Discussion of

Financial Amplification of Foreign Exchange Risk Premia

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Balance sheets and amplification

- Balance sheet constraints magnify the impact of shocks.
  - Liquidity spirals (Brunnermeier and Pedersen).
  - Balance sheet channel of monetary policy (Bernanke and al.).
  - Impact of “risk panics” (Bacchetta, Tille and van Wincoop).

- Constraints have become more relevant with the highly leveraged “shadow banking sector” (Adrian and Shin).

- Connect balance sheet amplification with exchange rate risk premium (deviation from UIP).
  - Macro shocks alone cannot account for the premium.
  - Balance sheet give fatter tails to the price of risk.
Figure 1: Risk premium kernel density estimates. We plot kernel density estimates of conditional risk premia of average carry returns for two specifications. The baseline specification uses only macroeconomic state variables (real output and inflation), while the second specification uses both macroeconomic and financial intermediary balance sheet variables.
Linking excess returns to state variables (1)

- Compute the excess return on holding foreign assets over holding dollar assets.
- Broad array of U.S. and foreign variables in 3 state variables:
  - Real activity (IP, confidence).
  - Inflation.
  - Balance sheet (borrowing by U.S. institutions).
- State variables are estimated using partial least square which picks the dominant eigenvector of the covariance between indicators and excess returns.
Linking excess returns to state variables (2)

- An expected dollar depreciation can reflect:
  - High relative U.S. interest rate.
  - Premium: negative covariance between the exchange rate and the pricing kernel (the dollar appreciates when marginal utility is high, making foreign investment unattractive).

- Link the pricing kernel to the real, inflation and balance sheet variables:
  - Assess which drive the premium.
  - Balance sheet variable amplifies the real and inflation variables.
Global variables and exchange rates

- The exchange rate is a cross-country difference variable, and thus we would expect it to reflect growth and inflation differentials.

- The state variables are the common component of U.S. and foreign variables.
  - Can we construct U.S. – RoW variables?
  - If not, are the results different if we focus on U.S. variables?
U.S. financial institutions

- The balance sheet state is built using borrowing and leverage data for U.S. financial intermediaries.
- How big a role do they play in the foreign exchange market?
  - They clearly are relevant in U.S. domestic markets (e.g. mortgage derivatives).
  - Foreign players play a substantial role in the FX market (e.g. London).
  - Carry trade was done by non-U.S. institutions.
- The balance sheet variable seems small in the run-up to the crisis.
The balance sheet variable

Balance Sheet State Variable

Late and limited increase
How much does balance sheet matter?

- The balance sheet variable clearly plays a role.
- Most of the swings are however driven by the real and inflation variables.
  - Balance sheet mattered more in the late 1990’s than in the late 2000’s.
  - Some tension with the view that we cannot understand the crisis without taking account of high leverage.
- Is it then that the FX market did not experience much of a crisis (at least relatively), so we do not need to rely on balance sheet variables that much?
Figure 5: Risk Premia of the Macro Variables and the Balance Sheet Variables
Conclusion

- The crisis has highlighted the relevance of leverage and balance sheet constraints.

- The paper argues that they also matter for the exchange rate premium.
  - Finer assessment of factors across regions, instead of just a global factor.
  - Evidence on non-U.S. institutions.

- Can we tie this to the BIS turnover data, which show a surge in the turnover in the late 2000’s?