The Decline in US Business Dynamism

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Introduction

- **question:** why and in what manner did US business dynamism decline?
  - productivity gap between frontier and laggard firms has **widened**
  - dispersion of firm growth rates has **shrunk**
- **model:** step-by-step innovation w/ strategic interaction
  - need a notion of market concentration, best vs. the rest
  - explicit about competition $\rightleftharpoons$ R&D decisions
- **potential explanation:** decline in "knowledge diffusion"
- **today:** quick review of facts & model, then comments

Ten Facts (1980–2010)

1. market **concentration** has **risen**
2. average **markups** have **increased**
3. average **profits** have **increased**
4. **labor share** of output has **decreased**
5. rise in market concentration and fall in labor share are **positively** correlated
6. labor **productivity gap** between frontier and laggard firms has **widened**
7. firm **entry** rate has **declined**
8. share of **young firms** in economic activity has **declined**
9. **job reallocation** (creation + destruction rate) has **slowed**
10. **dispersion** of firm growth has **decreased**

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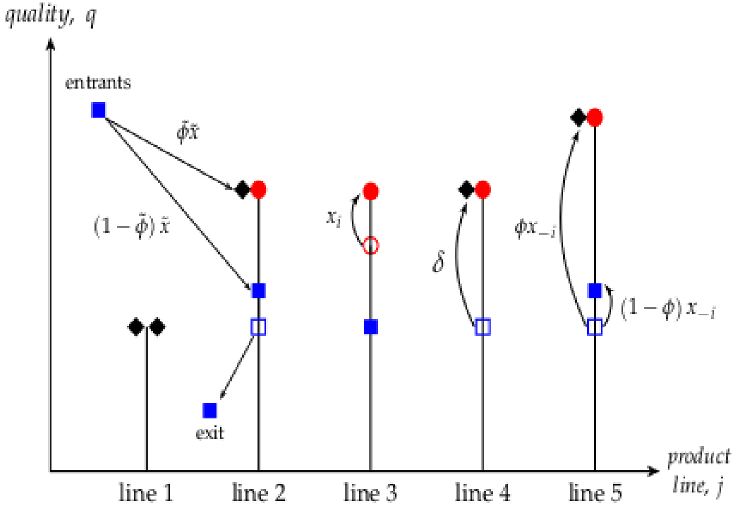
think of a footrace:

- if neck-and-neck:
  - both can win $\implies$ both run hard
- if not close:
  - leader will a.s. win $\implies$ lets up
  - follower will a.s. lose $\implies$ lets up

Model in a picture



b) Entry, exit, and leadership

What explains the facts? Suppose we introduce parameter trends ...

Table 3: Qualitative experiment results

	Data (1)	Lower corporate tax (2)	Higher R&D subsidies (3)	Higher entry cost (4)	Lower knowledge diffusion (5)
Concentration	$\uparrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\uparrow$
Markups	$\uparrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\uparrow$
Profit share	$\uparrow$	$\longleftrightarrow$	$\downarrow$	$\longleftrightarrow$	$\uparrow$
Labor share	$\downarrow$	$\longleftrightarrow$	$\uparrow$	$\longleftrightarrow$	$\downarrow$
Entry*	$\downarrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\downarrow$	$\downarrow$
Young firms' empl. share	$\downarrow$	$\longleftrightarrow$	$\downarrow$	$\downarrow$	$\downarrow$
Frontier vs. laggard gap	$\uparrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\longleftrightarrow$	$\uparrow$
Gross job reallocation	$\downarrow$	$\longleftrightarrow$	$\downarrow$	$\longleftrightarrow$	$\downarrow$
Dispersion of firm growth	$\downarrow$	$\downarrow$	$\downarrow$	$\uparrow$	$\downarrow$

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Concentration	↑	⟷	⟷	⟷	↑
Markups	↑	⟷	⟷	⟷	↑
Profit share	↑	⟷	↓	⟷	↑
Labor share	↓	⟷	↑	⟷	↓
Entry*	↓	⟷	⟷	↓	↓
Young firms' empl. share	↓	⟷	↓	↓	↓
Frontier vs. laggard gap	↑	⟷	⟷	⟷	↑
Gross job reallocation	↓	⟷	↓	⟷	↓
Dispersion of firm growth	↓	↓	↓	↑	↓

What is "lower knowledge diffusion"?

- **model:** knowledge diffusion is **any non-R&D force** that leads to quick catch-up by laggard — a measure of our ignorance about dynamics of competition
- **could be . . .**
  - increasingly data-dependent nature of production
  - new regulations that favor established firms
  - increased off-shoring of production abroad
  - rise in anti-competitive (ab)use of intellectual property (**Section 9**)
  - other ideas?
- **how do we evaluate the success of this exercise?**
  - if the story is "lower knowledge diffusion," is our footrace intuition wrong?
  - did we explain the decline in business dynamism or just falsify existing theories?