

Discussion of
“Entry vs. Rents: Aggregation with Economies of Scale”
by David Baqaee and Emmanuel Farhi (2021)

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Market power in the digital age: measurement, causes, consequences and policies
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An Aggregation Exercise

- How changes in productivities and markups of disaggregated producers shape aggregate outcomes?
- To my knowledge, first such paper that allows for a general treatment of the extensive margin
- The characterization results are then applied to ...
 - ▶ explore how product entry and exit determine allocative efficiency
 - ▶ social costs of distortions (distance to frontier)
 - ▶ second-best policy interventions (markup regulations & entry subsidies)

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Main Result

- decomposition of the macro impact of shocks in terms of changes in
 - technical efficiency
 - pure rents
 - quasi rents
 - markups

Theorem

$$\begin{aligned}d \log Y = & \sum_i \lambda_i^F \underbrace{d \log A_i}_{\Delta \text{ technology}} - \sum_{i:DRS} \lambda_i^F \underbrace{(1 - \epsilon_i)}_{DRS} \underbrace{(d \log \lambda_{\pi,i} - d \widehat{\log \lambda_{\pi,i}})}_{\Delta \text{ pure rents}} \\ & + \sum_{i:IRS} \lambda_i^F \underbrace{(\gamma_i - 1)}_{IRS} \underbrace{d \widehat{\log \lambda_{\pi,i}}}_{\Delta \text{ quasi-rents}} \\ & - \sum_{i:DRS} \lambda_i^F \left(\frac{1 - \epsilon_i}{\pi_i} - 1 \right) d \log \mu_i - \sum_{i:IRS} \lambda_i^F d \log \mu_i\end{aligned}$$

- Two more theorems expressing changes in rents and quasi-rents in terms of model primitives

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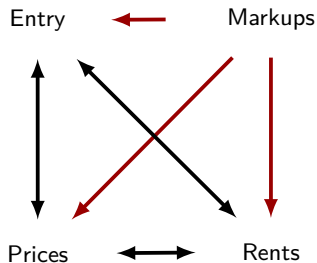
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How General Is the Result?

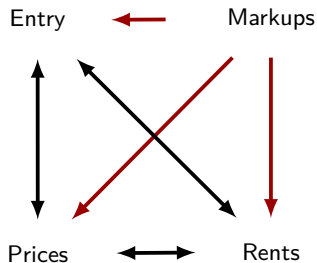
- Very General!
 - ▶ input-output linkages
 - ▶ non-trivial markups
 - ▶ various degrees of returns to scale
 - ▶ general treatment of entry (directed, undirected, and anything in between)

What is Not Captured by the Results?



- Markups shape entry, prices, rents, and quasi-rents, but are treated as primitives.
- Still need to specify the market structure to endogenize the markups → another fixed point equation

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Aggregation Results with Entry

- Paper makes a convincing case that one cannot sidestep modeling the extent and nature of entry.
- Simple economy with no input-output linkages and a single factor of production:

$$\text{DRS + directed entry: } d \log Y = \sum_{i=1}^n \lambda_i d \log A_i$$

$$\text{DRS + undirected entry: } d \log Y = \sum_{i=1}^n \lambda_i d \log A_i - \frac{\epsilon}{\lambda_E} \text{Cov}_\lambda(1/\mu_k, d \log A_k)$$

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- What should one do with such an observation?

Next time take the extensive margin seriously!

- But what if one cannot (or does not want to) take an exact, detailed position about what type of firm can enter into each market? Is one out of luck?
- Valuable if the paper can use the main theorem to obtain results that are robust to the specification of $\zeta_{ji} = \mathbb{P}(\text{producer } i | \text{entrant } j)$.

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