Comments on
“Utilization-Adjusted TFP Across Countries: Measurement and Implications for International Comovement
By Huo, Levchenko, and Pandalai-Nayar

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I will talk about

A couple of stylized facts for context

- GDP synchronisation appears to increase in recent decades
- TFP growth fluctuates a lot

Some concerns about measurement issues

Interpretation of Utility-Adjusted TFP measure

A suggestion to contextualize the results

Increased GDP synchronization from early 1980s on

Roughly same sample as the paper.

Kalemli-Ozcan, Papaioannou, and Peydro´ (JF, 2013)

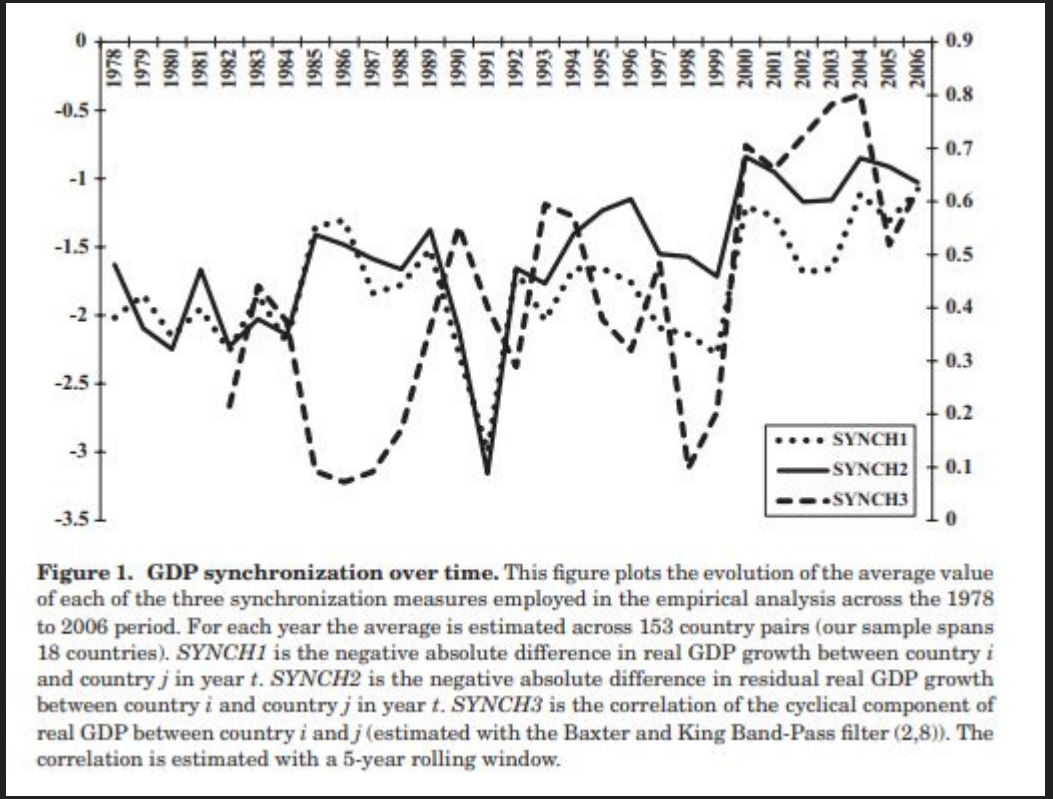
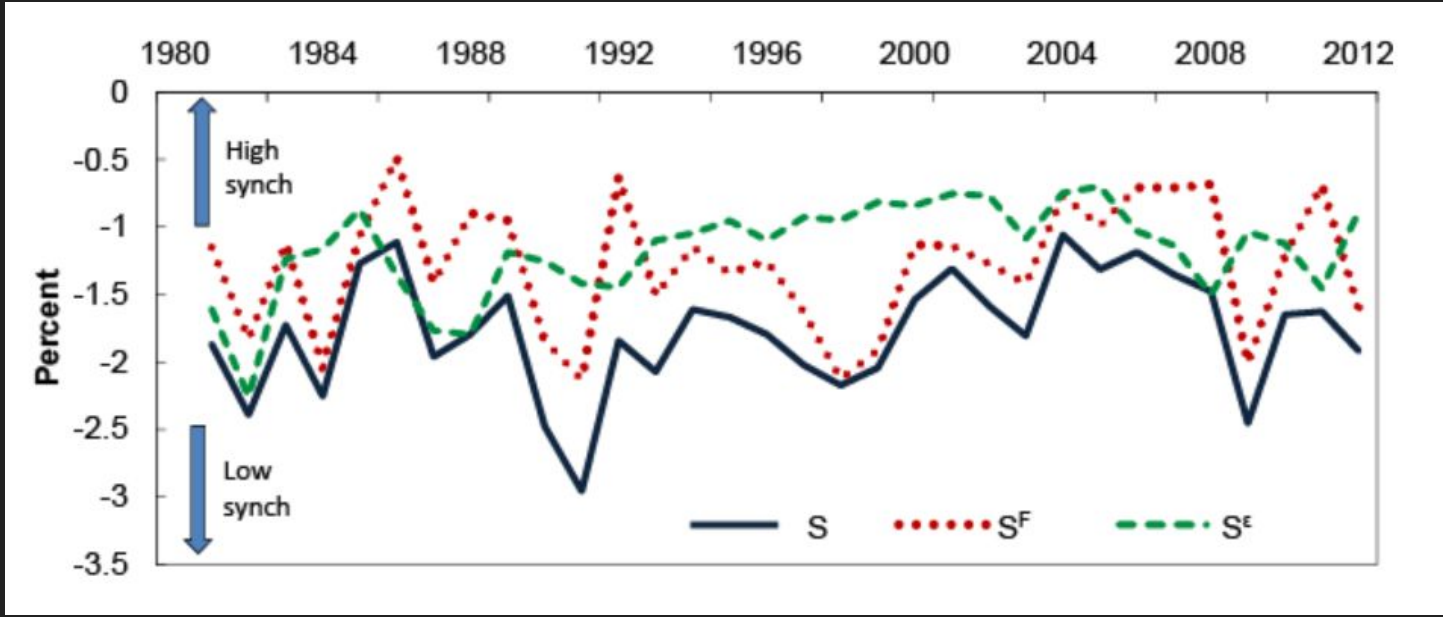


Figure 1. GDP synchronization over time. This figure plots the evolution of the average value of each of the three synchronization measures employed in the empirical analysis across the 1978 to 2006 period. For each year the average is estimated across 153 country pairs (our sample spans 18 countries). *SYNCH1* is the negative absolute difference in real GDP growth between country *i* and country *j* in year *t*. *SYNCH2* is the negative absolute difference in residual real GDP growth between country *i* and country *j* in year *t*. *SYNCH3* is the correlation of the cyclical component of real GDP between country *i* and *j* (estimated with the Baxter and King Band-Pass filter (2,8)). The correlation is estimated with a 5-year rolling window.

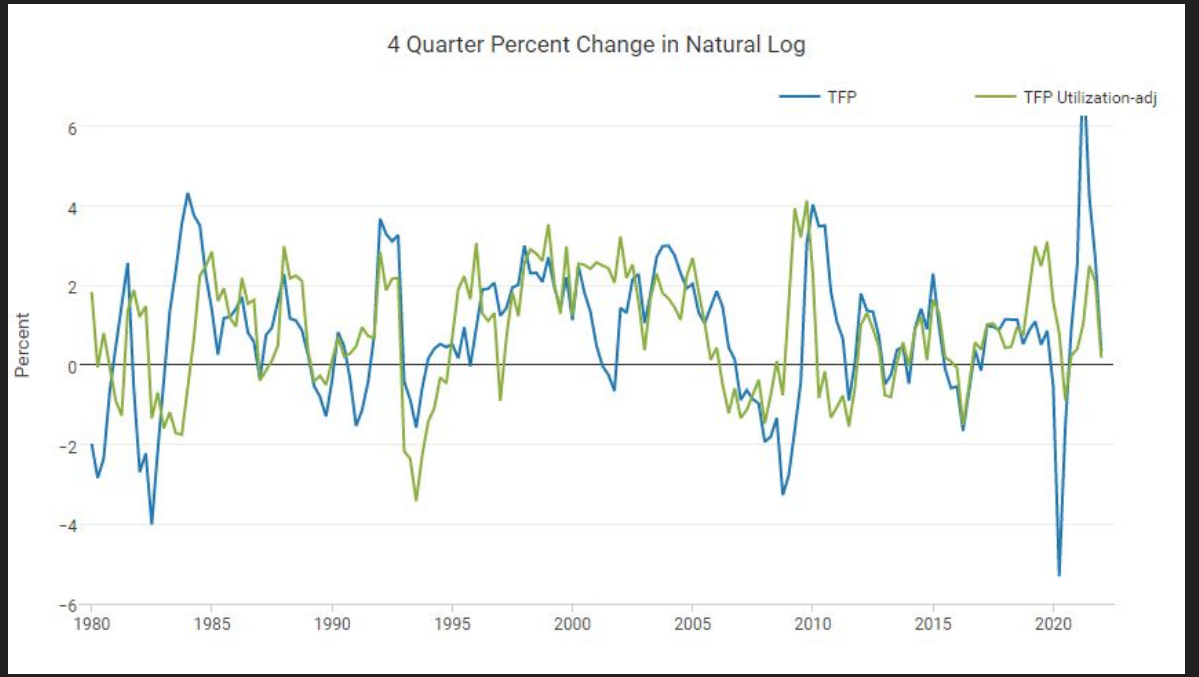
Idiosyncratic component is responsible for most increase

From:
Cesa-Bianchi, Imbs, and Saleheen (JIE, 2019)



TFP growth fluctuates a lot

- TFP is measured as a residual
- Utilization rates are important (COVID crisis is an extreme example)



Chipping away at Solow residual helps us understand the role of TFP

- What explains business cycle comovement?
  - Common shocks
  - Trade
  - Financial linkages
  - …?
- Isolating actual TFP from capacity utilization can help answer the question

This paper:

1. Extending BFK approach to other countries
2. Using new data to study comovement

TFP: still a residual

Approach:

- allow for factor utilization variation in the production function
- Use structural model to proxy for utilization given data constraints
- TFP as a residual for this function
- Solow residual is from full-utilization

=> Solow residual = Utilization + TFP

What else might be entering the utilization-adjusted TFP measure?

(acknowledge this interpretation challenge)

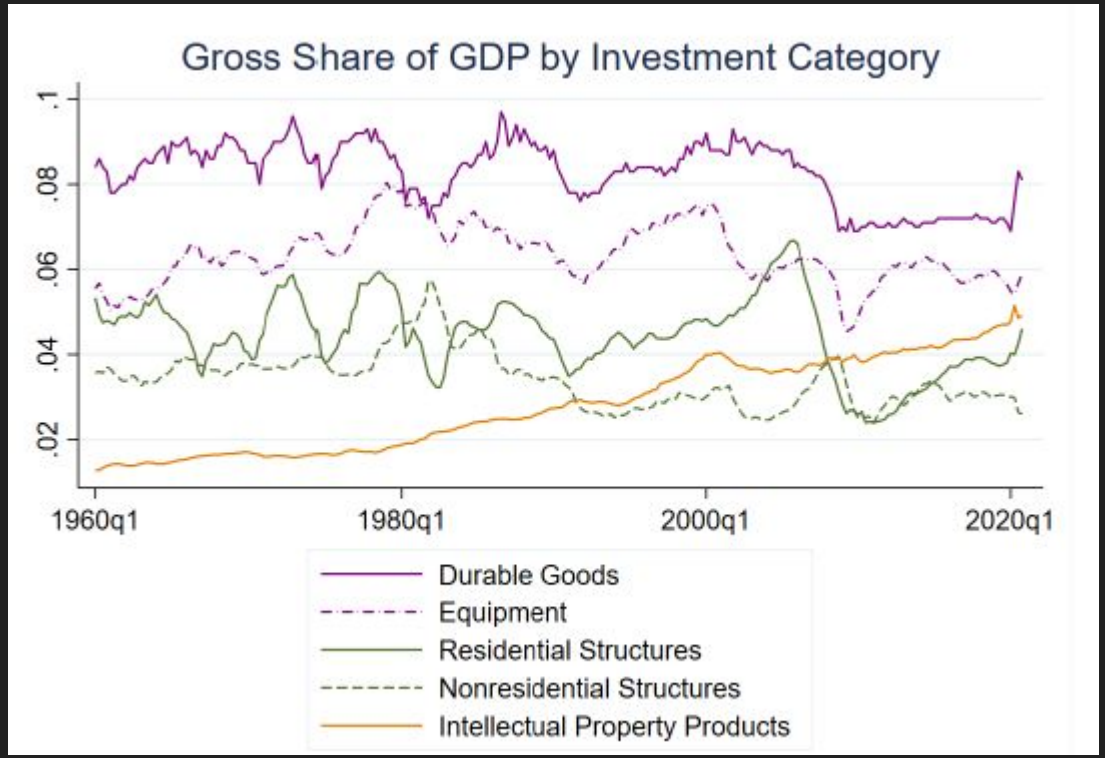
Cross-country heterogeneity in data quality/composition

- G-7 results are probably fine given high-quality data source
- Larger sample might have heterogeneous biases, e.g.
  - Size of informal sector varies by country and industry
  - Given broad industry definitions, can composition effects be important?
  - Capital and labor *quality* is likely to vary

Given that TFP is computed as a residual, this heterogeneity will create a bias toward *not finding the effect of TFP on synchronization* in the empirical analysis - an important conclusion of the paper

Should intangible capital be added?

- Increasing importance
- Some data availability
- Will it change the measure if included in the model?



UA TFP is different than Solow residual

- As expected
- In terms of business-cycle synchronization it does not contribute much (but utilization does)
- One conclusion: don’t look for technology factors to explain synchronization

However, utilization can be affected by technological factors
(as authors acknowledge)

Hard to appreciate the importance of the distinction between series

A replication exercise?

- There is a literature that is relying on Solow residual to measure role of TFP in synchronization.
- Can you replicate some of the empirical papers using utilization-adjusted series you created to show qualitative and quantitative differences?

Conclusion

- Very well researched and written paper
  - Lots of work !!!
- Important contribution to the profession - I imagine data series will be widely used to answer many questions
  - Why stop in 2007?
  - COVID crisis episode shows the importance of capacity utilization
- Important contribution to understanding business cycle comovements