Towards a Micro-foundation of International Capital Movements

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Introduction

- Observations of persistent current account imbalances and massive accumulation of international debt and credit
- Japan, China on one side and the United States and Australia on the other.
- Current account imbalance as a source of political conflict

Introduction-2

- Policy circles treat the balance of payments imbalance as something to cure, e.g., by defining real equilibrium exchange rate (REER). Bergsten, J. Williamson.
- In contrast, some scholars argue that manipulation of exchange rate led Japan to the malaise of lost decade and will lead China into a deflation (Mckinnon-Ohno)

Main Messages of the Paper

- Current account imbalances and persistent accumulation of debt and credit are the norm rather than an exception.
- Unless there are difference between countries in exogenous growth rates of labor. technical progress, or the rates of time preference, the stationary (or balanced growth) point will exhibit non-debt, credit situation.
- Since the difference in exogenous rate of growth would mean world that is dominated by a higher growing country, we would concentrate in this paper on the difference of attitude towards patience
- This is a infinite horizontal (or Ricardian) version of W. Buiter's model with overlapping model (JPE 1984) where the younger generation of a less patient nation keeps borrowing from that of a more patient ration.

The Framework of the Model

- We show this by introducing a differential game formulation of two-country optimal growth model.
- Construct a single-good growth model where nations play a Nash equilibrium with given levels of initial wealth employing the dynamic consumption paths as strategies.
- Ideally, the approach from a macroeconomic model should coincide with the approach from trade. Consumption path could be achievable by some trade or real exchange rate policy.

Personal Reflections --- An Interlude

- Working with James Tobin, Edmund Phelps, and Richard Cooper --- on “a golden troika” in my dissertation writing (1963-5).
- One-country model with optimal savings (cf. Onitsuka), and two-country model with fixed saving rates.
- The encouraging award from Ohira Foundation with Takenaka, Iwata, and Sakurai (around 1985). No theoretical framework found.
- Mechanical calibration with fixed propensities to save (with Kazumasa Iwata) or the non-linear time preference (with Kyoji Fukao) was a little short of impressing audience.

Interlude 2

- Conversations at the bedside of the late Professor Koji Shimomura of Kobe University, prolific mathematical economist. International indebtedness will continue at the equilibrium. I said, “That is right.”
- Then a commission of a paper for the Peterson Institute for International Economics (PIEE) to be prepared within a month.

Presentation Today

- Overall pictures of international debt and credit.
- Why does Japan continue to be a creditor country?
- The analytical model
- A Differential Game,
- Assuming the free capital mobility, one can obtain an open loop Nash equilibrium.
- Extendable to a non representative agents model of the world economy

Technical Curiosity

- The common rate of return depends on the average of the time preference.
- The credit or debt depend on the divergence of the time preference from the average.
- Rouche' Theorem and Hartman-Grobman Theorem
- Blanchard-Kahn and Buiter on the saddle point.

Presentation Today 2

- Why did the Plaza Accord fail?
- First of all, there is only a marginal benefit from monetary policy coordination under the flexible exchange rate.
- Was it an exercise of policy coordination? No! It was the coercive adjustment of the current account of Japan by exchange rate realignment.

Concluding Remarks

- The attempt to calculate exchange rates to balance the current account (Obstfeld. Rogoff) is an one-sided approach.
- This model could be extended to a model with traded goods (with non traded goods.)
- Calibration with time-varying labor growth rates, technical growth rates, and, in particular, rate of time preference will be rewarding.