SLOWING BUSINESS DYNAMISM AND PRODUCTION GROWTH IN THE UNITED STATES

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Introduction

- Aggregate productivity growth is the fundamental source of long-run economic growth...
  - ... sustained by business dynamism and factor reallocation.

- Striking trends in the U.S. over the past several decades (Akcigit and Ates, 2020)
  - a decline in business dynamism and entrepreneurship
  - a slowdown in aggregate productivity growth.

**Question** Why is there a productivity growth slowdown and a decline in business dynamism?
Motivation

1. Market concentration has risen.
2. Average markups have increased.
3. Average profits have increased.
4. The labor share of output has gone down.
5. Market concentration and the labor share are negatively associated.
6. The labor productivity gap between frontier and laggard firms has widened.
7. Firm entry rate and the share of young firms in economic activity have declined.
8. Job reallocation has slowed down.
9. The dispersion of firm growth has decreased.
10. The productivity growth has fallen, except for a brief pickup in the late 1990s.
11. A secular decline in real interest rates has occurred.
Results

- The model emphasizes strategic competition between leader and laggard firms.
- We run a horse race between alternative explanations.
- The decline in knowledge diffusion / implementation accounts for most.

**Figure: Effects of Channels**

<table>
<thead>
<tr>
<th>Data</th>
<th>Lower corporate tax</th>
<th>Higher R&amp;D subsidies</th>
<th>Higher entry cost</th>
<th>Lower knowledge diffusion</th>
<th>Declining interest rate</th>
<th>Ideas getting harder</th>
<th>Weaker power of workers</th>
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<td>Profit share</td>
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<td>Labor share</td>
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<td>Frontier vs. laggard gap</td>
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<td>Young firms’ empl. share</td>
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<td>Gross job reallocation</td>
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<td>Dispersion of firm growth</td>
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Source: Akcigit and Ates (2019)
Empirical Evidence on Knowledge Diffusion

*Patent concentration has risen and inventors shift to mature firms.*

A) Share of Patents of the Top 1% Patenting Firms

B) Share of Inventors Employed in Young Firms

**Figure:** Patents and Inventors
Empirical Evidence on Knowledge Diffusion

Inventors’ productivity declines but earnings rise when employed by mature firms.

**Figure**: Inventors’ Patent Production and Earnings after Switching to Mature Firms

*Notes*: Akcigit and Goldschlag (2020)
Summary of Empirical Findings

**Patents**

1. Higher share of patents *produced* by the top 1 percent of firms.
2. Higher share of patents *reassigned* to the top 1 percent of firms.
3. Patent concentration and share of litigated patents are positively associated with market concentration, profits, and markups.

**Inventors**

4. Lower share of inventors in young start-ups
5. A decline in patents produced and citations received by inventors after starting a job in a mature firm (relative to those that start in a young start-up)
6. A rise in earnings of inventors after starting a job in a mature firm
7. Start-ups founded by inventors have higher employment growth (relative to start-ups founded by non-inventors)
8. Lower entrepreneurship by inventors since 2000

**M&As and Lobbying**

9. Higher M&A activity negatively associated with business dynamism at the sector level
10. Lobbying expenditure, most spent by old and large firms, increased during the 2000s
Factors constraining business dynamism elsewhere:

- Higher political connection and lower innovation intensity among leaders
Developing economies suffer from other problems, such as credit availability.

Factors constraining business dynamism in Turkey after 2013:

▶ Decline in relative credit availability for laggard firms (Akcigit et al., 2020).
Conclusion

▶ We tease out mechanisms that drive declining U.S. business dynamism.

▶ We show that distortions to knowledge diffusion / implementation are the potential culprits.

▶ Data show concentration of ideas and inventors in mature firms.

*Policy implications*

▶ Slower business dynamism and higher markups constrain the effectiveness of monetary policy.

▶ Policies to prop up competition between incumbents and productivity growth.
  ▶ Reconsideration of policies that favor market leaders.
  ▶ Enforcement of anti–trust policies.
  ▶ Secondary market for diffusion of technologies.
  ▶ Foreign competition to boost business dynamism.


