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. Finally, Section 3 discusses other projects and ideas at different States of completion.

1 Collective Bargaining Networks, Rent-Sharing, and the Propagation of Shocks

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) institutions. The empirical part of the paper documents "spillovers" of product-demand shocks among firms in the same CB unit, and interprets them as evidence of risk-sharing: firms in the same CB unit share the risks and benefits of idiosyncratic product-demand shocks. The paper also connects these findings to the rent-sharing literature. The structural part of the paper develops a model of the labor market with CB and wage floors to study the extent of such risk-sharing under counterfactual CB 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 shows the key findings: product-demand shocks that are aggregated at the level of the collective bargaining unit have a strong effect on wages. The evidence indicates that wage floors are the mechanism that accounts for these effects.

The structural part of the paper studies whether the extent of risk-sharing (or spillovers) is related to the structure of CB. Structures with low and high levels of bargaining centralization have lower levels of risk-sharing than structures with intermediate levels of centralization. These results, which are illustrated in Figure 1, are the result of the endogenous level of wage floors and the extent of connections created by CB. In decentralized systems wage floors are high, but there are fewer connections among firms, resulting in limited spillovers of updates in the wage floor. In centralized systems there are many connections across firms, however wage floors are low and the bite of the wage floor is not strong enough to generate significant spillovers. Intermediate levels of centralization have the right balance of wage floor bite and dense connections across firms to allow for a stronger degree of risk-sharing.

1.2 Comments on framing

1.2.1 Rent-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). While I did have one person mentioning that we know that rent-sharing is larger at the market level, I think that people found the idea that aggregating shocks at the level of the CB unit results in more responsive wages was compelling.

Potential weaknesses. Not being able to estimate the effect of the CB shock on revenue 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.

Another limitation is that I cannot reject that wage effects are different of each shock. I added this test in Table 1. I only find significant effects for the wage floor outcome.

Next steps.

- Incorporate test of equality of coefficients.
- Mention that rent-sharing at the CB level is a novel channel that seems important, even beyond the relative magnitude of the effects.
- I could estimate rent-sharing at the local labor market in the main paper and compare results to these estimates as well (I already do in Appendix Table 6).
- I could try to estimate the effect of the shocks on aggregate revenue to better construct my rent-sharing elasticities, thought the key limitation is data.

1.2.2 Risk-sharing

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. Is the risk being shared among firms or workers? The structural model focuses on the extent of spillovers due to CB, which I interpret as risk-sharing among firms.[1]

I can also focus on risk-sharing among workers as outcome in the future. I have to be clearer on what I mean by risk-sharing in different parts of the paper.

Next steps.

- Improve writing to clarify what type of risk-sharing I'm referring to.
- Add curvature to utility function in the model to speak directly to the benefits of risk-sharing among workers in the counterfactuals.

1.3 Comments on empirical exercise

1.3.1 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.

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. 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.

While this is something I could explore further, I think that the early results are not very promising. Additionally, it's not clear to me how this exercise fits into the paper.

1.3.2 Heterogeneity across local labor markets

In the paper I find that effects seem stronger for larger CB units. I got a comment that I could test how the effects of the CB shock differ across local labor markets with different

[1] The y-axis in Panel (a) of Figure 1 measures the difference in the average wage response to the shocks between a particular CB system and a counterfactual economy without CB.

levels of employer concentration. The spirit of the comment was to test whether unions can offset monopsony power in the labor market.

1.3.3 Heterogeneity across workers

I got asked multiple times what workers benefit from the CB shock. The main split people are interested in is by incumbent status. I could easily split add more results discussing how different types of workers within the firm are affected by the CB shock.

1.3.4 Outside options of workers

I receive a comment about whether my regressions really control for the outside option of workers, pointing out that the real outside option of workers may be only firms in the same CBA (instead of the same local labor market). The first thing I can do is acknowledge this issue in the paper, which I currently do not. The second thing is to highlight more strongly the worker-level specification, which should partially address this concern.

1.3.5 Standard errors

Should I develop a method to estimate standard errors at the country-product level? I got limited comments on this, but it's something we discussed in the past.

1.4 Comments on structural model

The main focus of the model is to study the extent of spillovers due to the CB, and how this metric varies across different CB systems. I got comments to study other outcomes in the model, such as employment or efficiency. I also received comments on model estimation.

1.4.1 Employment concerns.

I got comments that I should focus more on employment outcomes in the structural model. Currently, the model produces somewhat unrealistic employment effects, which made me cautious about discussing them in the paper. I included a figure in the appendix (Appendix Figure 16) that shows a "hump-shaped" relationship between centralization and employment.

The reason for unrealistic employment effects is likely the linear specification of the production function. The main upgrade to the model will be to use a Cobb-Douglas specification for the production function, which should fix this issue.[2]

[2] I suspect that the linear specification also resulted in a corner solution for the wage floor in the largest CB unit (0130/75), which I excluded from the results. Hopefully this issue will be fixed with the Cobb-Douglas specification.

There are new issues that arise with the Cobb-Douglas specification. The first one is that, if I exclude fixed costs, profits are positive for any level of productivity, meaning that no firm would ever exit the market as there is no lower productivity threshold.[3] I need to introduce fixed costs which will endogenize the measure of firms in the local labor market, and figure out how to estimate them. This will take some time.

Replicating employment effects. We discussed using the model to replicate the employment effects of the empirical exercise. This exercise may be feasible with the improved specification of the model using a Cobb-Douglas production function.

1.4.2 Efficiency concerns.

Someone told me that they searched for the word "efficiency" and were surprised to find no mentions of it in the paper. The question they had in mind is whether the presence of CB units make the allocation of labor more efficient.

It would be feasible to define an efficient allocation of labor in the model and compare different CB systems in terms of how close they are to this benchmark. Is this something that I should pursue? I could connect with research arguing that minimum wage hikes lead to a reallocation of labor towards more productive firms (Dustmann et al. 2021).

1.4.3 Estimation.

I got several comments suggesting that I should target the extent of spillovers in the estimation of the model (see Table 5 in the paper). This is not possible with the current model as the data fully determines the parameters. However, once I add new parameters (curvature in utility function, curvarture in production technology) I should be able to develop an estimation routine that targets the extent of spillovers.

1.4.4 Data construction

The model aggregates data to local labor markets defined using 4-digit sectors, province, and CB units. This process results in a large number of local labor markets (see Appendix Table 11 in the paper). I could greatly reduce the number of local labor markets and use an average wage floor among relevant CB units within broader cells, simplifying the complexity of the CB network. This would decrease the richness of the data and introduce some measurement error. On the bright side, this could solve an issue which is that the share of workers with

[3] In the current version profits turn negative for low levels of productivity. Given a fixed local labor market size, this allowed for extensive margin adjustments as response to the wage floor.

missing values in the wage floor variable is high in some local labor markets. Additionally, this would make the computation of the model equilibrium much faster.

1.4.5 Matching average wage data across local labor markets

While the match between the model and the data is good on average, there is significantly more variation in the data that is not captured by the model. I could introduce modifications to the model to reduce this discrepancy.

Different types of workers or occupations We discussed in the past about the possibility of including different types of workers in the model. I did not receive comments in this regard, so it's not something I would prioritize.

Part-time employment There is a significant share of workers making less than the wage floor, and this share varies across local labor markets. One complication of the model would be to allow for this type of employment, though I'm hesitant to take this route as the pay-off is not clear and I did not receive comments in this regard.

2 From Workplace to Residence: The Spillover Effects of Minimum Wage Policies on Local Housing Markets (with Gabriele Borg and Diego Gentile Passaro)

2.1 Overview

Borg, Gentile Passaro, and Hermo (2023) point out that minimum wage (MW) policies may affect prices of goods and services, including housing rents, and that this may have implications for the distributional effects of 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 MW 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.

2.2 Main comments

2.3 Next steps

The paper has received several rejections, the latest one from the Journal of Urban Economics.

The paper could be improved significantly by:

- A new source of data that captures rents at a granular geographical level and allows for more precise estimates.[4]
- Extending the paper to study the effects on income, employment, or other prices in space.
- A model that explicitly accounts for labor market effects and incorporates such responses in the counterfactual analysis.

One road for the paper is to submit again with minimal cosmetic changes to a new journal. Another road is to extend the paper in one of the ways discussed above before resubmitting.

3 Work in progress and new ideas

3.1 Collective Bargaining and Informality

Do more stringent labor regulations in the formal labor market lead to more informality? This project aims at studying whether increases in the wage floor in the formal labor market can lead to more informality, as firms and workers may find the updated wage floors "too high" and decide to operate informally. The first goal of the paper is to estimate the sensitivity of the share of informal workers to the bite of the wage floor in the formal labor market, measured as the share of workers earning close to the wage floor. Armed with these empirical estimates, I will try to understand to what extent informality rates can be affected by aligning local wage floors with the productivity of the local labor market. This project contributes to literature studying the effects of collective bargaining on labor misallocation (e.g., Boeri et al. 2021) and MW policies on informality (e.g., Parente 2023).

[4] It would also be useful to test whether the number of housing units available for rent respond. This is not possible with the current dataset, obtained from Zillow.

Motivating facts. Panel (a) of Figure 4 shows the relationship between the share of informal workers (source: survey data) and the wage floor "bite," defined as the share of full-time workers earning close to the wage floor (source: administrative data) across local labor markets in Argentina. Local labor markets are defined as interactions between province clusters and broad economic sectors. We find a strong positive correlation between the two variables. Panel (b) also finds a positive relationship between the share of part-time workers and the wage floor "bite."

Table 3 shows the results of a simple regression of the share of informal workers on the share of workers earning close to the wage floor, controlling for province and economic sector fixed-effects. We find that the positive relationship holds within economic sectors across provinces and also within provinces across economic sectors. However, the correlation is not statistically significant when controlling for both regional and sectoral fixed-effects.

Empirical strategy. The idea is to leverage variation in the level of wage floors across local labor markets to estimate the effect of the share of workers constrained by the wage floor on the share of informal workers. The main challenge is that the level of the wage floor will be endogenous to the productivity of the local labor market which also affects the informality rate. To overcome this challenge I plan to use a shift-share strategy that relies on exogenous variation in the level of the wage floor induced by world import demand shocks to firms in the local labor market.

Structural analysis. The project would incorporate a structural model of local labor markets where firms decide whether to operate formally or informally given their productivity and the level of the wage floor. Then, it would try to assess how much can informality be affected by changing the level of the wage floor in the local labor market. The analysis would then draw implications for the design of collective bargaining institutions.

State of the project. Data is available from my job market paper. I have already constructed the main variables but more work is needed. I have not yet estimated the effects of the wage floor on informality, but using a similar strategy as in the job market paper should be feasible. Similarly, I could adapt the JMP's structural model to this project.

3.2 Optimal-Actual Policy Gap: Evidence from Unemployment Insurance in the US (with Sara Spaziani)

Economists often focus on optimal policy design, yet implemented policies can diverge due to political and stakeholder pressures. This project examines this gap between optimal and

actual policy within the context of unemployment insurance (UI) in the US. The goal of the project is to:

- Formalize the impact of stakeholder bargaining power on the optimal-actual policy gap.
- Estimate how changes in this bargaining power affect the implemented policy and how actual policies differ from optimal ones across US states.

Motivating facts. Figure 5 shows the average potential duration of UI benefits over time by the level of union presence in the state. We see that, following the 2008 financial crisis, the average potential duration of UI benefits decreased markedly in states with lower union presence but remained high in states with higher union presence. This figure suggests that labor movements can influence the implemented UI policy.

Theoretical analysis. Relying on a lobbying or a bargaining model, and a simple model on how UI affects labor markets, we will try to understand how the gap between the optimal and actual policy is affected by the bargaining power of different parties. More specifically, we hope to generalize the Baily-Chetty formula to account for the bargaining power of different groups (Chetty 2006).

Empirical analysis. We aim at documenting how the gap between the optimal and actual UI policy differs across states and what factors explain these differences. An important factor is the bargaining power of workers relative to employers. To focus on this factor, we will analyze how changes in the level of union presence in the state affect the UI policy that is implemented in the state. The main challenge is to obtain exogenous variation in the level of union presence at the state level. We are discussing options for an instrumental variable such as close union elections or past European migration to different states.

State of the project. We are exploring this project's feasibility and actively seeking feedback. Our current focus is the development of a robust empirical strategy.

3.3 The Structure of the Labor Market and the Dispersion of the Firm-Wage Premia (with Martín Trombetta and Nicolás Sidicaro)

Abstract. We document large fluctuations in earning inequality between 1995 and 2019 in Argentina. Leveraging Argentina's matched employer-employee dataset, we fit high-dimensional fixed-effects models to estimate worker- and firm-specific components of earnings. We decompose the variance of log earnings into three components: worker character-

istics, firm characteristics and assortative matching. We find that the contribution of firms to inequality is large: more than one-third of the total variance of log earnings can be attributed to firms across the entire period. Firms contributed to the reduction in inequality in the 2000s and are pushing towards an increase in inequality in the 2010s. We then develop several counterfactual exercises using the structure of the fixed-effects model and additional data sources to quantify the importance of two potential drivers of the dispersion of the firm-wage premia: collective bargaining institutions and the informal economy.

State of the project. The main results of the AKM estimation are completed, including some robustness checks and extensions. Figure 6 compares the estimates of the shares of variance explained by workers, firms, and sorting across several countries. One interesting finding of the paper is that firms explain a substantial share of the variance of log earnings, and this share has been increasing over time in Argentina.

We are now working on the counterfactual exercises to study what factors may explain the dispersion of the firm-wage premia in Argentina.

Next steps. The next steps are related to the counterfactual exercises:

- The first exercise will extend the two-way fixed-effects model to include firm by CB unit fixed-effects instead of firm fixed-effects. Then we will study how much of the dispersion of the firm-wage premia can be explained by the collective bargaining system.
- The second exercise will rely on survey data and the structure of the AKM model to simulate the informal economy and gauge to what extent the omission of the informal economy biases our estimates of the firm-wage premia. It will also make suggestive claims about the role of firms in explaining the dispersion of the firm-wage premia in the informal economy.

3.4 The Influence of Successful Students on Their Peers: Evidence from Chile's College Admissions (with Diego Verdugo and Diego Gentile Passaro)

This project is part of Verdugo's (2021) dissertation, a Chilean student who graduated in 2020 and is currently working as Economist at Amazon. There is a 2020 draft that needs important revisions to be released publicly.

Description. From Verdugo (2021), "we study the influence of a successful student on career decisions and academic outcomes of peers participating in the Chilean college admissions system. We use several definitions of success based on admission tests scores and

university admission cutoffs to estimate spillovers within high school social networks. Our data provide only suggestive evidence that these types of effects exist for outcomes such as college application decisions and dropout rates, although some of our results are in line with recent evidence showing stronger spillovers in other social networks such as those created by siblings or neighbors."

Next steps. In a few meetings during flyouts I received questions about this project, which is listed on my website. As such I think it may be worth working on it further and releasing a working paper. The drawback is that both of my coauthors are not in academia anymore, so I would have to take the lead.

Next steps to get a draft out quickly are:

- Revise data construction. After the first draft we got a better version of the data, which can change the results.
- Focus on one experiment, Chile's *puntaje nacional* policy. This policy makes students who score perfectly in college admission exams salient by inviting them to meet the president. They also appear in local news. We want to test for role model effects.
- The idea is to compare schools with only one student who scored perfectly versus schools with no students who scored perfectly, and see how subsequent cohorts of students perform in the test and in college later on. We simply need to re-run this analysis with the updated data. If there are positive effects, we would need to explore other school characteristics to attribute the effects to the role model channel (e.g., teacher quality).

3.5 Ideas related to MW policies

Minimum wage and outside options

Why do several MW studies find significant spillovers of the MW to workers earning above the MW? The idea of this project is to study the indirect effect of the MW on workers through their outside options. The first part of the project is to empirically analyze transitions workers usually make across occupations and characterize what occupations MW workers hold and what are there outside options. The second part of the project is to estimate the effects of an increase in the MW via the outside option channel on wages and employment.

Minimum wage and the location of economic activity

Increasingly, MW policies in the US are set at the national level. As a result, many metropolitan areas have workers living and working under markedly different MW levels. The goal of

the project is to understand how MW policies affect the location of economic activity. Are low-wage employers changing their location to areas with lower MW levels? What are the implications for the distribution of economic activity across space?

References

Boeri, Tito, Andrea Ichino, Enrico Moretti, et al. (2021). "Wage equalization and regional misallocation: evidence from Italian and German provinces". In: *Journal of the European Economic Association* 19.6, pp. 3249–3292. URL: https://academic.oup.com/jeea/article/19/6/3249/6273638.

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.

Chetty, Raj (2006). "A general formula for the optimal level of social insurance". In: *Journal of Public Economics* 90.10-11, pp. 1879–1901.

Dustmann, Christian, Attila Lindner, Uta Schönberg, et al. (Aug. 2021). "Reallocation Effects of the Minimum Wage*". In: *The Quarterly Journal of Economics* 137.1, pp. 267–328. URL: https://doi.org/10.1093/qje/qjab028.

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

Parente, Rafael (2023). "Minimum Wages, Inequality, and the Informal Sector". In: *Unpublished manuscript*. URL: https://parenterafael.github.io/papers/Parente_JMP.pdf.

Verdugo, Diego (2021). "Essays on Labor and Education Economics". PhD thesis. Brown University. URL: https://repository.library.brown.edu/studio/item/bdr:z7g668u6/.

List of Tables and Figures (in order of appearance)

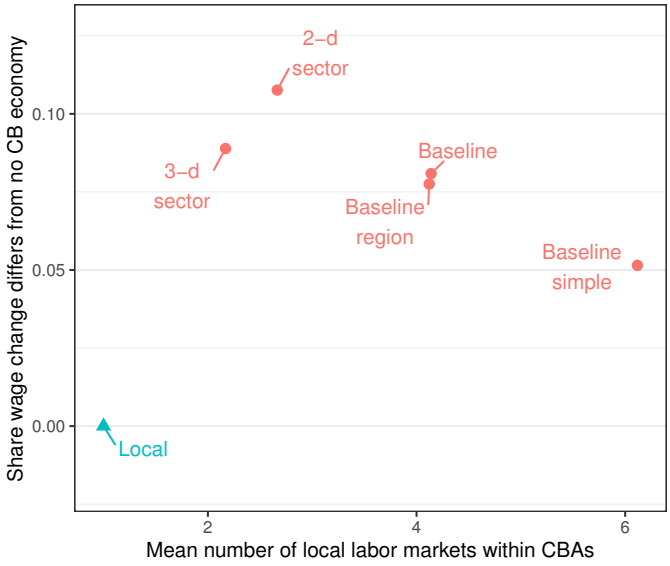
Table 1: Difference-in-differences estimates of product demand shocks on firms' labor market outcomes

	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.

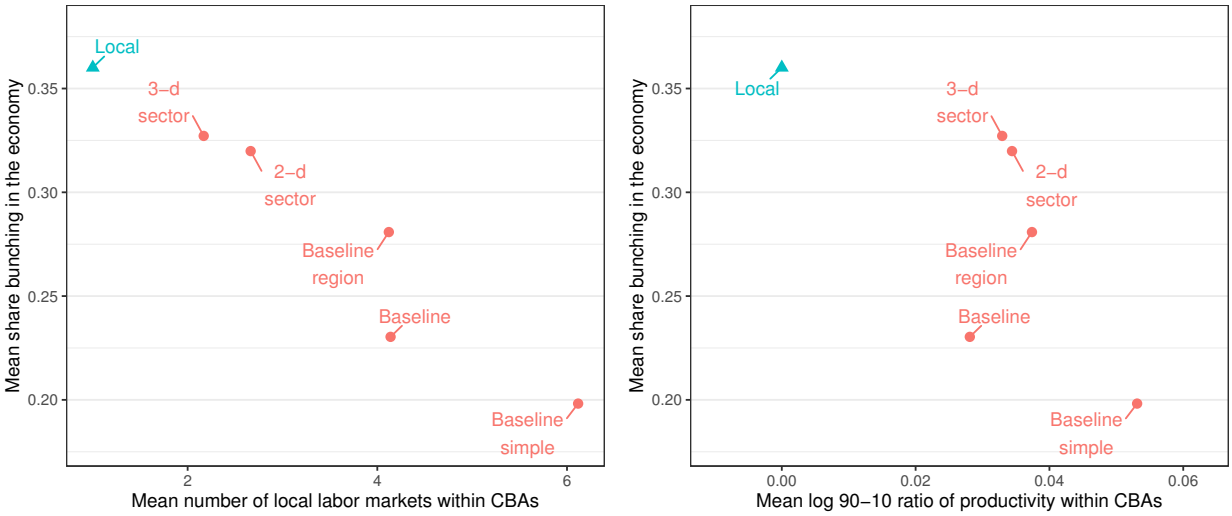
Figure 1: Centralization of bargaining and shock propagation across CB networks

(a) Centralization and shock propagation



(b) Centralization and wage floor "bite"

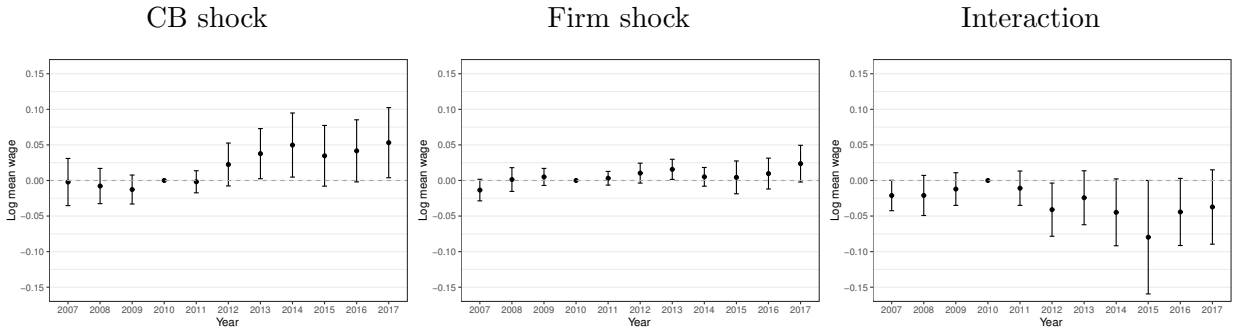
(c) Productivity dispersion and wage floor "bite"



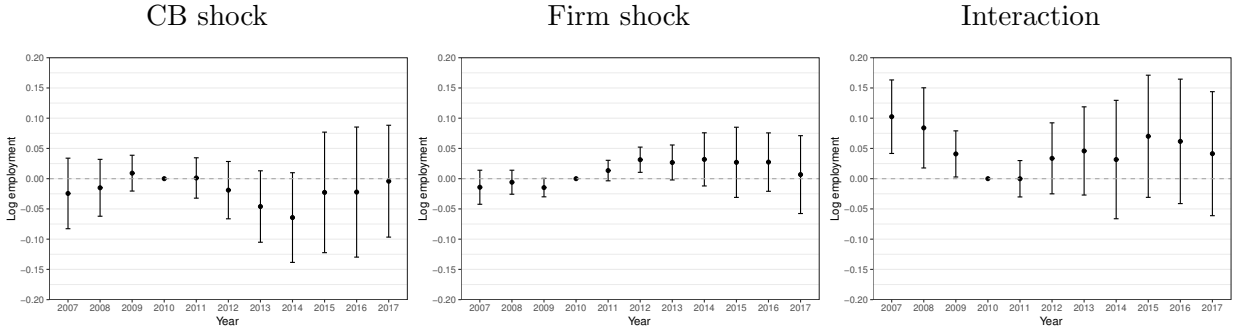
Notes: Reproduced from Figure 10 in Hermo (2024). Data are from model simulations pre- and post-export shocks under different CB networks. Panel (a) shows the degree of shock propagation against the level of bargaining centralization. Panel (b) shows the average share of firms bunching (wage floor "bite") 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



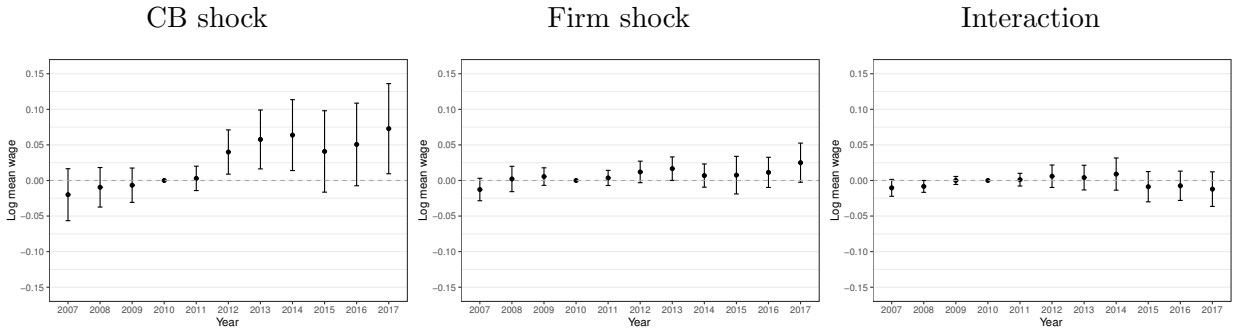
Panel B: Log employment



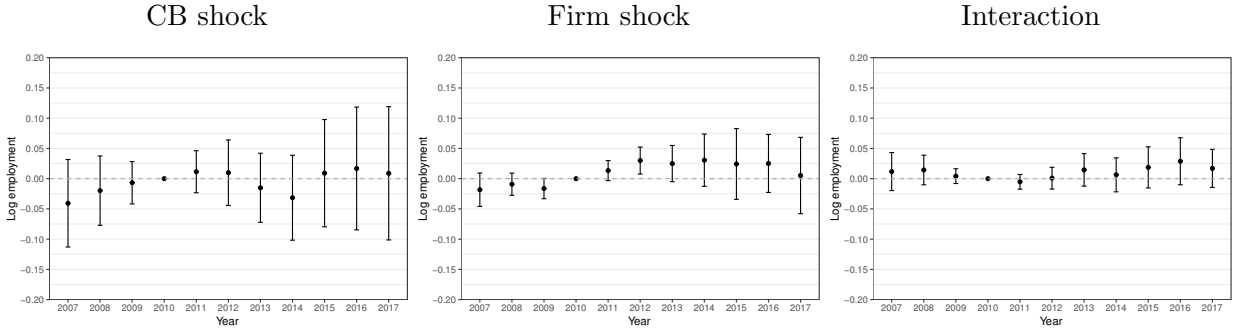
Notes: The figure shows the dynamic effects of a CB shocks, a firm shock, and their interaction, on wages and employment. Estimated regression models follow Hermo (2024). The CB shock is demeaned using the average (unweighted) CB shock. The firm shock is demeaned using the average (unweighted) firm shock. 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

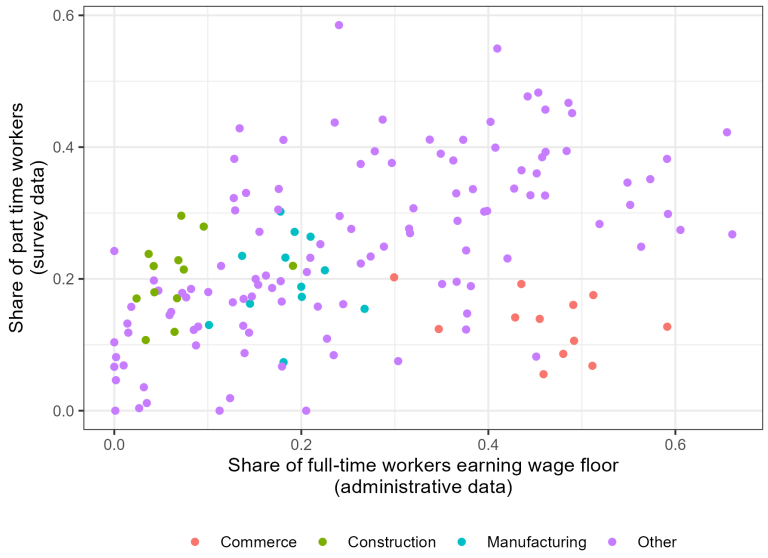
	Change wkp. MW $\Delta \underline{w}_{it}^{\text{wkp}}$	Change log rents Δr_{it}		
	(1)	(2)	(3)	(4)
Change residence MW $\Delta \underline{w}_{it}^{\text{res}}$	0.8627	0.0372		-0.0219
	(0.0374)	(0.0145)		(0.0175)
Change workplace MW $\Delta \underline{w}_{it}^{\text{wkp}}$			0.0449	0.0685
			(0.0156)	(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.

Figure 4: Labor market outcomes and share of workers earning close to the wage floor across local labor markets

(a) Informality and wage floor "bite"

(b) Share of part-time workers and wage floor "bite"



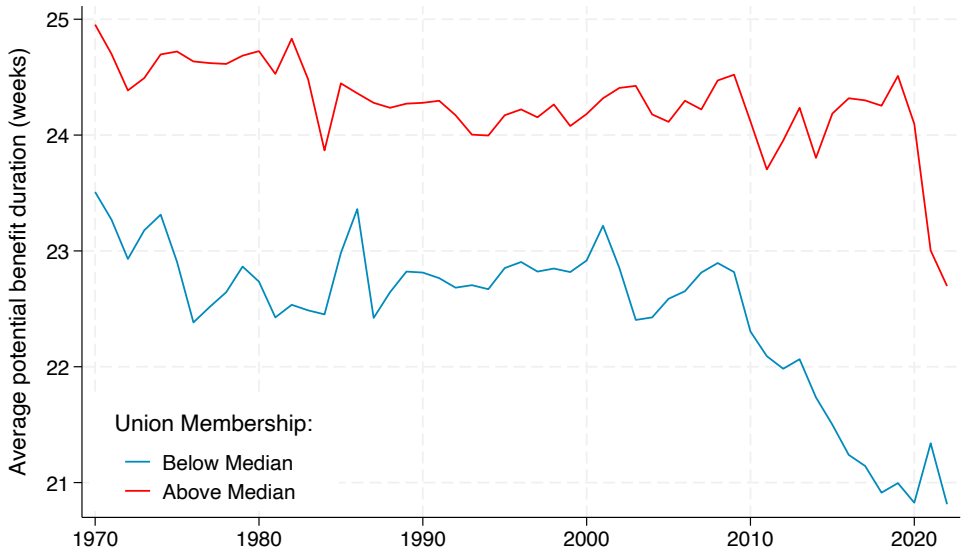
Notes: Panel (a) shows a scatter plot of the share of informal workers against the share of full-time workers earning close to the wage floor across local labor markets. Panel (b) shows a scatter plot of the share of part-time workers against the share of full-time workers earning close to the wage floor across local labor markets. Local labor markets are defined as the interaction of province cluster and broad economic sector. The share of informal workers is measured as the share of workers who contribute to the social security system according to the EPH household survey. The share of part-time workers is measured as the share of workers who work less than 30 hours per week according to the EPH household survey. The share of full-time workers earning close to the wage floor is measured as the share of workers earning between 0.9 and 1.15 times the wage floor according to the administrative data. This latter calculation only uses workers with a valid wage floor assigned to them.

Table 3: Informality and share of workers earning close to the wage floor across local labor markets

Dependent Variable:	Informality share			
Model:	(1)	(2)	(3)	(4)
Constant	0.2832**			
	(0.1160)			
Wage floor "bite"	0.7033**	0.6847**	0.2582***	0.0621
	(0.2663)	(0.2946)	(0.0729)	(0.0932)
Region FE		Yes		Yes
Broad economic sector FE			Yes	Yes
Observations	154	154	154	154
R^2	0.2461	0.2739	0.8798	0.9199
Within R^2		0.2290	0.0683	0.0049

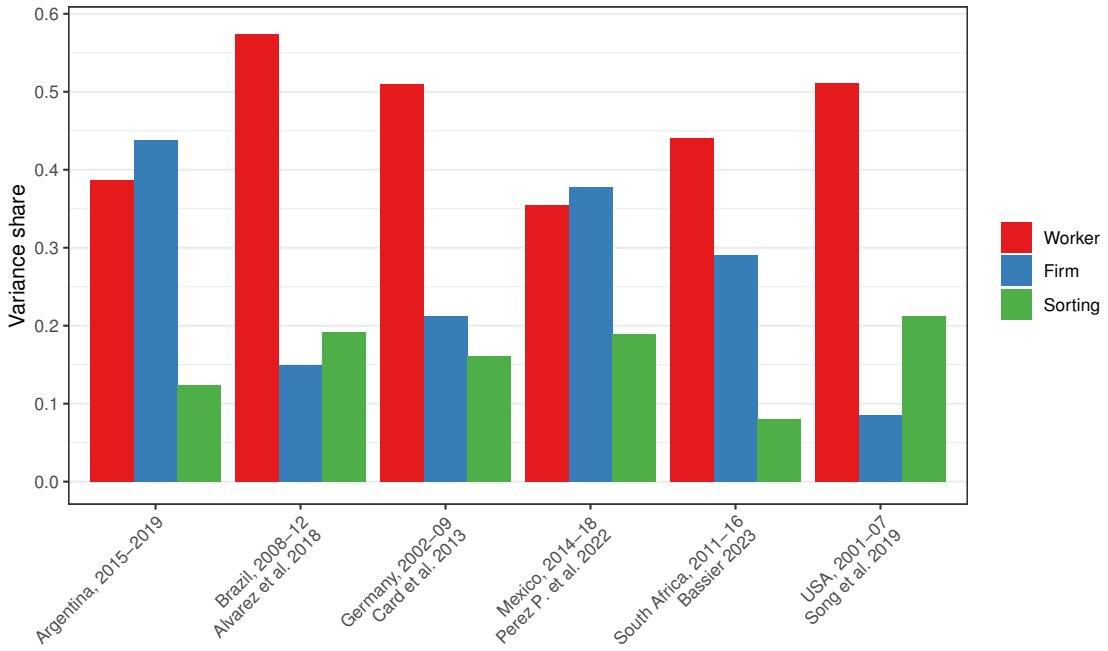
Notes: The table shows the correlation between the share of informal workers and the wage floor "bite," defined as the share of full-time workers earning close to the wage floor across local labor markets. Different columns vary the inclusion of fixed effects. Standard errors are clustered at the province cluster and broad sector level. Significance levels are denoted as follows: ***: 0.01, **: 0.05, *: 0.1.

Figure 5: Average duration of UI benefits over time by union presence in the state



Notes: The figure shows the average potential duration of UI benefits over time by the level of union presence in the state. The potential duration is the maximum number of weeks an unemployed worker can receive benefits.

Figure 6: Decomposition of the variance of log wages, selected studies



Notes: The figure shows the estimates of the shares of variance explained by workers, firms, and sorting, across selected studies that rely on the AKM framework. The estimates for Argentina are original to this study.