New Approaches to the Analyses of Financial Behaviour under Uncertainty

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The views expressed in this lecture are my own and do not represent in any way the views of the Haut Conseil de Stabilité Financière

Old model that works rather well

- Mundell Fleming has done a pretty good job at explaining the world.
- At the heart of Mundell-Fleming: international transmission of monetary and fiscal policy and how they depend on the exchange rate regime
- Still a burning issue: channels of transmission of monetary policy within and across jurisdictions
- There are some facts that Mundell Fleming cannot capture

Still, new approaches needed

- It is essential to integrate more the international macro and international finance literature
- But we have to keep it as simple as possible
- This is relevant for the design and conduct of monetary and macro prudential policies

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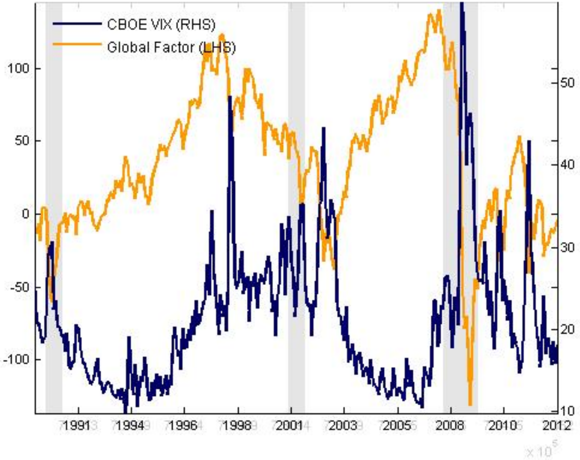
- US monetary policy is one of the drivers

Global Factor for World Asset Prices.



Global Factor Decomposition

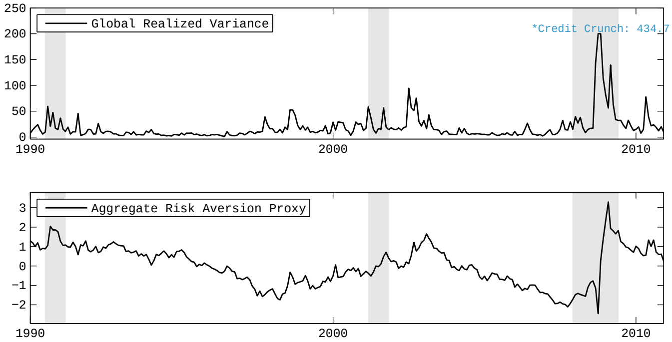


Figure: Decomposition of the global factor in a volatility component and a risk aversion component; the measure of realized monthly global variance is computed using daily returns of the MSCI world index.

*Source:*Agrippino and Rey (2014).

Transmission channels of monetary policy: Models with no capital market frictions

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- Open economy versions: tradeoff between output gap stabilization and the terms of trade (Obstfeld and Rogoff (2002), Corsetti and Pesenti (2005), Farhi and Werning (2013))
- Gains from international cooperation usually found to be small if "one's house is in order"

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- "Risk taking channel" (Borio and Zhu (2008), Bruno and Shin (2014), Rajan (2005))
- Emphasis is put on risk (Value at Risk constraint)
- In good times, asset prices are high, spreads are compressed and measured risk is low. Leverage is less constrained.

Adding the international dimension

- International transmission of monetary policy via the "credit channel" broadly defined not much studied (with or without gross flows)
- Yet, international currency role of the dollar is large and disproportionate in financial markets
- The dollar is a funding currency world wide with a lot of short term credit and short term debt in dollar
- The dollar is an investing currency world wide and many balance sheets have dollar assets

Role of the Dollar

- Dollar as a funding currency: monetary policy has a direct effect on interest payments, cash flow and net worth
- Dollar as an investment currency: a change in discount rate has an effect on valuation of dollar assets, which can be used as collateral
- Monetary loosening decreases the external finance premium and relaxes value at risk constraints
- All this suggests focusing on the international credit channel and the global financial cycle

US monetary policy is one of the drivers of the global financial cycle

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- Interestingly, an increase in the effective fed funds rate also has strong effects on:
  - the global component of asset prices (-)
  - the risk premium (+)
  - the volatility of asset prices (+)
  - bank leverage in the US and the EU (-)
  - global domestic credit (with or without US) and cross border credit (-)

Decrease in Global Domestic and Cross Border Credit

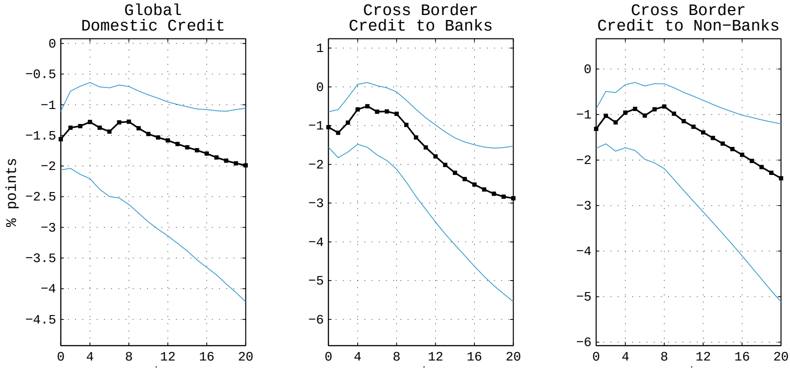

Figure: Response of Global and Cross border Credit (% points) to a monetary policy shock inducing a 100bp increase in the Effective Fed Funds Rate.

Increase in volatility, decrease in the global component of asset prices, increase in bond premium

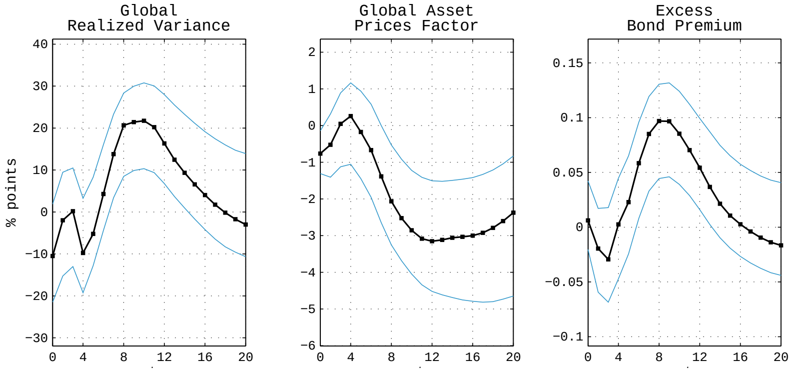

Figure: Response of Financial Variables (% points) to a monetary policy shock inducing a 100bp increase in the Effective Fed Funds Rate.

International credit or risk taking channel

- US monetary policy:
  - affects credit spreads and risk premia globally
  - affects leverage and credit flows internationally
- Global Financial Cycle is in part driven by US monetary policy
- Countries may import monetary and financial conditions (even asset price bubbles!) which do not necessarily fit their economies.

Conclusion: the Dilemma

- The leg of the Mundellian trilemma that led to the Delors report (Niels) is absolutely valid: in a world of free capital mobility and fixed exchange rate one cannot have an independant monetary policy. But what is questionable is that a flexible exchange rate enables an economy to be insulated from the global financial cycle.
- Now the task is to build analytical foundations. Heterogeneity of agents managing and holding assets is a key building block
- This needs to be integrated with what we know from international macro on exchange rate and capital flows
- Finally, if the international credit channel is potent, more tools, such as macroprudential ones, are needed to restore some monetary autonomy