Discussion:
A Growth Model of the Data Economy

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Looking into the future

- Data - invaluable?

    - extremely useful, hard to measure its value.

- This paper gives a guideline to measuring the value of data

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- My discussion:

    1. California Consumer Privacy Act (CCPA)

    2. Data stock adjustment cost

1. CCPA: New data regulation

This paper is extremely relevant, esp. in California, January 2020.

- California Consumer Privacy Act (CCPA)

- Effective on Jan. 1, 2020.

- "Do not sell my info"

- Californians can say no to the sale of personal information.

1. CCPA: Do not sell my info

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Los Angeles Times

Notice of Right to Opt-Out

Opting out of Personalized
Advertising

Opt-Out Tools

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1. Data collection and resale

- Not only in California:

  EU General Data Protection Regulation (GDPR) since May 25, 2018.

- Data mining and resale could be more costly in the future

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- Questions

  ▸ What will happen to the price of data and macroeconomic growth as a result of these regulations?

  ▸ Optimal data regulation?

→ Need a macro model with data

→ This paper may answer these questions

2. Data and adjustment cost

- Data stock Ω_i: Knowledge about the optimal technique θ_i

- Data mining is free, but adjustment of data stock is costly

$$\Psi(\Delta\Omega_{i,t+1}) = \psi(\Omega_{i,t+1} - \Omega_{i,t})^2$$

2. Role of data adjustment cost

- Data adj. cost does not affect the steady state level,

- but has significant impact on growth path.

- Compare high vs. low adjustment cost (ψ) on Ω, k

  ▸ Case without data trading

  ▸ Higher $\psi \to$ slower growth in Ω, k

  ▸ Slight hump shape in capital convergence with low ψ

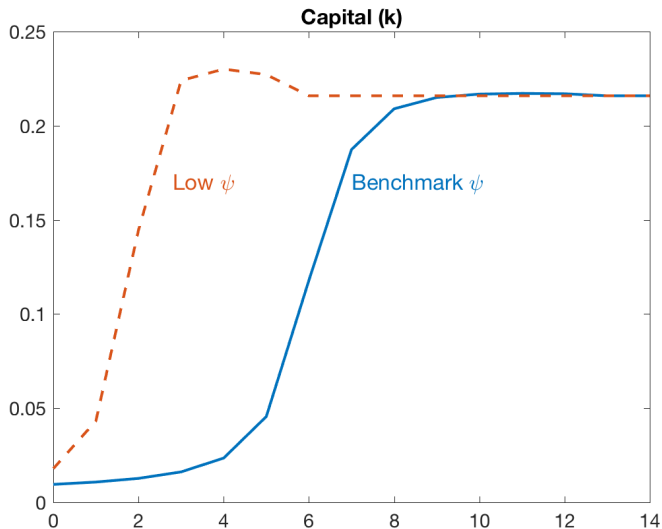- With data trading: If $\psi = 0$, then immediate convergence to steady state.

- How to pin down ψ?

2. BENCHMARK VS. LOW DATA ADJ. COST
$\psi = 2.5$ vs. $\psi = 0.25$
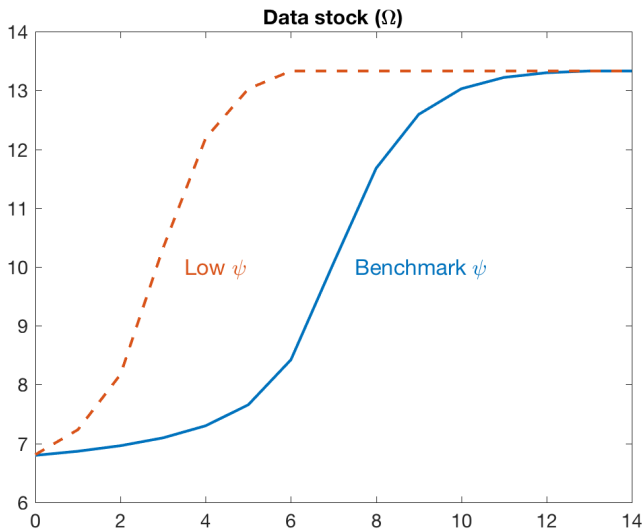
Data stock (Ω)

2. Benchmark vs. Low data adj. cost
$\psi = 2.5$ vs. $\psi = 0.25$

Capital (k)

COMMENTS

- Inspiring paper!

- Data mining (and reselling) may be costly in the future

  - California Consumer Privacy Act

  - EU General Data Protection Regulation (GDPR)

- Data stock accumulation could be optional

  - Model could be transformed into costly data mining but free data stock adjustment

  - In order to avoid immediate convergence to the steady state, endogenous pricing of data (π) might be needed.