The Secular Stagnation of Investment

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This does not represent the views of the Bank of England

Key questions

- Paper 1
  - Is there a link between reduced competition (lower entry/exit rates and higher concentration) and weak investment relative to Q?
  - What explains the reduction in competition?
- Paper 2
  - What are the macro effects of reduced competition in general equilibrium?

Micro paper – setup and findings

- 2 sets of regressions
- Manufacturing firms
  - Regress firm-level capital stock on change in industry-level Chinese import penetration, plus interaction with above-industry-median Q
  - Find that increased China exposure <u>reduces</u> capital stock for typical firms, raises it for the leader
- All firms
  - Construct an industry-level ‘excess entry’ variable
  - Use it to instrument industry concentration
  - Show that higher concentration reduced net investment rate

Micro paper - questions and suggestions

- What do the China results tell us at face value?
  - More competition good or bad for investment?
- Identifying assumption: conditional on controls, 90s excess entry uncorrelated with subsequent investment, other than through concentration
- Evaluate economic significance in partial equilibrium
  - Herfindahl has generally increased
  - Barkai (2017) finds that increased concentration can explain **all** of the fall in the labour share, and hence rise in markups

Macro paper – model description

- Households have CES preferences over goods produced by continuum of industries organised as continuum of monopolistic firms, plus leisure.
  - Shocks to discount factor and between-good elasticity of substition
- Firms maximise PDV of dividends subject to adjustment costs, Cobb-Douglas, Calvo pricing.
  - Shocks to valuation
- Taylor rule + ZLB. Competitive labour market

Macro paper - findings

- Show the model detrended data on consumption, net investment rate, interest rates and expected duration of the ZLB
- Filter the contributions of shocks to productivity (level), the discount rate, asset valuation and competition (elasticity of substitution)
- Find that weaker competition reduced demand and interest rates in early 2010s, and extended period during which US is at ZLB

Suggestions on the macro paper

1. Richer labour market
2. Add shocks and observables
3. Consider an OLG setting

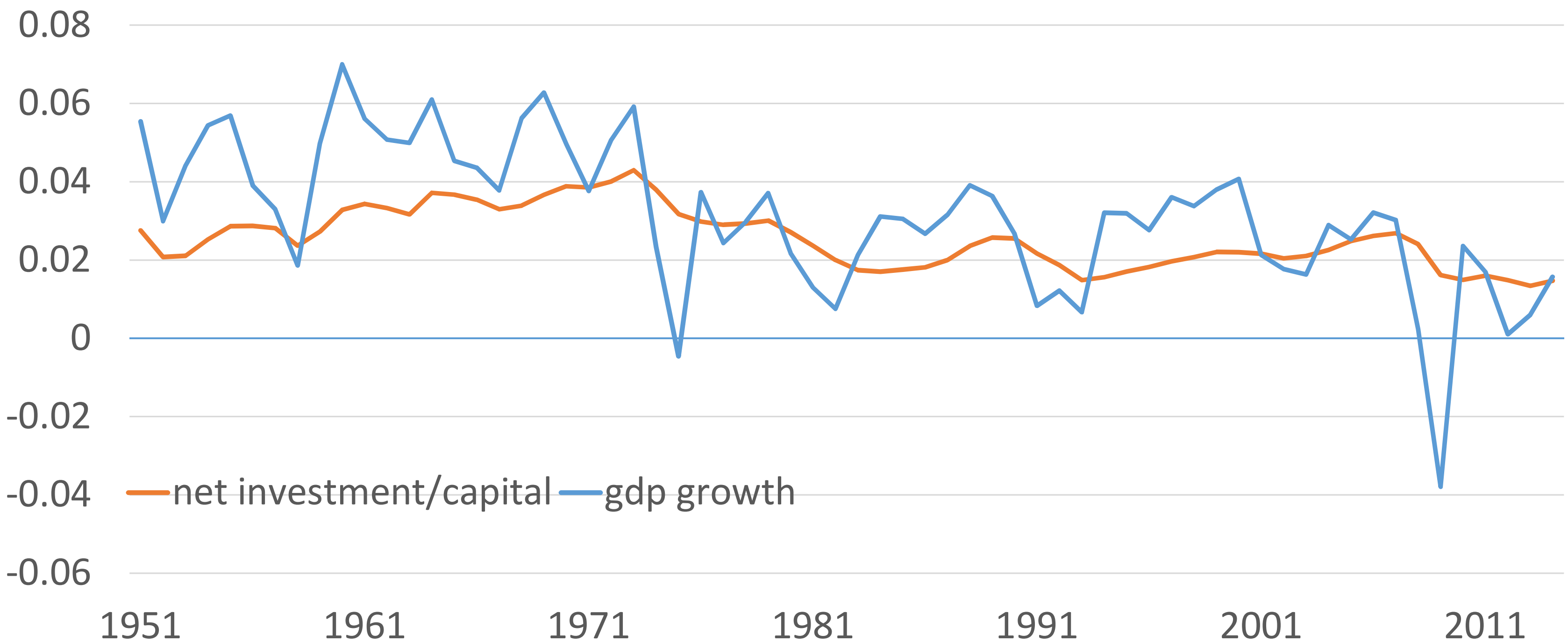
1. Labour market

- The labour market is Walrasian in the DSGE model
- Suggestion: introduce search and matching frictions in the labour market
- Hall (2013) and others: hiring is an investment subject to the same forces as capital investment
- Does weaker goods-market competition discourage investment in job matches as well as in capital goods?
- What happens to employment, wages and the labour share in general equilibrium?
- Can we explain low E/POP and falling labour share?

2. Shocks and observables

- The model includes four shocks and the Kalman filter is shown four observables
- But contains maybe a dozen endogenous variables
- Evidence would be stronger if the competition shock had to
  - compete against more alternatives
  - explain the behaviour of more data series
- Candidate: trend TFP or population growth
  - Trend growth has fallen in the US and elsewhere
  - Expected market growth will influence entry and hence concentration and competition
  - More prosaically, $\frac{I}{K} - \delta = g$ along a BGP

Whole economy net investment/capital and GDP growth, advanced countries

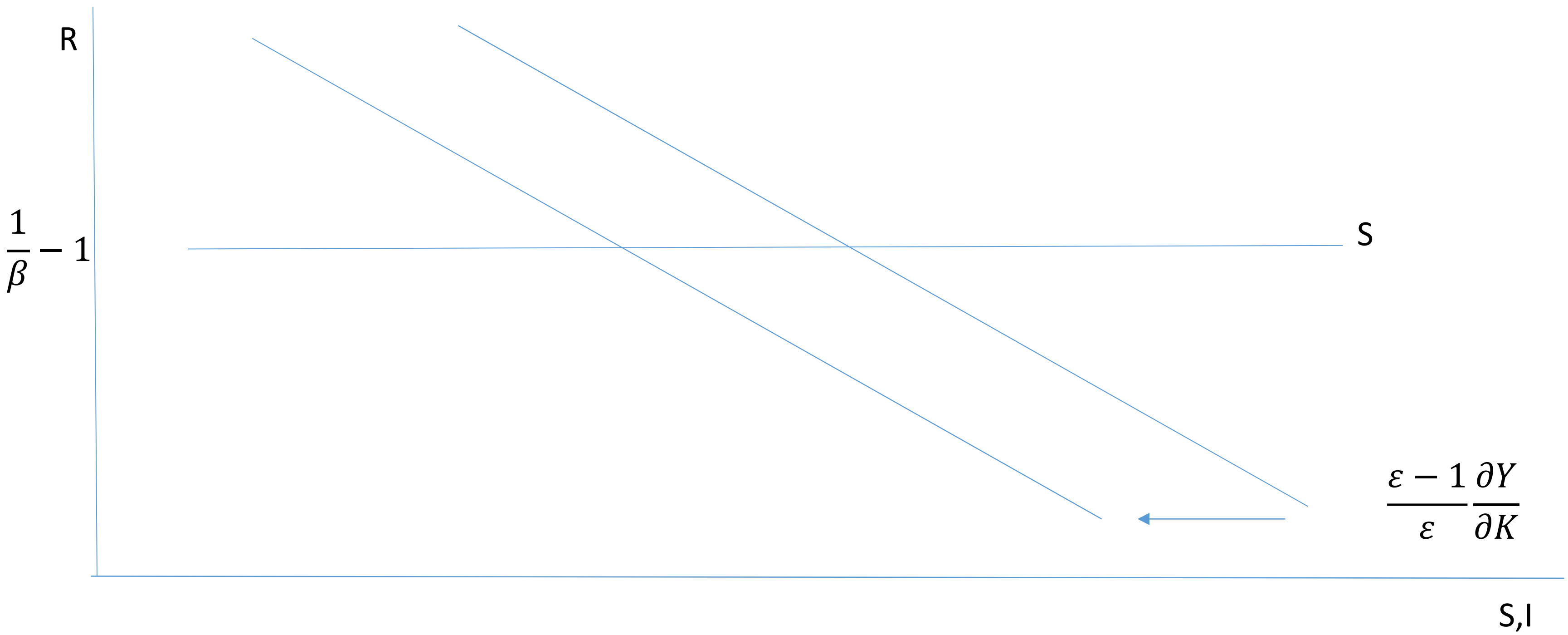


Source: PWT

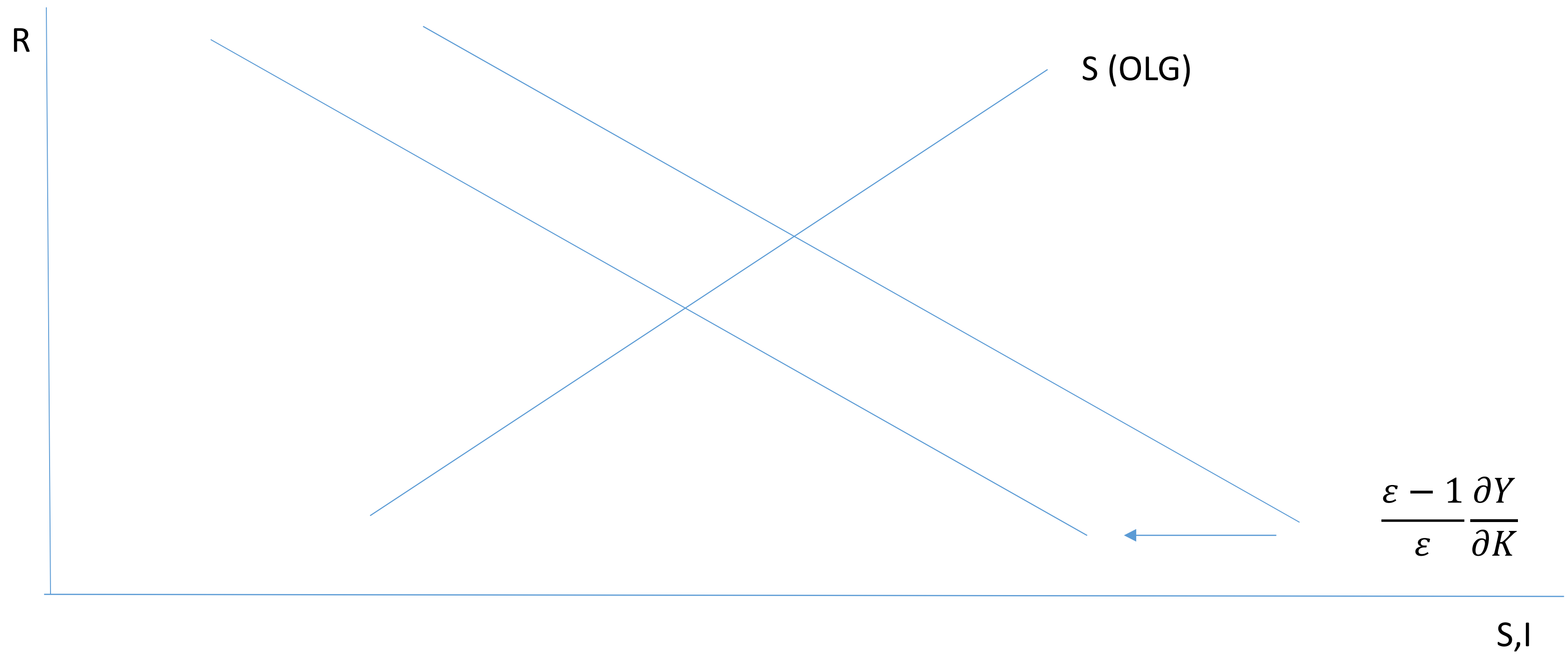
3. Consider an OLG setting

- The baseline model has infinite-horizon representative households
- Long-run interest rate pinned down by β
- Can declining competition explain falling long-term interest rates?
  - Eggertsson, Mehrotra, Robbins (2017) – yes – maybe 50bp
  - Lisack, Sajedi, Thwaites (2017) – depends how monopoly profits are traded

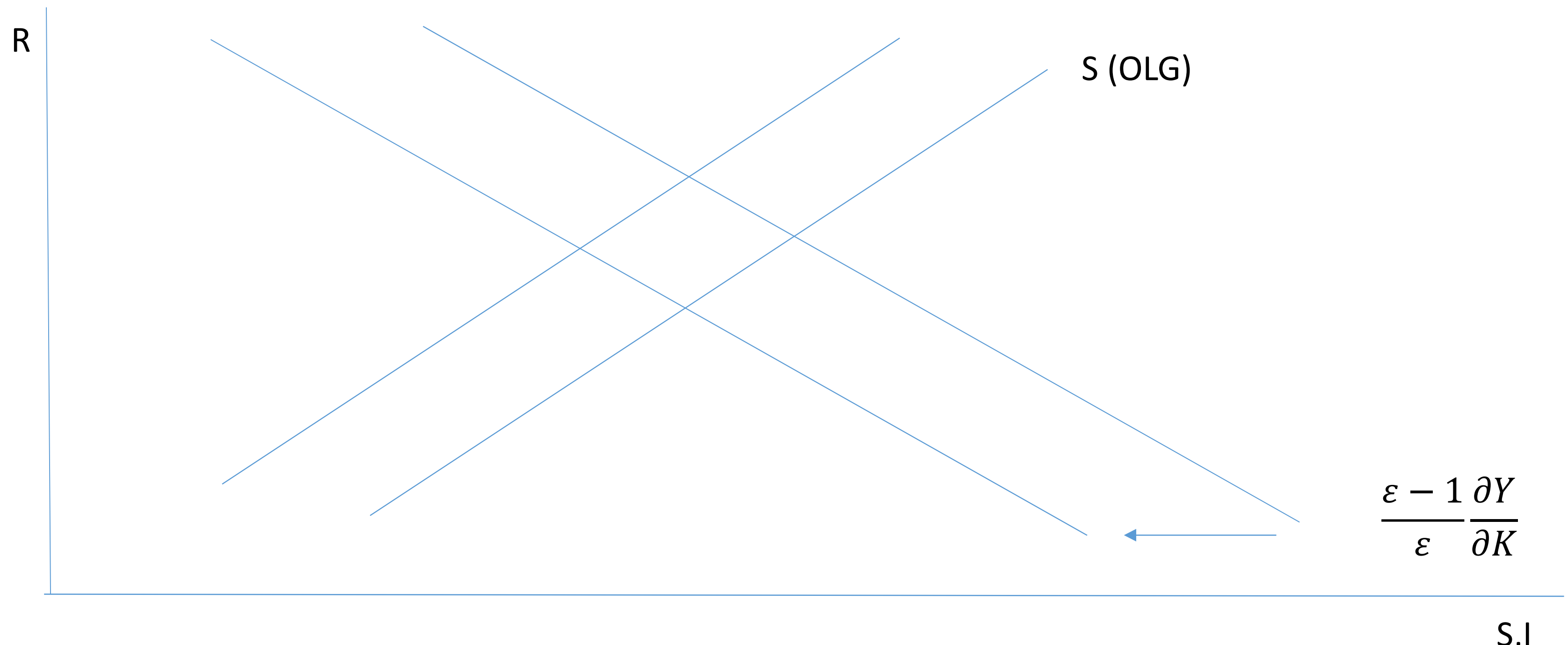
Competition and long-term interest rates



Competition and long-term interest rates



Competition and long-term interest rates



Claim on supernormal profits may be a competing store of value, like public debt or a bubble
Then lower competition may raise long-term interest rates, or reduce them by less

In summary

- Fascinating work
- With modification, DSGE model could perhaps
  - Explain additional facts – e.g. employment and labour share, long-term interest rate
  - More persuasively rule out alternatives – e.g. slowing potential growth