

Capital Flows across Developing Countries: Is there an Allocation Puzzle?, *by Josef Schroth*

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¹The views expressed in this paper are those of the speaker and do not necessarily reflect the position of the Bank of Italy.

The allocation puzzle: beyond net positions

Is the neoclassical growth model predictions valid?

Need to look inside NET IIP (Gourinchas and Jeanne, 2013; Alfaro et al., 2014)

→ This model allows to look at net foreign asset composition

In order to do so

→ Not enough to divide the world in 2 - emerging and advanced economies

Relatively simple setup: 3-country model with heterogeneous agents where countries (selectively) differ in financial development and productivity (and population).

Main ingredients of the model (1)

- Three countries (U, E, D) that differ in
 - population size μ_j
 - TFP A (with $A^U > A^E \geq A^D$)
 - financial development, i.e. borrowing limits are tighter in E and D compared with U (Prades and Rabitsch, JIE 2012).
- Two types of idiosyncratic uncertainty common to all countries
 - to labor income (Mendoza et al., 2009)
 - to entrepreneurial activity (Angeletos and Panousi, 2011),
- There is no aggregate uncertainty.

Main ingredients of the model (2)

- One homogeneous good and two production factors:
 - labor (not mobile)
 - capital (mobile) → households can setup a firm in any country adopting host country's TFP BUT CRUCIALLY they cannot make use of host country's financial conditions.
- Savings either in production capital or in non-contingent (safe) bonds, both freely mobile across countries.

In equilibrium

- MPK equalization determines production capital movements across countries
- Precautionary motive (due to underdeveloped financial markets) pushes D and E to accumulate safe assets.

Comment 1: definition of production technology

No aggregate (TFP) country-specific risk + residency financial condition \rightarrow equilibrium through MPK equalization

Consequences (unintended ?):

- No gain from investment diversification (See Yu, JIE, 2015)
- Indeterminacy of the investment shares in different countries (χ)
- No home bias in productive investment
- Productive capital does not flow *more (as a share of GDP)* to the relative more productive EMEs country (Table 3). Only scale effect, same with an increase of population size?

Suggestion

- Could you exploit the wedge between MPK and return of safe assets (risk premium as in Angeletos and Panousi, 2011, and Corneli, 2017)?

Comment 2: capital accumulation effects → growth

Growth in TFP exogenously imposed, but need also to look at capital accumulation and production

- What happens to them in autarky versus integration?
- From old steady state to new steady state?
- During the transition?

In Mendoza et al. (2009) financially underdeveloped country reduces level of capital with integration due to increase in interest rate, is it true here as well?

... if so, is the relation between growth and productive capital still positive?

Minor comments

- Is there a natural borrowing limit?
- GDP versus GNP
- Is calibration on US data for idiosyncratic shocks plausible also for EMEs?
- Is the hypothesis $\theta_1^D = 0$ crucial to have that agents from E and D invest in production instead of investing only in safe assets?
- Is the RRA parameter α crucial to get the right sign of the NFA positions?

To conclude

Very important topic

Computationally rich but flexible framework

Appropriate to tackle the issue and provide tools to look at growth, wealth effects, distribution...

Worth exploring further with alternative definition of the uncertainty setup (i.e. explore the possibility of different stochastic processes of EMEs versus US).

References

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