Market Concentration, Growth, and Acquisitions

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Discussion by Maarten De Ridder
Motivation

- Productivity growth has declined since mid-2000s, after a boom in 1990s
- Firm concentration has been rising since the 1980s
- Startups have become much more likely to be acquired
- Sparked interest: how are these linked? Role for antitrust intervention?
- Endogenous growth model with oligopolistic competition and acquisitions
- Quantification: increase in firms’ span of control making large firms larger
Large firm acts as a collection of small firms that avoids cannibalization

- Firms expand by making directed innovation investments
- Small firms: invest to improve the productivity of all goods in the economy
- Large firms: avoid improving the productivity of own products
  - Idea: other firms can (almost) copy leading productivity
  - No value in improving own product, \( \rightarrow \) facilitates competitor productivity
- Surplus from acquisition: they reduce large firms’ creative destruction rate
Policy trade-off

Trivial implication: policy maker should ban acquisitions? No!

Trade-off:

- Acquisitions enable large firms to occupy large % of product space
- Alternative way to do this is to **creatively destroy** competitor small firms
- Acquisitions **add value** to starting firm, creative destruction **reduces it**

⇒ Optimal policy depends on how **elastic** small firm innovation is to CD/Aq.
Discussion

Great, creative paper with a plausible new mechanism and interesting trade-offs

Two comments:

1. Should we think of own-product improvements as cannibalization?

2. What happens with creative destruction as firms grow large?
Assume firms don't benefit from innovating on products they already control

- Innovation proportionally raises competitor productivity: constant markup
- In practice, own-variety improvement can offer many benefits to the firm
  - Can raise productivity gap leader and follower: higher markup (Peters '20)
  - Improvements can raise demand for varieties (Akcigit & Kerr '18)
- In practice, own-variety improvement is important contributor to growth
  - Garcia-Marcia, Hsieh and Klenow ('19): responsible for most GDP growth

Hence: is the mechanism in the paper a “worst case” scenario?

- Quantitatively robust to an extension where internal innovation is useful
Does creative destruction decline with firm size?

Benefit of large firm: face less creative destruction. Is this true in the data?

- Assume that firms lose products through a Poisson process
- Poisson flow rate is $\tau(n_{it})$, $n_{it}$ is number of products (firm size)
- Assume a simple functional form for the creative destruction rate:
  \[
  \tau(n_{it}) = \tau \times n_{it}^\sigma
  \]
- Usual assumption: $\sigma = 1$ (e.g. Klette and Kortum 2004). Weiss $\approx \sigma < 1$

\[
\mathbb{E}[n_{it}^c | n_{it-1}] = \exp(\sigma \log n_{it-1} + \eta_{it})
\]

(1)
Does creative destruction decline with firm size?

Estimate $\sigma$ using French administrative micro data

- Berlingieri, De Ridder, Lashkari and Rigo ’23
- Data on 10-digit product codes from production survey for manufacturing
- Define creatively destroyed as products produced at $t - 1$, not at $t$
- Estimate a Pseudo-Poisson Maximum Likelihood regression along

$$\mathbb{E}[n_{it}^d|n_{it-1}] = \exp(\sigma \log n_{it-1} + \eta_{it})$$

- Robust finding: $\sigma \geq 1$, preferred estimate $\sigma = 1.15$
Conclusion

• What is the link between concentration, acquisitions and growth?

• New model: large firms acquire small firms to reduce creative destruction

• Policy faces tradeoff between acquisitions and excessive creative destruction

• Comment: perhaps large firms are more benign then they seem