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Quick summary

1. How has the wage-profit relationship *within firms* evolved over the last couple of decades?
   - very important question in connection to wage stagnation, declining labour share, and rising markups
   - empirically document this evolution through firm-level regressions from 1983 to 2016
2. Develop a dataset by combining various sources of data at the firm level and complement with industry-level data
   - substantial effort to gather firm-level information
3. Post-2000 decline in rent sharing (pass-through of profits to wages)
   - greater decline in market leader firms, which on average share more

Conceptual

- Diminishing bargaining power as the preferred explanation to the declining association of wages to profits
- Discussion on monopsony and incentive pay models
- Bargaining is a key concept to the relative position of workers but maybe *too soon* to interpret this as the decline in bargaining power
- Especially when there are long-run imperfections
- Since empirical evidence does not address potential key issues like productivity, talent, sorting, technology etc.
- I provide one example to illustrate an alternative story: A span-of-control (DRS) model with self-selection

Conceptual

- Consider, wlog, a toy model with one sector, one input, two varieties each can be produced by a specific firm

$$Y_s = \left(Y_i^{\rho} + Y_j^{\rho}\right)^{\frac{1}{\rho}}$$

- $0 < \rho < 1$ so these firms do not produce goods that are perfect substitutes
- Each firm is subject to diminishing returns to scale

$$Y_i = A_i N_i^{\gamma}, \qquad \gamma < 1$$

- Taking the wage w_i and price p_i as given, profits are

$$\pi_i = (1-\gamma) p_i A_i N_i{}^{\gamma}$$

Conceptual

- Wages should satisfy

$$w_i = \gamma p_i A_i N_i^{\gamma - 1}$$

- Wage for unit efficiency and profits are related due to DRS

$$w_i = \frac{\gamma}{1-\gamma} \frac{\pi_i}{n_i} \frac{n_i}{N_i}$$

- Observed wages per worker and profits

$$\hat{w}_i = w_i \frac{N_i}{n_i} = \frac{\gamma}{1-\gamma} \frac{\pi_i}{n_i}$$

- $\frac{n_i}{N_i} = 1$, and $w_i = w_j = w$ if no heterogeneity in talent, and there will be no within-firm correlation of profits and wages

Conceptual

- Imagine the simplest efficiency scheme with supermodularity:

$$N_i = \int_{k \in i} \theta_k dk \qquad N_j = \int_{k \in j} 1 dk =$$

- The worker with talent θ gets

$$\begin{array}{ll} w_i\theta & \text{in sector i} \\ w_j & \text{in sector j} \end{array}$$

- Workers will be sorted with marginal worker $\overline{\theta}$

$$w_j = w_i\overline{\theta}$$

- The wage of the expanding sector should increase

Conceptual

- It can be shown that higher productivity growth in firm i will result in expansion in scale, and both wages and profits increase more in the expanding sector
- Main takeaway:
  Even though firms take prices as given it is possible to obtain within-firm correlation of wages and profits
- Compare $\frac{\alpha}{1-\alpha}$ to $\frac{\gamma}{1-\gamma}\frac{n_i}{N_i}$. The fall could be in:
  1. the bargaining power, but also
  2. the returns to scale (technology-trade)
  3. $\frac{n_i}{N_i}$, i.e. rising efficiency per worker (skills)

Empirical

LR coefficient

- The long-run coefficient is key in the decline of rent sharing
- The long-run coefficient is based on the assumption that π/n_{ij} and w_{ij} are cointegrated
- More discussion on the cointegrating relationship would be helpful, at least at a technical level, especially considering wage stagnation and wage-productivity divergence

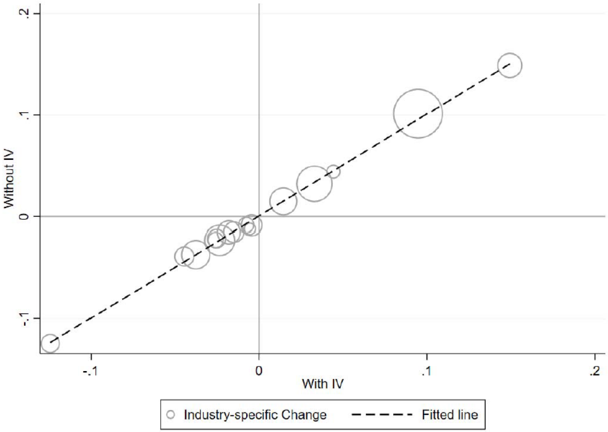
Profit measure

- What are profits, precisely?
- Other dimensions of firm performance such as revenue (in logs)

Empirical

Substantial heterogeneity across sectors

Figure 5: Industry-Specific Changes in Rent Sharing



Empirical

Market power-rent sharing decline association is very interesting. It could be complemented by exploring other heterogeneity in the data:

- In which sectors is rent sharing increasing?
- Could be interesting to document
- Related to upstreamness of the sector? Exposure to trade/international competition?
- Firm fixed-effects account for time-invariant company characteristics, but maybe changing company characteristics (globalization, management practices, technology use) matter for the decline or understanding the sources of heterogeneity

Summing up

- Main strength is the long panel data at the firm level
- Used for documenting a very interesting pattern
- Can be further utilized to provide a more complete characterization of the evolution of rent sharing
- Interpretation only based on declining bargaining power might be restricting potential empirical explorations
  - How does the bargaining power argument square with greater rent sharing in firms with high market power?
- Technology/trade and skills are arguably other important channels of the observed change