

Reassessing Dynamic Efficiency

Sveriges Riksbank Conference on "Bubbles"

François Geerolf

TSE / Sciences-Po

September 12, 2013

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- ▶ Abel and al.: United States until 1984, as well as 6 other countries satisfy $\forall t > t_0, \quad (rK)(t) > I(t)$.

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 2. Australia, Canada are such that $rK < I$ for most years.
 3. Dynamic inefficiency cannot be rejected for any advanced economy.
- ▶ More data: 16 countries over 40 years. Country-level data on land rents and mixed income.

Literature

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- ▶ Recent improvements in national accounts (SNA 93) :
 - ▶ Gollin (JPE, 2001) Getting income shares right.
 - ▶ Caselli and Fryer (2007): The Marginal product of capital.
 - ▶ Piketty and Zucman (2013): wealth/income in the long run.

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- ▶ Income approach:

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- ▶ Conditions:

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- ▶ Pareto-improving change. Feasible, since $\frac{r_t^K l_{t-1}}{l_t} \leq 1 - \epsilon$.

Reproducing Abel and al. (1989)

- ▶ $r_t^K K_t$ is not readily available:

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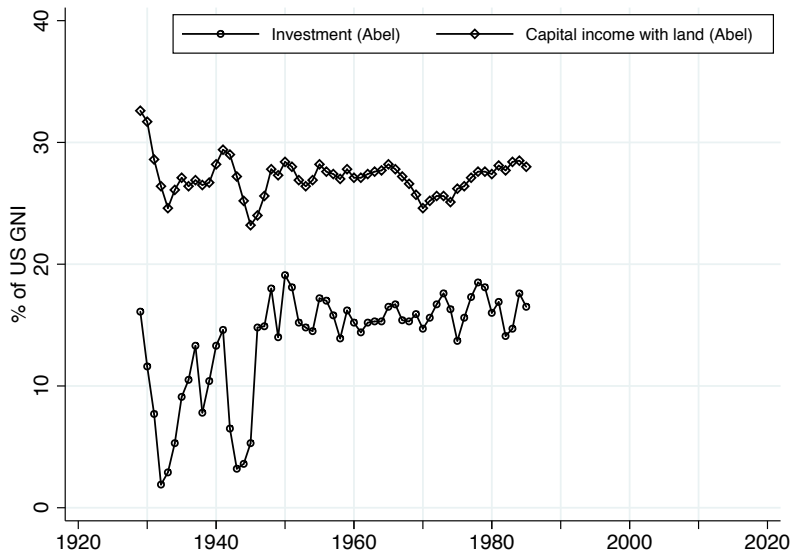
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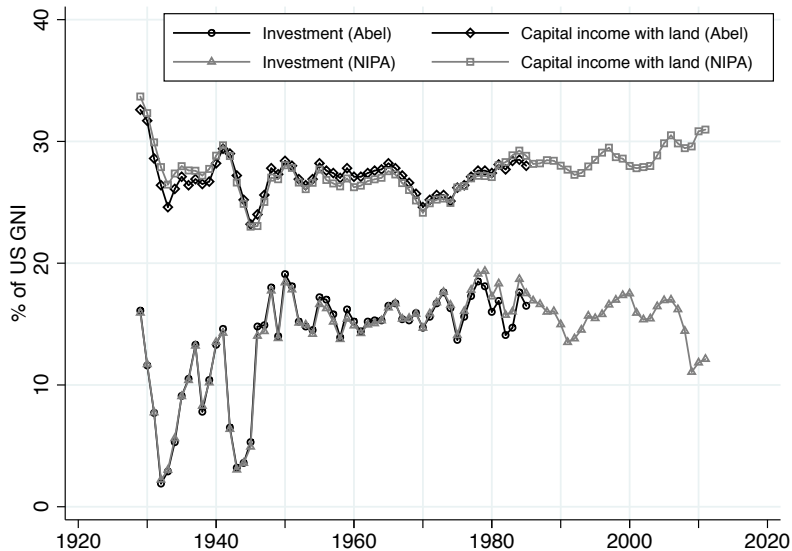
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- ▶ $r_t^L L_t$: 25% of assets = 5% of GDP. $\Pi_{pure} = 0$.

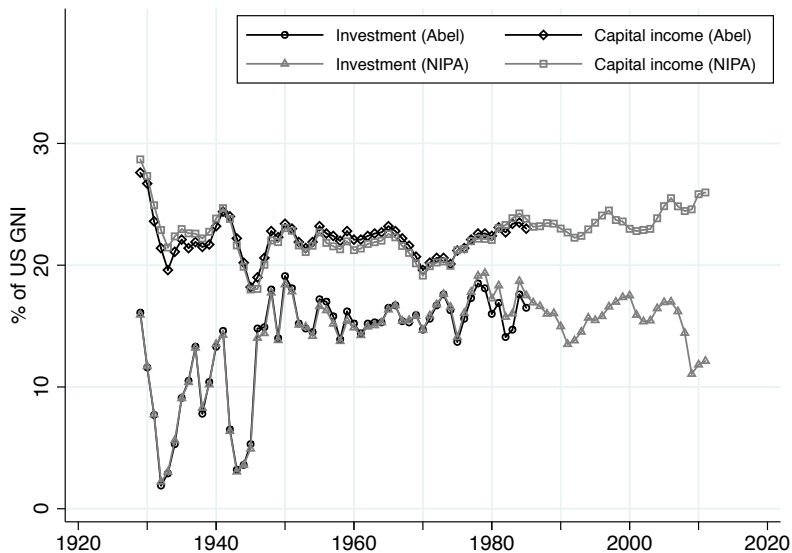
Data from Abel and al. (1989)



Reproducing from NIPA and updating



Adjusting for land, according to Abel and al. (1989)



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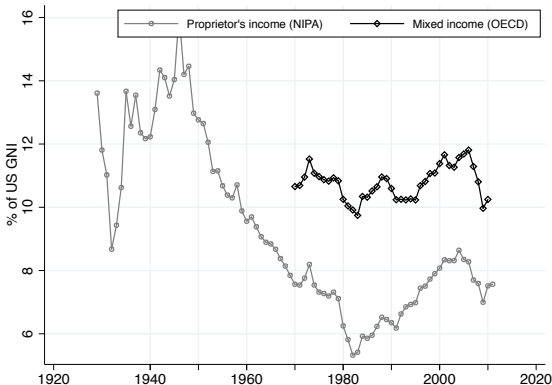
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- ▶ Decreasing returns to scale, monopoly rents in profit. Problem since Kuznets (1959).

Proprietor's income (NIPA) versus mixed income (OECD)

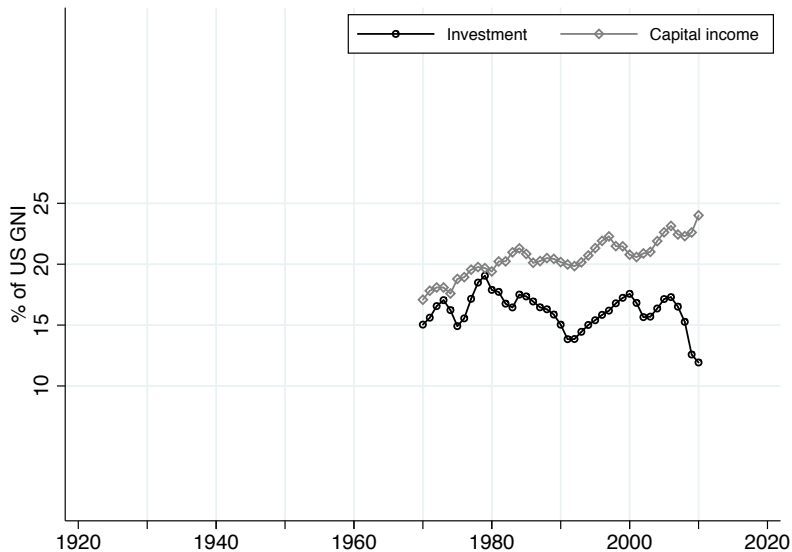
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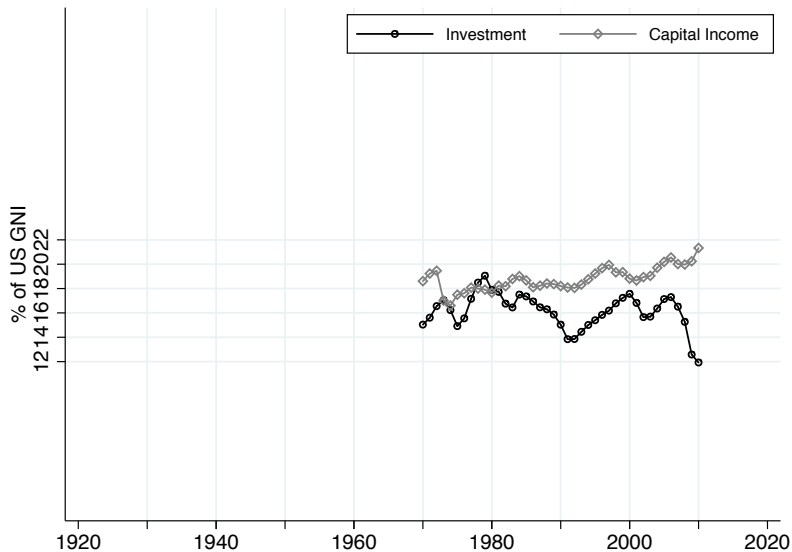
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Adjusting for mixed income



New data on land



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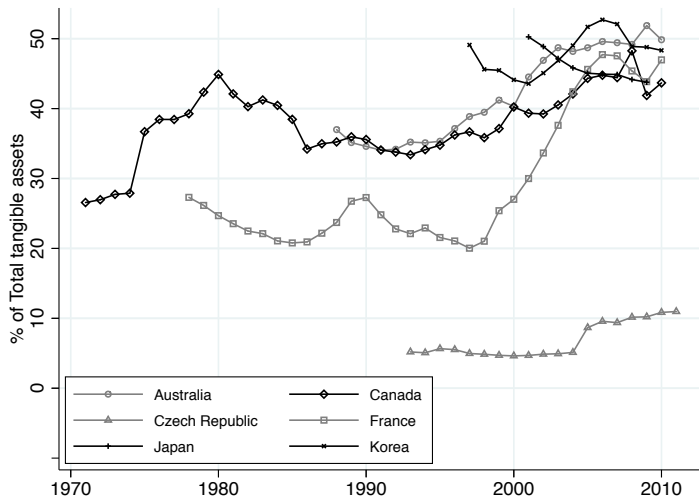
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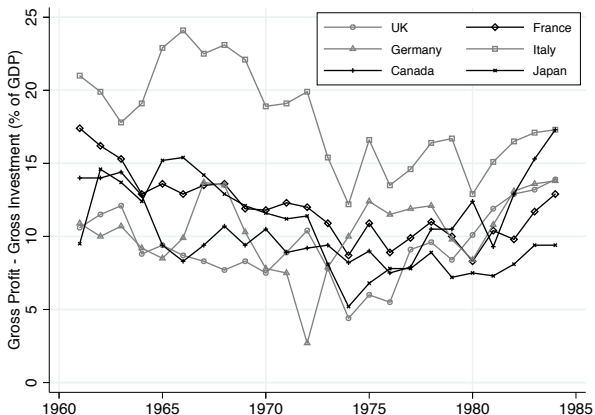
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- ▶ Supplemented by Goldsmith Balance Sheets (1985): 20 countries (1973, 1978).
- ▶ Lowest value in 1973 or 1978 from Goldsmith for all years. Very conservative, especially for the last decade. Goldsmith underestimates relative to OECD.

OECD Data for land

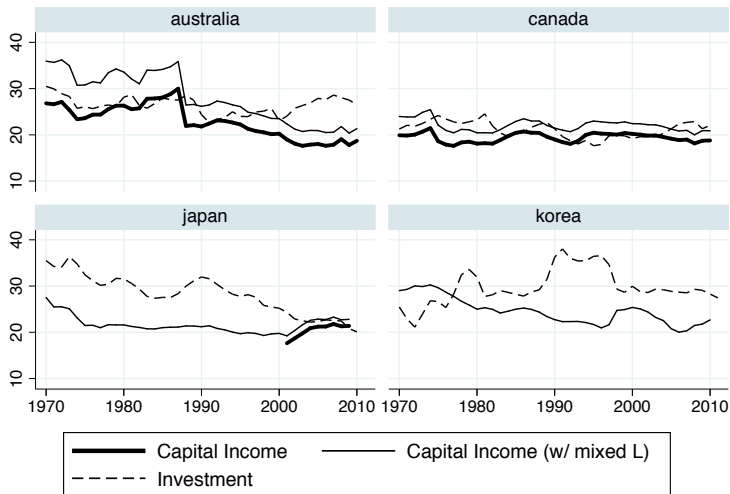


Results of Abel and al.

- ▶ England, France, Germany, Italy, Canada, Japan.
- ▶ Give the difference between gross profit and gross investment.

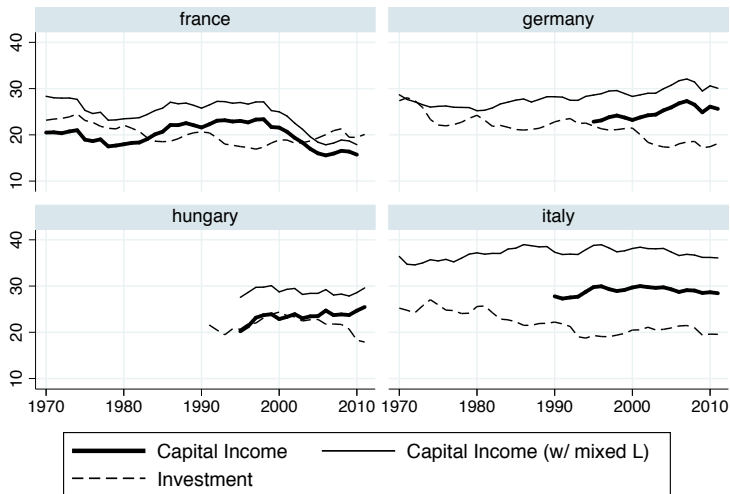


New computations: Japan, South Korea, Australia, Canada



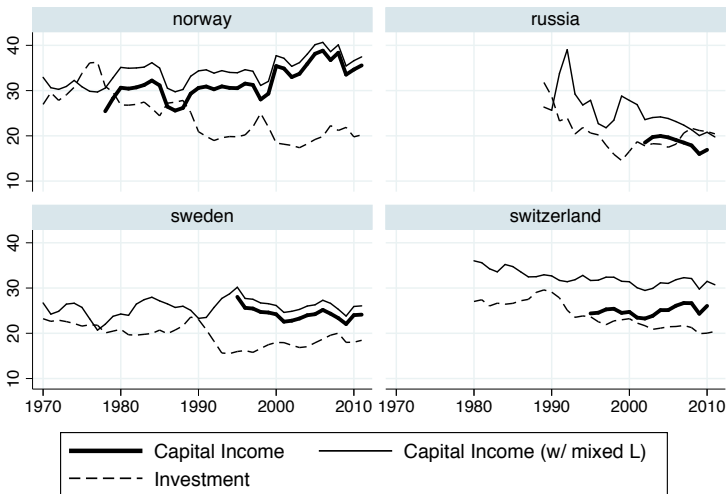
Source: OECD, Kuznets (1985), and author's calculations

France, Germany, Hungary, Italy



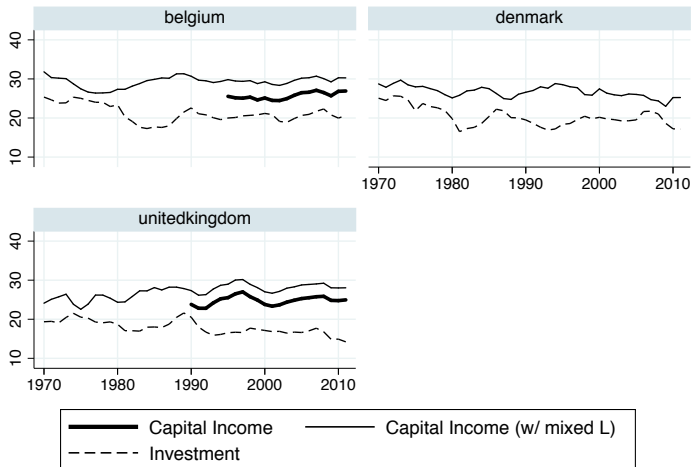
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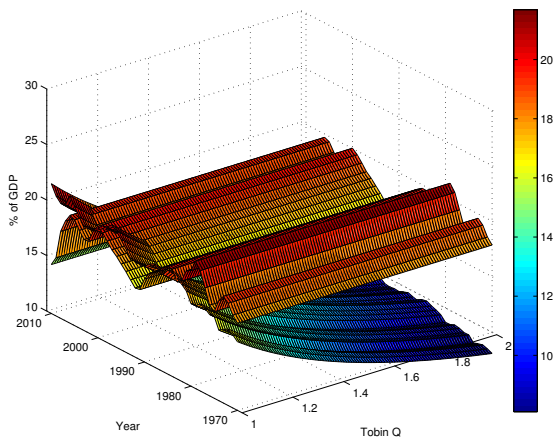
Belgium, Denmark, United Kingdom



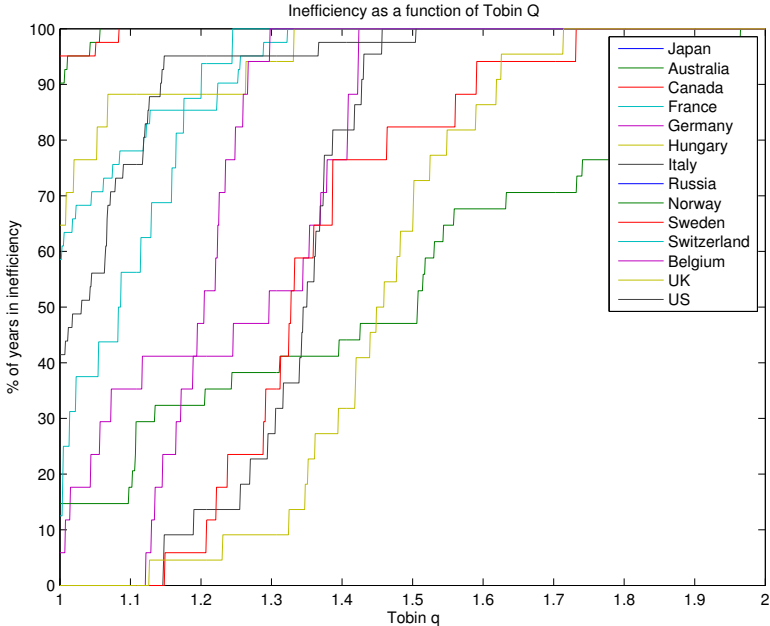
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The need for Tobin's q

- ▶ Decreasing returns to scale pure profits π_t^P need to be taken out. Similarly for monopoly rents. Problem since Kuznets. Average q of Tobin?



Results



Other factors

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- ▶ **Household capital services:** monitoring financial intermediaries, picking stocks, etc. $\simeq 2\%$ of GDP (Piketty and Saez (2011)). Most importantly: managing one's property. (choosing tenants, collecting rents...)

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- ▶ Environment: should we pay now for climate change? Stern ($r^* = 1.4\%$) VS Nordhaus ($r^* = 4\%$).

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- ▶ A lot more work to do.

Thank You !