

# Trade Liberalization and Labor Market Institutions

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## Abstract

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While the distributional consequences of trade liberalization at the firm level are now well understood, the previous literature has paid limited attention to how variations of domestic institutions across countries impact the *reallocation effect* suggested by the New New Trade Theory. Building on the varieties of capitalism literature, we advance the argument that the distributional effects of trade liberalization are systematically different in "liberal market economies" (LMEs) and "coordinated market economies" (CMEs). This is because CMEs feature the presence of coordinated wage-settlement institutions, which pose a ceiling to the increase of wages, helping smaller firms to weather the raising competition triggered by tariff reduction. We test this hypothesis using a firm-level dataset on EU countries, which includes more than 800,000 manufacturing firms between 2003 and 2016. We rely on a novel measure of preferential tariff reductions to capture the occurrence of trade liberalization. We find that, for productive firms, gains from trade are twice as large in LMEs as they are in CMEs. We complement our analysis by showing that there is a weaker demand for redistribution in CMEs compared to LMEs in case of preferential liberalization. The results of our paper inform a growing literature on the winners and losers from trade liberalization at the firm level, pointing out the importance

# 1 Introduction





engendered by trade liberalization, both models share the view that firms play no significant role in

The building block of our argument is the well-known distinction between wage bargaining systems in liberal and coordinated market economies. The VoC approach (Hall and Soskice 2001b) is based on the notion that the presence or the absence of mechanisms of strategic coordination between firms and employees is key to understanding how the political economies of advanced capitalist countries differ. This body of work relies on the conceptual distinction between LMEs, in which "firms coordinate their activities primarily via hierarchies and competitive market arrangements"; and CMEs, in which firms

and employers of different industries, which creates a highly uniform collective wage bargaining policy across different sectors of the economy. The system subsequently yields incremental changes in wages,

**Figure 1:** Household income: Germany versus the UK







significantly better than the data from WITS as documented in Baccini et al. (2018). Moreover, our tariffs are *de jure*

rm, but does not vary over time. In other words, rms enter into the dataset with a given level of

collinearity. Second, industries implementing trade liberalization may have been on a different trend

**Table 1: Main analysis**

Note: OLS with robust standard errors clustered by firms in parentheses. Unit of observation is firm-industry (4-digit NAICS) year. The outcome variable in all models is the log of revenue. Sources: Amadeus dataset, Baccini et al. (2018), and Visser (2016).



Table 2:



Figure 2:



variables. Results are shown in Table 3. In Model 2, we include firm size, capital-labor ratio, market concentration, and MFN tariffs as controls as well as year, industry, and country fixed effects. In

industries in which firms sell the exact same product. Simply put, as a consequence of trade liberalization, we should see consumers shifting their demand to the cheapest undifferentiated goods with or without an increase in wages.

**Table 4:** Mechanism: product differentiation

Note: OLS with robust standard errors clustered by firms in parentheses. Unit of observation is firm-industry (4-digit NAICS)-country-year. The outcome variable in all models is the log of revenue. Sources: Amadeus dataset, Baccini et al. (2018), Visser (2016), and Rauch (1999).

To test this mechanism, we use Rauchs (1999) categorization of differentiated, referenced, homogenous industries.<sup>29</sup> We then run our main models for these three split samples. Table 4 shows the



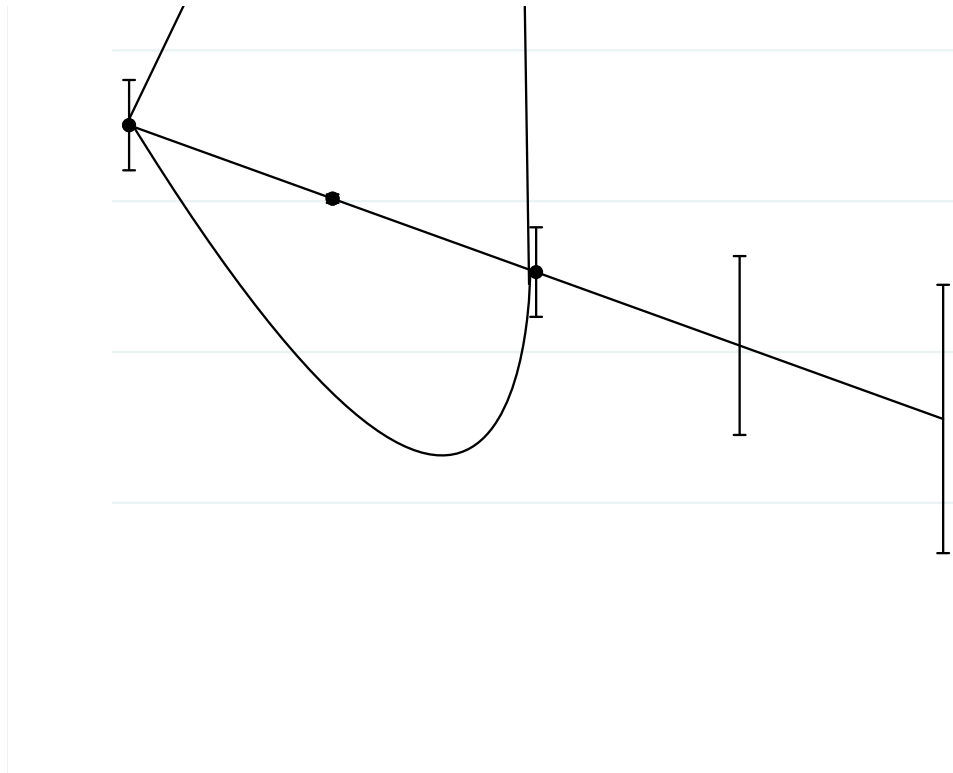
*should take measures to reduce differences in income levels.* While this variable is originally a five-point-scale, we recode it in a dummy scoring one if respondents agree or strongly agree with the



**Table 5: Demand for Redistribution**



**Figure 4:** The effect of instrument for PRF liberalization on individual attitude toward redistribution for different labor markets



Note: The predictions are plotted from Model 4 in Table 5. 95% C.I.

## 7 Conclusion

This paper explores the distributional consequences of trade liberalization across different types of labor market institutions. The main findings of the paper are twofold. In the analysis at the firm level, we show that the reallocation effect is weaker in CMEs than in LMEs. That is, revenue of productive firms increases proportionally less in CMEs compared to revenue of productive firms in LMEs. This effect is driven by smaller increases of wages in CMEs compared to LMEs due to labor

is akin to increasing the market power of few large corporations (Osgood et al. 2016, Baccini et al. 2017), some countries are less prone than others to produce superstars, given the presence of labor

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## Appendix A: Tariff Cuts

We build our tariff cut variable ( ) following the steps below:

1. We have data on preferential (PRF) tariffs at the HS 6-digit level for all the PTAs signed by the EU post-1995. For each product, we know preferential tariffs in time zero, i.e., year of ratification, and for all subsequent years until preferential tariffs go to zero (up to 22 years). In other words, we know the phase-out tariff period for each product for each PTA.
2. For each product at the 6-digit level, we know the MFN tariff, which we use as baseline to calculate the tariff cut.
3. We create a variable *PRF* that captures the level of PRF tariff for each product for each



## Appendix B: Confounders

## Appendix C: Additional Evidence



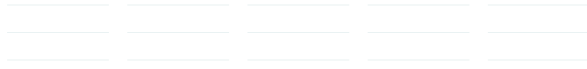
**Alternative mechanisms** Table 11 in Appendix E shows that our results hold even if we use a measure of labor flexibility, which represents another type of labor friction (Model 1).<sup>39</sup> Moreover, our results hold if we include the triple interaction of *MFN*, *TFPR*, and *CME*, which is not significant (Model 2), and if we include the log of import from the rest of the World as

## Appendix D: Geocoding Amadeus

Geocoding Amadeus was performed differently for each country. There is no standardized method, as each Amadeus dataset had different values in terms of the geographic variables. First, we looked at the postal code variable (zip code). Eurostat provides postcodes to NUTS region tables for each country in the European Union; however, in many cases the matches were geographically inaccurate. The postal code was still useful in some cases, especially in countries with rela-



**Figure 6:** Tariff cuts by industry and time (part 1)



Note: Source: Baccini et al. (2018).

Figure 7:



**Figure 8:** The effect of tariff cuts on firm's revenue

Note: The predictions are plotted from Column 1 in Table 1. 99% C.I.



Figure 10: Demand for redistribution

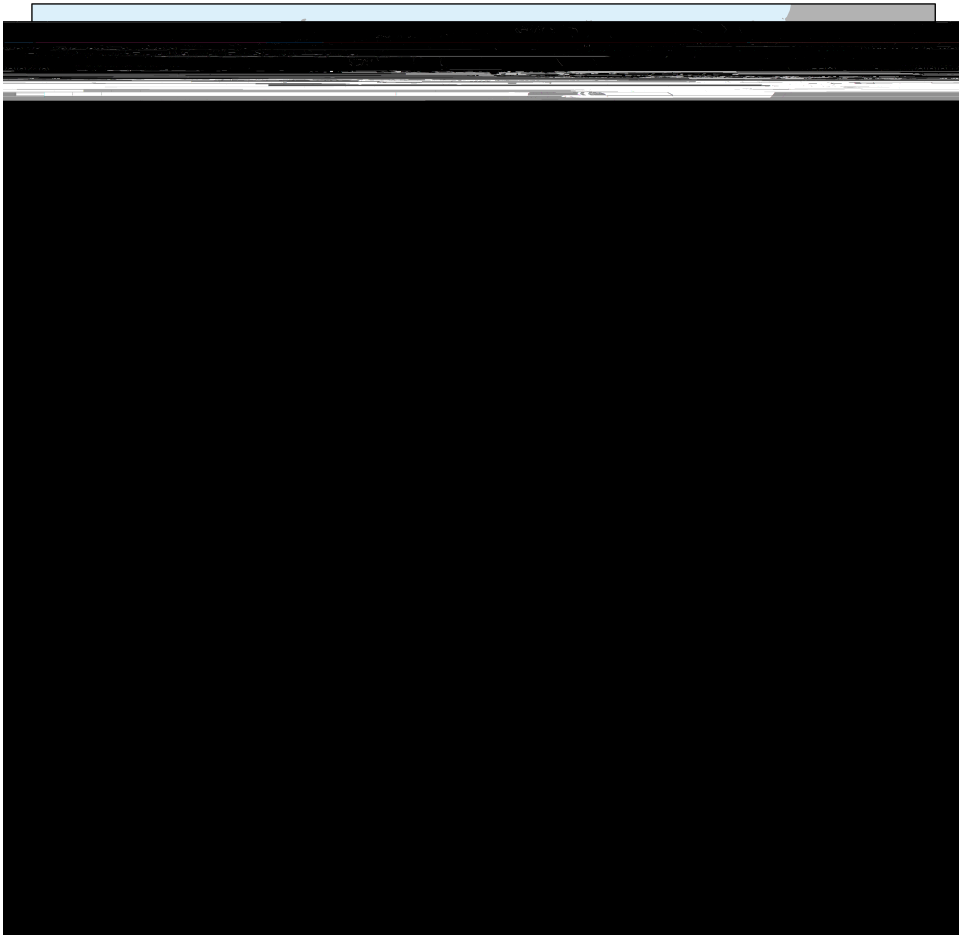


Figure 11:

**Table 6:** Main analysis (time-varying TFPR)

Note: OLS with robust standard errors clustered by firms in parentheses. Unit of observation is firm-industry (4-digit NAICS)-country-year. The outcome variable in all models is the log of revenue. Sources: Amadeus dataset,

Table 7: Correlations of confounders

	CME	Corruption	Unemployment	Social expenditure	Services (%GDP)	Tax (%GDP)	FDI outflows	Euro	Private credit	Bank credit	Financial credit
CME	1										
Corruption	<b>0.48</b>	1									
Unemployment	<b>0.11</b>	-0.12	1								
Social expenditure	<b>0.33</b>	0.27	-0.03	1							
Services (%GDP)	<b>0.25</b>	0.20	-0.01	0.77	1						
Tax (%GDP)	<b>0.20</b>	0.05	-0.32	0.37	0.16	1					
FDI outlo.	-0.1	0.3	0.3	0.0	0.0	0.0	1				
		0.01	-0.10	0.3333-0.95	0.3333-0.95	0.3333-0.95	0.3333-0.95	0.3333-0.95	0.3333-0.95	0.3333-0.95	0.3333-0.95



**Table 9: Productivity and trade liberalization**

Note: OLS with robust standard errors clustered by firms in parentheses. Unit of observation is firm-industry (4-digit NAICS)-country-year. The outcome variable in all models is TFPR. Sources: Amadeus dataset, Baccini et al. (2018), and Visser (2016).



Table 10: Alternative measures of labor frictions

(1) (2) (3) (4) (5) (6) (7)

**TFPR\***

Note: OLS with robust standard errors clustered by rms in parentheses. Unit of observation is rm-industry (4-digit NAICS)-country-year. The outcome variable in all

**Table 11: Alternative mechanisms**

Note: OLS with robust standard errors clustered by firms in parentheses. Unit of observation is firm-industry (4-digit

Table 12:

Table 13:



Table 15: Analysis by country



