Market Concentration, Growth, and Acquisitions

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Discussion by Maarten De Ridder

- 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

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

$\Rightarrow$ Optimal policy depends on how elastic small firm innovation is to CD/Aq.

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 $\approx \sigma < 1$

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

Does creative destruction decline with firm size?

Estimate σ 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 produces 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 $\sigma = 1.15$

- 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