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Discussion of:

Exchange Rate Disconnect in General Equilibrium

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Exchange rate puzzles

- International economics has long been confronted with stubborn puzzles:
  - Disconnect between exchange rate and real variables.
  - Close link between real and nominal exchange rates.
  - Deviations from law of one price.
  - Deviations from risk sharing.
  - Deviations from uncovered interest parity.
- The paper assesses which shocks can account for this using a broad specification of the model.
  - Strategic complementarity (non-CES baskets), use of intermediate inputs.
  - Portfolio shocks shifting demand across assets.

Which shocks can work?

- Shocks that lead to a disconnect when the economy is nearly closed, with movements in the exchange rate but not in wage, consumption, output.
- Deviations from LOP and demand-shifting shocks affect the allocation between domestic and (marginal) foreign goods.
  - The disconnect is with aggregate variables.
  - The UIP puzzle remains.
- Portfolio shock affecting return between home and foreign assets.
  - Generates a disconnect and a UIP deviation.
  - Can lead to near unit-root in the exchange rate (quibble: d1 in (29) and appdx A.9 does not seem to be affected by ρ).

Deviations from UIP and risk sharing

- Consider a higher demand by home investors for foreign assets.
- This leads to a depreciation of the home currency (home assets are less demanded), followed by a gradual appreciation as the shock fades away.
- The home interest rate increase to steer investors back into the home asset. We get the negative Fama coefficient.
- The depreciation raises the home CPI, lowers the home real wage (lower labor supply) and raises home competitiveness (higher labor demand). Labor supply is boosted through lower consumption in equilibrium.
  - Real home depreciation and lower consumption, i.e. the risk sharing puzzle.

Comment 1: risk sharing and Fama

- With incomplete asset markets, and no “Cole-Obstfeld” elasticity, the model will generate deviations from risk sharing.
- The contribution is thus to show the negative consumption-real exchange rate movement, which is more stringent than having consumption be less volatile than the real exchange rate.
  - Clarify this in the paper.

- The model generates a negative coefficient when regressing the exchange rate on the interest differential.
- From table 3 the coefficient from the model is very negative, while the empirical estimate is around zero.

Comment 2: the portfolio shock

- Key relations are the Home agent's Euler equations (linearized):

$$0 = i_t - \sigma E_t(c_{t+1} - c_t) - E_t(p_{t+1} - p_t)$$

$$0 = i_t^* + \psi_t - \sigma E_t(c_{t+1} - c_t) - E_t(p_{t+1} - p_t) + E_t(e_{t+1} - e_t)$$

- These imply:

$$E_t(e_{t+1} - e_t) = \psi_t + i_t - i_t^*$$

- The portfolio shock is in other words a UIP shock. It is not surpising that only it can lead to UIP deviation.
- Refer to discussion of such shocks in the literature.
  - Engel (2015) Handbook of International Economics chapter.
  - Kollman (2012) small open economy model (JME).

Comment 3: sensitivity to arbitrage

- The paper assumes a stark asset market segmentation, as foreign agents cannot by home bonds.
- Without this we would get another portfolio Euler condition:

$$E_t(e_{t+1} - e_t) = \psi_t^* + i_t - i_t^*$$

- OK if portfolio preference shocks are global: ψ_t=ψ_t^*. Abstracted from in a SMOE model (Kollman 2002).
- Otherwise no equilibrium, as one agent goes in a corner solution.
- Possible to have an equilibrium if the $\psi_t - \psi_t^*$ gap is «small», specifically second-order (proportional to risk), as in Devereux-Sutherland and Tille-vanWincoop.
  - But then shifts in ψ_t and ψ_t^* are third-order. A global shift is offset by a third-order move in the exchange rate to rebalance the asset market.

Comment 3: contd.

- As long as some arbitrage exists, the model becomes more complex to solve.
  - The paper proposes a model (appendix A.2), but where arbitrageurs are quite different from households.
- Need for a more thorough modelization of the UIP shock given its central role in the analysis.

- If assets other than short-time bonds are considered, do we get realistic properties of asset prices?

Conclusion

- A well written thorough model of exchange rate determination.
- Main need is for a more thorough modelling of portfolio.
  - Explaining UIP deviations by a UIP shock is too immediate.
  - The results rely heavily on a sharp (and disputable) limit of arbitrage.
- Portfolio frictions, or preferences for some assets, are realistic. But given their central role, one needs to go beyond a reduced-form modelization.