Discussion of "Disentangling Various Explanations for the Declining Labor Share: Evidence from Millions of Firm Records"

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Overview

- The stability of the labor share of income is a key in macroeconomic models; these shares can be closely associated with inequality in a society's standards of living.
  - Jacobson and Occhino (2012): an 8 percentage-point decline in labor share is associated with an increase in the Gini coefficient of 2-3 percent.

- The global labor share has significantly declined since the early 1980s, with the decline occurring within the large majority of countries and industries (Karabarbounis and Neiman, 2014).

- Many existing studies aim to explain the decline:
  - Technology change (Acemoglu and Restrpo, 2018), intangible assets (Koh et al., 2020), market power (Autor et al., 2017, 2020), globalization (Leblebicioglu and Weinberger, 2021), etc.

This paper

- It is the ***first*** *paper* using global micro data to embed all four leading explanations of labor share determinants in one consistent approach.
- It ***addresses simultaneity concerns*** through using instruments from other countries to explain each country's own variables.
- It constructs a model to explain why the effects of these four leading drivers ***can be different*** depending on the country's specific context.
- It uses micro-level data to decompose the change of labor share into ***between-firm*** and ***within-firm*** components.

Highlights

Table 1. Sector Level Results

Dependent Variable: Labor Share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CR4 (Four firm Concentration ratio)	-0.177 (0.023)**				-0.158 (0.024)**		-0.173 (0.023)**	
Sector level share of Tangible assets in Total assets		-0.196 (0.036)**			-0.201 (0.035)**	-0.213 (0.035)**		
Sector level share of Intangible assets in Total assets		-0.305 (0.062)**			-0.218 (0.064)**	-0.247 (0.063)**		
Share of research and development expenditures in total sales at sector level			-1.249 (0.454)**				-1.096 (0.445)*	-1.011 (0.451)*
Share of exports in sales at the sector level				-0.174 (0.036)**	-0.187 (0.036)**	-0.202 (0.036)**	-0.173 (0.036)**	-0.185 (0.036)**
CR20						-0.151 (0.027)**		-0.160 (0.026)**
Missing Trade					0.070 (0.011)**	0.078 (0.011)**	0.073 (0.011)**	0.079 (0.011)**
R^2		0.55	0.54	0.55	0.58	0.57	0.57	0.56
N		1,846	1,846	1,846	1,846	1,846	1,846	1,846

Notes: All columns report levels specifications which include sector fixed effects, year fixed effects, and country fixed effects. All variables are aggregated to the sector level. Labor share is defined at the sector level as total payments to employees divided by value-added. Research and development share is the share of reported expenditures divided by total revenues at the sector level. Trade shares are the share of exports in revenues at the sector level. A * indicates significance at 5 percent and a ** indicates significance at 10 percent.

A very important message from Table 1: previous studies focusing on one explanation at a time ***did not seriously bias*** their coefficients or "over explain" labor share changes.

Highlights

- Effects are all negative on average.
- Largest effects are associated with rising trade shares (globalization) and rising research and development (technological change).
- The results are consistent with Autor et al. (2020) for market power but point to other more important determinants in terms of magnitudes. For instance, globalization accounts for ***three times*** the impact of concentration.

Highlights

Explanations\Country	France	Germany	Hungary	Sweden	South Korea
(Income in 2019, USD)	40,500	46,805	16,280	54,630	31,902
Technological change	+	+	-	-	-
Intangible assets	+	+	+	-	+
Market power	-	-	-	+	-
Globalization	-	-	+	-	+

- Effects are also heterogeneous across countries. For instance, Sweden has the highest percentage of represented union workers (65%) and therefore market power tends to ***increase*** labor share in Sweden. Export shares ***raise*** labor shares in Hungary and South Korea (and China as well). They are all consistent with the bargaining model.

Highlights

- The paper further decomposes the sectoral labor share change into two margins: within-firm and between-firm changes. It helps us understand the micro mechanisms of the labor share trend.

- Overall, within-firm changes were larger but once again the effects are context specific. While within component is large for Sweden (within: +9.65%; between: -4.24%), the between component is more dominant for Germany.

- It holds significant policy relevance.
  - If the decline in a country's labor share is primarily driven by within-firm changes, policymakers could focus on encouraging firms to hire more workers. Conversely, if the decline is driven by between-firm changes, efforts should center on determining strategies to effectively redistribute resources across firms.

Measurement

- A recurring challenge authors encounter when attributing declines in the labor share to technological progress is the well-documented difficulty of measuring technological change, as it does not leave a clear paper trail for tracking.

- In this paper, technological change is measured using research and development expenditures. However, this approach might not be the most intuitive way to conceptualize technological change and may overlap to some extent with intangible assets (e.g., software and algorithms). More elaborations could help.

Data Sample

- Orbis data (1995 to 2019) covers both listed and non-listed firms.
- Country of selection: five countries which report both export data at the firm level and also exhibit significant coverage as a share of total market activity.
  - It reduces sample size of firm-year observations to 43 million records.
  - About 1/4 reports “value-added” and “costs of employees”, which reduces the sample to 10 million.
- It can be useful to compare the values of the non-missing variables for the study sample and the full sample to get a better understanding whether there could be any selection biases.

Chinese data?

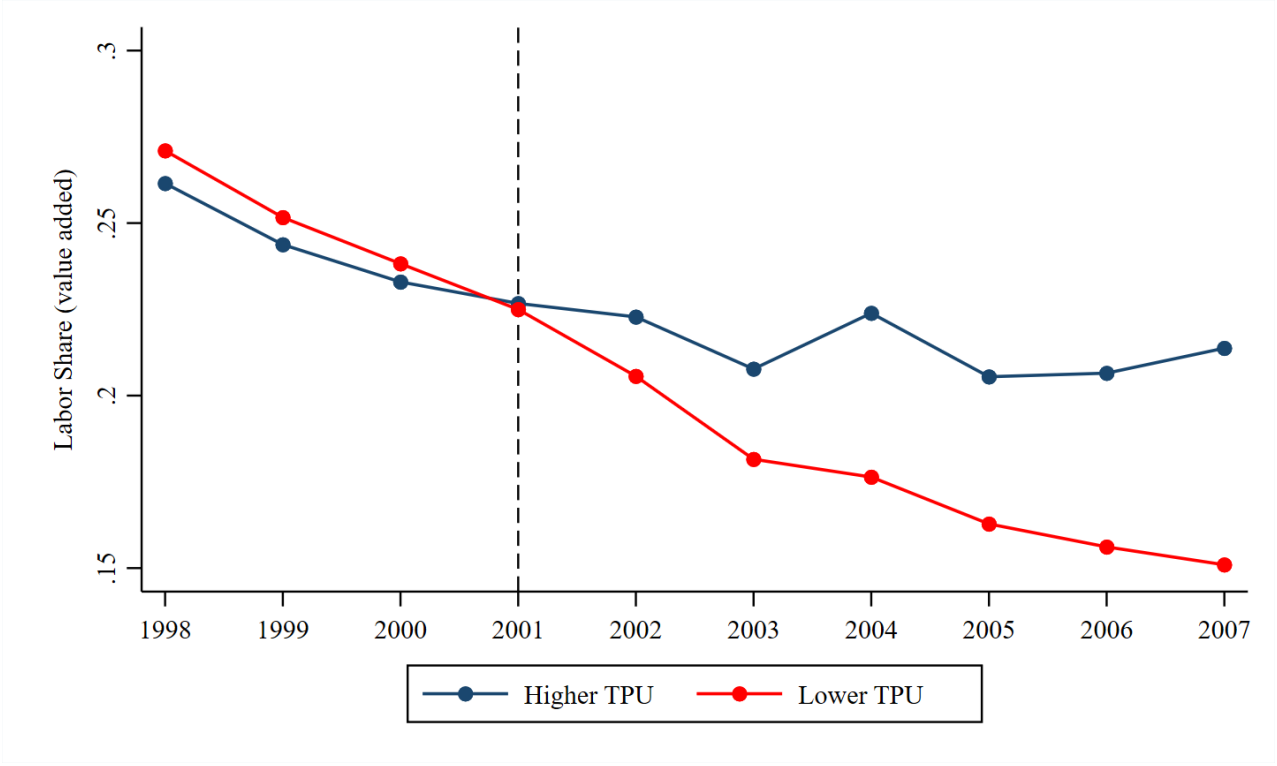

Figure: Chinese manufacturing firms

The reductions of trade policy uncertainty (TPU) are documented as a main driver of Chinese exports in the early 2000s. Sectors that experienced higher TPU reductions export more to the U.S. market, and they also experienced relative increases in labor share. This episode of Chinese firms' globalization explained a 12.6% increase in the aggregate labor share. Consistent with the paper: globalization is a key explanation, and the effects can be context specific.

Other explanations and overall contribution

- It would be beneficial to include a few paragraphs that discuss alternative explanations presented in the literature. While these explanations exist, they hold less significance compared to the four primary explanations discussed in this study.
  - Corporate income taxes (Kaymak and Schott, 2023), financialization (Tomaskovic-Devey and Lin, 2011); demographics and education (Glover and Short, 2020; Hopenhayn et al., 2018; Grossman et al.,2021).
- It can be also beneficial to provide a rough estimation of the extent to which these four explanations collectively account for the decline in the labor share across these five countries.

Concluding remarks

- This is an excellent and ambitious work, featuring a careful empirical design that addresses a very important research question: looking for the elusive (key) explanations for the declining labor share.
- The study revealed that the most influential factors are technological change and globalization.
- Significant variation was observed across countries, indicating that the explanations may be context-specific.
- Future work on labor share could extend to include more lower-income countries in their studies.