

# Beyond the Great Reversal

## Superstars, Unions, and the Euro

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# Outline

- 1 Motivation
- 2 Argument & Hypotheses
- 3 Empirical Strategy & Variables
- 4 Results
- 5 Conclusions

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  - Stable & declining markups (Christopolou and Vermeulen 2008, Bassanetti et al. 2010, and Cavalleri et al. 2019).
  - Declining profitability (Griffith et al. 2010)
- **Assumption:** openness and market forces lead to more competition (e.g., Helpman and Krugman 1989, Blackhurst 1991, Neven and Seabright 1997, Besley et al. 2021)
- So, what about the **Euro**?



# The Euro & Competition: Expectation

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  - Tradable vs. Non-Tradable industries.

# The Euro & Competition: Literature

- **Product Market Competition:** several studies find stable and decreasing markups (e.g. Christopoulou and Vermeulen 2008, Altomonte and Nicolini 2012, Cavalleri et al. 2019)

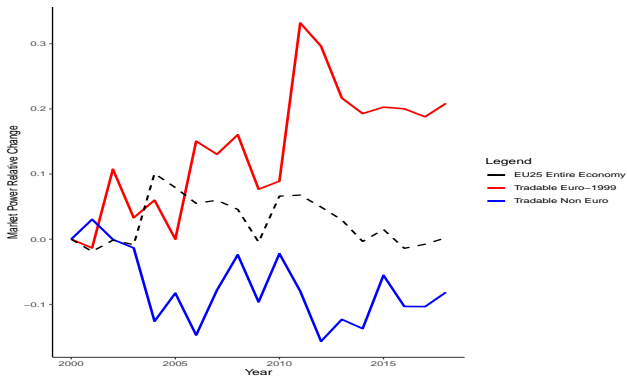
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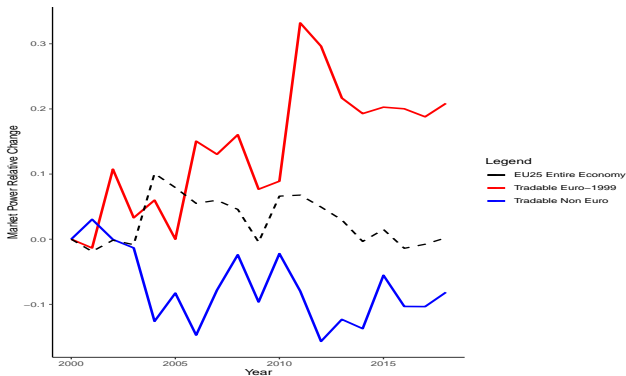
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- Yet, significant country, industry, and firm **heterogeneity** (Weyerstrass and Jaenicke 2011, Battiati et al. 2021, Drivas et al. 2020).
- Market power can derive from other sources such as the **labor market** (e.g., Tortarolo and Zarate 2018).

# Evolution of Market Power, 2000-2018



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Not the “traditional” indicator:

$$mp = \frac{\mu}{md}$$



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- 1 The Euro, by fostering trade openness (e.g. Gunnella et al. 2021), increases foreign competition.
- 2 Superstar firms (i.e., highly productive firms) expand at the expense of low-productivity enterprises.
- 3 Consequently, market power increases in the long run.

# Theoretical Framework: Superstars & the Labor Market/1

- High-market power firms have low labor shares of output (Autor et al. 2020).
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- This depresses market power when firms have limited price setting capacity, as in tradable industries (Desmet and Parente 2009).
- However, this effect assumes an **adversarial** relationship between labor and capital.

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- ① Cooperative labor market institutions can lead to “**facts**” between labor and capital (Hicks and Kenworthy 1998, Jäger et al. 2022).

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- ② Unions may accept wage **restraints** in exchange for future work-related benefits (Hanckè 2013).
- ③ Increase in **competitiveness** allowing firms to acquire larger market shares and increase market power.



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  - **P1a:** The effect of the Euro on firm-level market power should be larger for tradable industries.
  - **P1b:** The effect of the Euro on firm-level market power should work predominantly for highly productive firms.
- **P2 Market Power and Cooperative Institutions:** In countries with institutions favoring cooperation between workers and firms, unions should increase the market power of firms operating in tradable industries. By contrast, when these institutions are weak, unions should decrease market power.

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- Firm ( $a_j$ ) and year (or industry-year) effects ( $\tau_t$ ).



# P1: Euro and Market Power

	Entire Sample		Western Countries		Post-Communist Countries	
	(1)	(2)	(3)	(4)	(5)	(6)
Effects	Firm & Year	Firm & Industry-Year	Firm & Year	Firm & Industry-Year	Firm & Year	Firm & Industry-Year
<i>euro</i>	0.047** (0.019)	0.042*** (0.015)	0.081*** (0.022)	0.078*** (0.023)	0.119*** (0.028)	0.114*** (0.017)
Observations	5,661,497	5,661,484	4,298,170	4,298,158	1,363,327	1,363,279
R-squared	0.871	0.872	0.898	0.899	0.805	0.810

**Note.** \*\*\* p-value < 0.01, \*\* p-value < 0.05, \* p-value < 0.1. Baseline controls are included. Standard Errors are clustered at the country-industry level.

# P1a: Euro & Tradable Industries

	(1)	(2)	(3)
	Full		
	Sample	Western Countries	Post-Communist Countries
<i>T x euro</i>	0.111***	0.167***	0.101***
	(0.027)	(0.048)	(0.019)
Firm Effects	Yes	Yes	Yes
Industry-Year Effects	Yes	Yes	Yes
Observations	5,661,484	4,298,158	1,363,279
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# Testing P1b: Euro & Productive Firms

	(1)	(2)	(3)
	Top 5%	Quartiles	Bottom 50%
$P^5 \times euro$	0.190*** (0.018)		
$Q^1 \times euro$		0.015 (0.017)	
$Q^2 \times euro$		-0.005 (0.015)	
$Q^3 \times euro$		0.035** (0.017)	
$Q^4 \times euro$		0.130*** (0.021)	
$M \times euro$			-0.050*** (0.007)
Firm Effects	Yes	Yes	Yes
Industry-Year Effects	Yes	Yes	Yes
Observations	5,661,484	5,661,484	5,661,484
R-squared	0.873	0.873	0.873

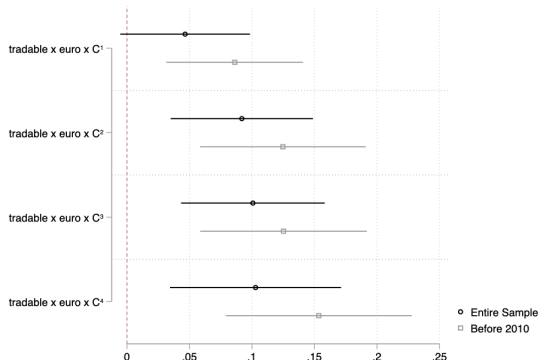
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## Testing P2b: Market Power and Cooperative Institutions/1

	(1)	(2)	(3)
	No		
Effects &	No		Controls &
	Controls	Firm & Industry Year Effects	Effects
<i>power x coverage</i>	-0.008*** (0.003)	-0.005*** (0.001)	-0.006*** (0.001)
Firm Effects	No	Yes	Yes
Industry-Year Effects	No	Yes	Yes
Observations	680,703	594,885	594,885
R-squared	0.010	0.887	0.905
<i>power x coverage x cooperation</i>	0.005* (0.003)	0.002*** (0.001)	0.002*** (0.000)
Firm Effects	No	Yes	Yes
Industry-Year Effects	No	Yes	Yes
Observations	680,703	594,885	594,885
R-squared	0.002	0.887	0.905

**Note.** \*\*\* p-value < 0.01, \*\* p-value < 0.05, \* p-value < 0.1. Baseline controls are included. Standard Errors are clustered at the country-industry level. We consider only tradable industries and countries after they joined the Euro Area.

# Testing P2b: Market Power and Cooperative Institutions/2



Note. 95 % confidence intervals are considered.



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  - Should we worry?
  - Should antitrust law account for labor market imperfections?



# Appendix

## Regression P1 &amp; P1a

$$\log mp_{jict} = \beta euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

$$\log mp_{jict} = \beta t \times euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

# Regression P1b

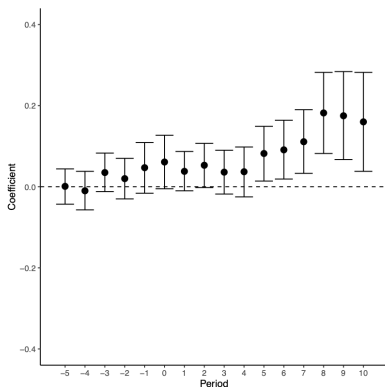
$$\log mp_{jict} = \beta P_t^5 \times euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

$$\log mp_{jict} = \sum_{v=1}^4 \beta_v Q_t^v \times euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

$$\log mp_{jict} = \beta M_t \times euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

# Parallel Trends and Long-Run Effects

$$\log mp_{jict} = \sum_{v=1}^{10} \beta_v D_v \times euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$



## Regression P2

$$\log mp_{jict} = \beta power_c \times coverage_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

$$\log mp_{jict} = \beta power_c \times coverage_{ct} \times cooperation_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

- Only Euro Zone countries (after their entrance) are considered.

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- Only Euro Zone countries (after their entrance) are considered.
- Only tradable industries.
- Firstly, all enterprises then focus on large firms (i.e., revenues in the top decile of the country-industry-year distribution).

$$\log mp_{jict} = \sum_{v=1}^4 \beta_v C_t^v \times euro_{ct} + \gamma X_{jict} + \alpha_j + \tau_t + \epsilon_{it}$$

# Firm Sample Distribution

COUNTRY	FIRMS	PERCENTAGE
AUSTRIA	1,958	0.03%
BELGIUM	45,626	0.71%
BULGARIA	111,946	1.74%
CROATIA	206,724	3.22%
CZECH REPUBLIC	160,429	2.50%
DENMARK	46,149	0.72%
ESTONIA	78,925	1.23%
FINLAND	138,776	2.16%
FRANCE	845,708	13.15%
GERMANY	38,813	0.60%
GREECE	97,589	1.52%
HUNGARY	16,618	0.26%
IRELAND	9,486	0.15%
ITALY	1,037,531	16.14%
LATVIA	4,191	0.07%
LITHUANIA	14,131	0.22%
NETHERLANDS	1,218	0.02%
POLAND	56,915	0.89%
PORTUGAL	439,339	6.83%
ROMANIA	706,714	10.99%
SLOVAK REPUBLIC	114,930	1.79%
SLOVENIA	94,598	1.47%
SPAIN	1,358,413	21.13%
SWEDEN	378,036	5.88%
UNITED KINGDOM	424,506	6.60%
<b>TOTAL</b>	<b>6,429,269</b>	<b>100%</b>

# Labor Institutions Variables

COUNTRY	POWER	COVERAGE	COOPERATION
AUSTRIA	0.43	0.98	0.80
BELGIUM	0.43	0.96	0.80
BULGARIA	0.43	0.30	0.20
CROATIA	0.57	0.56	0.80
CZECH REPUBLIC	0.43	0.36	0.56
DENMARK	0.71	0.84	0.80
ESTONIA	NA	0.13	0.52
FINLAND	0.43	0.89	0.80
FRANCE	0.67	0.97	0.80
GERMANY	0.71	0.60	0.80
GREECE	0.43	0.81	0.27
HUNGARY	0.71	0.26	0.74
IRELAND	0.43	0.39	0.43
ITALY	0.43	1.00	0.80
LATVIA	0.52	0.30	0.40
LITHUANIA	0.29	0.10	0.35
NETHERLANDS	0.43	0.83	0.56
POLAND	0.71	0.19	0.40
PORTUGAL	0.71	0.77	0.53
ROMANIA	0.57	0.81	0.66
SLOVAK REPUBLIC	0.57	0.33	0.47
SLOVENIA	0.43	0.76	0.60
SPAIN	0.71	0.82	0.60
SWEDEN	0.62	0.88	0.60
UNITED KINGDOM	0.00	0.33	0.20
AVERAGE	0.52	0.61	0.58



# Cooperation Definition

Dummy	OECD-ICTWSS Variable	Coding
(1) if firm-level agreements are possible	<p>Multilevel: The combination of levels at which collective bargaining over wages takes place.</p> <p>7 = cross-sectoral (entire economy or private sector), with centrally determined binding norms, minima or ceilings to be respected by all further agreements, which can only implement central agreements</p> <p>6 = cross-sectoral (entire economy or private sector) and sectoral, with sectoral agreements that specify and can deviate from central agreements, guidelines or targets</p> <p>5 = cross-sectoral (entire economy or private sector), sectoral and company, with company agreements that specify and can deviate from sector agreements, and sector agreements that specify and can deviate from central agreements</p> <p>4 = cross-sectoral (entire economy or private sector) and company, with company agreements that specify and can deviate from central agreements</p> <p>3 = sectoral (separate branches of the economy), with sectorally determined binding norms, minima or ceilings to be respected by all further agreements and company or enterprise agreements that can only implement sector agreements.</p> <p>2 = sectoral (separate branches of the economy) and company, with company agreements that specify and can deviate from sectorally agreed norms, guidelines or targets</p> <p>1 = company (or units thereof).</p>	Dummy=1 if Multilevel=5, 4, 2, 1.
(2) if workers' councils also include employers	<p>WC_type: type of works council</p> <p>2 = works councils is composed of employees (employee-only council)</p> <p>1 = works councils are composed of employees and employer (or employer representative), or chaired by (or on behalf of) employers (joint council)</p> <p>0 = works council does not exist or is most exceptional.</p>	Dummy=1 if WC_type=1
(3) if workers' council have economic and social rights and consultation rights	<p>WC_rights: rights of works councils or employee representatives</p> <p>3 = economic and social rights, including codetermination on some issues (e.g., mergers, take-overs, restructuring, etc.)</p> <p>2 = economic and social rights, consultation (advice, with possibility of judicial redress)</p> <p>1 = information and consultation rights (without judicial redress)</p> <p>0 = works council or similar (union or non-union) based institutions of employee representation confronting management do not exist or are exceptional.</p>	Dummy=1 if WC_rights=3 or 2.
(4) If work councils formally negotiate plant-level agreements or can informally negotiate over working conditions	<p>WC_negot: involvement of works councils (or similar structures) in wage negotiations</p> <p>4 = works councils (or mandated representatives) formally negotiate (plant-level) collective agreements, alongside or instead of trade unions.</p> <p>3 = works councils (or mandated representatives) formally negotiate (plant-level) collective agreements, if no union is present (and/or subject to ballot).</p> <p>1 = works councils is formally (by law or agreement) barred from negotiating (plant-level) agreements and involvement of works councils in negotiating (plant-level) agreements is rare.</p> <p>-99 = not applicable (no works councils)</p>	Dummy=1 if WC_negot=4,3, or 2.
(5) If collective agreements include a peace clause	<p>Peace: Do collective agreements imply a peace obligation and/or typically include a peace clause?</p> <p>2 = strikes may not be called over the terms of the collective agreement while the agreement is in force (which implies a peace clause)</p> <p>1 = there is no (implicit or explicit) legal obligation, but in practice most (private sector) collective agreements contain a peace clause</p> <p>0 = no peace obligation or peace clause</p>	Dummy=1 if Peace=2 or 1.