資料7

経済学から見た中堅企業(政策)

@研究開発税制等の在り方に関する研究会

2025年5月２日

宮川大介
（早稲田大学）

Agenda

1. 総論：経済学から見た中堅企業
2. 各論１：研究開発
3. 各論２：摩擦・制約
4. まとめ：状況との整合性＋期待

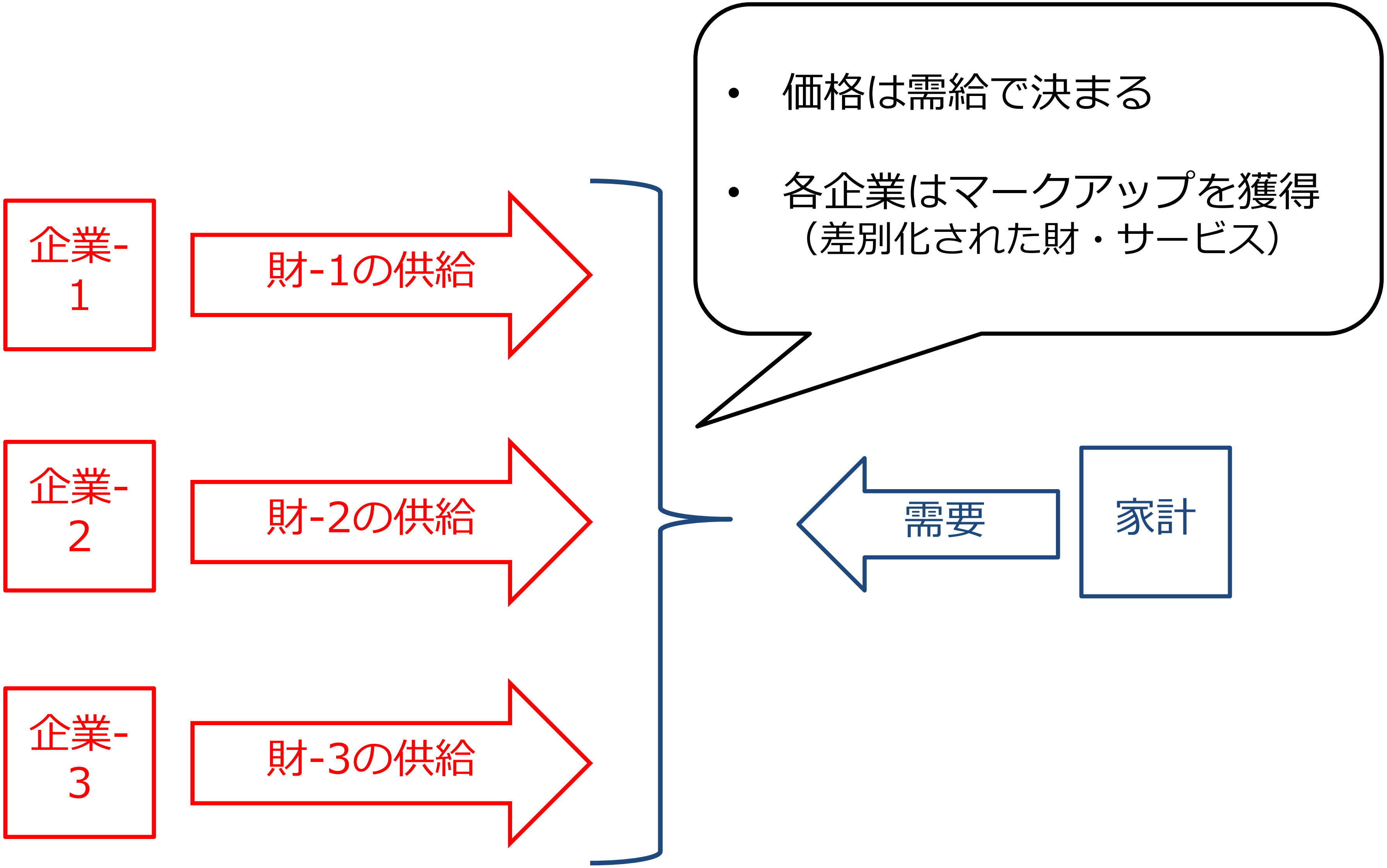
1. 問題

- SME < 中堅企業 < 大企業

- 経済学的な整理？
  - 規模の異質性
  - ミクロのメカニズム
  - マクロの含意

1. 理論

◘ 異質な企業(ミクロ)によって構成されるマクロ経済

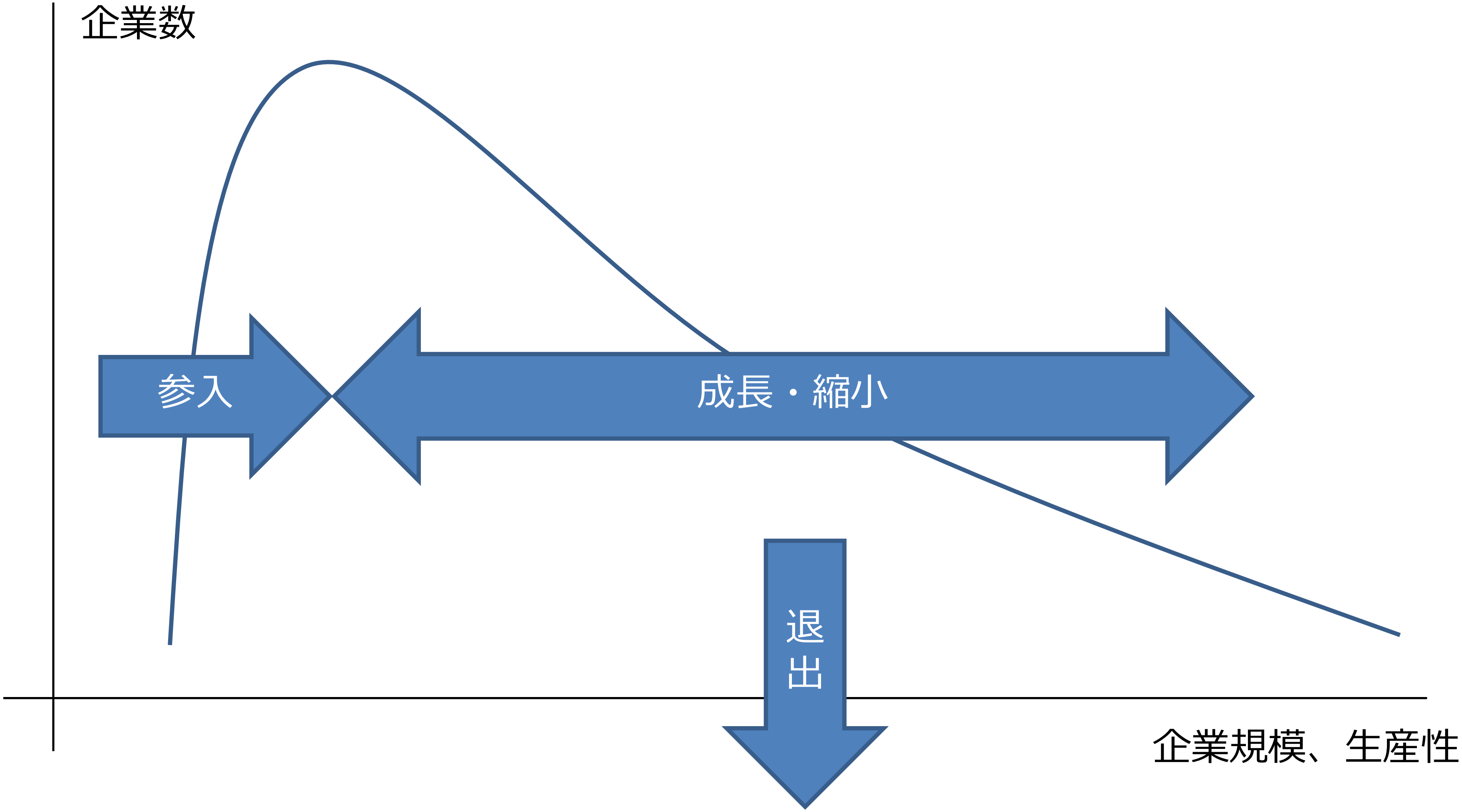


- 価格は需給で決まる
- 各企業はマークアップを獲得
  （差別化された財・サービス）

企業-1
財-1の供給
企業-2
財-2の供給
企業-3
財-3の供給
需要
家計

1. 理論

- ◻ 参入・退出、成長・縮小
  - ■ 定常均衡（≒ 物価の議論における”蚊柱理論”）


企業数
参入
成長・縮小
退出
企業規模、生産性

1. 実証

- ファクト：ビジネスダイナミズム@日本 vs. 米国
  - “6” & “9”における相違

⇒ 邪悪なGAFA説 (e.g., Akcigit & Ates ‘21) は適用不可

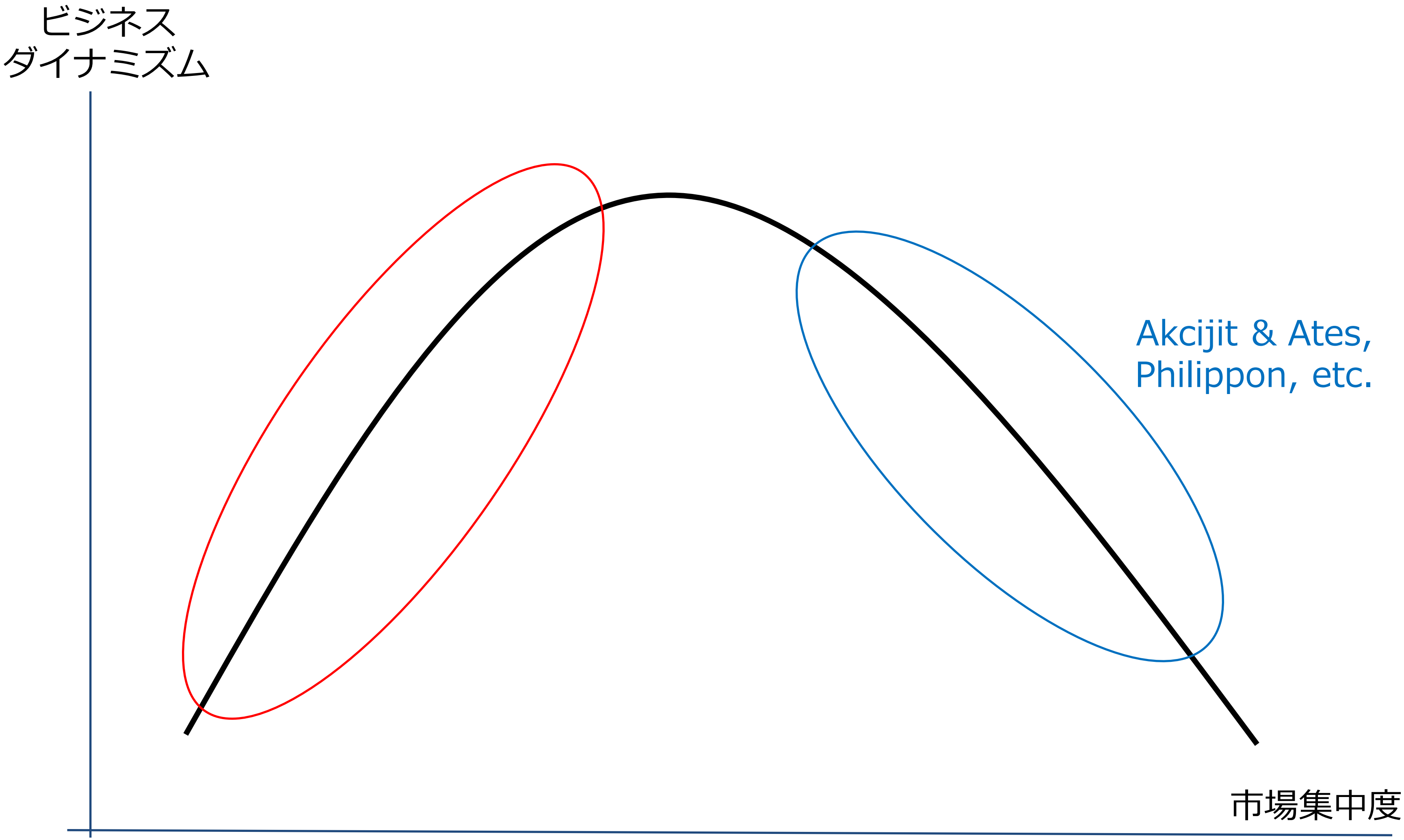
⇒ 日本固有の説明が必要 (e.g., size-dependent policy)

Facts	Japanese Data	US Data	Lower knowledge diffusion (e.g., Akcigit & Ates ’21)
1. Entry	↓	↓	↓
2. Young firms’ empl. share	↓	↓	↓
3. Dispersion of firm growth	↓	↓	↓
4. Job creation	↓	↓	↓
5. Frontier vs. laggard gap	↑	↑	↑
6. Markups	⇔	↑	↑
7. Profit	↑	↑	↑
8. Labor share	↓	↓	↓
9. Concentration	↓	↑	↑

Source: Takizawa & Miyakawa (mimeo)

1. 理論 + 実証 = 含意

- 日本 vs. 米国 (vs. 欧州)
  - 中堅企業＝逆U字におけるキープレイヤー


ビジネス
ダイナミズム
Akcijit & Ates,
Philippon, etc.
市場集中度

Source: Takizawa & Miyakawa (mimeo)

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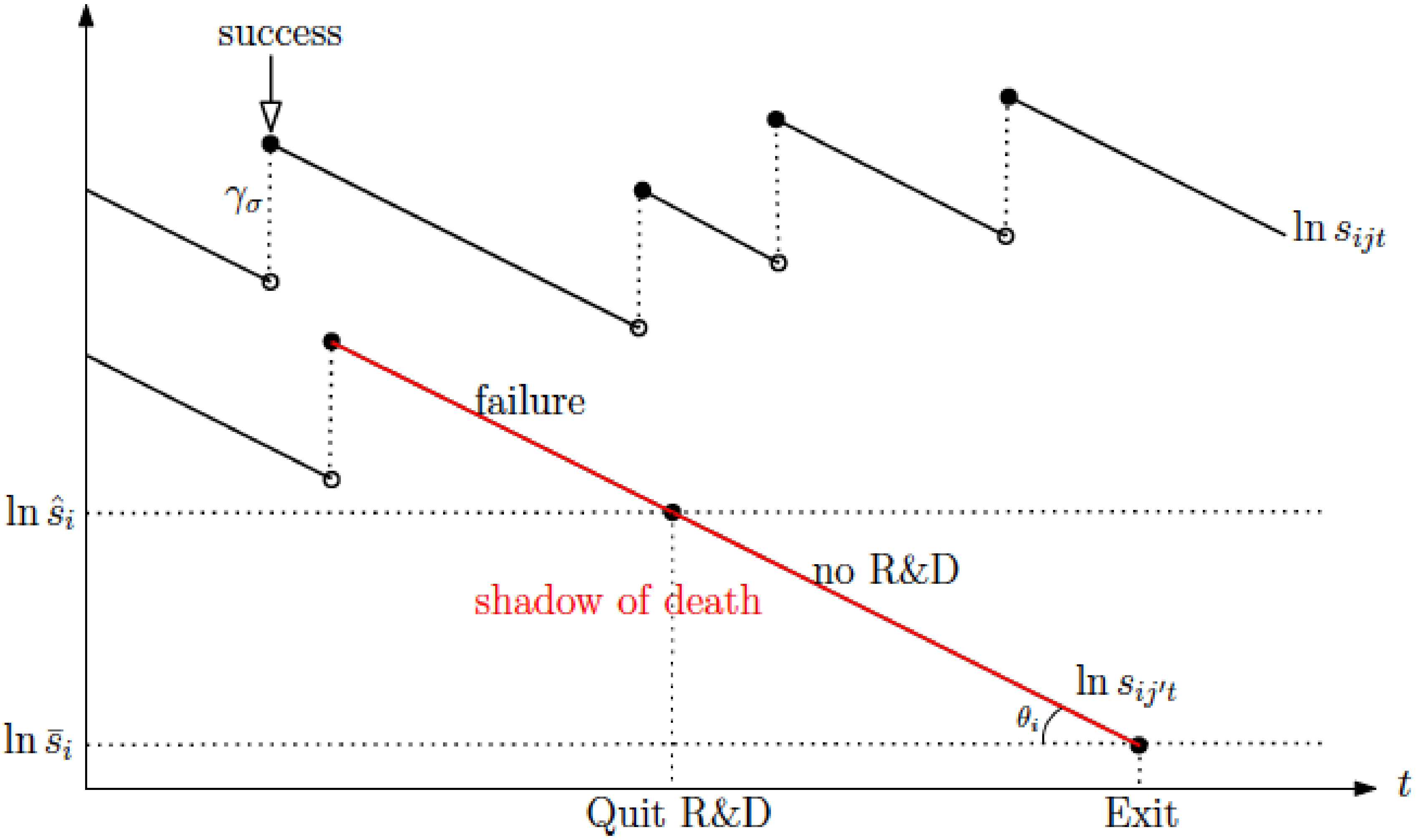
2. 研究開発 vs. 企業規模

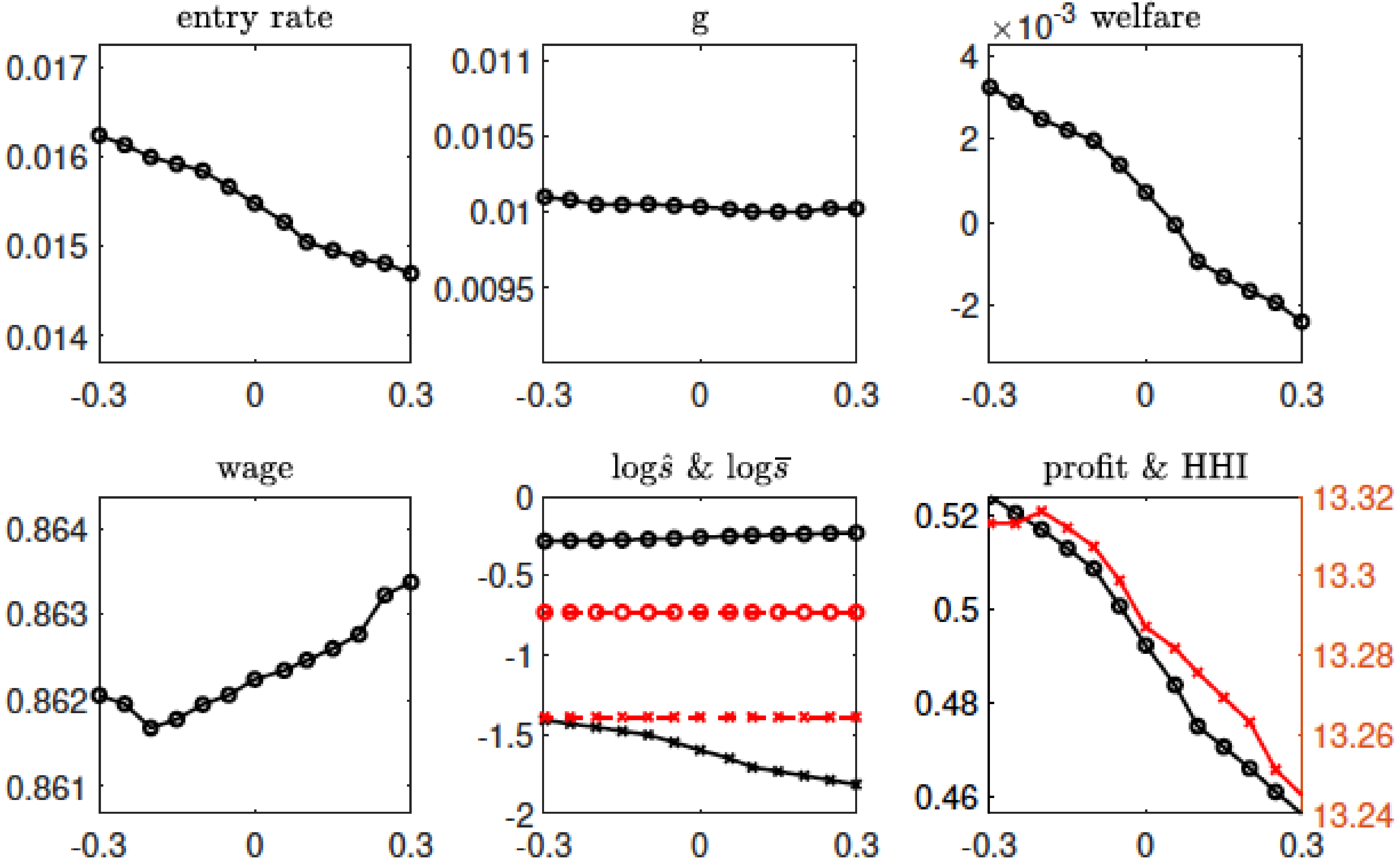
- R&D cost の標準的な構造：何らかの「固定費」


success
γ_σ
$\ln s_{ijt}$
failure
$\ln \hat{s}_i$
no R&D
shadow of death
$\ln s_{ij't}$
θ_i
$\ln \bar{s}_i$
t
Quit R&D
Exit

Source: Miyakawa et al. (2022)

2. 政策 (esp., 税制)？

- Size-dependent R&D税制 → Social optimaへの一つの道



Source: Miyakawa et al. (2022)

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3. 政策介入の大前提

- □ 政策介入の効果 > 0 if …
  - ■ 企業が何らかの制約・摩擦に直面していて…
    - ✓ 例：金融や情報に関する制約
    - ✓ 例：外部性→二種の非効率性（死の影論文）
  - ■ その制約をある政策介入によって解消可能であり…
  - ■ その政策介入に要するcost < 社会的便益 なら OK

3. B/C

◻ 「内部効果」の決定要因

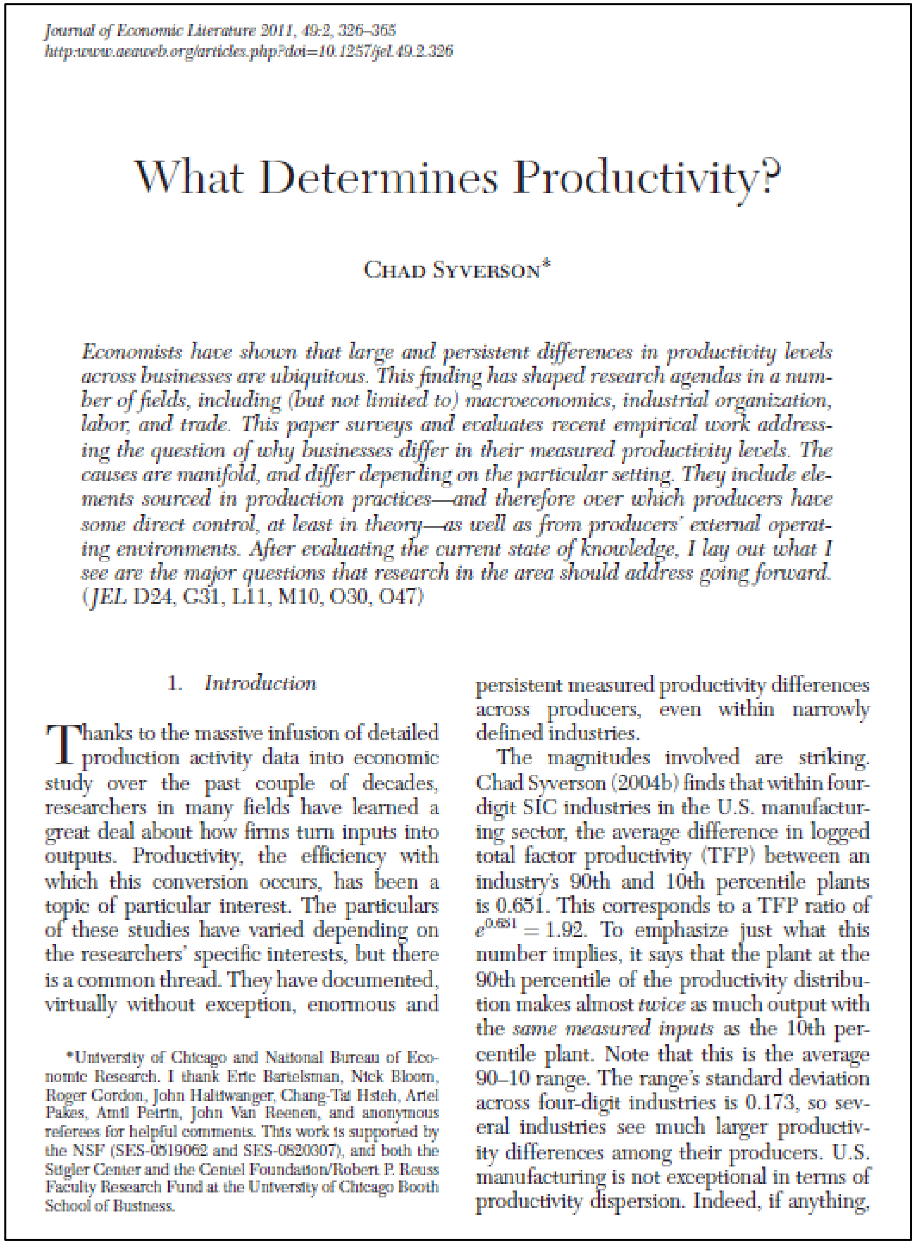
<Internal>

- Managerial practice/talent
- Higher-quality L & K
- **ICT & RD**
- Learning-by-doing
- Product innovation
- Firm structure decision

<External>

- **Productivity spillover**
- Competition
  - Intra-market
  - Trade
- Deregulation, proper regulation
- Flexible labor market

Source: Syverson (2011)



Journal of Economic Literature 2011, 49:2, 326–365
http:www.aeaweb.org/articles.php?doi=10.1257/jel.49.2.326

What Determines Productivity?

Chad Syverson*

Economists have shown that large and persistent differences in productivity levels across businesses are ubiquitous. This finding has shaped research agendas in a number of fields, including (but not limited to) macroeconomics, industrial organization, labor, and trade. This paper surveys and evaluates recent empirical work addressing the question of why businesses differ in their measured productivity levels. The causes are manifold, and differ depending on the particular setting. They include elements sourced in production practices—and therefore over which producers have some direct control, at least in theory—as well as from producers' external operating environments. After evaluating the current state of knowledge, I lay out what I see are the major questions that research in the area should address going forward. (*JEL* D24, G31, L11, M10, O30, O47)

1. *Introduction*

Thanks to the massive infusion of detailed production activity data into economic study over the past couple of decades, researchers in many fields have learned a great deal about how firms turn inputs into outputs. Productivity, the efficiency with which this conversion occurs, has been a topic of particular interest. The particulars of these studies have varied depending on the researchers' specific interests, but there is a common thread. They have documented, virtually without exception, enormous and persistent measured productivity differences across producers, even within narrowly defined industries.

The magnitudes involved are striking. Chad Syverson (2004b) finds that within four-digit SIC industries in the U.S. manufacturing sector, the average difference in logged total factor productivity (TFP) between an industry's 90th and 10th percentile plants is 0.651. This corresponds to a TFP ratio of $e^{0.651} = 1.92$. To emphasize just what this number implies, it says that the plant at the 90th percentile of the productivity distribution makes almost *twice* as much output with the *same measured inputs* as the 10th percentile plant. Note that this is the average 90–10 range. The range's standard deviation across four-digit industries is 0.173, so several industries see much larger productivity differences among their producers. U.S. manufacturing is not exceptional in terms of productivity dispersion. Indeed, if anything,

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3. 整理

- □ Why not SME?

- □ 中堅企業政策？

  - ■ 日本の文脈に対応したトレードオフを勘案した政策

  - ■ 実施に加えて評価の構えが重要 (EBPM)

- □ 制度設計思想？

  - ■ Jorgenson批判 (i.e., ターゲティングの必要性)

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4. まとめ

□ 中堅企業政策

= 日本におけるビジネスダイナミズム

= 標準的な経済理論

→ ターゲティングの発想

→ 事後的な検証の構え

※ 学術研究の対象としても面白いと思います・・・

<Reference>
Akcigit, U. and S. T. Ates (2021). Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory. American Economic Journal: Macroeconomics 13(1), 257–98.

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