Central banks and the international environment: Exchange rate regimes and international coordination

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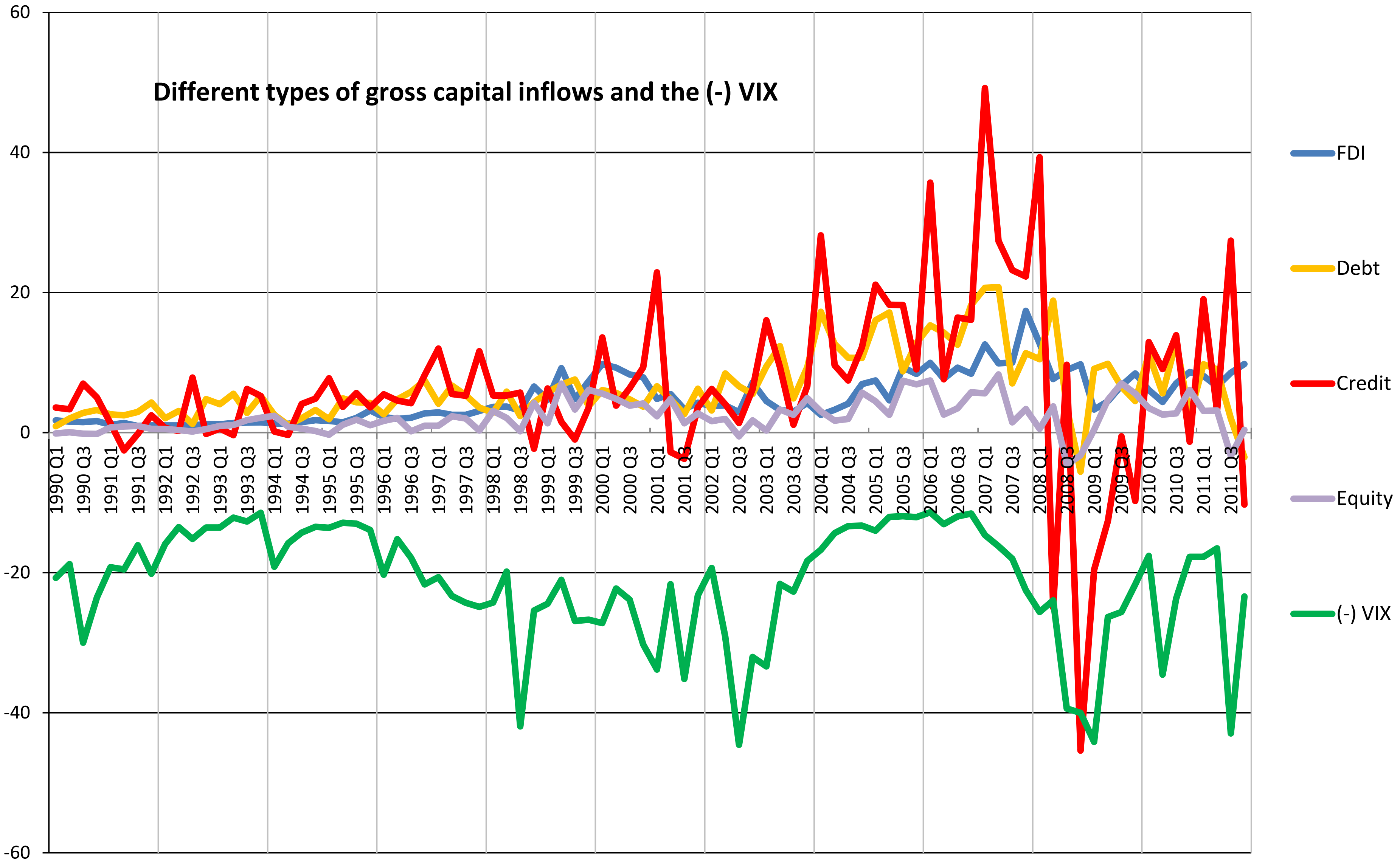
Global financial cycle (Rey, Jackson Hole 2013): Capital flows

- Strong commonality in gross capital inflows and outflows around the world
- Negative co-movements of these gross flows with the VIX, index of market risk aversion and uncertainty.



Different types of gross capital inflows and the (-) VIX
60
40
20
0
-20
-40
-60
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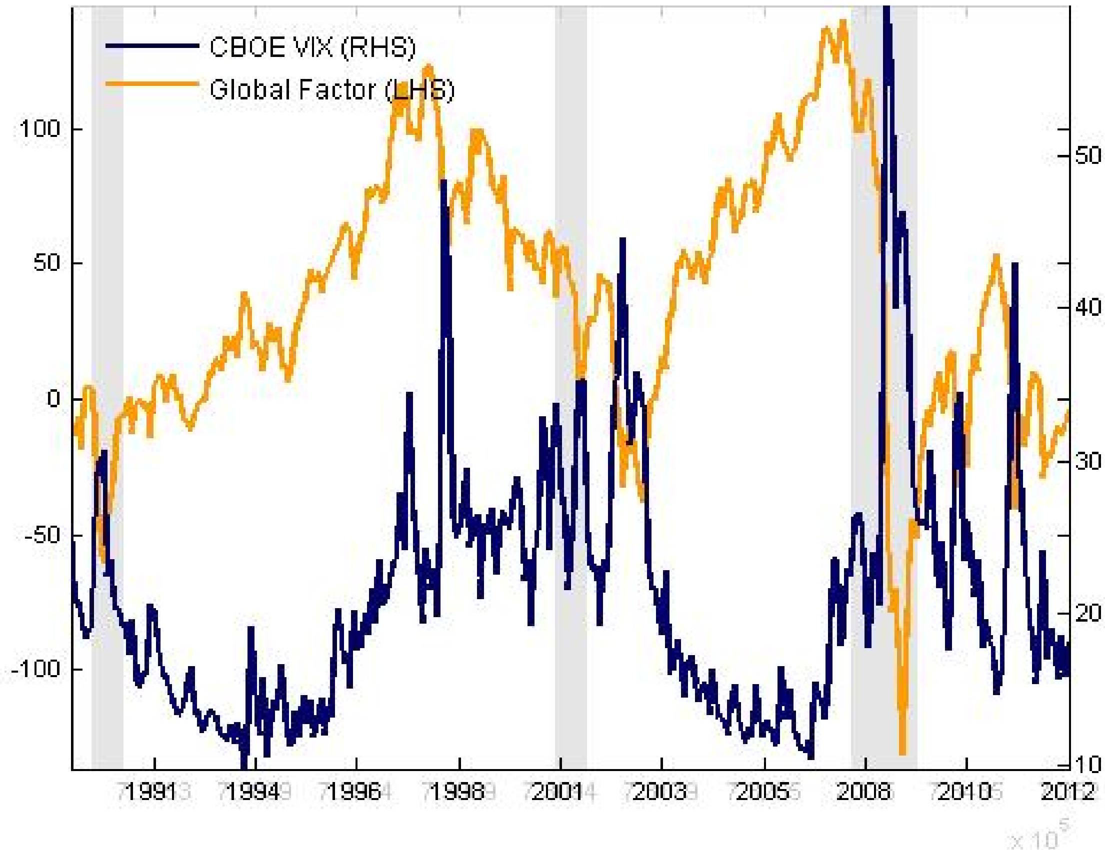
2007 Q1
2007 Q3
2008 Q1
2008 Q3
2009 Q1
2009 Q3
2010 Q1
2010 Q3
2011 Q1
2011 Q3
FDI
Debt
Credit
Equity
(-) VIX

Global financial cycle: asset prices and credit growth

- An important part of the variance of a large cross section of risky asset prices (stocks, corporate bonds, commodities) distributed on five continents is explained by one single global factor
- This global factor is closely related to the VIX (negatively)
- Credit growth and, for most areas, leverage and leverage growth co-move negatively with the VIX

Global factor in risky asset prices and the VIX



Source: Miranda-Agrippino and Rey (2012)

Feedback loop

- Global banks raise funds in particular in the US (dollar is the main currency of global banking).
- Surges in credit flows associated with increases in leverage worldwide
- Procyclicality: Credit creation when measured risks are low, asset prices pushed up further, spreads compressed, healthy looking balance sheets etc, measured risks lower etc…

Excess credit growth is linked to crises

- The global financial cycle is not aligned with countries’ specific macroeconomic conditions.
- Symptoms can go from benign to large asset price bubbles and excess credit creation, which are among the best predictors of financial crises.
- Evidence is building up that housing market bubbles have particularly serious consequences

Driver of the global financial cycle

- Econometric analysis suggests monetary policy in the centre country is an important determinant of the global financial cycle
- When the Federal Funds rate goes down, the banks’ leverage tends to rises, as do gross credit flows.

US monetary policy and leverage

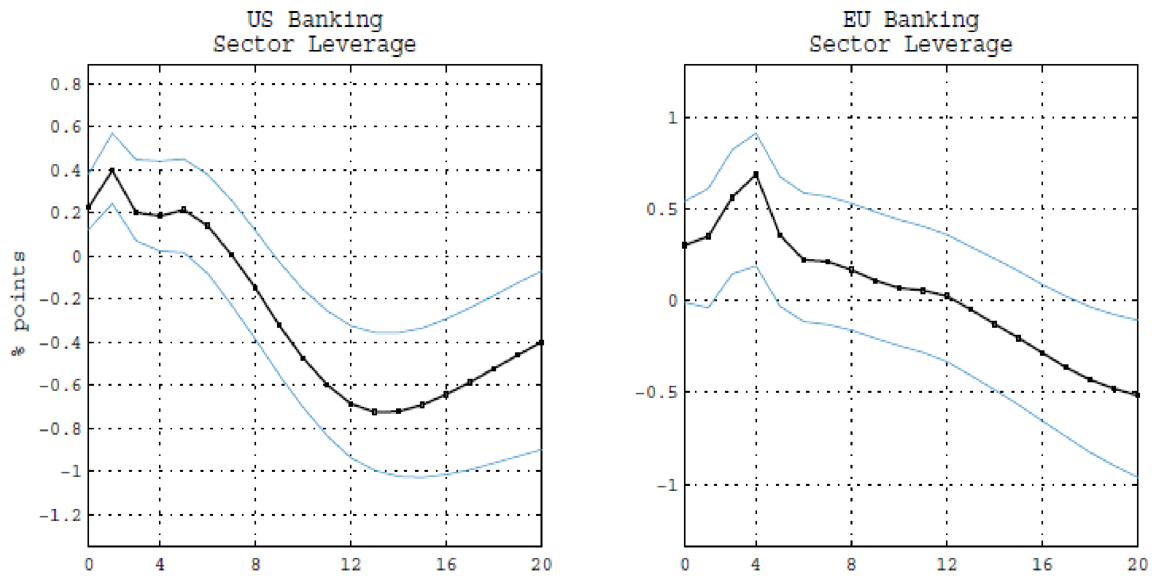


Figure: Response of Banking Sector Leverage (% points) to a monetary policy shock inducing a 100bp increase in the Effective Fed Funds Rate.

US monetary policy and global credit

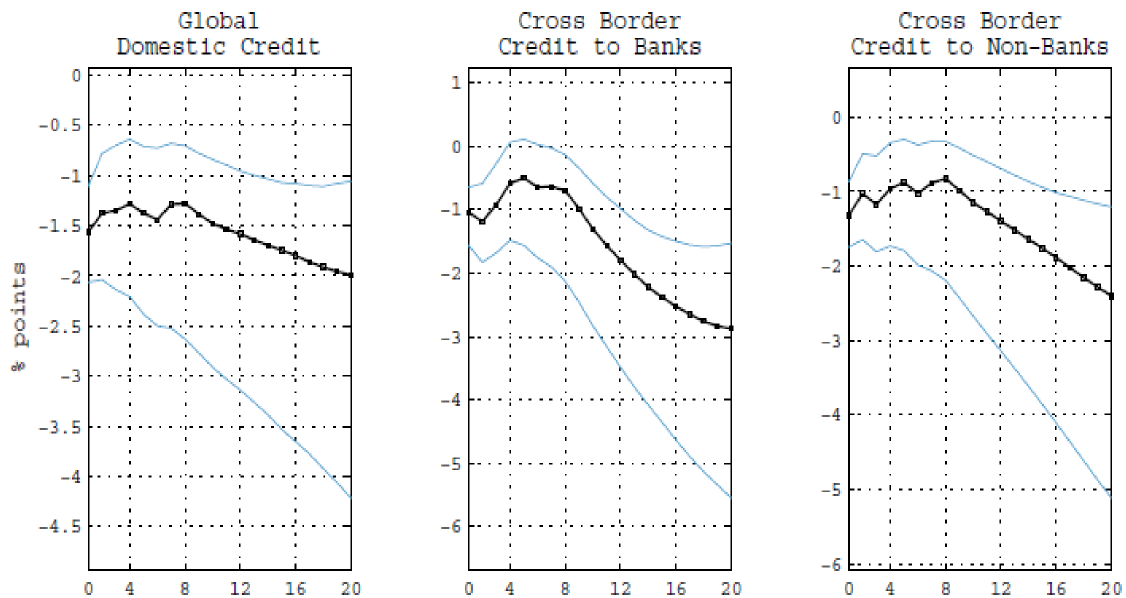


Figure: Response of Global Credit (% points) to a monetary policy shock inducing a 100bp increase in the Effective Fed Funds Rate.

The problem with the trilemma

- "Trilemma": with free capital mobility, independent monetary policies are feasible if and only if exchange rates are floating (dominant paradigm in international finance).
- Whenever capital is freely mobile, cross-border flows and leverage of global financial institutions transmit monetary conditions globally, even under floating exchange-rate regimes.
- This is NOT the same thing as saying that exchange rate regimes do not matter unconditionally.

The problem with the trilemma

- Empirical evidence: macro side. Effect of US monetary policy on mortgage spreads even in inflation targeting economies (Rey (2014) Mundell Fleming Lecture)
- Empirical evidence: micro side. Mexican credit registry data. US, UK, Euro area monetary policies have an effect on risk taking in Mexico via their corresponding banks (Morais et al. (2015))

Dilemma not trilemma

- The global financial cycle transforms the trilemma into a "dilemma" : independent monetary policies are possible if and only if the capital account is managed, directly (capital controls) or indirectly (macro prudential or regulatory or fiscal measures).
- In other words, since monetary policy transmission channels are multidimensional, we need more instruments than the interest rate to set appropriate credit and monetary conditions.

Policy options

a) impose targeted capital controls;
b) act on one of the sources of the financial cycle itself: the monetary policy of the Fed and other main central banks: Monetary coordination.
c) act on the transmission channel cyclically by limiting credit growth and leverage during the upturn of the cycle using macro-prudential policies: Regulatory coordination
d) act on the transmission channel structurally by imposing stricter limits on leverage for all financial intermediaries: Regulatory coordination.
e) use fiscal policy both structurally (remove debt subsidies, housing demand subsidies) and cyclically (countercyclical)

a) Capital controls: excessive credit growth being the main issue of concern, capital controls should be viewed as partial substitute for macroprudential tools.

b) Internalisation of the global spillovers of the centre’s monetary policy. A small group of systemically significant central banks to meet regularly under the auspices of the BIS Committee on the Global Financial System, issue report on global monetary conditions. But may conflict with the domestic mandates of central banks. Historical record not encouraging.

c) Muting the transmission channel of the global cycle by taking cyclical measures (additional capital buffer, loan-to-value ratios ,debt-to-income ratios, macro-prudential levy). Tools are institution- and market-specific: a centralized repository of knowledge gathered so far by supervisors and central bankers would be highly valuable. Timing of intervention is key: based on rules or aggressive stress testing. Stress tests improve the knowledge of supervisors; give constructive challenges to the internal risk monitoring of institutions; may reveal failures in corporate governance where incentives are not aligned to keep risk in check or where information is not available or inadequately centralized.

d) Muting the transmission channel structurally by dampening the amplification capacity of financial intermediaries: tougher limits on leverage. Credit is excessively sensitive to financing costs. Straightforward tool: helps make complex macro prudential policies more robust. Errors of judgement by supervisors, Chief Risk Officers, CEOs and boards are possible and even likely in our excessively complex financial and regulatory environment. Tougher leverage ratios are a sensible way to decrease the (verifiably huge) cost of these errors.

e) Fiscal tools. Make fiscal policy countercyclical. Avoid fuelling leverage and asset demand (housing bubbles) by ill guided subsidies.

Conclusion

The right policies to deal with the “dilemma” should aim at the main source of concern: excessive leverage and credit growth. This seems to require a convex combination of a well thought out implementation of macroprudential policies guided by aggressive stress-testing (c) and tougher leverage ratios (d) and sensible fiscal policy (e). Depending on the source of financial instability and institutional settings, the use of capital controls (a) as a partial substitute for macroprudential measures should not be discarded.