“The Fall of the Labor Share and the Rise of Superstar Firms”

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“Monetary Policy Challenges”

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What this paper does

Empirical contributions:

1. The labor share decline at aggregate/sectoral/industry level stems from reallocation of value added between firms, not a decline of firm-level labor shares.
2. Sales concentration within industries rises over time.
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Theoretical interpretation: A model of 'superstar firms' that are

1. highly productive,
2. charge a relatively higher markup,
3. are large producers $\Rightarrow$ have a big weight in the aggregate labor share.

Comment 1: On the implications of fixed costs

Two model variants: First has fixed input costs à la Melitz (2003).

- Production: $Y_i = z_i(N_i - F)^\alpha K_i^\beta$ implies labor share $S_i = \frac{w_i N_i}{P_i Y_i} = \frac{\alpha}{m} + \frac{wF}{P_i Y_i}$.
- The last term will be small for highly productive firms that are large (big $P_i Y_i$) and have a low labor share.
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     $\Rightarrow$ How does the dispersion of productivity evolve over time?

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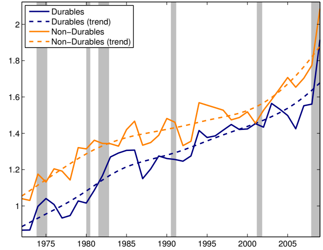
- Estimate TFP using establishment-level data (manufacturing only) and study cross-sectional dispersion $Var(\log z)$:

Figure 1: Secular run-up in TFP dispersion



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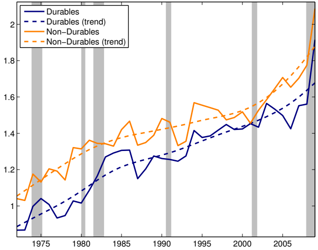

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$\Rightarrow$ Calculate how much of a labor share decline this increase in productivity dispersion yields.

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- Demand curve: $q(\omega) = \frac{1}{A} - \frac{1}{\gamma p(\omega)}$ implies labor share $S_i = \frac{w_i N_i}{P_i Y_i} = \frac{\alpha}{m_i}$.

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$\Rightarrow$ Construct total cost (including cost for advertising, HQ functions, ...) which Census starts to collect in 2002. What does sales/total cost do?

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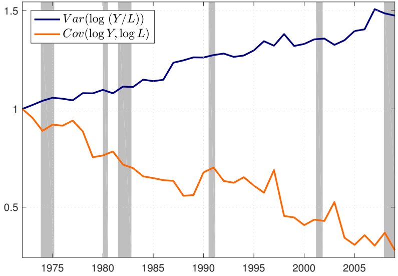
Figure 2: Employment and output become less and less correlated



Note: Own calculations based on establishment-level data from the Annual Survey of Manufactures

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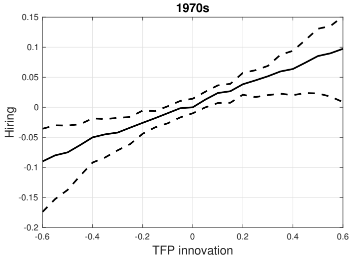
Figure 3: High-productivity establishments don't hire (any more)



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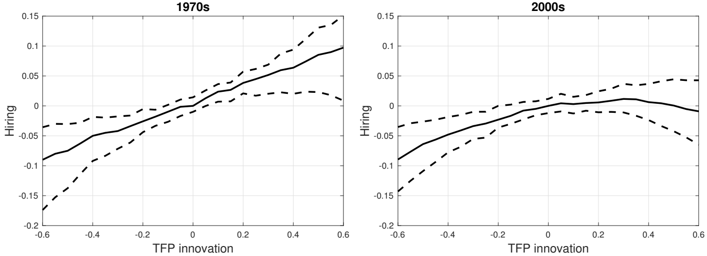

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  If not:

  - Is the production function we all use still the right one?
  - Are "superstar firms" systematically different?

Comment 4: Concentration and labor share declines

- Write aggregate labor share and its change as:

$$S^{agg} = \frac{\sum_i w_i L_i}{\sum_i Y_i} = \sum_i \frac{w_i L_i}{Y_i} \frac{Y_i}{\sum_i Y_i} = \sum_i S_i \omega_i$$

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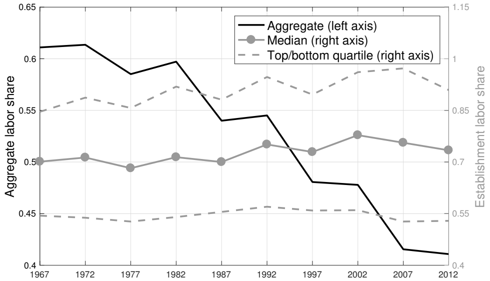
Figure 4: What does S^{agg} do and what does distribution of S_i do?



Note: From Kehrig/Vincent (2017): "Growing productivity without growing wages...," Fig. 3.

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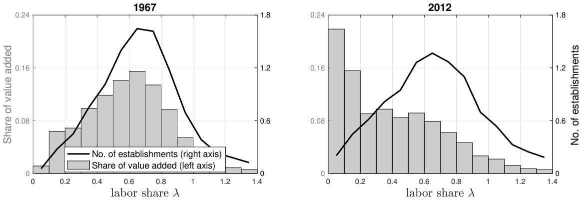
Figure 5: Aggr. labor share decline $\approx$ increasing concentration



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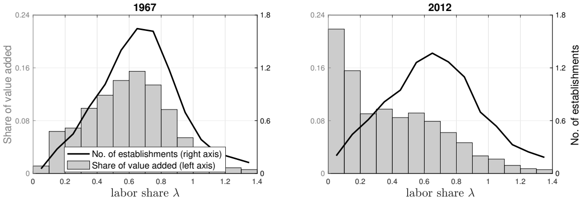

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$\Rightarrow$ Statements about the changes in concentration and changes in the aggregate labor share are two sides of the same coin.