Now You See It, Now You Don't: Financial Constraints, Minimum Wage Policies, and Employment

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Abstract

This study shows that corporate financial constraints play a crucial role in explaining the relationship between minimum wage policies and employment dynamics. Using a border discontinuity approach and establishment-level information on firms in the United States, we show that increases in the minimum wage do not affect employment. However, this average effect masks important corporate-level heterogeneity.

The effect of minimum wage increases on employment is indeed negative and substantial for establishments that belong to financially constrained firms. In line with the hypothesis that financial constraints are at the core of our findings, we find that an expansion of local credit supply and government intervention in the product market can mitigate this negative effect. Furthermore, we provide causal evidence about this relationship exploiting the rise in the federal minimum wage during the 2007-2008 financial crisis and an exogenous measure of financial constraints based on ex-ante heterogeneity in the long-term debt maturity structure as a unique quasi-experimental setting.

Motivation

Owing to its surge in popularity, minimum wage policies have been at the center of recent policy debates in the United States.

Underlying much of the debate is the central question: What is the effect of raising minimum wage levels on employment? If it is significantly negative, then it is unclear if raising the minimum wage actually helps low-income workers.

While a considerable amount of research in economics exists, this evidence is mixed (e.g.,Card and Krueger, 1994; Cengiz et al., 2019; Clemens and Wither, 2019), and the generally accepted conclusion is that there is no effect on aggregate employment.

None of the existing papers in economics look at the role of firms and their individual characteristics in explaining the relationship between minimum wage policies and employment levels.

Recent empirical analyses find that one particular firm characteristic, its financial constraint, is important to understand aggregate employment dynamics (Giroud and Mueller, 2017, 2019).

Research Agenda

Research Question: Do financial constraints play a role in explaining the relationship between minimum wage policies and employment dynamics?

Considerations: A rise in the minimum wage can lead to higher labor costs, potentially forcing financially constrained firms to reduce their employment levels given an inability to offset these additional expenses from internal capital.

Several factors further exacerbate this situation, including the inability to use labor as collateral and the fixed component costs of employment (Oi, 1962; Ghaly et al., 2017), which presents specific challenges to labor financing (Benmelech et al., 2019, 2021).

Approach: We compare establishments located in different states that are exposed to heterogeneously state minimum wage policies but belong to a single firm, with a given level of financial constraint.

Methodology

We estimate the following statistical model labeled Equation (1):

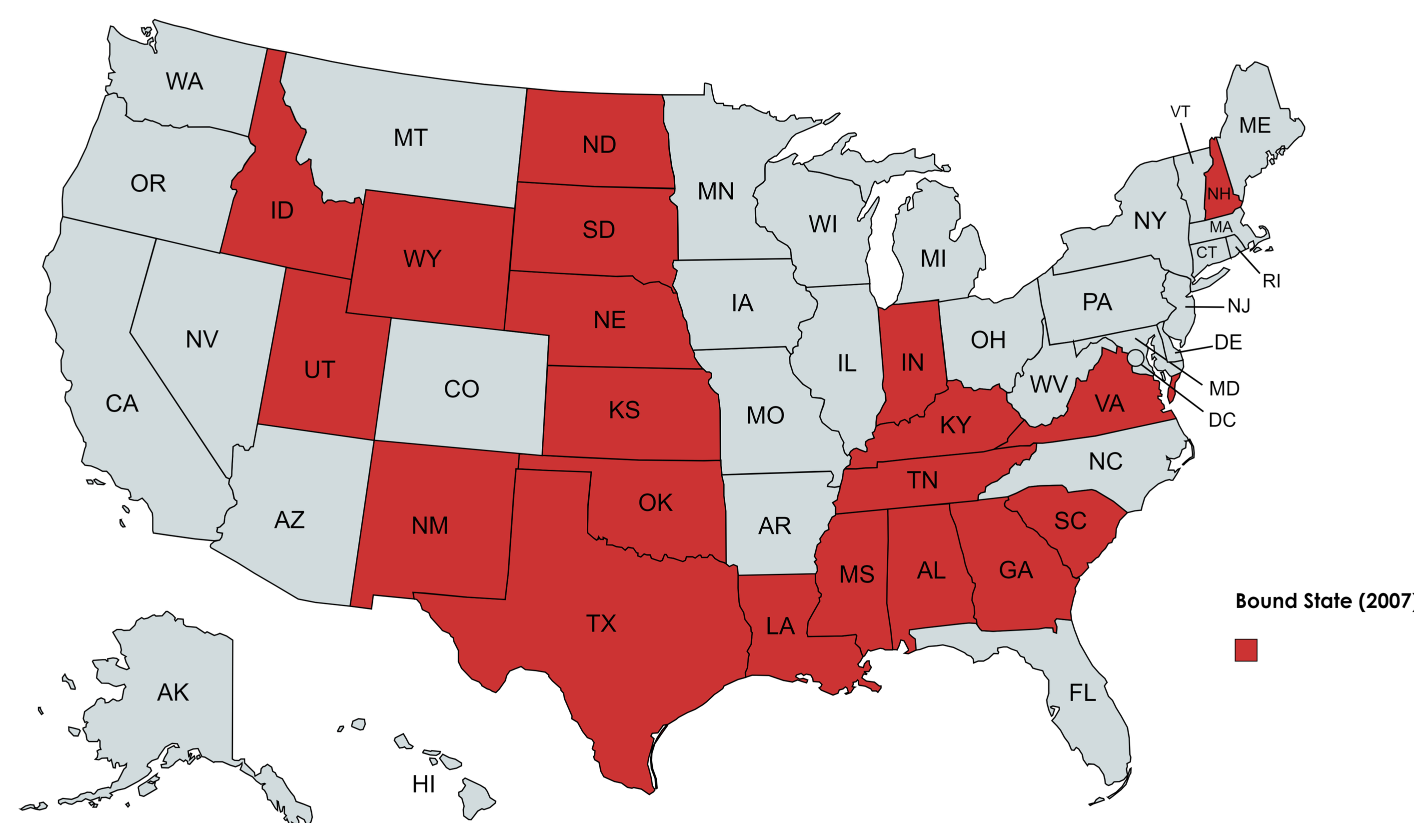
$$Log(Employment)_{i,t} = \beta MW_{s,t-1} + \delta_{f,t} + \eta_i + \theta_t + \epsilon_{i,t} \quad (1)$$

where:

- *Log(Employment)* is the natural logarithm of the number of employees at establishment i at time t
- *MW* is the effective minimum wage of the county i in state s at time $t-1$
- η_i are establishment fixed effects
- θ_t are time fixed effects
- $\delta_{f,t}$ are firm times year fixed effects

We adopt two alternative quasi-experimental settings:

1. We combine the staggered introduction of minimum wage policies during the period 1990-2020 and a border discontinuity approach and use alternative measures of financial constraints at the firm level.
2. We use the federal minimum wage increase during the financial crisis and an exogenous measure of financial constraints based on the ex-ante variation in long-term debt maturity.



Empirical Results

Overall Effects
A raise in the minimum wage does not affect the average employment of public corporations. However, the effect is large and negative for establishments that belong to financially constrained firms.

Firm-level Outcomes
Exposure to minimum wage policies leads to a decrease in corporate cash holdings and investments, and an increase in the use of corporate short-term and long-term debt, as well as trade credit.

Establishment-level Outcomes
Establishments decrease employment after changes in the minimum wage during periods of friction (e.g., the financial crisis), and this effect is driven by constrained firms.

Robustness

Alternative Measures of Financial Frictions We consider three well-known alternative measures of corporate financial frictions: corporate size (Gertler and Gilchrist, 1994), the Whited and Wu (WW) index (Whited and Wu, 2006), and the Size-Age (SA) index (Hadlock and Pierce, 2010).

In further tests, we explore several other measures of firm financial constraints: the Kaplan and Zingales (KZ) index (Kaplan and Zingales, 2000), a composite financial constraint index (Bartram et al., 2022), and textual analysis of the 10-K filings (Bodnaruk et al., 2015).

Counterfactual Analysis A counterfactual exercise and county-level regressions show that the minimum wage policies have a substantial effect on overall employment in the presence of financial constraints.

Contribution

We contribute to the research that analyzes:

- the impact of minimum wage policies on employment (e.g., Card and Krueger, 1994; Cengiz et al., 2019; Dustmann et al., 2022)
- the effect of minimum wage raises on corporate policies (e.g., Gustafson and D. Kotter, 2023; Agarwal et al., 2023; Geng et al., 2022)
- the impact of financial constraints on corporate outcomes (e.g., Duval et al., 2020; Benmelech et al., 2019; Hennessy and Whited, 2007; Lamont et al., 2001; Cao et al., 2019)

Conclusions

- Our results show that minimum wage could have a substantial negative effect on aggregate employment in the presence of corporate financial constraints.
- Our findings provide a better understanding of how minimum wage policies affect corporate financial and economic performance.
- Our results imply that optimal government policies need to take into account financial constraints (Itskhoki and Moll, 2019; Caballero and Lorenzoni, 2014) and can help reconcile previously mixed findings in the economics literature.

References

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