Discussion of Capital Allocation & Productivity in South Europe
Gopinath, Kalemli-Ozcan, Karababounis & Villegas-Sanchez

John Van Reenen
(Centre for Economic Performance & LSE)

COMPNET, Frankfurt
June 2015

CENTRE *for* ECONOMIC
PERFORMANCE

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THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

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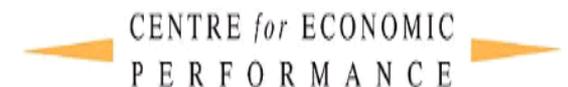
Great Paper!

- Big issue of why TFP has slowed/fallen in many countries. Southern EU hard hit by crisis

- Excellent use of major micro data sources from BVD to get at issues of reallocation (clearly important)

- Some facts; then dynamic calibrated model (simulated over heterogeneous firms); show micro and macro facts consistent with that model; use model to perform counterfactuals

- Argument: MRPK has become more dispersed in South EU since 1999 - major contribution to lower TFP growth

- Fall in interest rates (6% to 0 after Euro) has this effect. Financially unconstrained firms take advantage to expand, constrained firms can't. Causes greater misallocation in SR.

- Show other stories (e.g. financial deregulation) cannot fit all the facts so well

Big picture trends in EU productivity

Micro Data

Model

Other Issues

BIG PICTURE PRODUCTIVITY TRENDS: EXAMPLE OF UK PRODUCTIVITY (GDP PER HOUR)
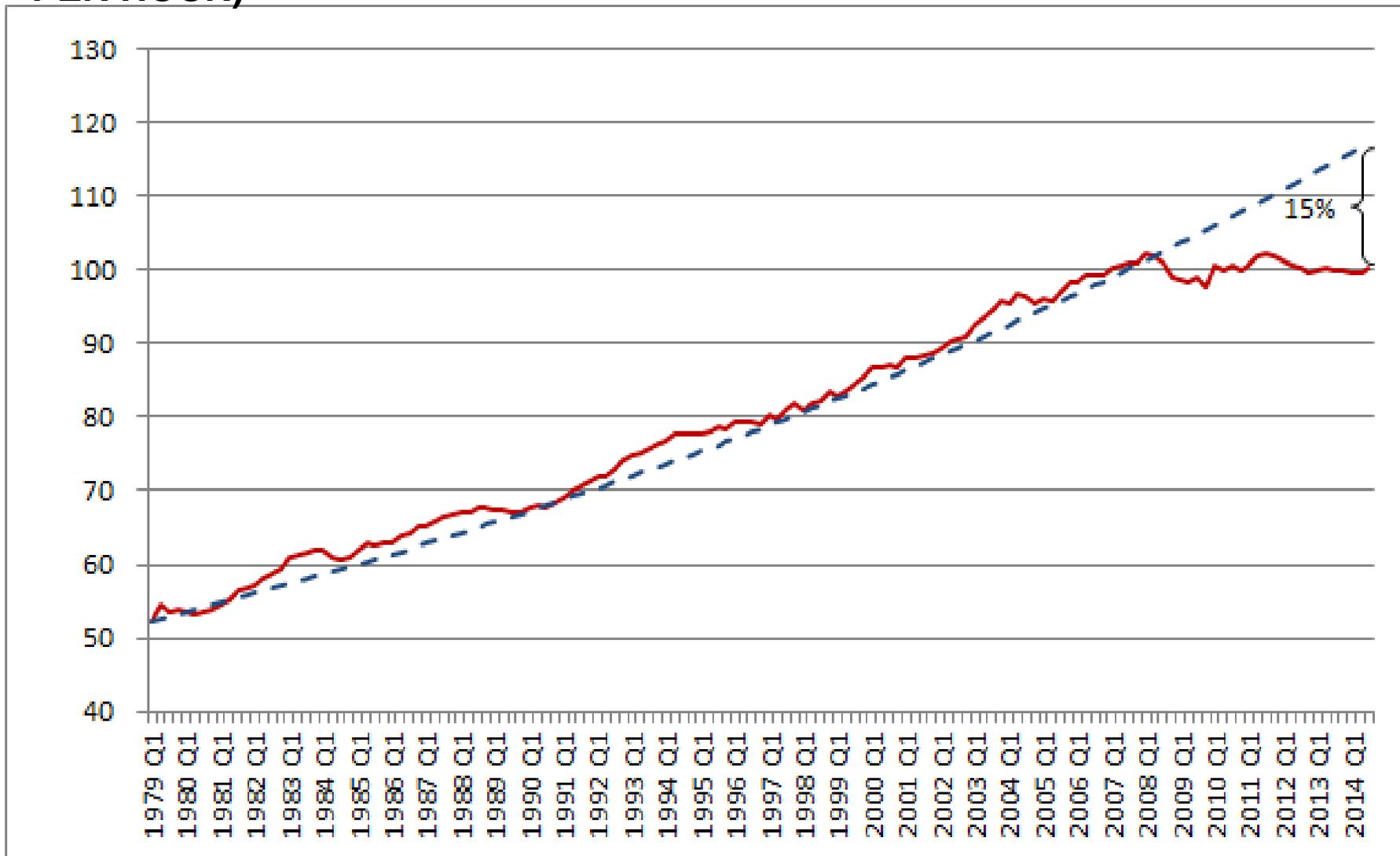
Source: ONS

Notes: Whole Economy GDP per hour worked, seasonally adjusted (Q22010=100).
Predicted value after 2008 Q2 is the dashed line calculated assuming a historical average growth of 2.3% per annum (the average over the period 1979 Q1 to 2008 Q2).

Many possible factors behind productivity slowdown

- Demand shock + labor hoarding
- Investment falls - Uncertainty, low demand, gov investment cuts
- Financial markets dislocation (generally hard to get frictions to be quantitatively large – my work with Besley)
- During downturn least skilled lose jobs first
  - Spain's productivity boom linked to 25% unemployment
  - UK employment rate back to pre-crisis levels
- Changing industry mix
- Measurement

EU TFP growth slowed a lot since 2008……

Table 1:

Trend TFP growth rates for Member States and EU

	2000-07	2008-13	2014-15
Austria	1.2	0.5	0.4
Belgium	0.6	0.2	0.2
Bulgaria	2.2	0.7	0.8
Cyprus	0.6	-0.3	-0.4
Czech Republic	2.8	1.1	0.8
Germany	1.0	0.6	0.7
Denmark	0.7	1.3	0.6
Estonia	2.3	0.7	1.1
Greece	2.4	-0.8	-1.3
Spain	0.2	0.8	0.7
Finland	1.8	0.0	0.2
France	0.8	0.4	0.4
Croatia	1.1	-0.6	0.2
Hungary	1.9	0.2	0.3
Ireland	1.8	0.4	0.8
Italy	0.1	-0.1	0
Lithuania	3.7	1.5	1.6
Luxembourg	0.6	-1.3	-0.9
Latvia	3.6	1.2	1.5
Malta	0.1	-0.1	0.2
Netherlands	1.1	0.1	0.0
Poland	2.5	1.2	1.1
Portugal	0.4	0.9	0.9
Romania	4.3	0.5	0.5
Sweden	1.8	0.6	0.8
Slovenia	1.7	0.4	0.3
Slovakia	3.3	2.4	2.1
UK	1.5	-0.1	0.1
EU-28	1.2	0.4	0.4

Source: European Commission (2015)
http://ec.europa.eu/economy_finance/eu/forecasts/2014_winter/box3_en.pdf

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Table 3: TFP in Data vs. Hsieh and Klenow (2009) Model

Country	Period	Data	Model		
		$\Delta \log(\text{TFP}_t)$	$\Delta \log(\text{TFP}_t^K)$	$\Delta \log(\text{TFP}_t^L)$	$\Delta \log(\text{TFP}_t)$
Spain	1999-2005	-5.1%	-4.3%	0.5%	-3.6%
Spain	1999-2012	-14.8%	-14.9%	-0.5%	-16.3%
Italy	1999-2005	-3.5%	-7.5%	2.2%	-2.9%
Italy	1999-2012	-11.2%	-15.4%	-0.6%	-12.9%

…But not as much as suggested by their data

Source: European Commission (2015)
http://ec.europa.eu/economy_finance/eu/forecasts/2014_winter/box3_en.pdf

Possible Reasons for discrepancies

- Manufacturing vs. rest of economy?

- Different ways of constructing TFP?

- Underlying data: Accounting vs. National Statistical Agencies measurement of items; consolidation; global vs. domestic, etc.

- Something odd about BVD sample?

- Bottom line
  - Would be good to see a more careful comparison with "official" manufacturing data
  - Need to look at pre-1999 aggregate data (Italy & Spain slow TFP growth in 1990s too?)

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Other Issues

Micro Data

- Tables 1 & 2 on coverage BVD vs. Eurostat very nice
- But do reveal problems (e.g. Germany).
- Other issues are different accounting standards (esp. for capital)
- How does number of firms/coverage change over time?
- MRPK=ln(Y/K)=lnY - lnK
- ΔVar(lnMRPK) = Δvar(lnY) + Δvar(lnK) - 2Δcov(lnY,lnK)
- Show not much change in Δvar(lnY/L) so action likely to be in last 2 terms

Robustness of the HK "moments"

- The variance of "MRPK" could just be problem of worse measurement of capital
  - Differences between book-value accounting K & real K
  - Growing importance of intangibles
  - Scrapping

- Average sales per capital can diverge from marginal (e.g. fixed costs)
- Bartelsman et al (2013) simulations suggests that variance of TFPR not very robust measure of misallocation
  - Compare with OP moments (Size & TFP)

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Other Issues

Model structure

- Adjustment for capital; costs heterogeneous TFP shocks across firms; borrowing constraints; lab variable so investment policy function
- 3 states: capital, productivity, **net worth**
- Calibrate & simulate across 10,000 firms to get steady state. Then look at (in model & data)
  - Micro investment equations
  - Micro leverage equations
  - Simulate various macro shocks
- Nice approach when considering complex models
  - cf Bloom, Bond & Van Reenen, 2007, ReStud
  - Robustness issues
  - Estimation of some parameters? SMM

Are South EU problems really what model suggests

- Low interest rates after Euro. Net worth heterogeneous, so the least constrained (not necessarily most productive) firms invest more. Creates misallocation & lower TFP growth

- But probs of low productivity/misallocation in South EU are more *structural*. Labor regulations (e.g. Garicano, Lelarge & VR, 2013); weak product market competition; corruption, etc.

- In many countries (inc US) lending standards deteriorate pre-crisis so capital goes to "wrong firms" (often politically connected – Berlusconi Italy; Garicano on Spain's Caixas)

- Alternatively, may have not get worse but big shock interacts with these existing frictions (Blanchard & Wolfers)

  – Is the effect worse in countries with worse borrowing constraints; more idiosyncratic borrowing frictions?

Summary

- Great paper using new and powerful data
- Suggests variation in capital productivity may be key for productivity trends
- A framework that (may) be right way
  - Better link to story
  - Can test against more alternative stories
- Look forward to next version

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Management and cross-country and firm TFP

Other Comments

- Poor lending practices due to weak regulation in pre-crisis period (US sub-prime & Spain) this looks like WORSE allocation of capital (Austrian view). Maybe this, not lower interest rates is more of a problem (would cause MRPK variance up). Politically connected firms – e.g. Garicano on Spanish Caixa; Berlusconi influence in Italy
- How realistic to think firms perceived a permanent fall of real interest rates from 6% to 0% in 1999?
- Modelling of borrowing constraints in eq (14) crude
- Are production functions estimates by industry*country pair? Show coefficients
- Almost everything is about pre-crisis experience whereas big slowdown post 2008!
- Unlike US Eurozone crisis prolonged pain (e.g. 2012)
- Show more on industry decompositions – is there a between industry effect? Which industries account for most of the MRPK increase?
- Should try to expand beyond manufacturing (VA=Wage Bill + Gross profits)
- Industries closer to construction (Spain); finance & gov (all) harder hit post 2007
- How do these patterns compare with administrative data where there are fewer problems of missing values
- Did I miss aggregate TFP falls presented in your data – didn't seem to be anywhere (not in Fig 2)
- Doesn't seem much of a break in MRPK variation post 2008-9 anywhere
- The rho parameter on persistence of fundamental firm TFP at 0.6 is low. Because of not allowing for fixed effects, but even so seems lower than others usually find?
- What happens when there is a positive shock to interest rates