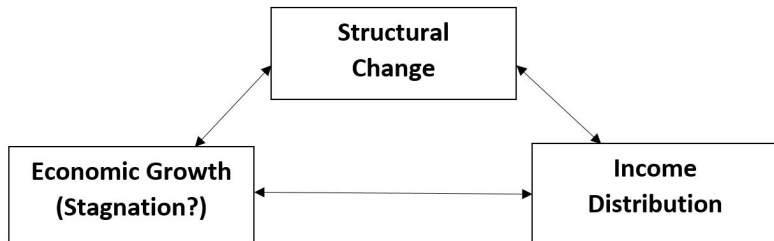


Sectoral dynamics of income distribution in the US economy

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The project in a nutshell



The project in a nutshell

Stagnation & inequality: US economy is characterized by a slowdown in average real GDP and labor productivity growth, as well as decline in the labor share.

How do these macroeconomic phenomena manifest at the sectoral level?

Divisia index decomposition of the labor share across sectors points towards **“reverse–Lewis,” rather than Baumol**, as the relevant narrative.

Baumol's cost disease as reference point

2–sector economy with differential productivity growth rates.

Baumol *assumes* labor homogeneity, mobility, and competition \Rightarrow **no change in distribution.**

Structural change: **employment share** in services rises:

- ▶ Stagnation: aggregate productivity growth is decreasing ...
- ▶ ... *with a constant labor share*: aggregate real wage growth = aggregate labor productivity growth.
- ▶ But: relative price of services increases!

Baumol's cost disease as reference point

Baumol (2012):

“[N]o matter how painful rising medical and educational bills may be, **society can afford them**, and there is no need to deny them to ourselves or to the less affluent [...]. Overall incomes and purchasing power must rise quickly enough to keep these services affordable, despite their persistently rising costs.”

True, *if* the **distribution of income does not change**, and gains in high-productivity sectors are widely shared!

Reverse–Lewis, rather.

But: **labor share secularly declines** since (at least) 1980.

Re–dualization is characterized by:

- ▶ labor shedding in high–productivity activities,
- ▶ surplus labor absorption in low–productivity activities,
- ▶ and *no need to offer high wages in the latter*: labor is not homogeneous, not mobile, and labor markets are not clearing!

Temin’s “Vanishing middle class” (2017); Storm’s “New normal” (2017); Taylor & Ömer’s “Race to the bottom” (2018).

Methodology: Divisia index decomposition

US labor share (ψ), 1987–2016, 14 sectors, decomposed into

- ▶ real compensation ω_i ,
- ▶ employment structure λ_i
- ▶ labor productivity ε_i and
- ▶ relative prices p_i .

$$\psi = \frac{\sum_{i=1}^n w_i L_i}{\sum_{i=1}^n P_i X_i} = \frac{\sum_{i=1}^n w_i L_i}{PL} \frac{PL}{\sum_{i=1}^n P_i X_i} = \frac{\sum_{i=1}^n \omega_i \lambda_i}{\sum_{i=1}^n p_i \varepsilon_i \lambda_i} \quad (1)$$

Methodology: Divisia index decomposition

ϕ_i : Nominal compensation share of sector i

θ_i : Nominal value added share of sector i

$$D_{comp} = \exp\left[\sum (\phi_{i,t} + \phi_{i,t-1})/2 \ln(\omega_i)\right]$$

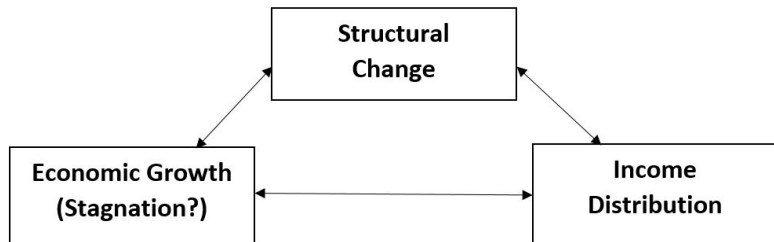
$$D_{empl} = \exp\left[\sum [(\phi_{i,t} + \phi_{i,t-1})/2 - (\theta_{i,t} + \theta_{i,t-1})/2] \ln(\lambda_i)\right]$$

$$D_{price} = \exp\left[\sum (\theta_{i,t} + \theta_{i,t-1})/2 \ln(p_i)\right]$$

$$D_{techn} = \exp\left[\sum (\theta_{i,t} + \theta_{i,t-1})/2 \ln(\varepsilon_i)\right]$$

⇒ Decomposition shows contributions of 4 components in 14 sectors to **percentage change of aggregate wage share** over sample period .

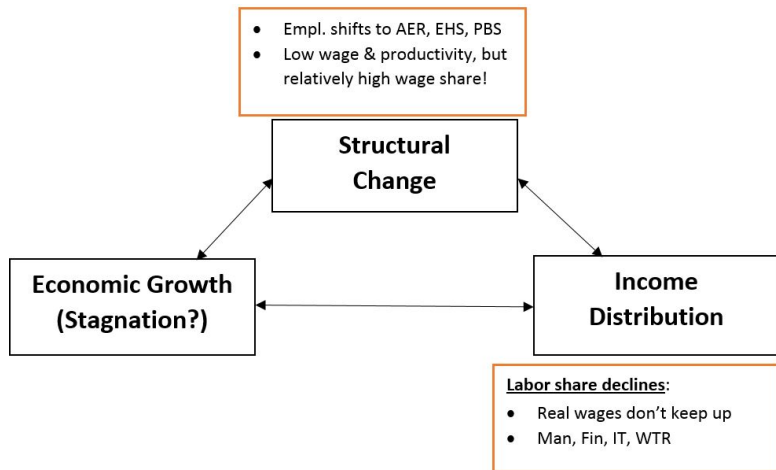
Results: Overview, I



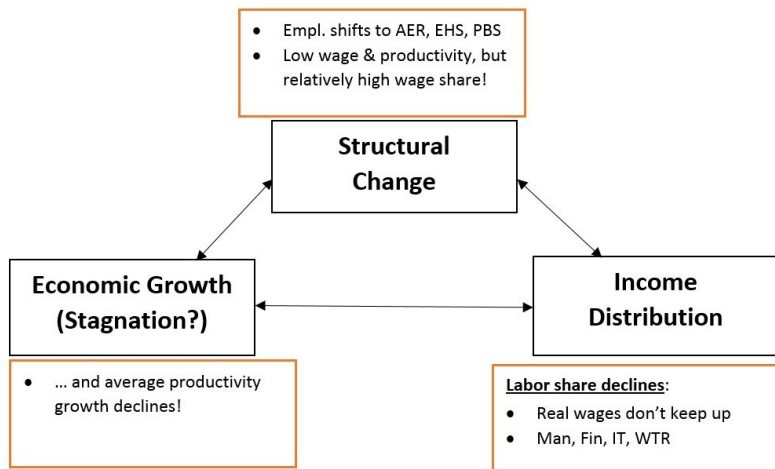
Labor share declines:

- Real wages don't keep up
- Man, Fin, IT, WTR

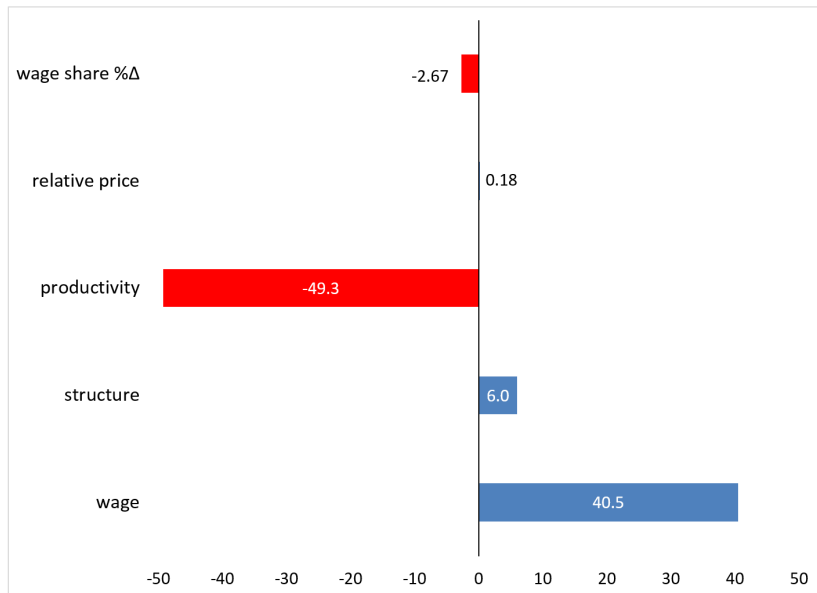
Results: Overview, II



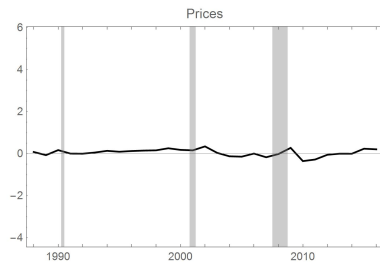
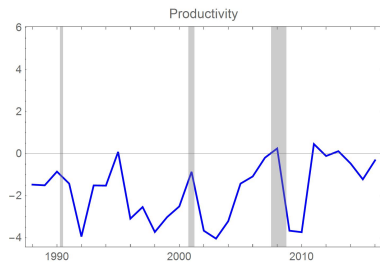
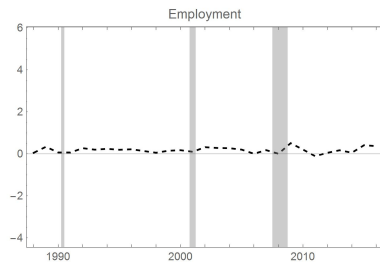
Results: Overview, III



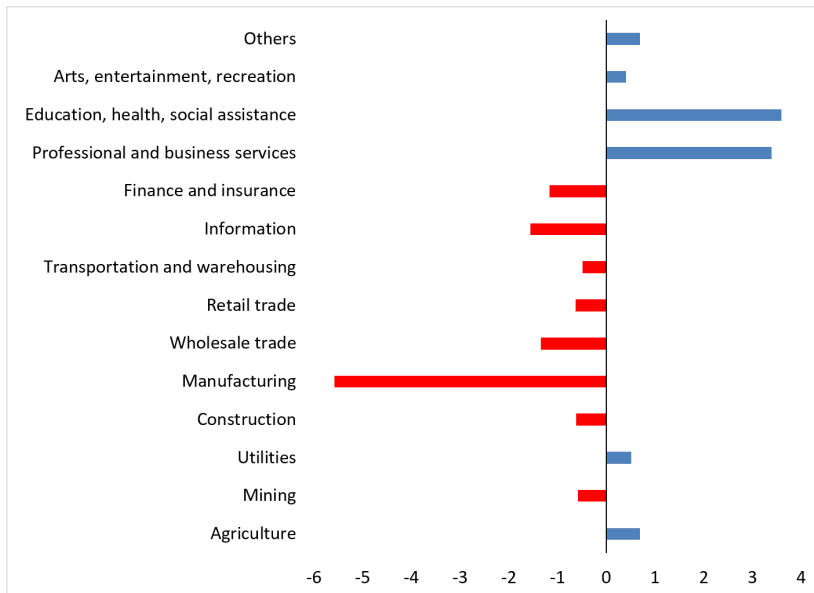
Contributions to $\Delta\psi/\psi$: Four components, 1987–2016



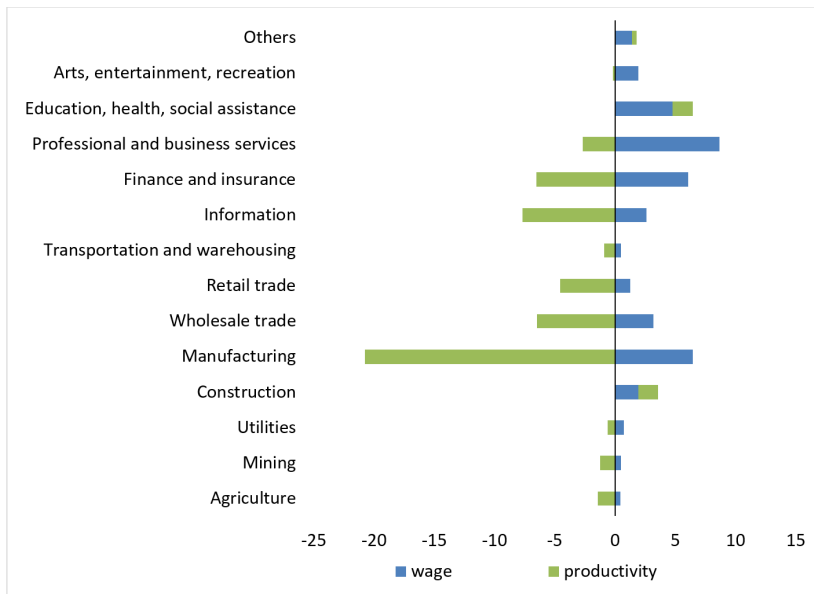
Contributions to $\Delta\psi/\psi$: Four components, by year



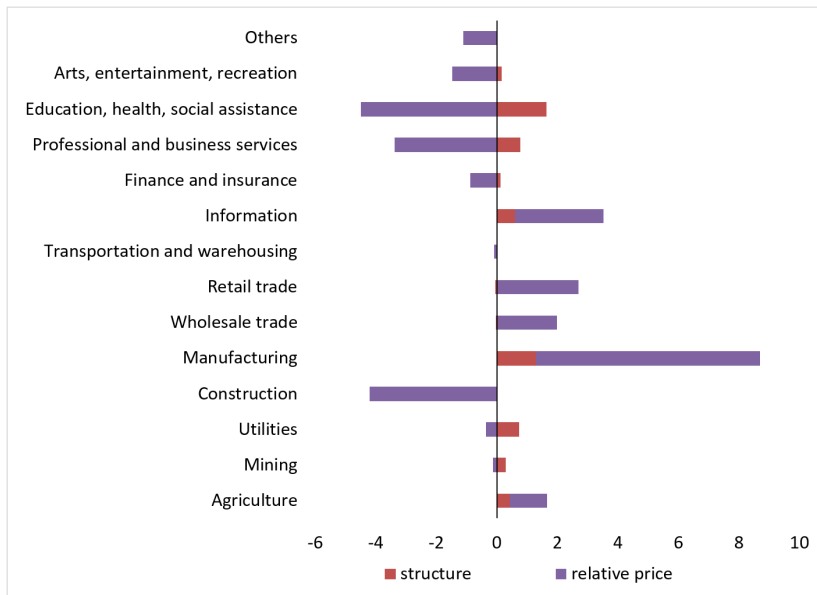
Contributions to $\Delta\psi/\psi$: Fourteen sectors, 1987–2016



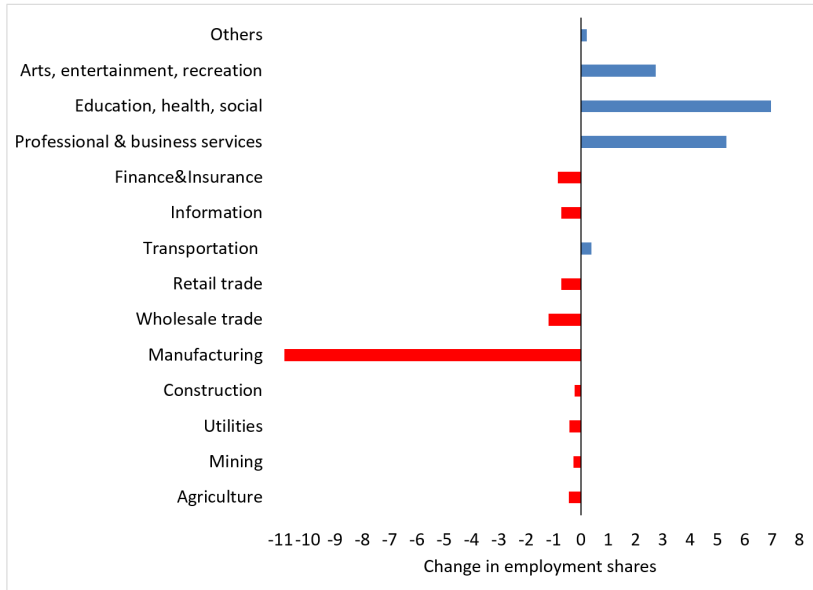
Contributions to $\Delta\psi/\psi$: Real wages & productivity

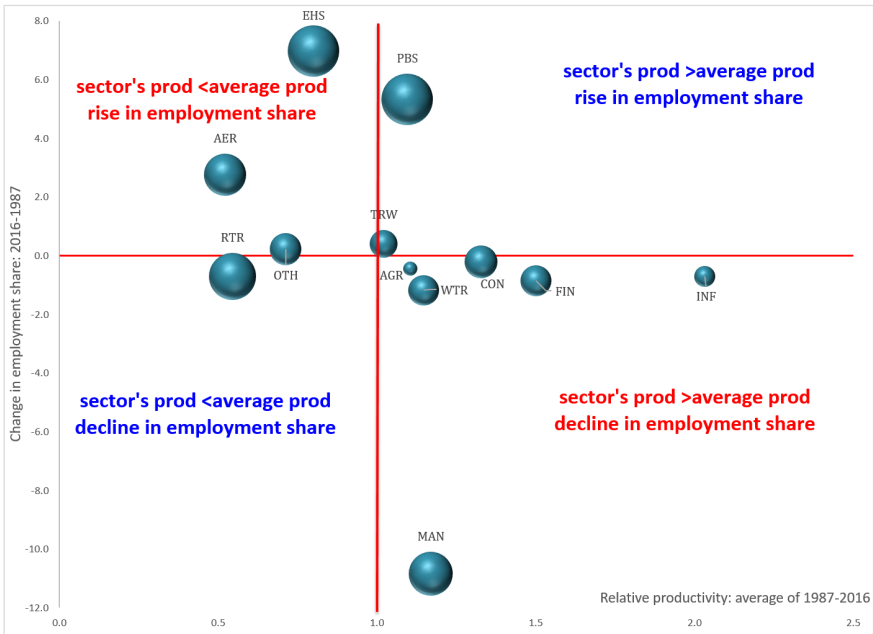


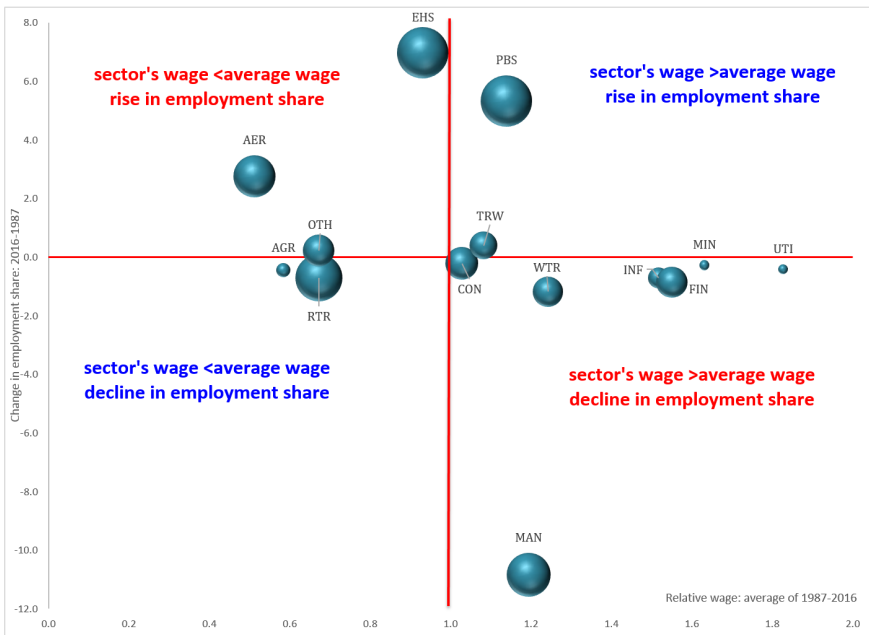
Contributions to $\Delta\psi/\psi$: Employment & relative prices



Structural change: 1987–2016







Concluding question marks

