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SUMMARY 4

OPEN ECONOMY SOLOW MODEL

Readings: Slides, Sørensen og Whitta-Jacobsen (2005), Ch. 4; Lucas (1990 until Sec. III) and Caselli and Feyrer (2005, *cursory*)

Evidence on capital mobility

The Feldstein-Horioka puzzle; The Lucas Paradox. Recent evidence on equalization of rental rates.

Basic assumption and equations of the model

The distinction between GNI ("income") and GDP ("production"); the difference between investments and savings in the open economy; Changes in wealth from period to period; The production function; The derivation of inverse factor demands; Equal real rates of return (arbitrage) which pins down the capital-labour ratio (*small* open economy); constant growing population/labor force; The modified savings function; the fundamental law of motion for wealth per capita; rewriting it into a law of motion for national income per capita.

Steady state analysis

Construction of the phase diagram; the required stability condition – its logic, its motivation (is it plausible?); Given this assumption: unique, globally stable steady state in wealth per capita. No growth in income per capita and wealth per capita in the long-run.

Qualitative implication of parameter changes

The distinction between creditor and debtor nations. Increasing the savings rate increases long-run income per capita; increasing fertility does the opposite. Changes in the world market real rate of interest. Dynamic responses of key aggregates (GDP per capita, Capital per capita etc) from changes in parameters. Implications of liberalisation of capital movements for long-run income and the distribution of income compared to the closed economy.

Empirical Implications

Transitional dynamics as an explanation for persistent growth differences in income per capita; The rate of convergence and the time it takes to get to steady state - much like standard Solow model; The model's (lack) of an ability to motivate income per capita/worker differences (much like standard Solow model).