}_{s,t} \times FC_{i,s,t-1}$ , captures the impact of the good faith exception across firms with different levels of financial constraints. Based on equation (5.1), the effect of an improvement of employment protection (i.e.  $\text{Good faith}_{s,t} = 1$ ) on  $y_{i,s,t}$  at different levels of financial constraints can be calculated as follows:

$$(y_{i,s,t} | \text{Good faith}_{s,t} = 1) - (y_{i,s,t} | \text{Good faith}_{s,t} = 0) = \alpha_1 + \alpha_2 \times FC_{i,s,t-1}. \quad (5.2)$$

Consider the case in which financial constraints are proxied by firm assets. Based on Hypotheses 1 and 2, I expect that  $\alpha_1 < 0$  and  $\alpha_2 > 0$ . In other words, the effect of the passage of the good faith exception on labor earnings, firm earnings, employment, and investment is negative for firms facing more stringent financial constraints (i.e.  $\text{Log Assets}_{t-1}$  is low), but this effect is larger or even positive for less financially constrained firms ( $\text{Log Assets}_{t-1}$  is high). These effects are reversed for the cost of debt (i.e.  $\alpha_1 > 0$  and  $\alpha_2 < 0$ ).

The regression model includes a set of control variables,  $X_{i,s,t-1}$ , that have been used in the recent empirical literature on labor and finance (e.g. Bai et al., 2020; Serfling, 2016). I control for the natural logarithm of the beginning of year book assets ( $\text{Log Assets}_{t-1}$ ), lagged profitability ( $\text{Profitability}_{t-1}$ ), the proportion of assets that are fixed at the beginning of the year ( $\text{Fixed assets}_{t-1}$ ), the lagged market to book ratio ( $\text{Market to book}_{t-1}$ ), an indicator variable for whether the firm paid a common dividend ( $\text{Dividend payer}_t$ ), the lagged modified Altman's z-score ( $\text{Modified z-score}_{t-1}$ ), and the lagged book leverage ( $\text{Book leverage}_{t-1}$ ).

In the case of the regressions on labor earnings, I also use an alternative set of controls as proposed by Michaels et al. (2019). This specification is motivated as a linear approximation to the policy functions arising from a dynamic model with costly financing frictions and wage bargaining. These controls include the log of sales ( $\text{Log Sales}_t$ ), the lagged log of capital expenditures ( $\text{Capital expenditures}_{t-1}$ ), and lagged leverage ( $\text{Book leverage}_{t-1}$ ). Table A1 in the Appendix presents detailed variable definitions. Table 3 reports summary statistics for the dependent and explanatory variables for both the restricted and full samples.

All regressions include firm fixed effects ( $\nu_i$ ), state fixed effects ( $\delta_s$ ), and industry-year fixed

effect ( $\eta_k \times \omega_t$ ). The estimated standard errors are clustered at the state level. Since the adoption of the good faith exception occurs at the state level, this methodology accounts for the possibility that residuals are serially correlated within a given firm and between different firms headquartered in the same state (Bertrand et al., 2004).

### 5.2.1 Addressing econometric concerns: summary

In what follows, I provide a summary of the most important econometric concerns. In Section 8, I present different robustness exercises that address these concerns.

**Pre-treatment trends** The crucial assumption for giving a causal interpretation to the results is that, in the absence of the adoption of the good faith exception, the change in labor and firms' earnings of financially constrained and unconstrained firms would have been the same for both treated and control firms. In Section 8.1, I follow Bertrand and Mullainathan (2003) and explore the timing of the changes in labor and firms' earnings relative to the timing of the passage of the good faith exception. The results show that earnings decline more in financially constrained firms only after the adoption of the good faith exception, supporting the parallel-trend assumption.

**Omitted variables bias** To attenuate potential endogeneity biases associated with omitted variables, all the regressions include firm fixed effects ( $\nu_i$ ), state fixed effects ( $\delta_s$ ), and industry-year fixed effect defined at the 3-digit SIC level ( $\eta_k \times \omega_t$ ). The firm fixed effects account for invariant omitted firm characteristics. The state-fixed effects control for omitted state-level variables. The industry-year fixed effects account for omitted industry-level factors and transitory nationwide conditions that could affect the adoption of the good exception as well as firms' decisions.

**States' local economic conditions** To account for local economic conditions, I control for the lagged state-level log of GDP per capita (Log State per capita GDP $_{t-1}$ ) and the lagged state GDP growth (State GDP growth $_{t-1}$ ). Alternatively, I include state-year fixed effects to account for time-varying omitted variables affecting all firms headquartered within the same state in a given year. In particular, as discussed in Section 2, state-level differences in the degree of wage rigidities over time influence the responsiveness of wages to EPL, and thus, the impact that EPL has on labor and firm earnings.

**Adoption in neighboring states** Another concern is whether precedents from neighboring states influenced the adoption of WDLs. Walsh and Schwarz (1995) show that, in the case of the implied contract and public policy exceptions, the adoption of WDLs is related to precedents set by decisions in other states. However, this is not the case for the enactment of the good faith

exception, which is the focus of this paper. Bird and Smythe (2008) find that precedents by other courts within the same federal circuit region were more influential in the dissemination of WDLs than precedents by courts in neighboring states. To account for this possibility, I control for the fraction of other states in the same federal circuit that have passed the good faith exception in the previous year (Circuit good faith<sub>t-1</sub>).

**Political conditions** An important source of endogeneity is whether the passage of WDLs systematically coincided with state-level political factors or lobbying activities that may have influenced the courts' decisions to adopt WDLs. However, since WDLs are based on common law, their recognition is more likely to be driven by the merits of the case rather than political economy considerations (Acharya et al., 2014). To account for residual concerns about omitted variable bias, in Section 8.2, I control for three political variables that may have influenced the adoption of the good faith exception (Serfling, 2016): i) the fraction of Democrats representing their state in the U.S. (Political balance<sub>t</sub>), ii) an indicator variable for whether the state in which the firm is headquartered has passed the right-to-work laws (Right-to-work<sub>t</sub>), and iii) the percentage of employees that are covered by collective bargaining (Union membership<sub>t</sub>). These last two measures also potentially capture state-level differences in wage rigidity, which influences the extent to which the good faith exception affects labor and firms' earnings through wages.

**Headquarters locations** EPL applies to the state in which the firm the employee works is headquartered. However, Compustat provides only the latest headquarters locations. To account for headquarters' relocation, in Section 8.3, I supplement Compustat data with information on historical headquarters locations.

**Differences in treated and control groups** Table 4 compares the sample means of firms headquartered in states that eventually adopt the good faith exception (treatment firms) against those in states that do not adopt this exception (control firms). The table presents the statistics for both the restricted and full samples. In the full sample, all variables means are significantly different between the treatment and control firms. Conversely, the restricted sample shows more similarity: the mean values for EBIT<sub>t</sub>, EBITDA<sub>t</sub>, Capital expenditures<sub>t</sub>, and Assets<sub>t-1</sub> are not significantly different between treated and control firms. Ideally, treated and control firms should be similar across all dimensions. Since they are not, I control for each variable in the regressions to account for these differences. Additionally, the gradual and staggered adoption of WDLs over time implies that firms can be in both the treatment and control group in the time horizon considered, which alleviates to some extent concerns about large differences between treated and non-treated firms. In Section 8.4, I address this issue more directly by implementing a propensity score matching

procedure.

## 6 Empirical Results

### 6.1 Employment protection and labor earnings

I first investigate the impact of the passage of the good faith exception on labor earnings. As mentioned in Section 5, I use two measures for labor earnings. First, item *XLR* from Compustat (Labor earnings (Compustat)), which represents wages, pensions, incentive compensations, and other employee benefits. Second, the average annual payroll at the four-digit industry level from NBER times the firm's employment level from Compustat (Labor earnings (Compustat+NBER)).

In this section, I empirically test Hypothesis 1 of the model. According to this hypothesis, EPL reduces the labor earnings of workers in more financially constrained firms, with this negative effect diminishing as credit constraints become less binding. Eventually, in financially unconstrained firms, the adoption of EPL increases labor earnings, effectively benefiting their workers from higher protection.

I start by presenting a graphical analysis of the adoption of the good faith exception and labor earnings. Panel a) of Figure 4 depicts the effect of the passage of the good faith exception on labor earnings from Compustat in adopting states relative to non-adopting states. Labor earnings are normalized by their sample mean. Thus, the change in coefficients can be interpreted as the percentage change (in decimal form) relative to the mean of labor earnings. I construct this graph by following Autor et al. (2006) and Acharya et al. (2014). I regress labor earnings on dummy variables indicating the year relative to the good faith adoption and year fixed effects. The y-axis presents the coefficient of each indicator variable. The x-axis corresponds to the  $\pm 5$  years around the adoption of the good faith exception. The dashed lines are the 90% confidence intervals for the estimated coefficients. Standard errors are clustered by state.

Prior to the adoption of the good faith exception, labor earnings of treated and control firms are not statistically different. However, in the years after the adoption, labor earnings are on average lower for treated firms. This suggests that treated and control firms share similar pre-treatment trends. It is important to highlight that the graph does not consider the differential effect between constrained and unconstrained firms. Thus, the effects should be interpreted as the average impact of EPL on labor earnings across firms with different financial constraints. In Section 8.1, I conduct a formal test for the parallel trend assumption that, absent of treatment, the change in labor earnings and profits of constrained and unconstrained firms would have been the same for treated and control firms.

I turn next to explore the effect of the adoption of the good faith exception across firms with

different levels of financial constraints. I estimate equation (5.1) by using  $\text{Log Assets}_{i,s,t-1}$  as a proxy for financial constraints, which is one particularly useful predictor of financial constraints (Beck et al., 2005; Hadlock and Pierce, 2010). In Section 7, I use four alternative measures for the severity of financial constraints: i) the SA index (Hadlock and Pierce, 2010), ii) the KZ index (Kaplan and Zingales, 1997), iii) the WW index (Whited and Wu, 2006), and iv) an indicator variable for whether the firm is a non-dividend payer.

Table 5 reports the results from estimating equation (5.1) by OLS. The dependent variable is either labor earnings from Compustat or the constructed measure for labor earnings based on Compustat and NBER. The values are normalized by the sample mean. Thus, the coefficients can be interpreted as the impact of the adoption of the good faith exception on labor earnings in terms of the percentage change (in decimal form) relative to the mean. Column (1) includes the indicator variables for the adoption of the good faith, implied contract and public policy exceptions as well as firm, state, and industry-year fixed effects. It also includes the lagged Log of assets and its interaction with the good faith indicator which is the main interest coefficient.<sup>11</sup> Consistently with the theoretical predictions of the model, the interaction term,  $\text{Good faith}_t \times \text{Log Assets}_{t-1}$ , is positive and the coefficient on  $\text{Good faith}_t$  is negative. Therefore, the passage of the good faith exception has a negative impact on labor earnings for firms more likely to face tighter financial constraints (with fewer assets). This negative effect decreases as credit constraints become less binding.

Column (4) is the primary model specification which includes firm and state-level control variables, and uses labor earnings from Compustat as dependent variable. Columns (2) to (4) use the control variables from Serfling (2016). Columns (5) to (7) use the controls from Michaels et al. (2019). Columns (4) and (7) include state-level controls. Alternatively, columns (3) and (6) include state-year fixed effects to account for time-varying state-level omitted factors. The state-year fixed effects do not completely absorb  $\text{Good faith}_t$  since this variable is defined on the basis of calendar month-ends, which do not exactly correspond to fiscal year ends.

In columns (8) to (11), I repeat the regressions from columns (3)-(4) and (6)-(7) but using as dependent variable the constructed measure for labor earnings based on data from Compustat and NBER. The results under all specifications remain qualitatively similar to those in column (1). The inclusion of state-level variables or state-year fixed effects in general strengthens the statistical significance of the interaction term, which is the main interest coefficient.

The interpretation of the results is as follows. For instance, consider a firm that has average assets,  $\text{Log Assets}_{t-1} = 4.74$ . Based on column (4), the effect of the enactment of the good faith

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<sup>11</sup>All the regressions in the paper also include the interactions between the implied contract and the public policy exceptions with the respective measure used to proxy financial constraints. These interaction terms account for possible heterogeneous effects of the adoption of other WDLs across firms with different levels of financial constraints. The coefficients for those interactions are not reported for space considerations.



exception on labor earnings is given by  $-0.726 + 0.120 \times 4.74 = -0.16$  (see equation (5.2)). Thus, in a firm with average assets, the passage of the good faith exception reduces labor earnings by 16%. This number becomes  $-0.17$  when using the coefficients on column (9) which uses as dependent variable the alternative measure for labor earnings (Compustat+NBER), i.e. a 17% reduction in labor earnings.

To illustrate Hypothesis 1, Panel a) of Figure 5 presents the marginal effect of the adoption of the good faith exception ( $\text{Good faith}_t = 1$ ) on labor earnings conditional on the log of the beginning of year book assets ( $\text{Log Assets}_{t-1}$ ). Calculations are based on the results of column (4) of Table 5. The graph remains qualitatively similar when using the estimated coefficients of column (7), column (9), or column (11). The black solid line corresponds to the marginal effect of  $\text{Good faith}_t$  on labor earnings according to expression (5.2). The dashed lines are the 90% confidence intervals. The black dots indicate the marginal effect of good faith on labor earnings as a function of assets percentiles.

The passage of the good faith exception reduces labor earnings by 35% and 17% for a firm in the 25th and 50th percentile of assets, respectively. Based on the statistics of Table 3, this means a reduction of \$430 and \$209 million in labor earnings for a firm in the 25th and 50th percentiles, respectively. On the other hand, the adoption of the good faith exception increases labor earnings by 1% in a firm with assets in the 75th percentile. This amounts to an increase of labor earnings of \$12 million.

The data supports the prediction of the model that there is a size threshold below which labor earnings decrease when employment protection improves. Panel a) of Figure 5 indicates that this threshold is approximately at  $\text{Log assets}_{t-1} = 5.8$ , corresponding to a firm with about \$330 million in assets.

## 6.2 Employment protection and firm earnings

In this section, I study the effect of the adoption of the good faith exception on EBIT (and EBITDA) from Compustat to test Hypothesis 2 of my model that EPL reduces profits of financially constrained firms, while it increases profits of the most unconstrained firms.

According to the theoretical predictions of my model, financially constrained firms struggle to absorb higher labor costs. Thus, those firms must shrink their operations to adapt to stricter EPL, reducing hiring and investment. As a result, their profits decrease after an increase of worker protection. Conversely, unconstrained firms can expand their operations and increase their profits after the passage of EPL due to a reduction in their cost of debt. In this section, I test the effects on profits. In Section 7, I evaluate whether there is empirical evidence supporting the theoretical mechanism that drives the effects on labor earnings and profits.

As in Section 6.1, I begin with a graphical analysis of the passage of the good faith exception and its impact on firm earnings. Panel b) of Figure 5 presents the effect of the adoption of the good faith exception on EBIT in adopting states relative to non-adopting states. The results are similar when using EBITDA. Before the adoption of the good faith exception, EBIT of treated and control firms is not statistically different. In the years after the passage of the good faith exception, EBIT is on average lower for treated firms. These results serve as evidence that treated and control firms share similar pre-treatment trends. In Section 8.1, I conduct a formal test to evaluate the parallel-trend assumption that, in the absence of treatment, the change in profits of constrained and unconstrained firms would have been the same for treated and control firms.

In what follows, I estimate equation (5.1) by using EBIT or EBITDA as the dependent variables. As before, I normalize these measures by their sample means. Table 6 presents the results. Columns (1) to (6) are the estimations obtained when using the full sample, while columns (7) to (10) correspond to the restricted sample. The firm-level controls are those from Serfling (2016). Columns (4) and (6) are the primary regressions where I include state-level controls and use the full sample. Alternatively, columns (3), (5), (7) and (9) use state-year fixed effects to account for unobserved time-varying factors at state-level. Standard errors are clustered by state.

As expected, the coefficient for the interaction term,  $\text{Good faith}_t \times \text{Log Assets}_{t-1}$ , which is the main interest estimate, is positive and significant at least at the 90% under all specifications and for both samples, whether using EBIT or EBITDA. Furthermore, the coefficient for  $\text{Good faith}_t$  is negative and statistically significant at the 90% in almost all specifications. Therefore, the data supports Hypothesis 2 of the model: EPL negatively impacts the profits of more financially constrained firms. This negative effect decreases as financial constraints become less binding. Eventually, the most financially unconstrained firms may benefit from EPL.

Using expression (5.2) and the coefficients of column (4), the marginal effect of  $\text{Good faith}_t$  on EBIT for a firm with average assets ( $\text{Log Assets}_{t-1} = 4.74$ ) is given by:  $-0.756 + 0.170 \times 4.74 = 0.05$ . Similarly, when using EBITDA, this number becomes 0.048. Thus, in a firm with average assets, the adoption of the good faith exception increases firm earnings by 5%. From Table 3, this amounts to an increase in profits of \$8 millions.

Panel b) of Figure 5 shows the marginal effect of  $\text{Good faith}_t$  on EBIT conditional on firm assets. The adoption of the good faith exception reduces EBIT by 27% for a firm with assets in the 25th percentile. This amounts to a decline of \$40 million. On the other hand, the effect of  $\text{Good faith}_t$  on EBIT for a firm in the 50th and 75th percentiles are 4% and 35%, respectively. These changes correspond to an increase in profits of \$6 and \$52 million, respectively.

The data supports the theoretical prediction that there is a size threshold above which firm profits increase when worker protection improves. Panel b) of Figure 4 indicates that this threshold is approximately at  $\text{Log assets}_{t-1} = 4.4$ , corresponding to a firm with about 85 million in

assets.

In conclusion, the data supports the model's prediction regarding the effect of an improvement of employment protection on firm profits. EPL reduces profits for firms more likely to face tighter financial constraints (with fewer assets). On the other hand, the negative impact of EPL on profits is fainter or even positive for firms less likely to face binding credit constraints (with more assets). In the next section, I test whether there is evidence that the theoretical mechanism predicted by the model is the one that drives the effects of EPL on labor and firms' earnings.

## 7 Testing Mechanisms

Section 6 presents empirical evidence supporting Hypothesis 1 and 2 that EPL has unintended regressive consequences. EPL reduces labor earnings and profits in financially constrained firms while benefiting the most unconstrained firms and their workers. In this section, I test Hypothesis 3 that the effects on financially constrained firms are driven by EPL limiting their access to credit and raising their cost of debt, forcing them to cut investment and employment. The decrease in employment is sufficiently large in these firms to offset the increased dismissal compensation after the adoption of EPL, leading to a decline in labor earnings. In contrast, EPL reduces the cost of debt for unconstrained firms, allowing them to expand their operations and raise their profits. Labor earnings of workers in unconstrained firms increase due to the benefits of higher protection and the expansion of employment.

To assess the validity of Hypothesis 3, I follow two steps. First, in Section 7.1, I estimate the impact of the good faith exception on labor and firm earnings, conditional on four alternative measures for financial constraints. Next, in Section 7.2, I explore the impact of EPL on employment, investment, and the cost of debt across firms with different levels of financial constraints.

### 7.1 Financial constraints and earnings

**Labor earnings** Table 7 presents the results when using labor earnings as dependent variable and for the four measures of financial constraints. Columns (1)-(2) and (9)-(10) correspond to the Hadlock and Pierce index (SA index), columns (3)-(4) consider the Kaplan and Zingales index (KZ index), columns (5)-(6) use the Whited and Wu index (WW index), and (7)-(8) define constrained firms as those that do not pay dividends. A higher value of any of these measures implies stricter financial constraints. Therefore, the signs of the interest coefficients in regression (5.1) are expected to be reversed relative to Section 6, i.e.  $\alpha_1 > 0$  and  $\alpha_2 < 0$ .<sup>12</sup> Thus, the adoption of the

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<sup>12</sup>The SA index is negative for the least financially constrained firms. Therefore,  $\alpha_1$  is expected to be negative when using this measure. This is confirmed by the results presented in columns (1)-(2) and (9)-(10) from Table 7 and columns (1)-(2) from Table 8.

good faith exception reduces labor and firm earnings in more financially constrained firms.

The upper table in Table 7 uses the firm-level controls from Serfling (2016), while the bottom table uses the controls from Michaels et al. (2019). Odd columns include state-year fixed effects. Even columns include state-level controls, which correspond to the preferred specifications. As predicted by the model, the interaction term is statistically significant and negative when using the SA index and an indicator variable for whether a firm is a non-dividend payer. Statistical significance increases when using the constructed measure for labor earnings (Compustat+NBER), which includes data for a larger number of firms that are comparable in terms of assets, sales, and employment to the firms of the full Compustat sample (see Table 2). In case of using the controls from Michaels et al. (2019) and the WW index, the interaction term is also negative and significant.

The results presented in Table 7 support the theoretical prediction that an increase in worker protection leads to a greater reduction in labor earnings in more financially constrained firms. Columns (3) and (4) show no effect when using the KZ index. This is consistent with the findings of Hadlock and Pierce (2010) that cast serious doubt on the validity of the KZ index as a proxy for financial constraints. Similar results are reported by Bai et al. (2020) that find no effect of the good faith exception on investment when using the KZ index in a similar econometric specification.

**Firm earnings** Table 8 repeats the analysis when using firm earnings as dependent variable. The upper table uses EBIT while the bottom table uses EBITDA. Consistent with the model, the interaction term is negative and highly significant when using the SA index to measure financial constraints. The interaction terms is also negative and significant at least at the 90% when I define constrained firms as those that do not pay dividends. The interaction with the WW index is also negative and significant when the dependent variable is EBITDA. The evidence suggests that the adoption of EPL reduces firm earnings in more financially constrained firms.

Overall, I find evidence consistent with the financial channel: greater worker protection reduces labor and firm earnings in financially constrained firms by restricting their access to finance.

## 7.2 Financial constraints, employment, investment, and the cost of debt

In this section, I investigate whether the decrease in labor and firm earnings following the adoption of the good faith exception is explained by EPL limiting access to credit and raising the cost of debt for financially constrained firms, forcing them to reduce investment and hire less labor. If this is the case, then the decrease in investment and employment should be more pronounced in more financially constrained firms. On the other hand, I explore whether the increase in profits

of financially unconstrained firms results from an expansion in investment and employment due to a reduction in their cost of debt.

In order to test the mechanism, I estimate specification (5.1) by using three dependent variables: i) item *EMP* from Compustat to measure employment, ii) *CAPX* (capital expenditures) to measure investment, and iii) item *XINT* (total interest expenses) over total debt to measure the cost of debt. To measure financial constraints, I use the four proxies used in Tables 7 and 8, as well as the lagged Log of assets. Table 9 presents the results. Columns (1)-(2) correspond to the Log of assets, columns (3)-(4) use the SA index, columns (5)-(6) consider the KZ index, columns (7)-(8) use the WW index, and columns (9)-(10) define constrained firms as those that do not pay dividends. For employment and investment, the interaction term is expected to be negative for the last four proxies, while it is expected to be positive when using Log of assets. The sign of this coefficient is expected to be reversed when using the cost of debt. All specifications include the firm-level controls used by Serfling (2016). Odd columns include state-year fixed effects. Even columns use state-level controls.

The findings are consistent with the model's predictions. The interaction term is highly statistically significant and has the predicted sign when using the SA index. For investment, the interaction term is also significant when using the Log of assets to proxy financial constraints or when defining constrained firms as those that do not pay dividends. For the cost of debt, the interaction term is significant and has the predicted sign when financial constraints are proxied by either the Log of assets, the SA index, the KZ index, or an indicator variable for non-dividend-paying firms. Thus, there is evidence that greater employment protection reduces investment and employment by crowding out firms' access to capital. The decrease in investment and employment is larger for more financially constrained firms, while unconstrained firms may eventually expand their operations due to a decrease in their cost of debt.

Figure 6 presents the marginal effect of the Good faith<sub>*t*</sub> on employment, investment, and the cost of debt conditional on the SA index. Higher values of the index mean stricter financial constraints. As predicted by the model, there is a range of financially constrained firms that reduce their investment and employment following the adoption of the good faith exception. This range includes firms with an SA index above the 75th percentile. On the other hand, there is a group of less financially constrained firms that can expand their operations due to a decrease in their cost of debt. This second group contains firms with an SA index below the 25th percentile.

## 8 Econometric Concerns

### 8.1 Pre-treatment trends

Figure 4 suggests that treatment and control firms share similar pre-treatment trends. In this section, I conduct a more formal test in order to alleviate potential endogenous concerns arising from reverse causality. The main concern is that, during periods where firms' profits are declining more than labor earnings, the 'at-will employment' termination principle allows firms to adjust by dismissing workers. If that is the case, then courts may decide to adopt the good faith exception to protect workers from unfair dismissal. If reverse causality is present or if there is a pre-treatment trend, then firms' profits and labor earnings would exhibit a declining trend before the enactment of the good faith exception.

In order to check for pre-existing trends, I follow Bertrand and Mullainathan (2003) and explore the timing of the change of labor and firms' earnings relative to the timing of the passage of the good faith exception among firms with different levels of financial constraints. I replace  $\text{Good faith}_t$  in specification (5.1) by the following indicator variables:  $\text{Good faith}^{-1}$ ,  $\text{Good faith}^0$ ,  $\text{Good faith}^{+1}$  and  $\text{Good faith}^{+2}$ . These variables are set to one if the firm is headquartered in a state that: i) will enact the good faith exception in one year, ii) passes the exception in the current year, iii) adopted the law one year ago, and iv) enacted the exception two or more years ago, respectively.<sup>13</sup> The interaction of these variables with  $\text{Log Assets}_{t-1}$  account for pre-treatment trends in firms with different levels of financial constraints.

The results reported in Table A2 show that labor and firm earnings decline in more financially constrained firms only after the enactment of the good faith exception. Columns (1) to (4), which use labor earnings from Compustat, show that the interaction term is positive and highly significant in the year of the law's passage but becomes less significant one or more than two years after the enactment. Columns (5) to (8), which use the constructed measure for labor expenses (Compustat+NBER), show that the interaction term becomes significant only after the adoption of EPL. Thus, greater employment protection reduces labor earnings of workers in more financially constrained firms only after the enactment of the law.

Columns (9) to (12) use as dependent variable EBIT. Columns (9) and (10), which employ the restricted sample, indicate that the passage of the good faith exception reduces profits of more financially constrained firms only after one year following the passage of EPL. For the full sample, columns (11) to (12) show that the interaction term is slightly significant one year before the law's enactment, which could cast some doubt on the validity of the parallel trend assumption.

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<sup>13</sup>There are two states that reversed the passage of the good faith exception: New Hampshire in 1980 and Oklahoma in 1989. I drop all observations for these states after the reversal of the law, which reduces observations from 8,613 to 8,344 in the restricted sample, and from 89,852 to 89,288 in the full sample.

However, the table also shows that the interaction term becomes more significant in the year of the EPL's adoption and after more than two years following enactment.

Overall, Table A2 suggests that the main findings of the paper do not suffer from reverse causality and that the parallel trend assumption holds. Labor earnings and firms' profits decline relatively more in financially constrained firms only after the enactment of the good faith exception, confirming the appropriateness of the triple difference-in-difference research design.

## 8.2 Political conditions

Walsh and Schwarz (1995) investigate the rationale for the adoption of WDLs and conclude that judicial decisions were mainly concerned about enhancing fairness in employment relationships and consistency with contracting principles. Additionally, in the case of the implied contract and public policy exceptions, the adoption also relates to precedent from decisions in other states. However, they find that this is not the case for the adoption of the good faith exception, which is the focus of this paper. To account for this possibility, in the main specifications I have included a variable for the fraction of states in the firm's federal circuit that have already adopted the good faith exception ( $\text{Circuit good faith}_{t-1}$ ).

Another possible source of endogeneity is whether the adoption of WDLs systematically coincides with state-level political factors or if lobbying activities may have influenced the courts' decisions to adopt WDLs. However, since the recognition of WDLs is based on judicial rather than legislative decisions, it is more likely to be driven by merits of the case than political economy considerations (Acharya et al., 2014). To address residual concerns about omitted variable bias, I include three political variables that may influence the adoption of WDLs (see Serfling, 2016): i) Political balance $_t$  measured as the fraction of Democrat state representatives in the House of Representatives and Senate, ii) Right-to-work $_t$  is an indicator variable set to one if the state in which the firm is headquartered has passed the right-to-work laws, and iii) Union membership $_t$  is the fraction of employees who are covered by collective bargaining agreements. All specifications also include the state-level economic factors used in the main econometric model.

Table A3 reports the results when using the Log of assets and the SA index to measure financial constraints.<sup>14</sup> Columns (1) to (6) present the results for the main dependent variables: the two measures for labor earnings and firm profits as measured by EBIT and EBITDA. Columns (7) to (9) consider employment, capital expenditures, and the cost of debt as dependent variables to test whether the mechanism studied in Section 7 survives after controlling for political factors.

Overall, the results are robust to the inclusion of political variables. The interaction term remains significant and has the predicted sign (positive when using Log assets and negative when

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<sup>14</sup>In some specifications of columns (3) and (4), the right-to-work indicator becomes collinear with the fixed effects, and thus, its coefficient is omitted.

using the SA index). Union membership and right-to-work laws are positively related to labor earnings. Both variables potentially capture state-level differences in wage rigidity, which influences the extent to which EPL affects earnings through wages. In contrast, profits, employment, and investment do not appear to be significantly affected by political factors.

### 8.3 Historical headquarters

EPL typically applies to the state in which the firm the employee works in is headquartered. However, a limitation of Compustat is that it provides only the latest headquarters locations. To account for headquarters' relocation, I use the data on historical headquarters locations constructed by Bai et al. (2020). This data supplements Compustat's headquarters locations by combining two datasets: i) headquarters locations from SEC filings beginning in the mid-1990s via EDGAR and headquarters locations hand-collected from the Moody's Manuals, and ii) Dun & Bradstreet's Million Dollar Directory for earlier time periods. Therefore, this dataset overcomes the limitation of backfilled headquarters in Compustat.

Table A4 presents the results. In general, the main empirical findings are robust to using alternative data on firm's headquarters location. The interaction term between Good faith<sub>*t*</sub> and the two measures of financial constraints, Log assets and SA index, preserves the sign predicted by the model and remains significant for firms' profits (EBIT and EBITDA), employment, investment, and the cost of debt. In the case of labor earnings, the interaction term loses significance when using item XLR from Compustat; likely due to a drop in the number of observations. In fact, when using the constructed measure for labor earnings (Compustat + NBER) which is available for 35% of the firms in Compustat, the interaction term becomes significant under all specifications. Thus, greater employment protection reduces labor earnings, profits, investment, and employment by more in more financially constrained firms. These results are reversed for the cost of debt.

### 8.4 Matched sample

Ideally, the treatment and control groups should be similar in terms of the characteristics that affect labor earnings, firms' profits, investment, employment, and the cost of debt. However, as shown in Table 4, the treatment and control groups differ across several firm and state-level dimensions. To account for these differences, I have controlled for these factors in all the previous regressions. To further address this concern, I employ propensity score matching based on log assets, profitability, fixed assets, the market to book ratio, an indicator for whether the firm is a dividend payer, the modified z-score, and book leverage. Each treatment firm is matched to a control firm with replacement on year, three digit SIC industry, and based on the closest propensity score. Table A5 presents the results. Overall, the results are robust to using a matched sample.



## 9 Conclusions

In this paper, I begin by developing a model with heterogeneous firms that face endogenous credit constraints that respond to employment protection legislation (EPL). The main prediction of the model is that an improvement of EPL has unintended regressive consequences. EPL harms credit-constrained firms and their workers while benefiting the most financially unconstrained firms and their workers. The main mechanism behind this result is that EPL distorts firms' decisions through a financial channel. EPL crowds out external finance and raises the cost of debt for financially constrained firms, forcing them to cut investment and employment. In contrast, financially unconstrained firms expand their operations after the adoption of EPL due to a decrease in their cost of debt.

To test the model's predictions, I exploit the staggered adoption of Wrongful Discharge Laws (WDLs) by U.S. states to explore the impact of an improvement of EPL on labor earnings, firm profits, investment, employment, and the cost of debt among firms with different financial constraints. I find empirical evidence consistent with the model's prediction that EPL creates regressive effects as it mainly benefits the most unconstrained firms and their workers.

Overall, this article recognizes firms' financial constraints and their interaction with EPL as determinant factors for the effectiveness of EPL. My findings provide supporting evidence for the implementation of size-contingent labor regulations that are widespread across countries. More generally, the firm-dependent distortions arising from financial frictions suggest a promising direction for future research on the determinants and distributional effects of several size-contingent regulations implemented worldwide. These regulations include, for instance, special tax treatments, credit subsidy programs, and restrictions on the expansion of businesses.

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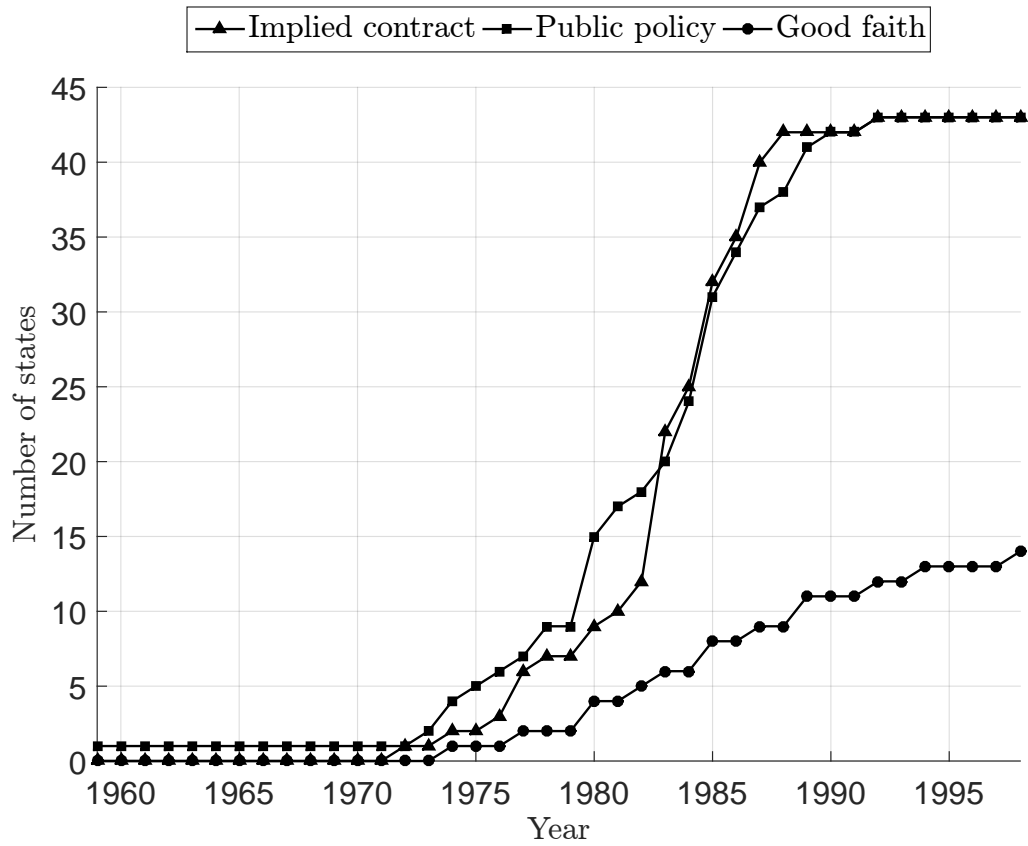
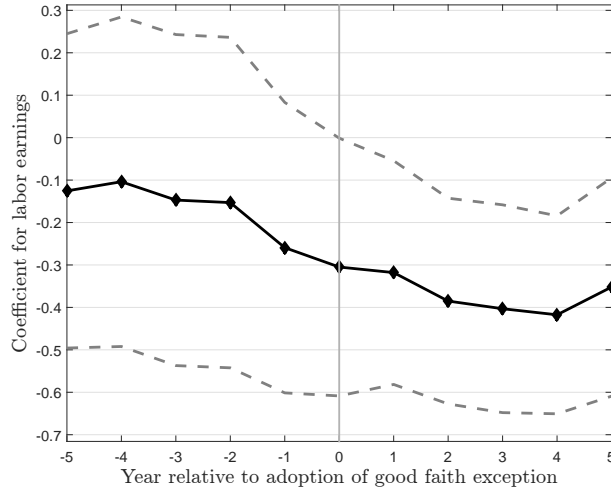


Figure 3: Number of states adopting Wrongful Discharge Laws (WDLs)

This figure shows the number of states that have adopted the implied contract, public policy, and good faith exceptions between 1959 and 1998.

(a) The good faith exception and labor earnings



(b) The good faith exception and EBIT

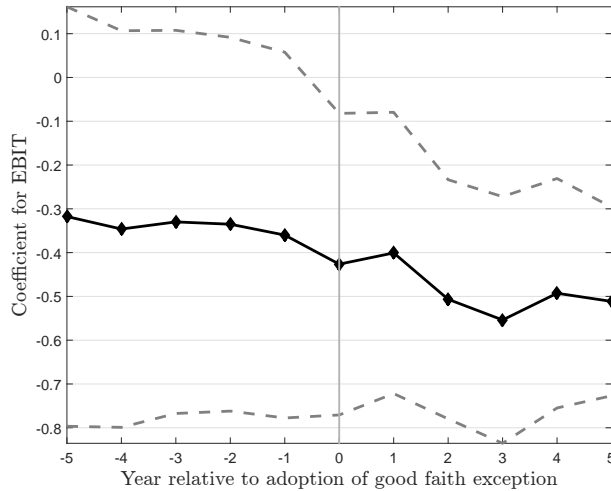


Figure 4: Effect of the passage of the good faith exception on labor earnings and EBIT

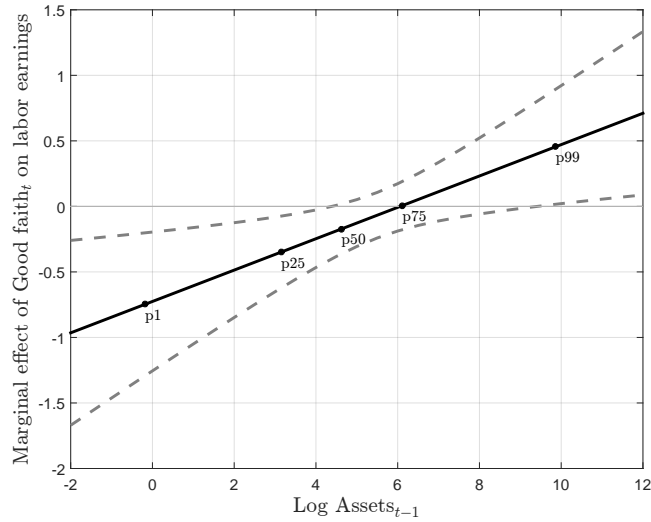
This figure shows the effect of the passage of the good faith exception on labor earnings and EBIT from Compustat. Both variables were scaled by their sample mean. The y-axis presents the coefficients from regressing labor earnings or EBIT on dummy variables indicating the year relative to the good faith adoption and year fixed effects. Dummies are for up to 5 years before and after the good faith adoption. The x-axis shows the years relative to the good faith adoption. The dashed lines are the 90% confidence intervals for the estimated coefficients. Standard errors are clustered by state. The graph shows the point estimates and 90% confidence intervals of the parameters  $\beta^\tau$  from the following regression:

$$y_{i,s,t} = \omega_t + \sum_{\tau=-10}^{10} \beta^\tau \times \text{Good faith}_{s,t}^\tau + \varepsilon_{i,s,t},$$

where  $y_{i,s,t}$  are labor earnings or EBIT in year  $t$  in firm  $i$  in state  $s$ .  $\text{Good faith}_{s,t}^\tau$  is a dummy variable indicating the year relative to the enactment of the good faith exception in state  $s$  and year  $t$ .



(a) The good faith exception and labor earnings



(b) The good faith exception and EBIT

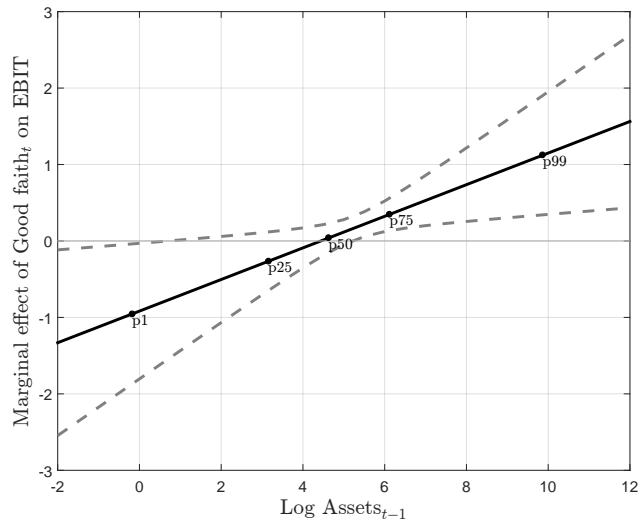


Figure 5: Effect of the passage of the good faith exception on labor earnings and EBIT as a function of the SA index

The figure shows the marginal effect of the adoption of the good faith exception ( $\text{Good faith}_t = 1$ ) on labor earnings or EBIT from Compustat conditional on the log assets at  $t - 1$  ( $\text{Log Assets}_{t-1}$ ). Calculations are based on the estimated coefficients presented in columns (4) of Tables 5 and 6. The black solid line presents the marginal effect of  $\text{Good faith}_t = 1$  on labor earnings or EBIT according to expression (5.2). The dashed lines correspond to the 90% confidence intervals obtained from applying the delta method. The black dots indicate the effect of  $\text{Good faith}_t$  on labor earnings or EBIT for the 1st, 25th, 50th, 75th and 99th percentiles of log assets. The effects on labor earnings or EBIT are in terms of the percentage change (in decimal form) relative to the mean.

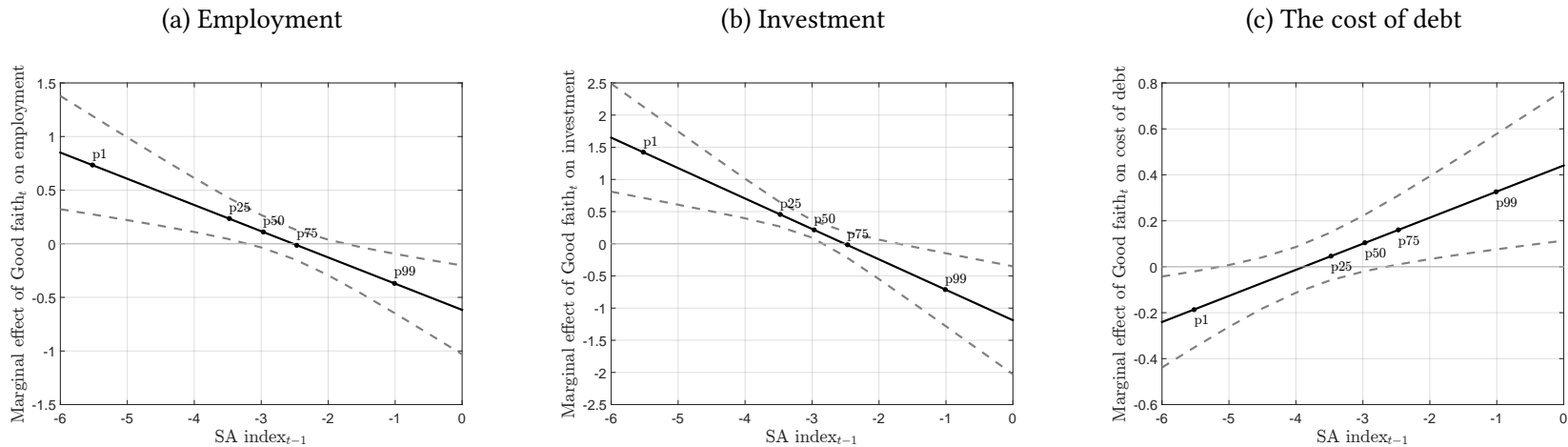


Figure 6: Effect of the passage of the good faith exception on employment, investment, and the cost of debt as a function of firm assets

The figure shows the marginal effect of the adoption of the good faith exception ( $\text{Good faith}_t = 1$ ) on employment, investment, and the cost of debt conditional on the Hadlock and Pierce index at  $t - 1$  ( $\text{SA index}_{t-1}$ ). A higher value of the SA index means greater financial constraints. Calculations are based on the estimated coefficients presented in column (4) of Table 9. The black solid line presents the marginal effect of  $\text{Good faith}_t = 1$  on employment, investment, or the cost of debt according to expression (5.2). The dashed lines correspond to the 90% confidence intervals obtained from applying the delta method. The black dots indicate the effect of  $\text{Good faith}_t$  on employment, investment, or the cost of debt for the 1st, 25th, 50th, 75th and 99th percentiles of SA index. The effects presented on the y-axis are in terms of the percentage change (in decimal form) relative to the mean.

Table 1: Adoption of state-level Wrongful Discharge Laws (WDLs)

State	Implied contract <i>Month/year</i>	Public Policy <i>Month/year</i>	Good faith <i>Month/year</i>
Alabama	7/1987		
Alaska	5/1983	2/1986	5/1983
Arizona	6/1983 (Rev. 4/1984)	6/1985	6/1985
Arkansas	6/1984	3/1980	
California	3/1972	9/1959	10/1980
Colorado	10/1983	9/1985	
Connecticut	10/1985	1/1980	6/1980
Delaware		3/1992	4/1992
Florida			
Georgia			
Hawaii	8/1986	10/1982	
Idaho	4/1977	4/1977	8/1989
Illinois	12/1974	12/1978	
Indiana	8/1987	5/1973	
Iowa	11/1987	7/1985	
Kansas	8/1984	6/1981	
Kentucky	8/1983	11/1983	
Louisiana			1/1998
Maine	11/1977		
Maryland	1/1985	7/1981	
Massachusetts	5/1988	5/1980	7/1977
Michigan	6/1980	6/1976	
Minnesota	4/1983	11/1986	
Mississippi	6/1992	7/1987	
Missouri	1/1983 (Rev. 2/1988)	11/1985	
Montana	6/1987	1/1980	1/1982
Nebraska	11/1983	11/1987	
Nevada	8/1983	1/1984	2/1987
New Hampshire	8/1988	2/1974	2/1974 (Rev. 5/1980)
New Jersey	5/1985	7/1980	
New Mexico	2/1980	7/1983	
New York	11/1982		
North Carolina		5/1985	
North Dakota	2/1984	11/1987	
Ohio	4/1982	3/1990	
Oklahoma	12/1976	2/1989	5/1985 (Rev. 2/1989)
Oregon	3/1978	6/1975	
Pennsylvania		3/1974	
Rhode Island			
South Carolina	6/1987	11/1985	
South Dakota	4/1983	12/1988	
Tennessee	11/1981	8/1984	
Texas	4/1985	6/1984	
Utah	5/1986	3/1989	3/1989
Vermont	8/1985	9/1986	
Virginia	9/1983	6/1985	
Washington	8/1977	7/1984	
West Virginia	4/1986	7/1978	
Wisconsin	6/1985	1/1980	
Wyoming	8/1985	7/1989	1/1994

The table reports the month and year that each state adopted the implied contract, public policy and good faith exceptions. The month and year that some states reversed any of the three exceptions appear in parenthesis.

Table 2: Sample statistics: disclosing and non-disclosing firms

	Compustat		Compustat+NBER	
	Disclosing firms	Non-disclosing firms	Available data	Data not available
Number of observations	8,611	81,183	33,293	56,502
Number of firms	1,011	7,689	3,083	5,617
Means				
Assets (billion \$)	4.94	0.97	1.50	1.27
Sales (billion \$)	5.41	1.19	1.75	1.50
Employment (thousands)	20.18	5.59	6.15	7.57

Disclosing firms are the ones that report total labor earnings in Compustat (item *XLR*). The last two columns are based on the constructed measure for total labor expenses which is obtained by multiplying the average wages at the four-digit SIC industry level (NBER) by the firm-level employment from Compustat. Dollar values are expressed in 2009 dollars. Table A1 in the Appendix provides variable definitions.

Table 3: Summary statistics for restricted sample and full sample

	Restricted sample					Full sample				
	Mean	Std. Dev	P25	Median	P75	Mean	Std. Dev	P25	Median	P75
Dependent variables										
Labor earnings <sub><i>t</i></sub> (Compustat)	1.23	1.95	0.08	0.35	1.50	-	-	-	-	-
Labor earnings <sub><i>t</i></sub> (Compustat+NBER)	1.71	2.38	0.19	0.66	2.41	0.37	1.13	0.01	0.05	0.20
Employment <sub><i>t</i></sub>	20.17	33.35	1.64	6.26	25.30	7.02	22.20	0.26	1.12	4.30
EBIT <sub><i>t</i></sub>	0.56	1.58	0.01	0.09	0.47	0.15	0.71	0.00	0.01	0.06
EBITDA <sub><i>t</i></sub>	0.83	2.20	0.03	0.14	0.72	0.21	1.02	0.00	0.02	0.09
Capital expenditures <sub><i>t</i></sub>	0.49	1.25	0.01	0.07	0.39	0.12	0.58	0.00	0.01	0.04
Cost of debt <sub><i>t</i></sub>	0.11	0.28	0.07	0.09	0.11	0.22	7.68	0.07	0.09	0.12
Main explanatory variable										
Good faith <sub><i>t</i></sub>	0.08	0.27	0.00	0.00	0.00	0.16	0.37	0.00	0.00	0.00
Control variables										
Implied contract <sub><i>t</i></sub>	0.35	0.48	0.00	0.00	1.00	0.49	0.50	0.00	0.00	1.00
Public policy <sub><i>t</i></sub>	0.33	0.47	0.00	0.00	1.00	0.44	0.50	0.00	0.00	1.00
Assets <sub><i>t-1</i></sub>	4.77	11.32	0.17	0.82	4.61	1.30	5.43	0.04	0.15	0.57
Profitability <sub><i>t-1</i></sub>	0.02	0.18	0.02	0.03	0.05	0.01	0.23	0.01	0.02	0.05
Fixed assets <sub><i>t-1</i></sub>	0.45	0.22	0.28	0.43	0.63	0.33	0.21	0.17	0.29	0.45
Market to book <sub><i>t-1</i></sub>	4.65	6.96	1.73	2.63	4.80	4.41	9.82	1.58	2.42	4.46
Dividend payer <sub><i>t</i></sub>	0.75	0.43	1.00	1.00	1.00	0.48	0.50	0.00	0.00	1.00
Modified z-score <sub><i>t-1</i></sub>	2.13	2.73	1.63	2.40	3.09	1.89	8.32	1.38	2.36	3.13
Book leverage <sub><i>t-1</i></sub>	0.24	0.19	0.11	0.22	0.32	0.26	0.38	0.09	0.23	0.37
Sales <sub><i>t</i></sub>	5.40	13.09	0.27	1.10	5.50	1.60	6.09	0.05	0.22	0.84
Capital expenditures <sub><i>t-1</i></sub>	0.48	1.22	0.01	0.06	0.38	0.12	0.57	0.00	0.01	0.04
Employment <sub><i>t-1</i></sub>	19.88	32.70	1.57	6.00	25.00	6.89	21.93	0.25	1.08	4.16
State per capita GDP <sub><i>t-1</i></sub>	36.78	5.02	33.39	36.45	40.17	38.17	5.32	34.57	38.08	41.78
State GDP growth <sub><i>t-1</i></sub>	0.02	0.04	0.00	0.03	0.05	0.02	0.04	-0.01	0.02	0.05
Circuit good faith <sub><i>t-1</i></sub>	0.07	0.16	0.00	0.00	0.00	0.12	0.20	0.00	0.00	0.25
Union Membership <sub><i>t</i></sub>	21.84	9.60	12.90	22.50	30.10	20.90	8.92	13.10	21.10	27.90
Right-to-work <sub><i>t</i></sub>	0.32	0.47	0.00	0.00	1.00	0.28	0.45	0.00	0.00	1.00
Political balance <sub><i>t</i></sub>	0.62	0.16	0.51	0.59	0.70	0.61	0.15	0.52	0.59	0.68

This table reports summary statistics for the restricted and full sample. The full sample corresponds to Compustat firms (excluding financials and utilities) over the period 1967 to 1995 and consists of 89,795 observations. The restricted sample consists of all firms from the full sample that disclose information on total labor earnings (8,613 observations). EBIT is earnings before interest and taxes. EBITDA is earnings before interest, taxes and depreciation. Labor earnings, EBIT, EBITDA, Assets, Sales, Capital expenditures, and State per capita GDP are in billion dollars. Employment is in thousands of workers. Dollar values are expressed in 2009 dollars. Table A1 in the Appendix provides variable definitions.

Table 4: Sample means, treatment and control firms

	Restricted sample				Full sample			
	Treatment		Control		Treatment		Control	
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev
Dependent variables								
Labor earnings <sub>t</sub> (Compustat)	0.82***	1.75	1.26	1.96	-	-	-	-
Labor earnings <sub>t</sub> (Compustat+NBER)	1.5	2.8	1.72	2.35	0.19***	0.8	0.42	1.2
Employment <sub>t</sub>	15.18***	34.2	20.6	33.3	3.89***	13.6	7.64	23.5
EBIT <sub>t</sub>	0.48	1.31	0.56	1.60	0.07***	0.40	0.16	0.76
EBITDA <sub>t</sub>	0.78	2.03	0.83	2.22	0.12***	0.62	0.23	1.08
Capital expenditures <sub>t</sub>	0.51	1.42	0.49	1.23	0.07***	0.41	0.13	0.61
Cost of debt <sub>t</sub>	0.13*	0.21	0.11	0.28	0.24	4.01	0.22	8.17
Control variables								
Implied contract <sub>t</sub>	0.73***	0.44	0.32	0.47	0.8***	0.40	0.43	0.50
Public policy <sub>t</sub>	0.94***	0.23	0.28	0.45	0.96***	0.18	0.34	0.47
Assets <sub>t-1</sub>	4.59	11.63	4.78	11.29	0.75***	3.69	1.41	5.70
Profitability <sub>t-1</sub>	-0.01***	0.47	0.02	0.12	-0.02***	0.35	0.01	0.19
Fixed assets <sub>t-1</sub>	0.43**	0.26	0.45	0.22	0.27***	0.20	0.34	0.21
Market to book <sub>t-1</sub>	3.92***	6.31	4.71	7.01	4.04***	7.37	4.48	10.23
Dividend payer <sub>t</sub>	0.46***	0.50	0.78	0.42	0.27***	0.44	0.52	0.50
Modified z-score <sub>t-1</sub>	1.18***	4.19	2.21	2.55	1.14***	5.26	2.03	8.78
Book leverage <sub>t-1</sub>	0.25***	0.28	0.23	0.18	0.23***	0.35	0.26	0.39
Sales <sub>t</sub>	4.41**	11.43	5.49	13.22	0.92***	4.09	1.73	6.39
Capital expenditures <sub>t-1</sub>	0.52	1.45	0.47	1.20	0.07***	0.43	0.13	0.59
Employment <sub>t-1</sub>	15.13***	33.4	20.3	32.6	3.82***	13.5	7.50	23.2
State per capita GDP <sub>t-1</sub>	41.4***	5.07	36.4	4.82	42.54***	4.71	37.3	5.00
State GDP growth <sub>t-1</sub>	0.02	0.04	0.02	0.04	0.02***	0.04	0.02	0.04
Circuit good faith <sub>t-1</sub>	0.45***	0.19	0.04	0.11	0.44***	0.19	0.05	0.13
Union Membership <sub>t</sub>	18.68***	4.54	22.11	9.86	19.03***	3.74	21.26	9.57
Right-to-work <sub>t</sub>	0.15***	0.36	0.33	0.47	0.09***	0.28	0.32	0.47
Political balance <sub>t</sub>	0.6***	0.12	0.62	0.16	0.62***	0.11	0.61	0.15

This table compares the mean values and standard deviations for treatment (firms headquartered in states that adopt the good faith exception) and control firms (firms headquartered in states that do not adopt the good faith exception). It considers both the restricted and full sample. In the columns labeled ‘Treatment’, \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively, for a t-test of whether the means of the treatment and control groups are equal. The full sample corresponds to Compustat firms (excluding financials and utilities) over the period 1967 to 1995 and consists of 89,795 observations. The restricted sample consists of all firms from the full sample that disclose information on total labor earnings (8,613 observations). EBIT is earnings before interest and taxes. EBITDA is earnings before interest, taxes and depreciation. Labor earnings, EBIT, EBITDA, Assets, Sales, Capital expenditures, and State per capita GDP are in billion dollars. Employment is in thousands of workers. Dollar values are expressed in 2009 dollars. Table A1 in the Appendix provides variable definitions.

Table 5: The good faith exception and labor earnings

	Labor earnings (Compustat)							Labor earnings (Compustat+NBER)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Good faith <sub>t</sub>	-0.668** (0.331)	-0.719** (0.317)	-0.912 (0.587)	-0.726** (0.322)	-0.825** (0.366)	-0.861 (0.578)	-0.838** (0.377)	-0.919* (0.528)	-0.879 (0.525)	-0.541* (0.297)	-0.464 (0.325)
Good faith <sub>t</sub> × Log Assets <sub>t-1</sub>	0.105* (0.0600)	0.111* (0.0578)	0.159** (0.0680)	0.120** (0.0557)	0.126* (0.0635)	0.164** (0.0703)	0.136** (0.0609)	0.198* (0.104)	0.226* (0.117)	0.137* (0.0683)	0.160* (0.0807)
Log Assets <sub>t-1</sub>	0.358*** (0.0765)	0.388*** (0.0770)	0.462*** (0.0890)	0.377*** (0.0760)	0.0804 (0.0836)	0.116 (0.105)	0.0744 (0.0826)	0.554*** (0.102)	0.549*** (0.103)	-0.0234 (0.0752)	-0.0539 (0.0797)
Implied contract <sub>t</sub>	-0.0369 (0.197)	-0.0684 (0.195)	0.0266 (0.198)	-0.0920 (0.200)	-0.0126 (0.226)	0.0745 (0.216)	-0.0462 (0.229)	0.556 (0.465)	0.617 (0.502)	0.533 (0.395)	0.555 (0.415)
Public policy <sub>t</sub>	0.352** (0.158)	0.352** (0.158)	0.352** (0.158)	0.352** (0.158)	0.303* (0.161)	0.244* (0.137)	0.333** (0.159)	0.831* (0.490)	0.963** (0.453)	0.412 (0.377)	0.527 (0.362)
Profitability <sub>t-1</sub>		-0.00708 (0.0422)	-0.0452 (0.0489)	-0.00642 (0.0414)				0.167** (0.0632)	0.165** (0.0631)		
Fixed assets <sub>t-1</sub>		0.0723 (0.133)	0.168 (0.122)	0.0722 (0.129)				0.476** (0.196)	0.397** (0.184)		
Market to book <sub>t-1</sub>		-0.00521* (0.00260)	-0.00346 (0.00227)	-0.00521** (0.00253)				-0.000888 (0.00176)	-0.000250 (0.00151)		
Dividend payer <sub>t</sub>		-0.0236 (0.0798)	-0.0118 (0.0939)	-0.0195 (0.0797)				0.140*** (0.0514)	0.0864* (0.0478)		
Modified z-score <sub>t-1</sub>		-0.0277*** (0.00687)	-0.0294*** (0.00737)	-0.0262*** (0.00677)				-0.0262*** (0.00697)	-0.0264*** (0.00678)		
Book leverage <sub>t-1</sub>		-0.186* (0.103)	-0.205** (0.0935)	-0.160 (0.102)	-0.0792 (0.102)	-0.0648 (0.102)	-0.0583 (0.104)	-0.171* (0.0893)	-0.146* (0.0850)	8.94e-06 (0.0403)	0.0106 (0.0341)
Log Sales <sub>t</sub>					0.166** (0.0644)	0.196** (0.0734)	0.164** (0.0656)			0.0786** (0.0315)	0.0818** (0.0333)
Log Capital expenditures <sub>t-1</sub>					0.00537 (0.0196)	-0.00728 (0.0203)	0.00407 (0.0193)			-0.00824 (0.0158)	-0.0110 (0.0151)
Log Employment <sub>t-1</sub>					0.247** (0.114)	0.326** (0.137)	0.245** (0.113)			0.578*** (0.118)	0.588*** (0.120)
State per capita GDP <sub>t-1</sub>				0.691** (0.339)			0.752** (0.363)		-0.342 (0.495)		-0.209 (0.398)
State GDP growth <sub>t-1</sub>				-0.425 (0.385)			-0.575 (0.395)		-0.423 (0.477)		-0.619 (0.387)
Circuit good faith <sub>t-1</sub>				-0.285			-0.293		-0.534		-0.503
Observations	8,613	8,613	8,374	8,613	8,089	7,813	8,089	33,212	33,345	37,959	37,823
Adjusted R-squared	0.929	0.930	0.931	0.930	0.930	0.933	0.931	0.894	0.893	0.899	0.903
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry x Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State x Year fixed effects	NO	NO	YES	NO	NO	YES	NO	YES	NO	YES	NO

This table presents the results from OLS regressions relating labor earnings to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. In columns (1) to (7), labor earnings are measured by item *XLR* from Compustat. In columns (8) to (11), labor earnings are constructed by multiplying the average annual payroll at the four-digit industry level (NBER) by the firm's level of employment from Compustat. Labor earnings were scaled by their sample average. Good faith<sub>t</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. Table A1 in the Appendix provides variable definitions. Columns (2) to (4) and (8)-(9) use the control variables from Serfling (2016), columns (5) to (7) and (10)-(11) use the controls from Michaels et al. (2019). All regressions include firm fixed effects, state-level fixed effects, and industry-year fixed effects. Columns (3), (6), (8) and (10) also include state-year fixed effects. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.

Table 6: The good faith exception and firm earnings

	Full sample						Restricted sample			
	EBIT				EBITDA		EBIT		EBITDA	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Good faith <sub>t</sub>	-0.804*	-0.809*	-0.858	-0.756*	-0.722	-0.677*	-3.078*	-2.059*	-2.200**	-1.538*
	(0.451)	(0.448)	(0.520)	(0.444)	(0.435)	(0.365)	(1.561)	(1.181)	(1.085)	(0.783)
Good faith <sub>t</sub> × Log Assets <sub>t-1</sub>	0.166*	0.167*	0.177*	0.170**	0.154**	0.153**	0.387*	0.339*	0.299*	0.252**
	(0.0844)	(0.0838)	(0.0910)	(0.0831)	(0.0758)	(0.0664)	(0.223)	(0.169)	(0.154)	(0.111)
Log Assets <sub>t-1</sub>	0.422***	0.423***	0.426***	0.425***	0.347***	0.344***	0.471***	0.427***	0.433***	0.377***
	(0.0770)	(0.0798)	(0.0852)	(0.0810)	(0.0550)	(0.0519)	(0.136)	(0.112)	(0.109)	(0.0914)
Implied contract <sub>t</sub>	0.396	0.393	0.461	0.400	0.0155	-0.0906	0.657	0.436	0.281	0.113
	(0.608)	(0.611)	(0.538)	(0.609)	(0.380)	(0.432)	(0.626)	(0.683)	(0.455)	(0.491)
Public policy <sub>t</sub>	0.913	0.909	0.781	0.897	0.351	0.413	1.370***	1.458**	0.945***	1.025***
	(0.559)	(0.559)	(0.560)	(0.555)	(0.344)	(0.344)	(0.380)	(0.555)	(0.240)	(0.366)
Profitability <sub>t-1</sub>		-0.0158	-0.00720	-0.0174	-0.0232	-0.0300*	-0.167*	-0.00223	-0.105	0.0165
		(0.0212)	(0.0240)	(0.0210)	(0.0198)	(0.0178)	(0.0923)	(0.0762)	(0.0691)	(0.0536)
Fixed assets <sub>t-1</sub>		0.0130	0.0566	0.0152	0.335**	0.312**	-0.264	-0.410	-0.0456	-0.183
		(0.187)	(0.206)	(0.187)	(0.141)	(0.131)	(0.496)	(0.377)	(0.321)	(0.241)
Market to book <sub>t-1</sub>		0.00287***	0.00298***	0.00284***	0.00115*	0.00112*	-0.00228	-0.00360	-0.00286	-0.00412
		(0.000891)	(0.000916)	(0.000902)	(0.000634)	(0.000667)	(0.00365)	(0.00474)	(0.00267)	(0.00378)
Dividend payer <sub>t</sub>		0.0907*	0.109**	0.0921*	0.0827**	0.0722**	-0.0121	-0.0303	-0.0212	-0.0239
		(0.0503)	(0.0528)	(0.0502)	(0.0369)	(0.0356)	(0.0810)	(0.0627)	(0.0701)	(0.0526)
Modified z-score <sub>t-1</sub>		-0.000870	-0.000883	-0.000866	-0.00224	-0.00219	-0.00429	-0.0140	-0.0125	-0.0187**
		(0.00186)	(0.00197)	(0.00184)	(0.00177)	(0.00169)	(0.0163)	(0.0113)	(0.0118)	(0.00854)
Book leverage <sub>t-1</sub>		-0.0342	-0.0355	-0.0352	-0.0306	-0.0300	-0.0917	0.0186	-0.0781	0.0172
		(0.0373)	(0.0381)	(0.0370)	(0.0277)	(0.0269)	(0.191)	(0.180)	(0.146)	(0.134)
State per capita GDP <sub>t-1</sub>				-0.380		-0.387		0.898		0.673
				(0.397)		(0.313)		(0.997)		(0.737)
State GDP growth <sub>t-1</sub>				0.398		0.300		-0.233		-0.553
				(0.481)		(0.301)		(0.670)		(0.494)
Circuit good faith <sub>t-1</sub>				-0.238		-0.315**		0.0779		-0.0311
				(0.172)		(0.145)		(0.559)		(0.395)
Observations	89,852	89,852	89,794	89,852	89,737	89,795	8,374	8,613	8,372	8,611
Adjusted R-squared	0.828	0.828	0.827	0.828	0.891	0.891	0.848	0.851	0.915	0.915
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry x Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State x Year fixed effects	NO	NO	YES	NO	YES	NO	YES	NO	YES	NO

This table presents the results from OLS regressions relating EBIT and EBITDA to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. EBIT and EBITDA are normalized by their sample mean. Good faith<sub>t</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. Table A1 in the Appendix provides variable definitions. Columns (1) to (6) use the full sample, columns (7) to (10) were obtained using the restricted sample. All regressions include firm fixed effects, state-level fixed effects and industry-year fixed effects. Columns (3),(5), (7) and (9) also include state-year fixed effects. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.

Table 7: Financial constraints and labor earnings

	Labor earnings (Compustat)								Labor earnings (Compustat+NBER)	
	Hadlock and Pierce (2010)		Kaplan and Zingales (1997)		Whited and Wu (2006)		Non-dividend payer		Hadlock and Pierce (2010)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Controls: Serfling (2016)										
Good faith <sub>t</sub>	-0.438 (0.549)	-0.646 (0.388)	0.0258 (0.314)	0.154 (0.116)	0.0287 (0.313)	0.150 (0.112)	0.104 (0.336)	0.251 (0.166)	-1.323** (0.605)	-1.456** (0.602)
Financial constraint <sub>t-1</sub>	0.391*** (0.0915)	0.345** (0.133)	-0.00103*** (0.000364)	-0.000406 (0.000318)	-0.174** (0.0800)	-0.130** (0.0595)	0.0163 (0.0885)	-0.00419 (0.0806)	-0.265 (0.181)	-0.237 (0.172)
Good faith <sub>t</sub> × Financial constraint <sub>t-1</sub>	-0.165 (0.116)	-0.207* (0.122)	-0.000510 (0.000770)	-0.000802 (0.000869)	0.00408 (0.0455)	-0.00364 (0.00413)	-0.239 (0.211)	-0.334** (0.156)	-0.495** (0.205)	-0.564** (0.215)
Observations	6,761	7,030	7,004	7,195	6,741	6,945	8,374	8,613	29,002	29,140
Adjusted R-squared	0.931	0.929	0.938	0.937	0.939	0.938	0.925	0.925	0.915	0.910
Controls: Michaels et al. (2019)										
Good faith <sub>t</sub>	-0.0131 (0.482)	-0.622 (0.376)	0.128 (0.270)	0.170 (0.119)	0.134 (0.267)	0.166 (0.117)	0.258 (0.280)	0.257 (0.165)	-1.169** (0.544)	-1.209** (0.567)
Financial constraint <sub>t-1</sub>	0.797*** (0.179)	0.807*** (0.251)	-0.00550*** (0.00188)	-0.00647*** (0.00196)	-0.0896 (0.0670)	-0.0381 (0.0517)	0.0460 (0.0948)	0.0412 (0.0869)	1.334*** (0.443)	1.415*** (0.449)
Good faith <sub>t</sub> × Financial constraint <sub>t-1</sub>	-0.0958 (0.102)	-0.208* (0.117)	0.00627 (0.00425)	0.00183 (0.00121)	0.00989 (0.0515)	-0.0244*** (0.00686)	-0.328 (0.255)	-0.369* (0.207)	-0.400** (0.186)	-0.455** (0.186)
Observations	6,523	6,808	6,562	6,784	6,430	6,658	7,813	8,089	28,699	28,841
Adjusted R-squared	0.941	0.939	0.942	0.941	0.943	0.942	0.932	0.930	0.917	0.913
State control variables	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry x Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State x Year fixed effects	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

This table presents the results from OLS regressions relating labor earnings to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. In columns (1) to (8) labor earnings are measured by item *XLR* from Compustat. In columns (9) to (10) labor earnings are given by the average annual payroll at the four-digit industry level (NBER) times the firm's employment level from Compustat. Labor earnings were scaled by their sample average. Good faith<sub>t</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. The upper table uses the firm-level controls as in Serfling (2016), while the bottom table uses the controls from Michaels et al. (2019). Table A1 in the Appendix provides variable definitions. Financial constraint<sub>t-1</sub> is a firm-level measure of the degree of financial constraints at year *t* - 1. In columns (1) to (6), Financial constraint<sub>t-1</sub> is measured by the indexes in Hadlock and Pierce (2010), Kaplan and Zingales (1997), and Whited and Wu (2006). In columns (7) and (8), Financial constraint<sub>t-1</sub> is an indicator variable set to one if a firm is not paying common dividends in year *t* - 1 and zero otherwise. Columns (9) and (10) use the constructed measure for labor earnings based on Compustat and NBER, and the Hadlock and Pierce (2010) index to proxy financial constraints. Odd columns include state-year fixed effects. Even columns include state-level controls. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.



Table 8: Financial constraints and firm earnings

	Hadlock and Pierce (2010)		Kaplan and Zingales (1997)		Whited and Wu (2006)		Non-dividend payer	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>EBIT</b>								
Good faith <sub><i>t</i></sub>	-1.434*** (0.495)	-0.957** (0.411)	-0.00189 (0.113)	0.201* (0.110)	-0.0180 (0.118)	0.196* (0.115)	0.241* (0.123)	0.455*** (0.163)
Financial constraint <sub><i>t-1</i></sub>	0.0608 (0.186)	0.0804 (0.174)	-0.000102 (0.000191)	-1.96e-05 (0.000146)	-0.0349 (0.0223)	-0.0349 (0.0220)	-0.257** (0.100)	-0.228** (0.0960)
Good faith <sub><i>t</i></sub> × Financial constraint <sub><i>t-1</i></sub>	-0.490*** (0.163)	-0.393*** (0.140)	-0.000168 (0.000102)	-8.88e-05 (6.43e-05)	-0.00976 (0.0133)	-0.0134 (0.0121)	-0.452* (0.236)	-0.485** (0.207)
Observations	75,700	75,753	80,472	80,506	77,983	78,019	89,794	89,852
Adjusted R-squared	0.857	0.854	0.867	0.865	0.867	0.865	0.857	0.855
<b>EBITDA</b>								
Good faith <sub><i>t</i></sub>	-1.404*** (0.442)	-1.106*** (0.317)	0.0431 (0.0731)	0.183** (0.0765)	0.0282 (0.0761)	0.180** (0.0802)	0.218** (0.0893)	0.398*** (0.108)
Financial constraint <sub><i>t-1</i></sub>	0.248* (0.132)	0.261** (0.127)	-3.06e-05 (0.000128)	5.94e-05 (8.75e-05)	-0.0158 (0.0129)	-0.0160 (0.0127)	-0.113** (0.0528)	-0.0958* (0.0524)
Good faith <sub><i>t</i></sub> × Financial constraint <sub><i>t-1</i></sub>	-0.497*** (0.138)	-0.422*** (0.102)	-0.000153* (8.62e-05)	-8.18e-05 (6.36e-05)	-0.0140* (0.00798)	-0.0161** (0.00704)	-0.360* (0.193)	-0.395** (0.162)
Observations	75,681	75,734	80,421	80,455	77,932	77,968	89,737	89,795
Adjusted R-squared	0.887	0.887	0.910	0.910	0.909	0.909	0.890	0.890
Control variables	NO	YES	NO	YES	NO	YES	NO	YES
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Industry x Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
State x Year fixed effects	YES	NO	YES	NO	YES	NO	YES	NO

This table presents the results from OLS regressions relating EBIT and EBITDA to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. EBIT and EBITDA are normalized by their sample average. Good faith<sub>*t*</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. The upper table uses EBIT as dependent variable, while the bottom table uses EBITDA. The firm-level controls are the ones used in Serfling (2016). Table A1 in the Appendix provides variable definitions. Financial constraint<sub>*t-1*</sub> is a firm-level measure of the degree of financial constraints at year *t* - 1. In columns (1) to (6), Financial constraint<sub>*t-1*</sub> is measured by the indexes in Hadlock and Pierce (2010), Kaplan and Zingales (1997), and Whited and Wu (2006). In columns (7) and (8), Financial constraint<sub>*t-1*</sub> is an indicator variable set to one if a firm is not paying common dividends in year *t* - 1 and zero otherwise. Odd columns include state-year fixed effects. Even columns include state-level controls. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.

Table 9: Financial constraints, employment, investment, and the cost of debt

	Log Assets		Hadlock and Pierce (2010)		Kaplan and Zingales (1997)		Whited and Wu (2006)		Non-dividend payer	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Employment</b>										
Good faith <sub><i>t</i></sub>	-0.0750 (0.264)	0.0280 (0.336)	-0.728*** (0.235)	-0.617** (0.252)	0.107 (0.114)	0.154* (0.0853)	0.125 (0.122)	0.166* (0.0832)	0.165 (0.138)	0.244* (0.134)
Financial constraint <sub><i>t-1</i></sub>	0.529*** (0.0613)	0.545*** (0.0644)	-0.0895 (0.0990)	-0.0841 (0.108)	0.000296* (0.000166)	0.000277* (0.000145)	-0.00661 (0.00791)	-0.00363 (0.00781)	-0.164*** (0.0466)	-0.140*** (0.0423)
Good faith <sub><i>t</i></sub> × Financial constraint <sub><i>t-1</i></sub>	0.0388 (0.0630)	0.0258 (0.0693)	-0.295*** (0.0883)	-0.245*** (0.0912)	1.95e-06 (0.000267)	0.000237* (0.000139)	0.00922 (0.0162)	0.0155 (0.0183)	-0.101 (0.112)	-0.114 (0.110)
Observations	85,952	86,013	73,411	73,469	78,030	78,059	75,720	75,751	85,952	86,013
Adjusted R-squared	0.895	0.891	0.898	0.893	0.904	0.899	0.905	0.900	0.892	0.887
<b>Capital expenditures</b>										
Good faith <sub><i>t</i></sub>	-1.050 (0.630)	-0.815 (0.553)	-1.637** (0.632)	-1.189** (0.510)	0.0440 (0.0670)	0.225*** (0.0733)	0.0375 (0.0671)	0.228*** (0.0730)	0.212** (0.0910)	0.513*** (0.142)
Financial constraint <sub><i>t-1</i></sub>	0.487*** (0.0774)	0.487*** (0.0728)	-0.00679 (0.141)	0.0276 (0.127)	5.25e-05 (0.000156)	0.000133 (0.000153)	-0.0241 (0.0187)	-0.0262 (0.0164)	-0.190*** (0.0617)	-0.176*** (0.0575)
Good faith <sub><i>t</i></sub> × Financial constraint <sub><i>t-1</i></sub>	0.217* (0.110)	0.206* (0.106)	-0.584*** (0.203)	-0.473*** (0.168)	-0.000114 (0.000105)	-7.23e-05 (8.07e-05)	-0.00675 (0.00983)	-0.00680 (0.0111)	-0.391* (0.224)	-0.387* (0.202)
Observations	88,691	88,752	75,701	75,754	79,598	79,633	77,143	77,180	88,691	88,752
Adjusted R-squared	0.869	0.869	0.862	0.862	0.887	0.887	0.887	0.886	0.867	0.867
<b>Cost of debt</b>										
Good faith <sub><i>t</i></sub>	0.745** (0.297)	0.454*** (0.164)	0.709** (0.320)	0.441** (0.199)	0.166 (0.161)	0.0348 (0.0604)	0.180 (0.178)	0.0336 (0.0561)	0.331 (0.248)	-0.00852 (0.0592)
Financial constraint <sub><i>t-1</i></sub>	-0.0170 (0.0282)	-0.0234 (0.0291)	-0.0795 (0.0504)	-0.0765 (0.0537)	-0.000436 (0.000276)	-0.000425 (0.000274)	0.00108** (0.000456)	0.00105** (0.000437)	0.0194 (0.0365)	0.0346 (0.0362)
Good faith <sub><i>t</i></sub> × Financial constraint <sub><i>t-1</i></sub>	-0.0709*** (0.0224)	-0.0712*** (0.0208)	0.115** (0.0503)	0.114** (0.0489)	0.00108** (0.000456)	0.00105** (0.000437)	0.000497 (0.000315)	0.000512 (0.000308)	0.126** (0.0612)	0.140** (0.0594)
Observations	80,298	80,359	68,018	68,075	72,009	72,045	69,981	70,020	80,298	80,359
Adjusted R-squared	0.271	0.261	0.288	0.277	0.271	0.262	0.275	0.266	0.271	0.261
State control variables	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry × Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State × Year fixed effects	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

This table presents the results from OLS regressions relating employment, capital expenditures, and the cost of debt to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. Employment, capital expenditures, and the cost of debt are normalized by their sample average. Good faith<sub>*t*</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. The upper table uses employment as dependent variable, the middle table uses capital expenditures, while the bottom table uses the cost of debt. The firm-level controls are the ones used in Serfling (2016). Table A1 in the Appendix provides variable definitions. Financial constraint<sub>*t-1*</sub> is a firm-level measure of the degree of financial constraints at year *t* - 1. In columns (1) and (2), Financial constraint<sub>*t-1*</sub> is measured by the Log of assets. In columns (3) to (8), Financial constraint<sub>*t-1*</sub> is measured by the indexes in Hadlock and Pierce (2010), Kaplan and Zingales (1997), and Whited and Wu (2006). In columns (9) and (10), Financial constraint<sub>*t-1*</sub> is an indicator variable set to one if a firm is not paying common dividends in year *t* - 1 and zero otherwise. Odd columns include state-year fixed effects. Even columns include state-level controls. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.

# A Appendix

## A.1 The debt contract

In this section, I characterize the optimal debt contract. Define the auxiliary function:

$$\Psi(a, d, l) \equiv \Pi^E(a, d, l) - \phi k, \quad (\text{A.1})$$

which measures the severity of agency problem for a triplet  $(a, d, l)$ .<sup>15</sup> Analogously as in Fischer and Huerta (2021), it can be shown that there exists a minimum wealth required to obtain a loan, denoted by  $\underline{a} > 0$ . The following conditions define  $\underline{a}$ , the amount of debt that such agent can get ( $\underline{d}$ ), and the amount of labor she hires ( $\underline{l}$ ):<sup>16</sup>

$$\Psi(\underline{a}, \underline{d}, \underline{l}) = 0 \Leftrightarrow \Pi^E(\underline{a}, \underline{d}, \underline{l}) = \phi \underline{k} \quad (\text{A.2})$$

$$\Psi_d(\underline{a}, \underline{d}, \underline{l}) = 0 \Leftrightarrow p f_k(\underline{k}, (1-s)\underline{l}) = 1 + \underline{r}, \quad (\text{A.3})$$

$$\frac{\partial \Pi^E(\underline{a}, \underline{d}, \underline{l})}{\partial l} = 0 \Leftrightarrow p(1-s) f_l(\underline{k}, (1-s)\underline{l}) = \bar{w}, \quad (\text{A.4})$$

where  $1 + \underline{r} \equiv 1 + r^* + \phi$  and  $\underline{k} \equiv \underline{a} + \underline{d}$ . Intuitively, the first condition requires that the minimum wealth to get a loan,  $\underline{a}$ , leaves the agent just indifferent between absconding with the loan or honoring the credit contract. The second condition imposes that an agent with  $\underline{a}$  obtains his minimum debt,  $\underline{d}$ . The final condition asks that the amount of labor hired,  $\underline{l}$ , is optimal at the capital level  $\underline{k}$ .

Condition (A.3) implies that the marginal return to investment for the first agent with access to credit is  $1 + r^* + \phi$ , corresponding to the highest possible return to investment. As  $a$  increases, the return to capital falls until it eventually attains the level achieved by an efficient firm,  $1 + r^*$ . Since  $\Pi^E$  is increasing and continuous in the relevant range, there exists another critical wealth level,  $\bar{a} > \underline{a}$ , such that an entrepreneur with  $\bar{a}$  is the first agent who can obtain a loan to invest efficiently:

$$\Psi(\bar{a}, k^* - \bar{a}, l^*) = 0. \quad (\text{A.5})$$

In equilibrium, these two thresholds,  $\underline{a}$  and  $\bar{a}$ , define an endogenous range of entrepreneurs,  $[\underline{a}, \bar{a})$ , who have restricted access to credit and operate at an inefficient scale. Because the marginal return to capital is larger than the marginal cost of debt within this range, constrained agents ask

<sup>15</sup>If  $\Psi > 0$  the incentives to commit default decrease as  $\Psi$  increases. In contrast, if  $\Psi < 0$  the entrepreneur has incentives to behave maliciously. A more negative  $\Psi$  means that the entrepreneur has less incentives to honor the credit contract and abscond with the loan.

<sup>16</sup>Conditions below arise from a *minimax* problem. See Fischer and Huerta (2021) for more details.

for their maximum allowable loan, which is given by:

$$\Psi(a, d, l) = 0, \quad (\text{A.6})$$

where labor  $l \equiv l(a)$  satisfies,

$$p(1-s)f_l(a+d, (1-s)l) = \bar{w}. \quad (\text{A.7})$$

## A.2 Main Proofs

**Lemma 1** Consider a marginal increase in the strength of EPL, then the wage rate  $w^i$  goes down. If  $i \in (0, 1)$ , then the expected wage  $\bar{w}^i$  increases and the interest rate  $\rho$  decreases. If  $i = 1$ , then both measures do not change.

**Proof:** First, differentiate condition (A.2) in terms of the strength of EPL,  $x = \{\varphi, \theta\}$ :

$$\Psi_a \cdot \underline{a}_x + \underbrace{\Psi_d}_{=0 \text{ by (A.2)}} \underline{d}_x + \underbrace{\Psi_l}_{=0 \text{ by (A.4)}} \underline{l}_x + \Psi_{\bar{w}} \bar{w}_x^i + \Psi_\rho \rho_x = 0, \Rightarrow \underline{a}_x = \frac{\bar{w}_x^i \underline{l} + \rho_x \underline{d}}{pf_k + (1-p)\eta - \phi}, \quad (\text{A.8})$$

where the operator  $(\cdot)_z$  denotes the derivative in terms of a variable  $z$ . A similar approach shows that:

$$\underline{d}_x = \frac{\bar{w}_x^i \underline{l} + \rho_x \underline{d}}{pf_k - (1+r)}. \quad (\text{A.9})$$

Differentiation of condition (2.10) in terms of  $x$  gives:

$$\begin{aligned} \int_a^{a^M} \underline{d}_x g(a) \partial a &= \underline{k} g(a) \underline{a}_x, \\ \Leftrightarrow \int_a^{a^M} \frac{\bar{w}_x^i \underline{l} + \rho_x \underline{d}}{pf_k - (1+r)} g(a) \partial a &= \underline{k} g(a) \frac{\bar{w}_x^i \underline{l} + \rho_x \underline{d}}{pf_k + (1-p)\eta - \phi} \end{aligned} \quad (\text{A.10})$$

Rearranging terms:

$$\underbrace{\bar{w}_x^i \left( \int_a^{a^M} \frac{\underline{l}}{pf_k - (1+r)} g(a) \partial a - \frac{\underline{k} \underline{l} g(a)}{pf_k + (1-p)\eta - \phi} \right)}_{>0} = \rho_x \underbrace{\left( \int_a^{a^M} \frac{\underline{d}}{pf_k - (1+r)} g(a) \partial a + \frac{\underline{k} \underline{d} g(a)}{pf_k + (1-p)\eta - \phi} \right)}_{<0}, \quad (\text{A.11})$$

therefore, if  $i = 0$  (i.e. the wage rate is fully flexible), then it must be that  $\bar{w}_x^i = 0$  and  $\rho_x = 0$ .

Additionally, note that:

$$\bar{w}_x^i = \begin{cases} psw^i + [p(1-s+s\varphi) + (1-p)\theta]w_\varphi^i & \text{if } x = \varphi, \\ (1-p)w^i + [p(1-s+s\varphi) + (1-p)\theta]w_\theta^i & \text{if } x = \theta. \end{cases} \quad (\text{A.12})$$

Thus, if  $i = 0$ ,  $w_\varphi^i = \frac{-psw^i}{p(1-s+s\varphi)+(1-p)\theta} < 0$  and  $w_\theta^i = \frac{(1-p)w^i}{p(1-s+s\varphi)+(1-p)\theta} < 0$ . If  $i > 0$ , then  $\bar{w}_x^i > 0$ , and thus,  $\rho_x < 0$  by condition (A.11).  $\blacksquare$

**Proposition 1** Consider a marginal improvement of EPL. Then, there are two critical wealth thresholds  $a^L > \underline{a}$  and  $a^H > a^L$  such that:

1.  $\Pi^E$  decreases for firms with  $a \in [\underline{a}, a^L]$ .
2.  $\Pi^E$  increases for firms with  $a \in [a^H, \bar{a}]$ .

**Proof:** To simplify calculations, define  $x = \{\varphi, \theta\}$ . Differentiation of  $\Pi^E$  in terms of  $x$  gives:

$$\begin{aligned} \Pi_x^E &= [pf_k - (1+r^*)]d_x - \bar{w}_x^i l - \rho_x d \\ &= [pf_k - (1+r^*)] \frac{\bar{w}_x^i l + \rho_x d}{pf_k - (1+r)} - \bar{w}_x^i l - \rho_x d \\ &= \phi \frac{\bar{w}_x^i l + \rho_x d}{pf_k - (1+r)}. \end{aligned} \quad (\text{A.13})$$

Note that the minimum collateral increases when EPL improves ( $\underline{a}_x > 0$ ). Therefore, equation (A.8) implies that  $\bar{w}_x^i l + \rho_x d > 0$ , and thus,  $\lim_{a \rightarrow \underline{a}^+} \Pi_x^E = -\infty$ . By the continuity of  $\Pi_x^E$  in  $a$ , there is a range of “low” assets entrepreneurs,  $[a, a^L]$ , who are made worse off when  $x$  increases ( $\Pi_x^E < 0$ ). Additionally, for condition (A.10) to hold, it must be that  $\bar{w}_x^i l + \rho_x d < 0$  for a range of wealthier agents,  $a \in [a^H, \bar{a}]$ . Thus,  $\Pi_x^E > 0$  in that range.  $\blacksquare$

**Proposition 2** Consider a marginal improvement of EPL. Then, there are two critical wealth thresholds  $\tilde{a}^L > \underline{a}$  and  $\tilde{a}^H > \tilde{a}^L$  such that:

1.  $\Pi^W$  decreases for workers in firms with  $a \in [\underline{a}, \tilde{a}^L]$ .
2.  $\Pi^W$  increases for workers in firms with  $a \in [\tilde{a}^H, \bar{a}]$ .

**Proof:** Differentiating condition (2.3) with respect to  $x = \{\varphi, \theta\}$ :

$$\Pi_x^W = \bar{w}_x^i \cdot l + \tilde{w}^i \cdot l_x. \quad (\text{A.14})$$

To obtain an expression for  $l_x$  differentiate (A.7) in terms of  $x$ :

$$\begin{aligned} p(1-s)[f_{kl}d_x + (1-s)f_{ll}l_x] &= \bar{w}_x^i \\ \Rightarrow l_x &= \frac{\bar{w}_x^i}{p(1-s)^2 f_{ll}} - \frac{f_{lk}}{(1-s)f_{ll}} d_x, \end{aligned} \quad (\text{A.15})$$

Replacing in equation (A.14) gives:

$$\Pi_x^W = \bar{w}_x^i \left( l + \frac{\bar{w}^i}{p(1-s)^2 f_{ll}} \right) - \bar{w}^i \frac{f_{lk}}{(1-s)f_{ll}} d_x. \quad (\text{A.16})$$

Note that the sign of  $\Pi_x^W$  is ambiguous and depends on  $a$ . For a firm operating close enough to  $\underline{a}$ ,  $\lim_{a \rightarrow \underline{a}^+} \Pi^W = -\infty$  (since  $\lim_{a \rightarrow \underline{a}^+} d_x = -\infty$ ). By the continuity of  $\Pi^W$  in  $a$ , there is a range of firms with assets in  $[\underline{a}, \tilde{a}^L]$  such that  $\Pi_x^W < 0$ .

The labor market condition under wage inflexibility reads as:

$$G(\underline{a}) + u = \int_{\underline{a}}^{a^M} l g(a) \partial a, \quad (\text{A.17})$$

where  $u$  is the fraction of unemployed agents. If  $i = 0$ , then  $u = 0$ . Otherwise,  $u > 0$ . Note that when  $x$  goes up,  $u$  has to increase to account for the fact that the wage rate does not fully adjust (i.e.  $u_x > 0$ ). This condition implies the following labor earnings' equivalence condition:

$$[G(\underline{a}) + u] \bar{w}^i = \int_{\underline{a}}^{a^M} \Pi^W g(a) \partial a. \quad (\text{A.18})$$

Differentiating (A.18) in terms of  $x$  gives:

$$\underbrace{\bar{w}^i [g(\underline{a}) \underline{a}_x + u_x]}_{>0} + \underbrace{\bar{w}_x^i [G(\underline{a}) + u]}_{>0} = \int_{\underline{a}}^{a^M} \Pi_x^W g(a) \partial a. \quad (\text{A.19})$$

The left-hand of (A.19) is positive, and also  $\Pi_x^W < 0$  for  $a \in [\underline{a}, \tilde{a}^L]$ . Thus, in order to satisfy this condition it must be that  $\Pi_x^W > 0$  in some range of wealthier entrepreneurs  $a \in [\tilde{a}^H, \bar{a}]$ . ■

## A.3 Additional tables

Table A1: Variable definitions

Variable	Description (Compustat variable names in parentheses where appropriate)
Dependent variables	
Labor earnings (Compustat)	Salaries, wages, pension costs, profit sharing and incentive compensation, payroll taxes and other employee benefits (XLR)
Labor earnings (Compustat+NBER)	Average wages and benefits at the four-digit SIC industry level (NBER) times the firm's employment level reported in Compustat (item <i>EMP</i> )
Employment	Number of company workers ( <i>EMP</i> )
EBIT	Earnings before interest and taxes ( <i>EBIT</i> )
EBITDA	Earnings before interest ( <i>EBITDA</i> )
Capital expenditures	Cash outflow or the funds used for additions to the company's property, plant and equipment, excluding amounts arising from acquisitions ( <i>CAPX</i> )
Cost of debt	Total interest and related expenses ( <i>XINT</i> ) divided by book value of long-term debt ( <i>DLTT</i> ) plus debt in current liabilities ( <i>DLC</i> )
Control variables	
Good faith	An indicator variable set to one if the state in which the firm is headquartered adopted the good faith exception
Implied contract	An indicator variable set to one if the state in which the firm is headquartered adopted the implied contract exception
Public policy	An indicator variable set to one if the state in which the firm is headquartered adopted the public policy exception
Assets	Total value of book assets ( <i>AT</i> )
Profitability	Income before extraordinary items ( <i>IB</i> ) plus deprecation and amortization ( <i>DP</i> ) divided by the book value of assets ( <i>AT</i> )
Fixed assets	Property, plant and equipment ( <i>PPENT</i> ) divided by the book value of assets ( <i>AT</i> )
Market to book	The market value of assets ( $AT + PRCC\_F * CSHO - CEQ$ ) divided by the book value of assets ( <i>AT</i> )
Dividend payer	An indicator variable set to one if the firm pays a common dividend ( <i>DVC</i> )
Modified z-score	The modified Altman's z-score ( $1.2 * WCAP + 1.4 * RE + 3.3 * EBIT + SALE$ )/ <i>AT</i>
Sales	Gross sales ( <i>SALE</i> )
Book leverage	Book value of long-term debt ( <i>DLTT</i> ) plus debt in current liabilities ( <i>DLC</i> ) divided by book value of assets ( <i>AT</i> )
State per capita GDP	State's GDP divided by its total population
State GDP growth	State-level GDP growth
Circuit good faith	Fraction of other states in the same federal circuit as the firm's headquarter state that have adopted the good faith exception.
Right-to-work	An indicator variable set to one if the state in which the firm is headquartered has adopted the right-to-work laws
Union membership	Fraction of employees who are covered by collective bargaining agreements in a given state
Political balance	Fraction of Democrat state representatives in the House of Representatives and Senate

Table A2: The good faith exception and the timing of labor and firms' earnings

	Labor earnings (Compustat)				Labor earnings (Compustat+NBER)				EBIT			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
									Restricted sample		Full sample	
Good faith <sup>-1</sup>	-0.519 (0.588)	-0.495 (0.468)	-0.243 (0.439)	-0.377 (0.392)	-0.624 (0.659)	-0.730 (0.601)	-0.374 (0.403)	-0.428 (0.407)	-3.920 (5.306)	-2.484 (4.340)	-1.490 (1.017)	-1.441 (0.883)
Good faith <sup>0</sup>	-1.267 (0.943)	-1.107** (0.487)	-0.101 (0.504)	-0.806** (0.349)	-0.953 (0.711)	-1.126* (0.663)	-0.502 (0.451)	-0.555 (0.469)	-15.78* (8.831)	-8.183 (5.652)	-2.006 (1.241)	-1.935* (1.069)
Good faith <sup>+1</sup>	-0.971 (1.102)	-1.109** (0.479)	0.821 (0.571)	-0.399 (0.366)	-0.706 (0.587)	-0.967* (0.560)	-0.306 (0.367)	-0.444 (0.394)	-20.99** (9.837)	-10.54* (6.101)	-1.374 (1.160)	-1.320 (0.873)
Good faith <sup>+2</sup>	-0.467 (1.023)	-0.980* (0.521)	1.579*** (0.531)	-0.262 (0.437)	-0.733 (0.531)	-0.922 (0.588)	-0.399 (0.306)	-0.478 (0.391)	-21.56* (11.00)	-11.00 (7.049)	-1.057 (0.948)	-1.017* (0.605)
Good faith <sup>-1</sup> × Log Assets <sub>t-1</sub>	0.127 (0.0818)	0.0777 (0.0716)	0.0839 (0.0668)	0.0686 (0.0641)	0.148 (0.125)	0.169 (0.131)	0.0974 (0.0895)	0.121 (0.103)	0.294 (1.103)	0.373 (0.806)	0.324* (0.181)	0.297* (0.172)
Good faith <sup>0</sup> × Log Assets <sub>t-1</sub>	0.301*** (0.0901)	0.190** (0.0783)	0.173*** (0.0634)	0.167** (0.0674)	0.234 (0.141)	0.261* (0.147)	0.144 (0.104)	0.166 (0.114)	1.632 (1.472)	1.329 (0.952)	0.448** (0.217)	0.413* (0.211)
Good faith <sup>+1</sup> × Log Assets <sub>t-1</sub>	0.261** (0.115)	0.176** (0.0870)	0.121 (0.0752)	0.101 (0.0749)	0.210* (0.120)	0.238* (0.125)	0.125 (0.0839)	0.145 (0.0934)	2.324* (1.283)	1.742* (0.900)	0.314* (0.172)	0.282* (0.166)
Good faith <sup>+2</sup> × Log Assets <sub>t-1</sub>	0.219* (0.112)	0.163* (0.0842)	0.0455 (0.0759)	0.0634 (0.0816)	0.224* (0.116)	0.247* (0.128)	0.162** (0.0798)	0.178* (0.0910)	2.358* (1.206)	1.869* (0.973)	0.240** (0.114)	0.226** (0.107)
Observations	8,344	8,561	9,755	9,958	32,973	33,106	37,572	37,708	8,344	8,561	89,230	89,288
Adjusted R-squared	0.931	0.930	0.928	0.927	0.895	0.893	0.883	0.882	0.848	0.851	0.828	0.828
Controls												
Serfling (2016)	YES	YES	NO	NO	YES	YES	NO	NO	YES	YES	YES	YES
Michaels et al. (2019)	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	NO	NO
State control variables	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry x Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State x Year fixed effects	YES	NO	YES	NO	YES	NO	YES	NO	NO	YES	NO	YES

This table presents the results from OLS regressions relating labor and firm earnings to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. In columns (1) to (4), labor earnings are measured by item *XLR* from Compustat. In columns (5) to (8), labor earnings are given by the average annual payroll at the four-digit industry level (NBER) times the firm's employment level from Compustat. Firm earnings correspond to item *EBIT* from Compustat. EBIT is earnings before interest and taxes. Labor earnings and EBIT were scaled by their sample average. Good faith<sup>-1</sup> is an indicator variable set to one if the state at which a firm is headquartered will adopt the good faith exception in one year and zero otherwise. Good faith<sup>0</sup> is an indicator variable set to one if the state at which a firm is headquartered adopts the good faith exception in the current year and zero otherwise. Good faith<sup>+1</sup> is an indicator variable set to one if the state at which a firm is headquartered adopted the good faith exception one year ago and zero otherwise. Good faith<sup>+2</sup> is an indicator variable set to one if the state at which a firm is headquartered adopted the good faith exception two years or more years ago and zero otherwise. Dollar values are expressed in 2009 dollars. Table A1 provides variable definitions. Columns (1)-(4) and (9)-(10) use the restricted sample, columns (5) to (8) use the sample of firms with available information on annual payroll at the four-digit industry level (NBER), and columns (11)-(12) consider the full sample. The full sample corresponds to Compustat firms (excluding financials and utilities) over the period 1967 to 1995 and consists of 89,795 observations. The restricted sample consists of all firms from the full sample that disclose information on total labor earnings in Compustat. Columns (1)-(2), (5)-(6), and (9)-(10) use the control variables from Serfling (2016), columns (3)-(4) and (7)-(8) use the controls from Michaels et al. (2019). All regressions include firm fixed effects, state-level fixed effects, and industry-year fixed effects. Odd columns include state-year fixed effects instead of state-level control variables. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.



Table A3: Controlling for political factors

	Labor earnings (Compustat)		Labor earnings (Compustat+NBER)		EBIT	EBITDA	Employment	Cap. Expenditures	Cost of debt
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<b>Log Assets</b>								
Good faith <sub><i>t</i></sub>	-0.718*	-0.832*	-0.688	-0.331	-0.877	-0.761*	0.0635	-0.689	0.472***
	(0.359)	(0.426)	(0.428)	(0.257)	(0.428)	(0.257)	(0.536)	(0.428)	(0.169)
Log Assets <sub><i>t-1</i></sub>	0.482***	0.137	0.550***	-0.0347	0.551***	0.442***	0.520***	0.486***	-0.0183
	(0.0959)	(0.108)	(0.105)	(0.0715)	(0.105)	(0.0715)	(0.116)	(0.0705)	(0.0302)
Good faith <sub><i>t</i></sub> × Log Assets <sub><i>t-1</i></sub>	0.123*	0.140**	0.187*	0.129**	0.201*	0.175**	0.0203	0.179*	-0.0746***
	(0.0621)	(0.0684)	(0.0967)	(0.0628)	(0.0967)	(0.0628)	(0.101)	(0.0788)	(0.0222)
Union Membership <sub><i>t</i></sub>	0.0232*	0.0236*	0.00270	0.00195	-0.00647	-0.00394	-0.00535	-0.0146	-0.00217
	(0.0127)	(0.0139)	(0.0223)	(0.0218)	(0.0114)	(0.0105)	(0.0132)	(0.0155)	(0.00612)
Right-to-work <sub><i>t</i></sub>	-0.154	0.248**		0.354*	0.197	0.113	0.261	0.270*	0.687***
	(0.184)	(0.0936)		(0.180)	(0.168)	(0.135)	(0.281)	(0.153)	(0.154)
Political balance <sub><i>t</i></sub>	-0.0941	-0.0246	-0.569*	-0.632**	-0.451	-0.288	-0.0424	-0.319	0.150
	(0.250)	(0.243)	(0.336)	(0.299)	(0.386)	(0.286)	(0.236)	(0.328)	(0.189)
Observations	8,030	7,548	32,322	36,916	86,833	86,777	83,511	85,881	77,709
Adjusted R-squared	0.935	0.936	0.895	0.885	0.829	0.894	0.872	0.870	0.103
	<b>SA Index (Hadlock and Pierce, 2010)</b>								
Good faith <sub><i>t</i></sub>	-0.832	-0.782	-1.449**	-1.210**	-0.983**	-1.122***	-0.619**	-1.207**	0.447**
	(0.506)	(0.484)	(0.596)	(0.564)	(0.422)	(0.322)	(0.255)	(0.515)	(0.202)
SA Index <sub><i>t-1</i></sub>	0.561***	1.202***	-0.235	1.415***	0.0881	0.271**	-0.0758	0.0333	-0.0775
	(0.116)	(0.275)	(0.172)	(0.448)	(0.177)	(0.129)	(0.109)	(0.130)	(0.0542)
Good faith <sub><i>t</i></sub> × SA index <sub><i>t-1</i></sub>	-0.269*	-0.265*	-0.568**	-0.462**	-0.406***	-0.430***	-0.245**	-0.482***	0.116**
	(0.159)	(0.149)	(0.215)	(0.187)	(0.145)	(0.106)	(0.0931)	(0.170)	(0.0487)
Union Membership <sub><i>t</i></sub>	0.0209*	0.0211	0.00499	-0.00133	-0.0107	-0.00700	-0.00736	-0.0154	-0.00530
	(0.0120)	(0.0130)	(0.0214)	(0.0210)	(0.0135)	(0.0123)	(0.0148)	(0.0175)	(0.00636)
Right-to-work <sub><i>t</i></sub>	0.368***	0.185**			0.241	0.156	0.432	0.254	0.781***
	(0.124)	(0.0878)			(0.192)	(0.154)	(0.310)	(0.175)	(0.184)
Political balance <sub><i>t</i></sub>	-0.0390	-0.0210	-0.588	-0.738**	-0.691	-0.418	-0.00254	-0.377	0.0591
	(0.254)	(0.218)	(0.353)	(0.340)	(0.459)	(0.335)	(0.266)	(0.380)	(0.182)
Observations	6,993	6,772	29,092	28,796	75,626	75,607	73,346	75,627	67,951
Adjusted R-squared	0.930	0.940	0.894	0.897	0.823	0.887	0.870	0.861	0.114
Controls									
Serfling (2016)	YES	NO	YES	NO	YES	YES	YES	YES	YES
Michaels et al. (2019)	NO	YES	NO	YES	NO	NO	NO	NO	NO
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry x Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES

This table presents the results from OLS regressions relating labor earnings, EBIT, EBITDA, employment, capital expenditures, and the cost of debt to the adoption of the good faith exception for Compustat non-financial firms from 1967 to 1995. All variables are normalized by their sample means. Good faith<sub>*t*</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. Table A1 provides variable definitions. All regressions include firm fixed effects, state-level fixed effects, and industry-year fixed effects. The firm and state-level controls used in Tables 5 and 6 are included in all regressions. The upper table uses the lagged Log of assets to proxy financial constraints, while the bottom table uses the SA index introduced by Hadlock and Pierce (2010). Three additional state-level controls are included. (1) Union membership<sub>*t*</sub> is the fraction of employees who are covered by collective bargaining agreements at year *t*. (2) Political balance<sub>*t*</sub> is the fraction of Democrat state representatives in the House of Representatives and Senate. (3) Right-to-work<sub>*t*</sub> is an indicator variable set to one if the state in which the firm is headquartered has passed the right-to-work laws by year *t*. Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.

Table A4: Alternative headquarters locations

	Labor earnings (Compustat)		Labor earnings (Compustat+NBER)		EBIT	EBITDA	Employment	Cap. Expenditures	Cost of debt
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<b>Log Assets</b>								
Good faith <sub><i>t</i></sub>	-0.480 (0.346)	-0.518 (0.383)	-0.728* (0.404)	-0.627* (0.356)	-0.782 (0.562)	-0.823 (0.510)	-0.212 (0.312)	-0.827 (0.512)	0.526** (0.461)
Log Assets <sub><i>t-1</i></sub>	0.460*** (0.107)	0.0997 (0.114)	0.529*** (0.106)	0.00897 (0.0842)	0.543*** (0.115)	0.450*** (0.0870)	0.534*** (0.0796)	0.504*** (0.105)	-0.0539
Good faith <sub><i>t</i></sub> × Log Assets <sub><i>t-1</i></sub>	0.0806 (0.0610)	0.0862 (0.0654)	0.162* (0.0832)	0.144** (0.0703)	0.187* (0.110)	0.180* (0.0965)	0.0405 (0.0645)	0.181* (0.0940)	-0.0749**
Observations	6,341	6,186	25,995	25,880	66,805	66,789	65,179	66,806	60,401
Adjusted R-squared	0.943	0.944	0.901	0.902	0.835	0.905	0.880	0.882	0.0878
	<b>SA Index (Hadlock and Pierce, 2010)</b>								
Good faith <sub><i>t</i></sub>	-0.663 (0.438)	-0.668 (0.463)	-1.198** (0.456)	-0.992** (0.402)	-0.712 (0.461)	-0.871** (0.381)	-0.551* (0.278)	-1.012** (0.394)	0.507** (0.222)
SA Index <sub><i>t-1</i></sub>	0.422*** (0.0837)	0.887*** (0.233)	-0.192* (0.109)	1.125*** (0.289)	0.0703 (0.116)	0.214*** (0.0742)	-0.0624 (0.0850)	0.0316 (0.132)	-0.0525 (0.0639)
Good faith <sub><i>t</i></sub> × SA index <sub><i>t-1</i></sub>	-0.210 (0.142)	-0.213 (0.142)	-0.433*** (0.154)	-0.356*** (0.125)	-0.314* (0.162)	-0.333** (0.130)	-0.177* (0.0987)	-0.380*** (0.126)	0.114* (0.0629)
Observations	7,026	6,808	29,140	28,841	75,753	75,734	73,469	75,754	68,080
Adjusted R-squared	0.957	0.962	0.912	0.915	0.855	0.907	0.893	0.886	0.262
<b>Controls</b>									
Serfling (2016)	YES	NO	YES	NO	YES	YES	YES	YES	YES
Michaels et al. (2019)	NO	YES	NO	YES	NO	NO	NO	NO	NO
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry × Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES

This table presents the results from OLS regressions relating labor earnings, EBIT, EBITDA, employment and capital expenditures to the adoption of the good faith exception from Compustat non-financial firms from 1967 to 1995. All variables are normalized by their sample means. Good faith<sub>*t*</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. The Compustat data on headquarters locations is supplemented by data on historical headquarters locations constructed by Bai et al. (2020). Dollar values are expressed in 2009 dollars. Table A1 provides variable definitions. All regressions include firm fixed effects, state-level fixed effects, industry-year fixed effects. The firm and state-level controls used in Tables 5 and 6 are included in all regressions. The upper table uses the lagged Log of assets to proxy financial constraints, while the bottom table uses the SA index introduced by Hadlock and Pierce (2010). Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.

Table A5: Propensity score matched samples

	Labor earnings (Compustat)		Labor earnings (Compustat+NBER)		EBIT	EBITDA	Employment	Cap. Expenditures	Cost of debt
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Log Assets</b>									
Good faith <sub>t</sub>	-0.966*	-1.008**	-0.882*	-0.925*	-1.082*	-0.996*	-0.249	-1.054	0.467**
	(0.498)	(0.495)	(0.441)	(0.464)	(0.575)	(0.502)	(0.307)	(0.666)	(0.198)
Log Assets <sub>t-1</sub>	0.510***	0.121	0.602***	0.0632	0.525***	0.429***	0.549***	0.489***	-0.0329
	(0.101)	(0.116)	(0.101)	(0.0803)	(0.0967)	(0.0598)	(0.0593)	(0.0717)	(0.0237)
Good faith <sub>t</sub> × Log Assets <sub>t-1</sub>	0.170*	0.170*	0.222**	0.229**	0.237**	0.219**	0.0765	0.251*	-0.0697**
	(0.0899)	(0.0859)	(0.0931)	(0.0949)	(0.108)	(0.0912)	(0.0628)	(0.127)	(0.0260)
Observations	8,111	7,630	29,636	28,577	86,348	86,212	82,441	85,162	77,303
Adjusted R-squared	0.929	0.930	0.890	0.892	0.828	0.891	0.868	0.869	0.0931
<b>SA Index (Hadlock and Pierce, 2010)</b>									
Good faith <sub>t</sub>	-1.145	-0.654	-1.314**	-1.163**	-1.052**	-1.191***	-0.714***	-1.284**	0.467**
	(0.751)	(0.515)	(0.502)	(0.525)	(0.434)	(0.366)	(0.233)	(0.598)	(0.198)
SA Index <sub>t-1</sub>	0.450**	1.057***	-0.254	1.569***	0.0922	0.274**	-0.0705	0.0405	-0.0708
	(0.181)	(0.357)	(0.179)	(0.424)	(0.180)	(0.133)	(0.112)	(0.133)	(0.0561)
Good faith <sub>t</sub> × SA index <sub>t-1</sub>	-0.370	-0.236	-0.519***	-0.440**	-0.425***	-0.454***	-0.278***	-0.507**	0.0985
	(0.237)	(0.168)	(0.175)	(0.167)	(0.147)	(0.117)	(0.0840)	(0.198)	(0.0628)
Observations	6,592	6,366	25,821	25,361	72,702	72,617	70,330	72,582	65,431
Adjusted R-squared	0.928	0.938	0.889	0.898	0.823	0.886	0.870	0.862	0.109
<b>Controls</b>									
Serfling (2016)	YES	NO	YES	NO	YES	YES	YES	YES	YES
Michaels et al. (2019)	NO	YES	NO	YES	NO	NO	NO	NO	NO
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
State fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry × Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES

This table presents the results from OLS regressions relating labor earnings, EBIT, EBITDA, employment, capital expenditures, and the cost of debt to the adoption of the good faith exception by using a matched sample from Compustat non-financial firms from 1967 to 1995. All these variables are normalized by their sample means. I estimated propensity scores based on Log assets, Profitability, Fixed assets, Market to book, Dividend payer, the Modified z-score, and Book leverage. Each treatment firm is matched to a control firm with replacement on year, three-digit SIC industry, and based on the closest propensity score. Good faith<sub>t</sub> is an indicator variable set to one if the state at which a firm is headquartered has enacted the good faith exception by year *t* and zero otherwise. Dollar values are expressed in 2009 dollars. Table A1 provides variable definitions. All regressions include firm fixed effects, state-level fixed effects, and industry-year fixed effects. The firm and state-level controls used in Tables 5 and 6 are included in all regressions. The upper table uses the lagged Log of assets to proxy financial constraints, while the bottom table uses the SA index introduced by Hadlock and Pierce (2010). Standard errors are clustered at the state-level (standard deviations in parenthesis). \*, \*\*, and \*\*\* correspond to significance at the 10%, 5%, and 1% levels, respectively.