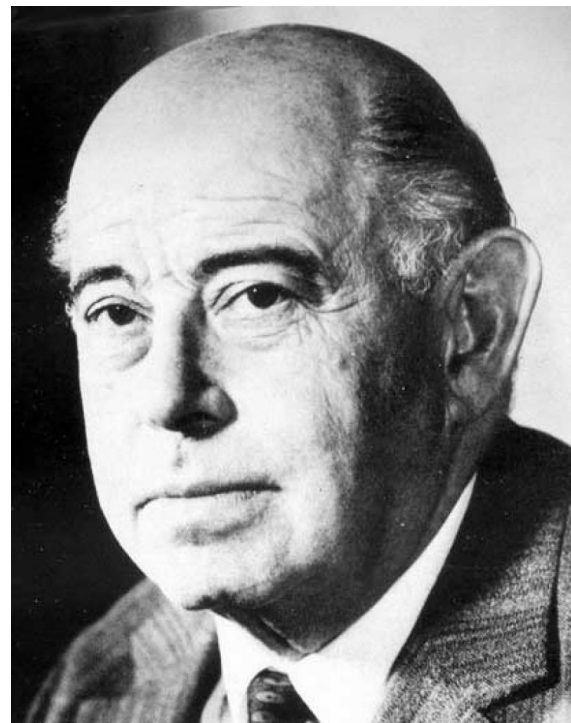


# Superstar firms, market concentration and the labor share

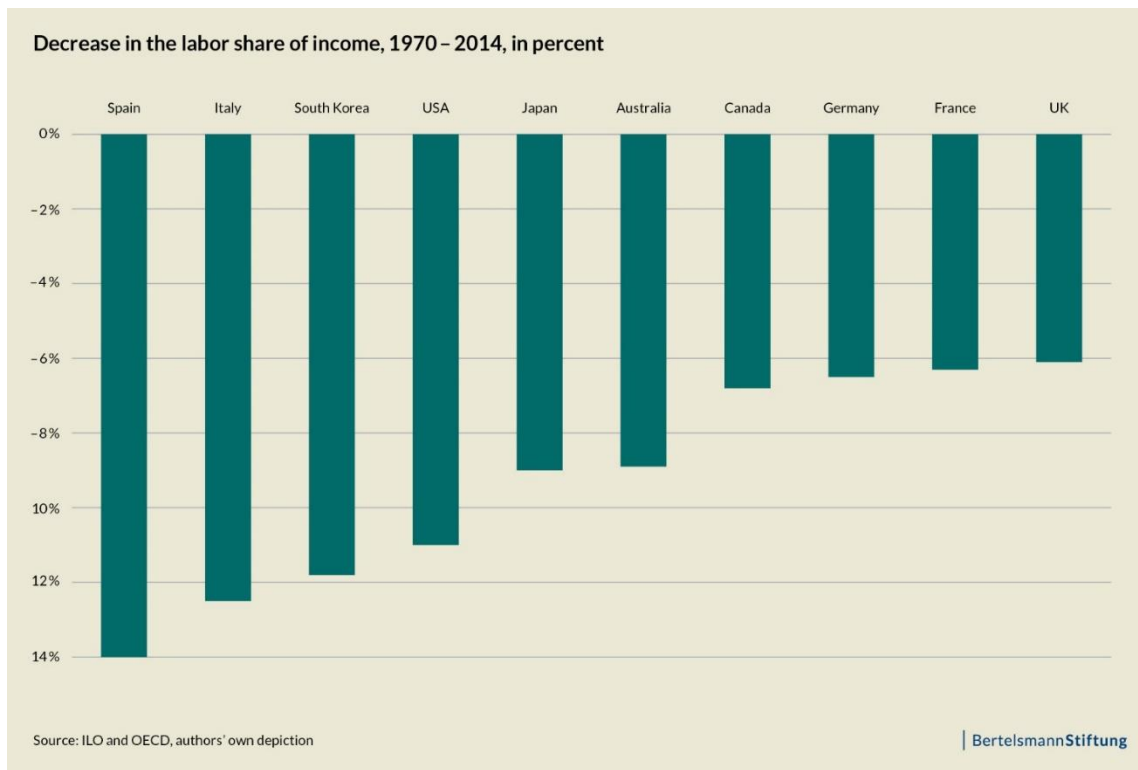
Dominic Ponattu (Bertelsmann Stiftung, Programme Europe's Future)

## Motivation: Kaldor's facts

- Some sixty years ago: “Kaldor's facts“ hold that the labor share of income is constant...
- ...not at all times, but on average over medium and long periods of time
- Data from various countries support “stylized facts“ up until about the 1980s.



## Motivation: Over the last decades the labor share is in decline



## Motivation: Other explanations not entirely convincing

- Candidate explanations
  - Technology (Karabarbounis and Neiman, 2014): labor share declines as K-L elasticity of substitution exceeds unity – but Lawrence (2015) finds lower K-L elasticity
  - Elsby et al. (2015): Trade – but labor share goes down in non-traded industries, too.
  - Unweighted mean labor share across firms has not decreased since 1982 → Average firm shows little decline in its labor share
- Autor et al. (2017): “Superstar“ firms and winner-takes-all markets in the US

## This paper

- Studies relationship between market concentration and labor share in Germany
  - Concentration in industries?
  - Negative relationship?
- Gives hints at mechanisms
- Discusses some policy implications

## Why care about concentration: Superstar firms could drive income inequality through rent sharing (Song et al, 2018)



***Between firms  
inequality***

***Within firm  
inequality***

## Markups and superstars

- De Loecker and Eeckhout (2018): markups appear to have increased.
- But superstar firms and mark-ups may be different stories:
  - In Autor et al. (2017), markups do not necessarily change → the labor share can decline **independently** from markups.
- Autor et al. (2017) show: A firm will have a lower labor share if (i) either their markup is lower or (ii) its share of **fixed costs in total revenues is lower**
- Superstars are more efficient → speaks for (ii), not a markups-based approach

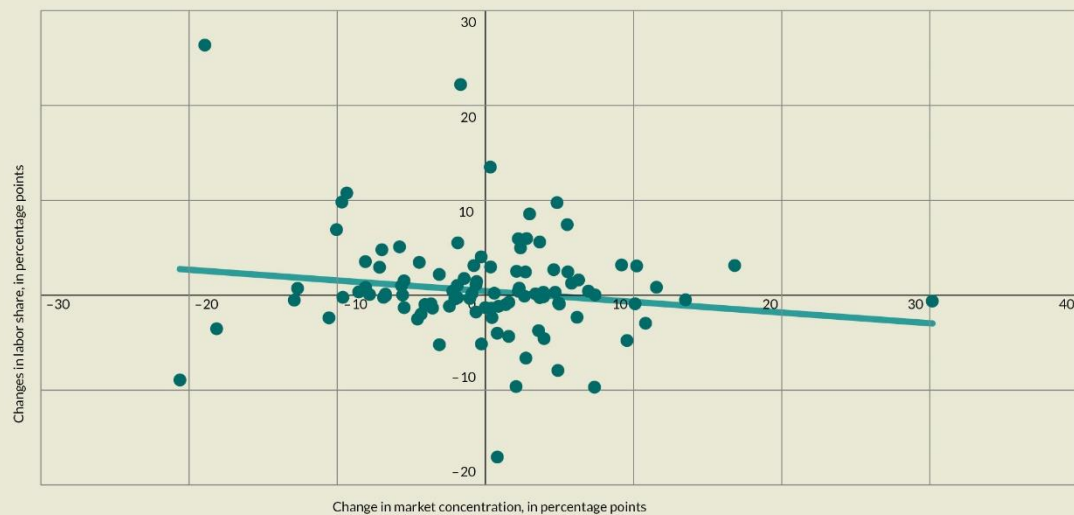
## Data and empirical approach

- Main data (2008-2016)
  - We look at data at German industry level (WZ 2008)
  - Industry-wide labor share from German Federal Statistics Office
  - CR4 sales data and industry-wide productivity from ORBIS
- We use a rough measure for industry-wide takeup of digitalization using patent data.
- Regressions as in Autor et al. (2017)
  - OLS with industry fixed effects
  - Check robustness using other covariates (openness, financial crisis)



# Descriptives

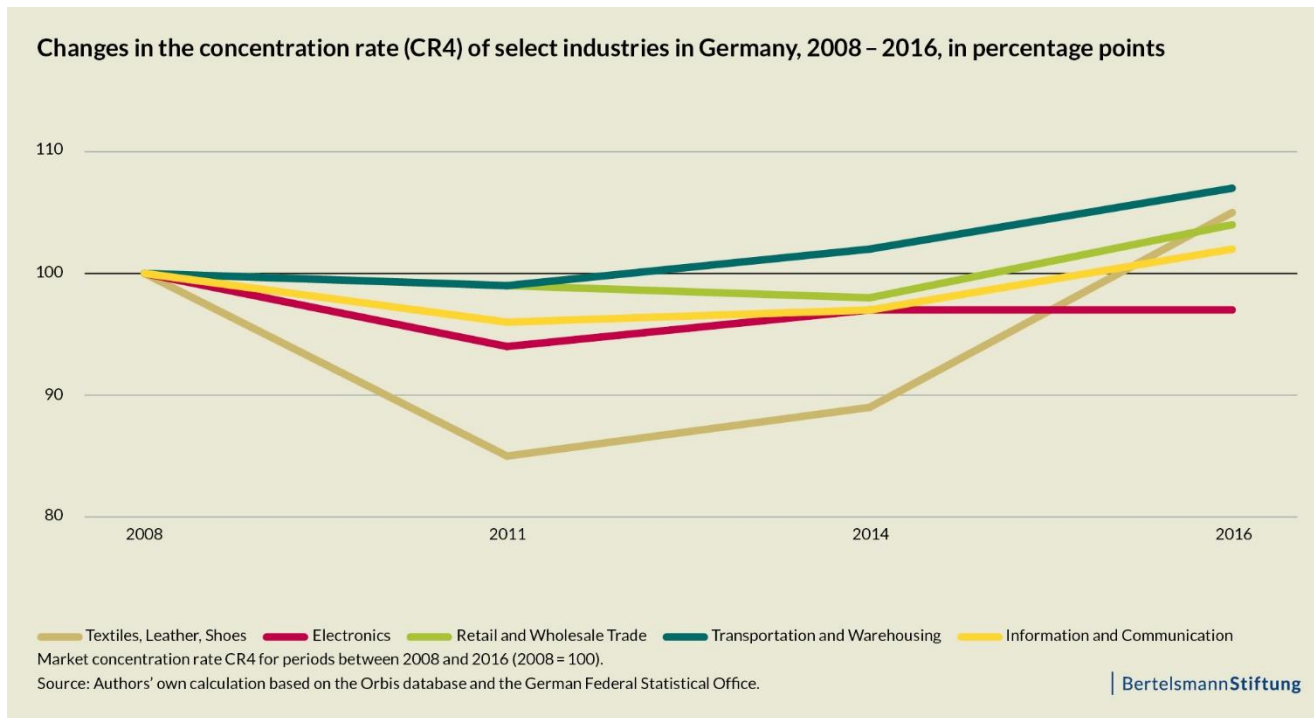
Relationship between changes in market concentration and changes in the labor share of income in services industries, periods 2008-2011, 2011-2014 and 2014-2016, in percentage points



Source: Authors' own depiction.

| BertelsmannStiftung

# Descriptives



# Results

## Results from regression analysis, model (1)

Dependent variable: Changes in labor share (log)

Independent variables	Specification 1	Specification 2
Change in market concentration (log)	-0.022 (0.024)	
in manufacturing		0.041 (0.070)
in services		-0.047** (0.022)
Constant	0.004 (0.009)	0.004 (0.010)
Industry fixed effects	yes	yes
<b>Number of observations</b>	<b>159</b>	<b>159</b>

Note: Values in parentheses indicate standard errors. Asterisks show statistical significance of coefficients at 10%, 5% and 1% levels. Estimation is based on OLS and uses robust standard errors.

## Comments

- ▶ A one standard dev. increase in CR4 is associated with about one percent of a decrease in the labor share
- ▶ The result holds for services only, we do not observe the same relationship for manufacturing
- ▶ The result also holds when accounting for other covariates such as openness of industries

## The results appear to be driven by superstar firms

### Results from regression analysis, model (2)

Dependent variable: Change in labor productivity (log)

Independent variables	Specification 1	Specification 2
Change in market concentration (log)	-0.004 (0.004)	
in manufacturing		-0.074 (0.053)
in services		0.023*** (0.008)
Constant	0.029*** (0.002)	0.029*** (0.004)
Industry fixed effects	yes	yes
<b>Number of observations</b>	<b>159</b>	<b>159</b>

Note: Values in parentheses indicate standard errors. Asterisks show statistical significance of coefficients at 10%, 5% and 1% levels. Estimation is based on OLS and uses robust standard errors.

### Comments

- ▶ To what extent are superstars at play?
- ▶ Results could be driven by cartels or other unfair behavior of large incumbents
- ▶ Productivity at industry level increases as concentration increases
- ▶ This speaks in favor of superstars rather than “fat cats”



## Digitalization

- Autor: Too easy to infer that technology diminishes labor share by competition.
- So are more strongly “digitalized“ industries particularly affected?
- We use a rough measure of take-up of digitalization.
- Interaction of CR4 and digitalization measure: The stronger digitalization affects an industry, the stronger the decline in the labor share.
  - **Advertising vs R&D**: 3 times higher degree of digitalization in the former translates into double the decline in labor share (with one std. dev. in CR4).

## Conclusion

- Concentration: Not only relevant to regulation and antitrust, also about inclusiveness
- Superstars are not ubiquitous in Germany, but they are gaining ground.
- Important: Superstars have earned their ranks – market structure has changed.
- Policy learnings:
  - Innovation diffusion and broad productivity growth
  - Asset accumulation policies (for reaping benefits of superstar firms)
  - Regulation (long-term): data-based regulation, social graph data portability, digital tax?

# Thank you

Besuchen Sie uns auch auf



YouTube

XING<sup>®</sup>

[www.bertelsmann-stiftung.de](http://www.bertelsmann-stiftung.de)