Monetary integration vs. real disintegration

Single currency and productivity divergence in the euro area

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Content

- Two tales of monetary integration: Pangloss vs. Murphy
- Some stylized facts
- Many explanations that do not fit the data
- Three recent strands of literature
- Some empirical estimates
- Policy conclusions
Tales of monetary integration /1

Pangloss reloaded: all will be for the best...

➢ Short-term (manageable) threats:
  ◦ idiosyncratic shocks and one-size-fits-all monetary policy: Eichengreen-Krugman vs. Frankel-Rose;
  ◦ deflationary bias: Dornbusch vs. Modigliani.

➢ Long-run (invaluables) opportunities:
  ◦ no balance-of-payment constraint anymore;
  ◦ national investment «will not be constrained by national saving» and market allocative mechanism will finance only viable borrowers (Emerson et al. 1991);
  ◦ capital will go where it is needed;
  ◦ nominal convergence will be an opportunity for weaker countries, fostering their real convergence.

Tales of monetary integration /2

A politically constrained research agenda

➢ A lot of research on idiosyncratic shocks.
➢ Because the long-run was not an issue.
➢ Because they could be studied using fashionable VAR models in the Blanchard-Quah tradition.
➢ Because of their political meaning. If random shocks were the only issue:
  ◦ a federal model could be politically viable (it works like an insurance, with transfers randomly going both ways);
  ◦ unifying monetary policy before achieving political integration could have been sensible, insofar as it would cause business cycle synchronization.
Tales of monetary integration /3
Murphy’s law...

- Anything that can go wrong will go wrong.
- Trade promotion:
- Business cycle synchronization:
- Removal of the external constraint:
- Catch-up:
- Benefits of labour market reforms:

Stylized facts /1
Average labour productivity

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Stylized facts /2

Short- vs. long-run

➢ A reversal of perspective: asymmetries in behaviours/structures rather than shocks:
➢ Evidence: the Eurozone crisis starts with a massive «symmetric» shock (the global financial crisis).
➢ Implications:
   ▪ for politics: a federal model could not be viable (different structures imply persistent one-way transfers);
   ▪ for economics: does monetary union harmonize structure/trends?

Three strands of literature /1

Inadequate explanations

➢ Firms’ size
   ▪ refuted by: Calligaris, S. et al. (2016). Italy’s productivity conundrum. a study on resource misallocation in Italy (No. 030). DG ECFIN, EC.
➢ Institutional quality/Lack of structural reforms
   ▪ Calligaris, S. et al. (2016). Italy’s productivity conundrum. a study on resource misallocation in Italy (No. 030). DG ECFIN, EC.
   ▪ refuted by: Pellegrino, B., & Zingales, L. (2017). Diagnosing the Italian disease (No. w23964). NBER.
➢ Wrong specialization
   ▪ refuted by: Calligaris, S. et al. (2016). Italy’s productivity conundrum. a study on resource misallocation in Italy (No. 030). DG ECFIN, EC.
Three strands of literature /2

Recent explanations

- **Capital misallocation**

- **Exchange rate**

- **Labour market reforms**

Three strands of literature /3

Previous research

  - Kaldor-Dixon-Thirlwall growth model
  - Cointegration estimates of the structural breaks in the BoP-constraint

  - Gopinath et al. misallocation analysis
  - Dynamic panel evidence on misallocation
Three strands of literature /4

Poor quality of neoclassical studies

- Cette et al. 2016 present several shortcomings:
  - assume homogeneity between core and periphery (Gopinath et al. stress the asymmetry)
  - use an incorrect estimator (subject to Nickell bias)
  - adopt a completely ad hoc dynamics specification
  - provide wrong estimates of the long-run effect
  - consider a very short sample (starting in 1995)

- As a consequence, the misallocation evidence is extremely fragile:
  - it disappears once you drop Italy from the panel
  - it disappears once you add the real exchange rate to the equation

Three strands of literature /5

Motivation of the study

- Study the long-run impact on productivity of:
  - the real interest rate (as Cette et al., 2016)
  - the real exchange rate (as Bagnai, 2016)
  - the employment protection index, taken as a proxy of labour market reforms (as Tridico, 2015)

- Verify the robustness of this relation by controlling for other variables used in the productivity literature
  - governance indicators: regulatory quality, corruption (Rodrik, 2008)
  - innovation
Empirical results/1
Data and methodology

- EU KLEMS data on 26 ISIC sectors on the four largest Eurozone countries from 1986 to 2007 (the pre-crisis period)
- Two core and two peripheral countries
- Auto Regressive Distributed Lag (ARDL) panel estimation (Pesaran et al., 1999)
  - deals with different orders of integration
  - provides estimates of both the short- and long-run parameters at once

Empirical results/2
Definitions

- real interest rate
  - composite cost of borrowing for nonfinancial corporations (ECB) deflated by sectoral value added deflators (KLEMS)
- REER
  - CPI based REER (BIS)
  - ULC based REER (IMF)
- EPL
  - strictness of employment protection indicator (OECD)
- ICT
  - share of computing equipment, communication equipment and software over gross fixed capital formation (KLEMS)
### Empirical results/3

#### Total Factor Productivity

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<th>dependent variable: $\text{TFP}$</th>
<th>all sectors</th>
<th>manufacturing</th>
<th>services</th>
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### Empirical results/4

#### Average Labour Productivity

<table>
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<th>dependent variable: $\text{value added per hour worked}$</th>
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<td>ICT</td>
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<td>0.09</td>
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<td>(6.57)</td>
<td>(3.40)</td>
<td>(5.51)</td>
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Empirical results/5

Discussion

- Two major causes of asymmetries:
  - interest rate (the fall in Southern countries was larger; Lane, 2005)
  - exchange rate (depreciation in the core and appreciation in the periphery)
- Once the «scale effect» is taken into account, through REER, evidence on the misallocation effect becomes more robust

Conclusions/1

A radical change of policy is needed...

- By fostering productivity divergence, monetary union, rather than endogenously optimal, could become endogenously unsustainable.
- Over time, benefits from low interest rate for public finance are offset by the consequences of subdued growth on the banking system.
- Low interest rates:
  - foster political credit cycles
  - bring about capital misallocation (among countries and sectors)
It is a dangerous error to believe that monetary and economic union can precede a political union. For if the creation of a monetary union and Community control over national budgets generates pressures which lead to a breakdown of the whole system it will prevent the development of a political union, not promote it.

«The dynamic effects of the common market», *The New Statesman*