Essays on Labor Market Institutions

Dissertation Defense

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The purpose of this document is to serve as guide for the defense of my dissertation. The goal is to discuss my research agenda for the future, including submission prospects for working papers and effort allocation towards new projects.

The document is structured as follows. Section 1 discusses actionable comments I received on my job market paper. Section 2 discusses the working paper on the effects of minimum wage policies on housing rents. Both sections delve into related projects. Finally, Section 3 discusses other projects I am working on.

1 Job Market Paper

1.1 Overview

Hermo (2024) discusses the effect of economic shocks to the product demand of firms on the labor market outcomes of their workers in the presence of collective bargaining (CB) units, defined as clusters of firms that are share a collective bargaining agreement and thus negotiate with a common union. The first part of the paper is empirical, and empirically documents that wages of firms respond to shocks to other firms in the same CB unit in the context of Argentina in the period 2007–2017. The paper interprets these "spillovers" as evidence of risk-sharing: firms in the same CB unit share the risks and benefits of idiosyncratic shocks to their product demand. The second part of the paper is structural, and develops a model of the labor market with collective bargaining and wage floors to study the extent of such risk-sharing under counterfactual collective bargaining Institutions.

The empirical section of the paper constructs product-demand shocks to firms and CB units relying on a shift-share strategy and exogenous variation arising from world import demand. Table 1 finds that wages increase as a response to positive idiosyncratic shocks to firms, with a magnitude comparable to existing estimates of the "rent-sharing" elasticity.

Interestingly, the paper also finds that shocks that are aggregated at the level of the collective bargaining unit also have an effect, implying that the union is able to negotiate higher wages for all workers when on average the firms in the CB unit are doing well. The evidence indicates that wage floors are the mechanism that accounts for these effects. This is evidence of a novel channel through which economic shocks affect the labor market. The paper also finds that the effect of shocks on wages is stronger via CB units, although the difference is only statistically significant for the wage floor outcome.

Relying on a structural model of the labor market, the second part of the paper documents that the extent to which firms share risks and benefits is systematically related to the structure of the collective bargaining system. Both countries with low and high levels of centralization in collective bargaining have lower levels of risk-sharing than countries with intermediate levels of centralization. These results, which are illustrated in Figure 1, are the result of the endogenous level of the wage floors and the extent of connections across firms created by CB across different CB systems. In decentralized systems wage floors are high but the connections across firms are low, while in centralized systems there are many connections across firms but wage floors are low. These factors make the update of wage floors as a response to shocks not impactful, resulting in low levels of risk-sharing. Intermediate levels of centralization, on the other hand, have the right balance of wage floors and connections across firms to allow for a stronger degree of risk-sharing.

1.2 Comments on framing

Rent-sharing and Risk-sharing Conceptually I have both rent-sharing and risk-sharing in mind, and I am still unsure about how to frame both concepts into the paper (or whether I should). I think that people found the idea that aggregating shocks at the level of the CB unit results in more responsive wages is compelling. For this interpretation I think that not being able to estimate the effect of shocks on revenue for the CB unit is a limitation. If the CB shock has stronger effects on revenue than the firm shock, then the rent-sharing coefficients—which are constructed by dividing the effect of the shock on wages to the effect of the shock on revenue—may actually be similar.

I've had comments on the interpretation of the results as evidence of risk-sharing. People mentioned that it's not clear what I mean by risk-sharing in the intro, and that I should clarify this further. Is the risk being shared among firms or workers? My thinking is that I am referring to the risk of shocks to firms, since firms' pay respond to the average shock to the CB unit. Although I acknowledge that this is different from what people usually have in mind, which refers to the variance of individual wages.

The structural model focuses on "risk-sharing" as outcome. Panel (a) of Figure 1 shows the difference in the average wage response to the shocks between a particular CB system and a counterfactual economy without CB, so it focuses on the part of the wage response that is not explained by the own idiosyncratic shock.[1]

1.3 Comments on empirical exercise

Testing for equality of effects I received comments that I should explicitly test whether the effects of CB shocks are larger than those of firm shocks. Table 1 shows the results of such a test, which rejects the null only for the wage floor outcome.

Should I include this test in the paper? I think the issue comes down to whether I want to emphasize the difference in rent-sharing elasticities between firm and CB shocks.

Interaction between shocks More than one person mentioned that I should include an interaction term between the firm and CB shocks. The idea is to test what happens to firms that are doing poorly when the CB unit is doing well, and vice versa. The theoretical model indicates that wages in the firm should depend only on the firm shock or CB shock (depending on the productivity of the firm), so I'm not sure whether this exercise would fit the narrative of the paper.

Figure 2 shows the results of including an interaction term between the firm and CB shocks in a dynamic difference-in-differences framework, demeaning the shocks with their (unweighted) averages across CB units and firms, respectively. Figure 3 shows the results of the same exercise but demeaning the firm shock with respect to the CB shock. The results do not alter the conclusions with respect the main effects of the shocks. The interaction behaves differently depending on how the demeaned variables are constructed. In Figure 2, the interaction appears negative for the wage outcome and behaves weirdly for the employment outcome. In Figure 3, the interaction has a precisely estimated null effect.

[1] The label of the y-axis in the figure is not very informative and should be changed.

1.4 Comments on structural model

1.5 Other comments

1.6 Related projects

2 Minimum wage

2.1 Overview

Borg, Gentile Passaro, and Hermo (2023) points out that minimum wage policies may affect prices of goods and services, including housing rents, and that this may have implications for the distributional effects of minimum wage (MW) policies. Additionally, the paper points out that the price effects may be highly local in the US context, given that MW policies are increasingly set at the subnational level. In fact, they show that many metropolitan areas have workers living and working under different MW levels.

The paper shows that housing rents respond positively to changes in the minimum wage at workplace. They do so by constructing a "workplace MW" measure that, for a given ZIP code, averages the statutory MW across all the ZIP codes where the residents of the ZIP code work (weighting by commuting shares). Table 2 shows the results. They also find that the "residence MW," meaning the statutory MW in the same ZIP code, has a negative effect on rents, though the effect is not statistically significant.

3 Other projects

Stuff on other.

References

Borg, Gabriele, Diego Gentile Passaro, and Santiago Hermo (2023). *From Workplace to Residence: The Spillover Effects of Minimum Wage Policies on Local Housing Markets*. arXiv 2208.01791v1. arXiv.

Hermo, Santiago (2024). *Collective Bargaining Networks, Rent-Sharing, and the Propagation of Shocks*. Tech. rep. Job Market Paper.

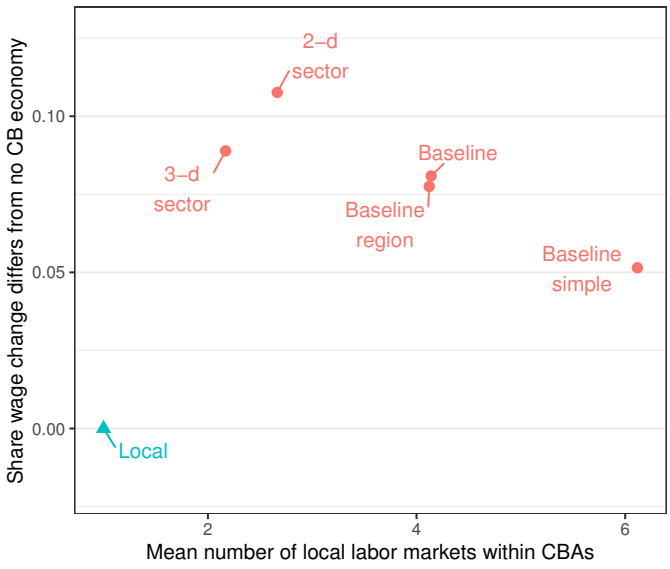
Table 1: Difference-in-differences estimates of product demand shocks on firms'labor market outcomes

	Log mean wage	Log mean wage floor	Log employment
	(1)	(2)	(3)
CB shock × Post	0.0458	0.0541	-0.0233
	(0.0202)	(0.0213)	(0.0351)
Firm shock × Post	0.0134	-0.0036	0.0297
	(0.0070)	(0.0021)	(0.0210)
p-value equality	0.1479	0.0060	0.2227
Firm FE	Y	Y	Y
Local market-year FE	Y	Y	Y
Firm controls	Y	Y	Y
Pre-period CB shock	Y	Y	Y
Num. firms	7,972	7,654	7,972
Num. fixed effects	27,976	19,860	27,976
Num. observations	85,777	50,703	85,777
Adjusted R^2	0.8480	0.9253	0.8965

Notes: Reproduced from Table 1 in Hermo (2024). The row "p-value equality" tests the null hypothesis that the coefficients on the CB and firm shocks are equal, and is not included in the original table. Standard errors are clustered at the CB unit level.

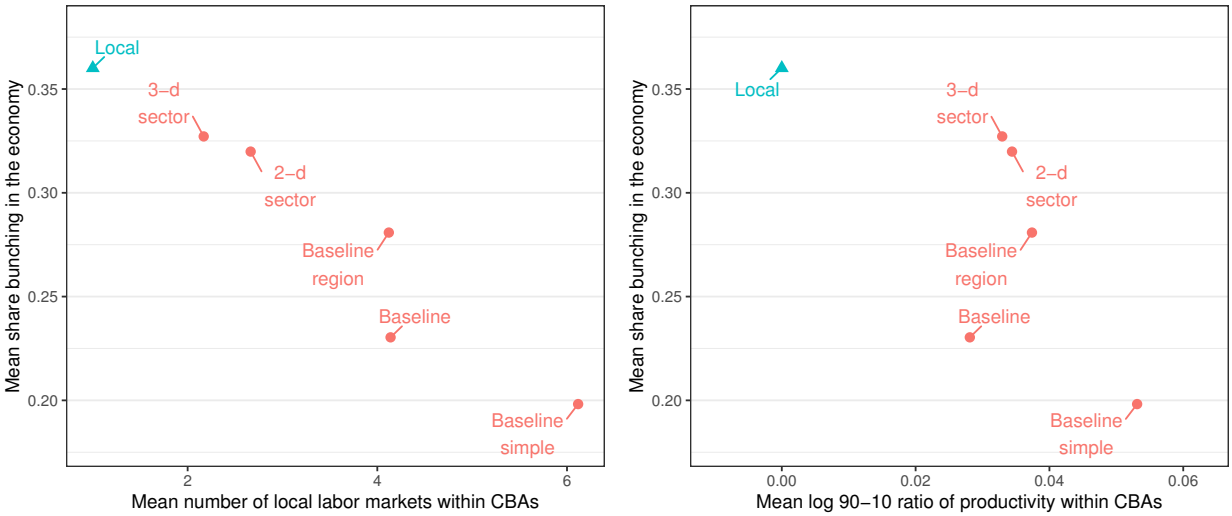
Figure 1: Centralization of bargaining and shock propagation across CB networks

(a) Centralization and shock propagation



(b) Centralization and wage floor "bite"

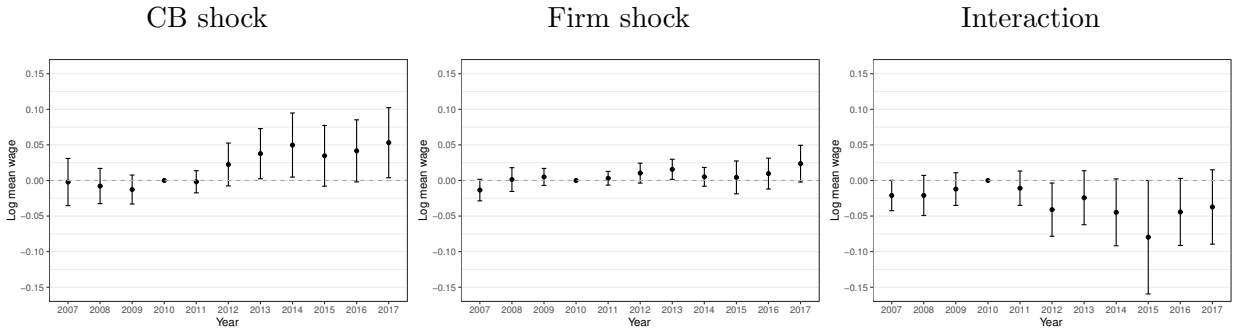
(c) Productivity dispersion and wage floor "bite"



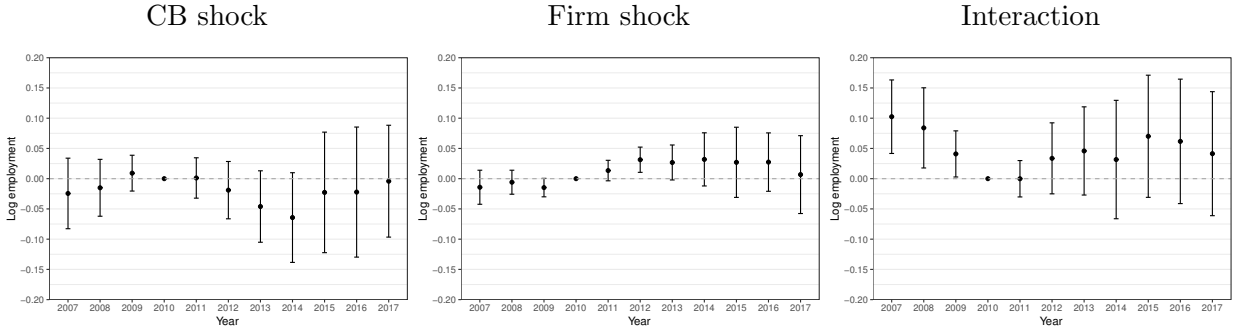
Notes: Reproduced from Figure 10 in Hermo (2024). Panel (a) shows the degree of shock propagation against the level of bargaining centralization. Panel (b) shows the average share of firms bunching (wage floor "bite") against bargaining centralization. Panel (c) shows the average share of firms bunching against the level of productivity dispersion. The degree of shock propagation is measured as the share of local labor markets with an absolute average wage change following the shock more than 0.25% different from the counterfactual wage change in an economy without CB. This computation excludes local labor markets that correspond to the retail CBA (0130/75) at baseline and to CBAs with less than 5% of employment in exporting firms. Bargaining centralization is measured as the average number of local labor markets per CBA. The productivity dispersion is measured as the average ratio of the 90th to the 10th percentile of the productivity distribution within CBAs. The average share of firms bunching is measured as the simple mean across local labor markets.

Figure 2: Dynamic DiD including interaction among shocks, demeaned with respect to shock averages

Panel A: Log mean wage



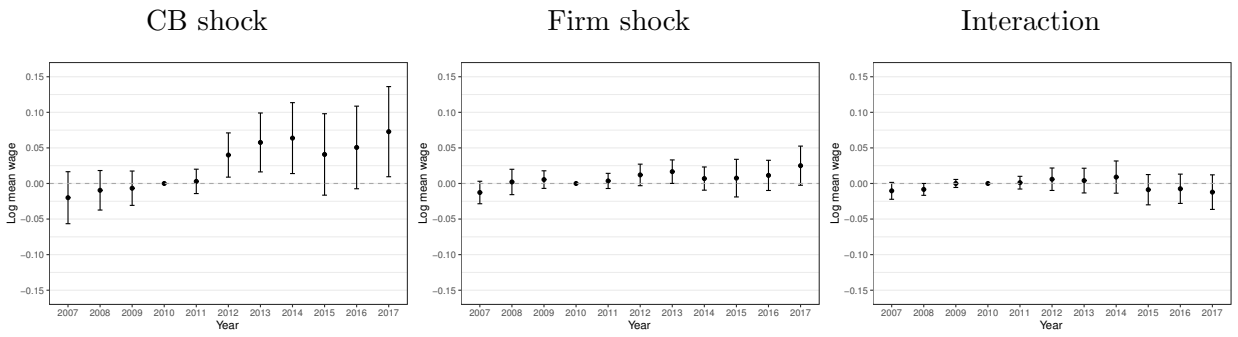
Panel B: Log employment



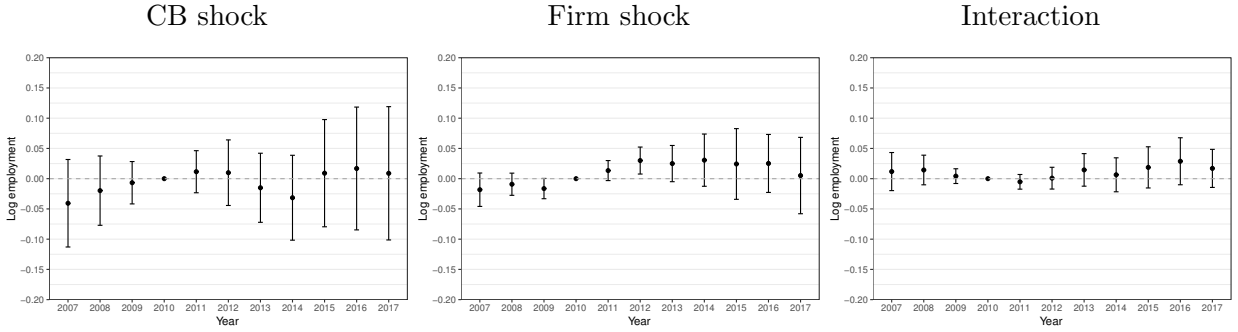
Notes: The figure shows the dynamic effects of a CB shocks, a firm shock, and their interaction, on wages and employment. Estimated regression models follow Hermo (2024). The CB shock is demeaned using the average (unweighted) CB shock. The firm shock is demeaned using the average (unweighted) firm shock. The sample includes all firms in the data. The vertical lines indicate the 95% confidence intervals.

Figure 3: Dynamic DiD including interaction among shocks, firm shock demeaned with respect to own CBA

Panel A: Log mean wage



Panel B: Log employment



Notes: The figure shows the dynamic effects of a CB shocks, a firm shock, and their interaction, on wages and employment. Estimated regression models follow Hermo (2024). The CB shock is demeaned using the average (unweighted) CB shock. The firm shock is demeaned with respect to the CB shock, which reflects a weighted average of the firm shocks within the CBA. The sample includes all firms in the data. The vertical lines indicate the 95% confidence intervals.

Table 2: Estimates of the effect of the minimum wage on rents

	Change wkp. MW $\Delta \underline{w}_{it}^{\text{wkp}}$	Change log rents Δr_{it}		
	(1)	(2)	(3)	(4)
Change residence MW $\Delta \underline{w}_{it}^{\text{res}}$	0.8627	0.0372		-0.0219
	(0.0374)	(0.0145)		(0.0175)
Change workplace MW $\Delta \underline{w}_{it}^{\text{wkp}}$			0.0449	0.0685
			(0.0156)	(0.0288)
Sum of coefficients				0.0466
				(0.0158)
Economic controls	Yes	Yes	Yes	Yes
P-value equality				0.0514
R-squared	0.9444	0.0212	0.0213	0.0213
Observations	80,241	80,241	80,241	80,241

Notes: Reproduced from Table 2 in Borg, Gentile Passaro, and Hermo (2023). Column (1) shows the results of a regression of the workplace MW measure on the residence MW measure. Column (2) through (4) show the results of regressions of the log of median rents per square foot on our MW-based measures. All regressions include time-period fixed effects and economic controls that vary at the county by month and county by quarter levels. The measure of rents per square foot corresponds to the Single Family, Condominium and Cooperative houses from Zillow. The residence MW is defined as the log statutory MW in the same ZIP code. The workplace MW is defined as the statutory MW where the average resident of the ZIP code works, constructed using LODES origin-destination data. Economic controls from the QCEW include the log of the average wage, the log of employment, and the log of the establishment count from the sectors "Information", "Financial activities", and "Professional and business services". Standard errors in parentheses are clustered at the state level.