Discussion of
Capital Flows, House Prices and the Macroeconomy…
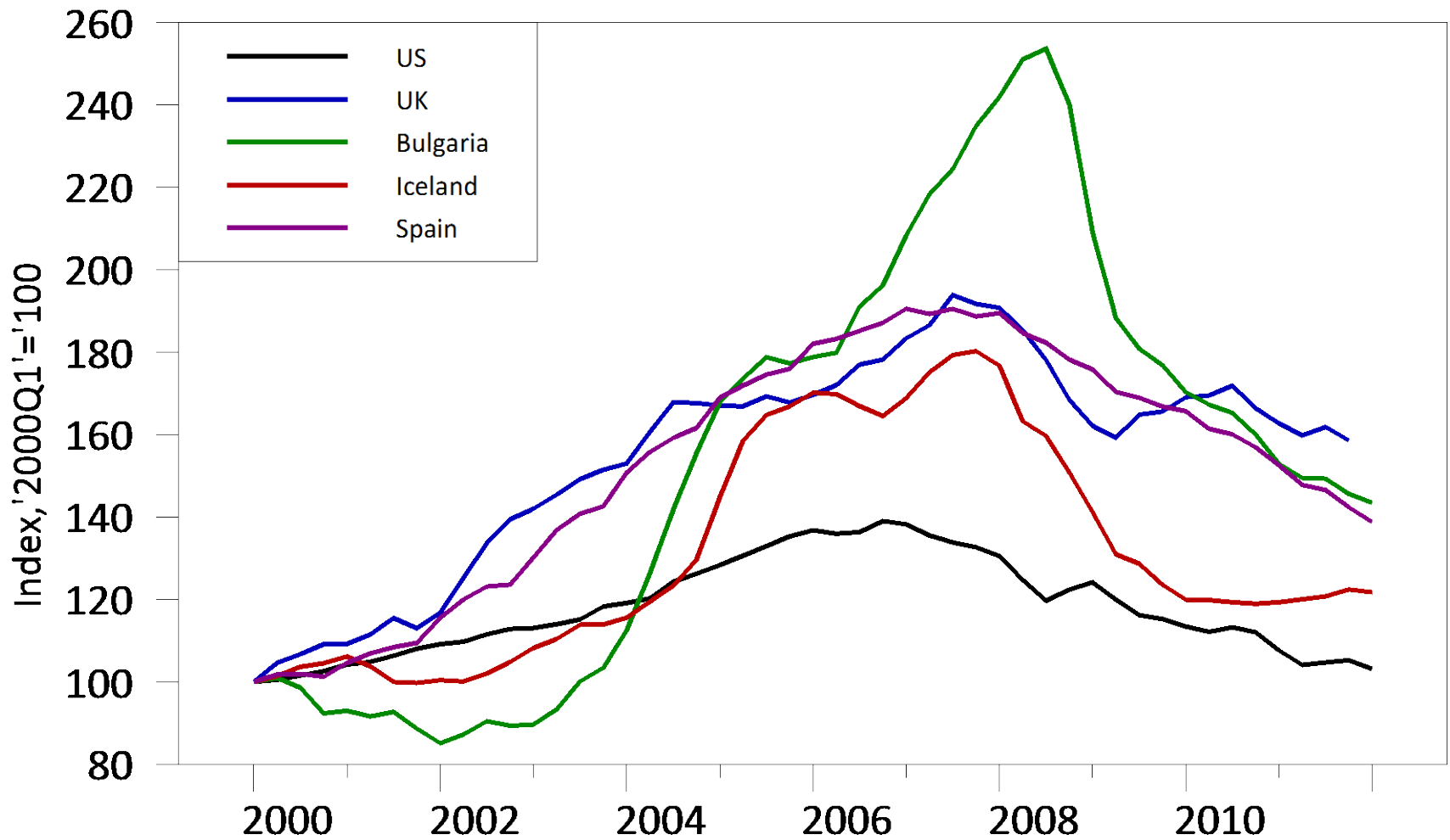by
Cesa-Bianchi, Cespedes & Rebucci

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Williams College, PIIE and NBER

Housing, Stability and the Macroeconomy: International Perspectives

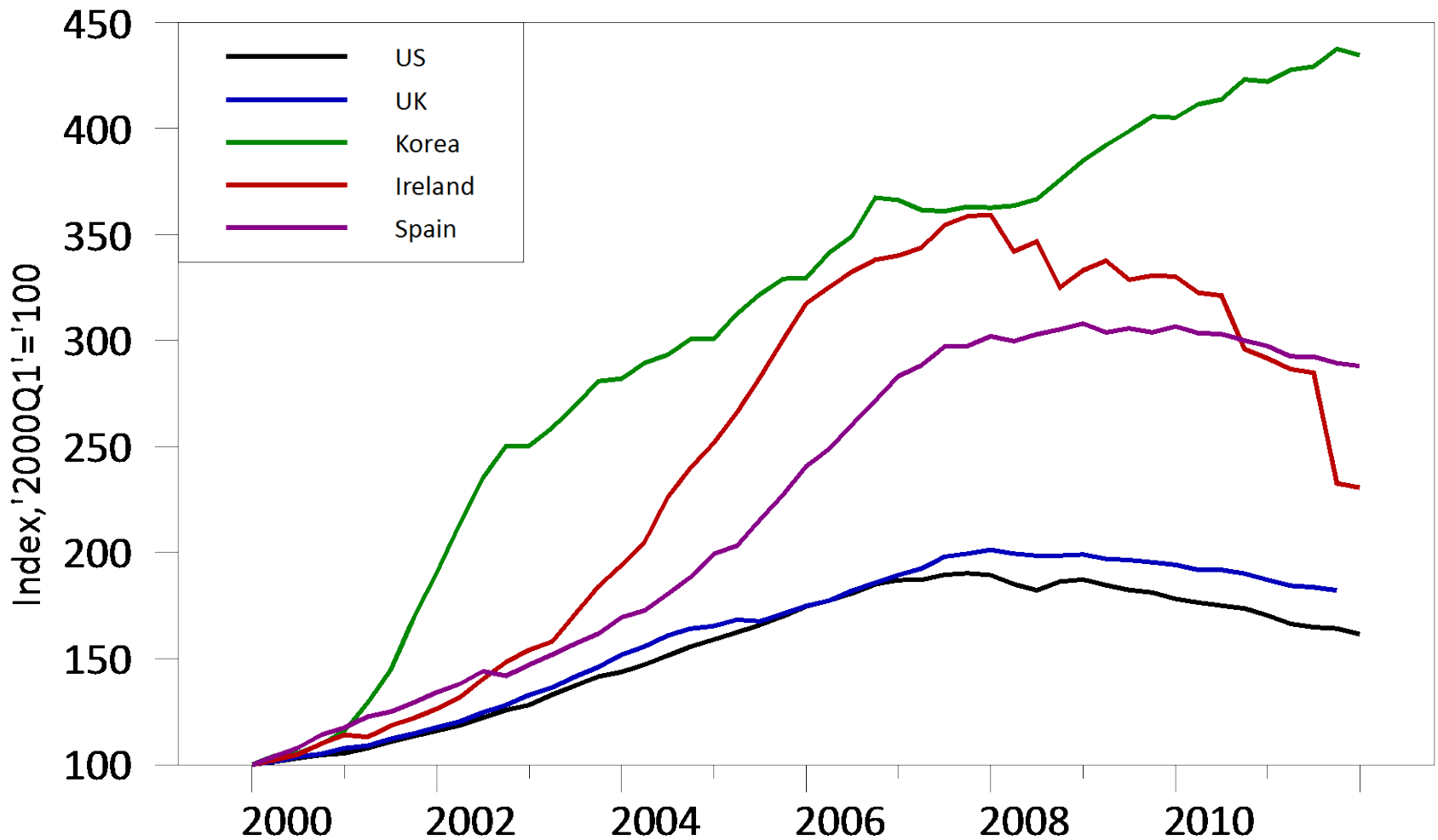Federal Reserve Bank of Dallas/JMCB conference, November 14-15 2013

Can we explain this?

The recent house price boom and bust

And this?

The recent housing *credit* boom and bust

What the paper does

- Constructs an impressive panel dataset of house prices.[*]

- Presents descriptive statistics characterizing the cyclical behavior of house prices.

- Runs regressions to assess the effects of "global liquidity" (**GL**).

[*] See also Kuttner & Shim (2012, 2013)

Main findings

- Capital inflows are correlated with house price booms, especially in EMEs.

- Expansionary monetary policy (proxied by "global liquidity shocks") are also associated with (cause?) house price booms, especially in EMEs.

- Impressive data work, well-executed econometrics.

Critiques

- "Global liquidity" is an extremely fuzzy concept.

- It is hard to interpret the results without a clear conceptual/theoretical framework.

- The panel VAR provides little evidence for the likely transmission mechanisms.

How does GL affect house prices?

Global liquidity → Global credit → Current account flows → Demand for housing → House prices
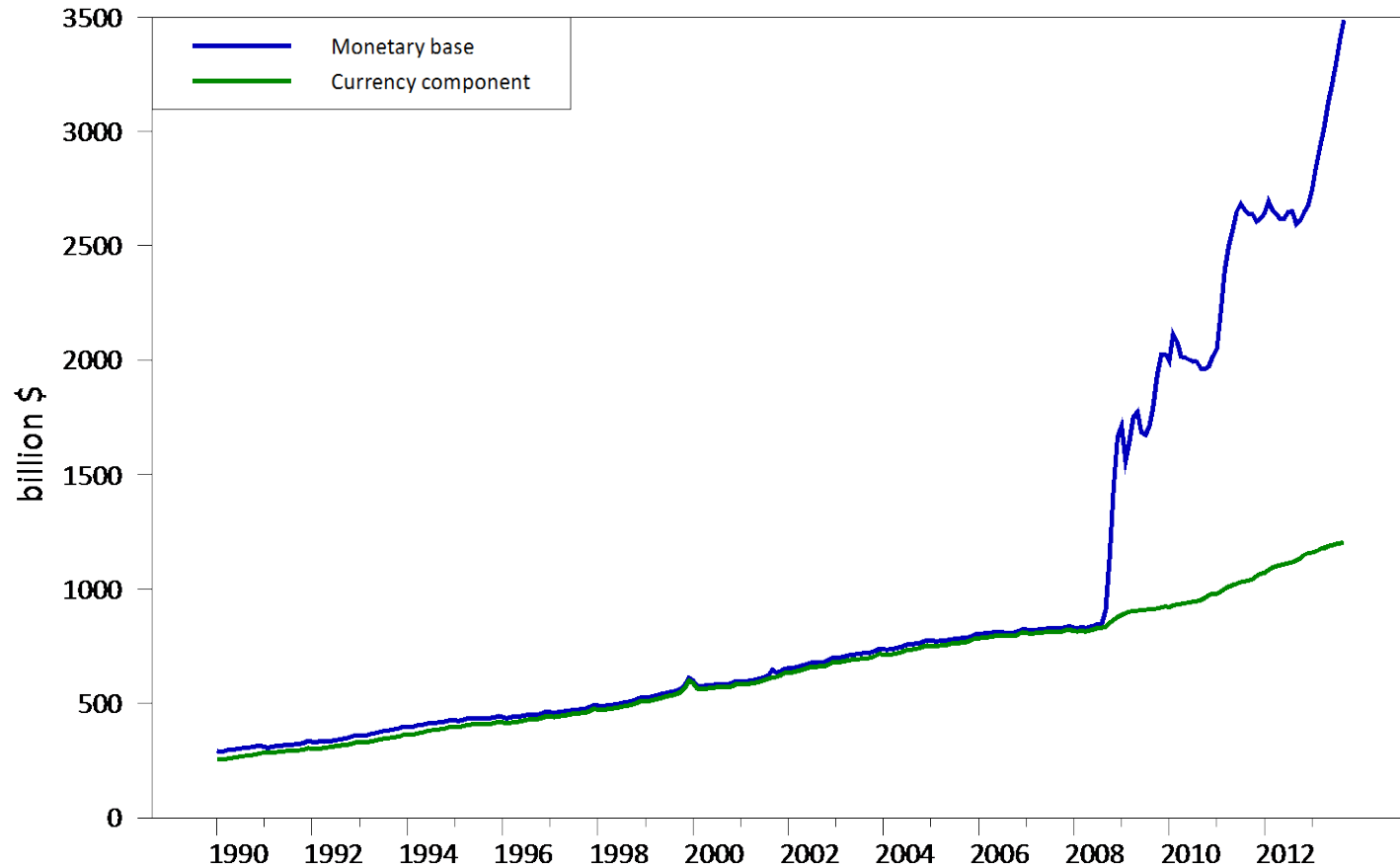
The "BIS View"
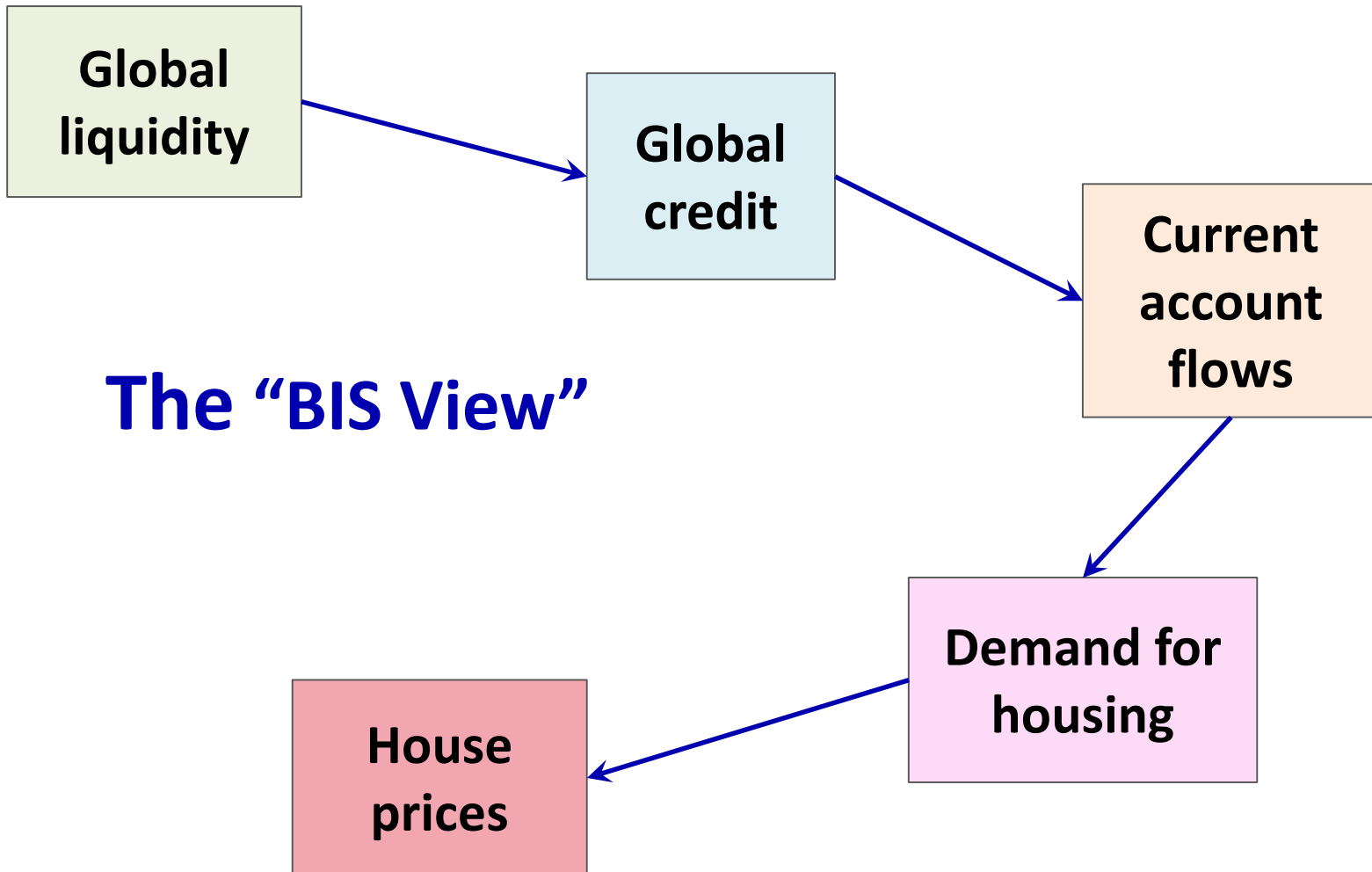
The linkages are much more complex
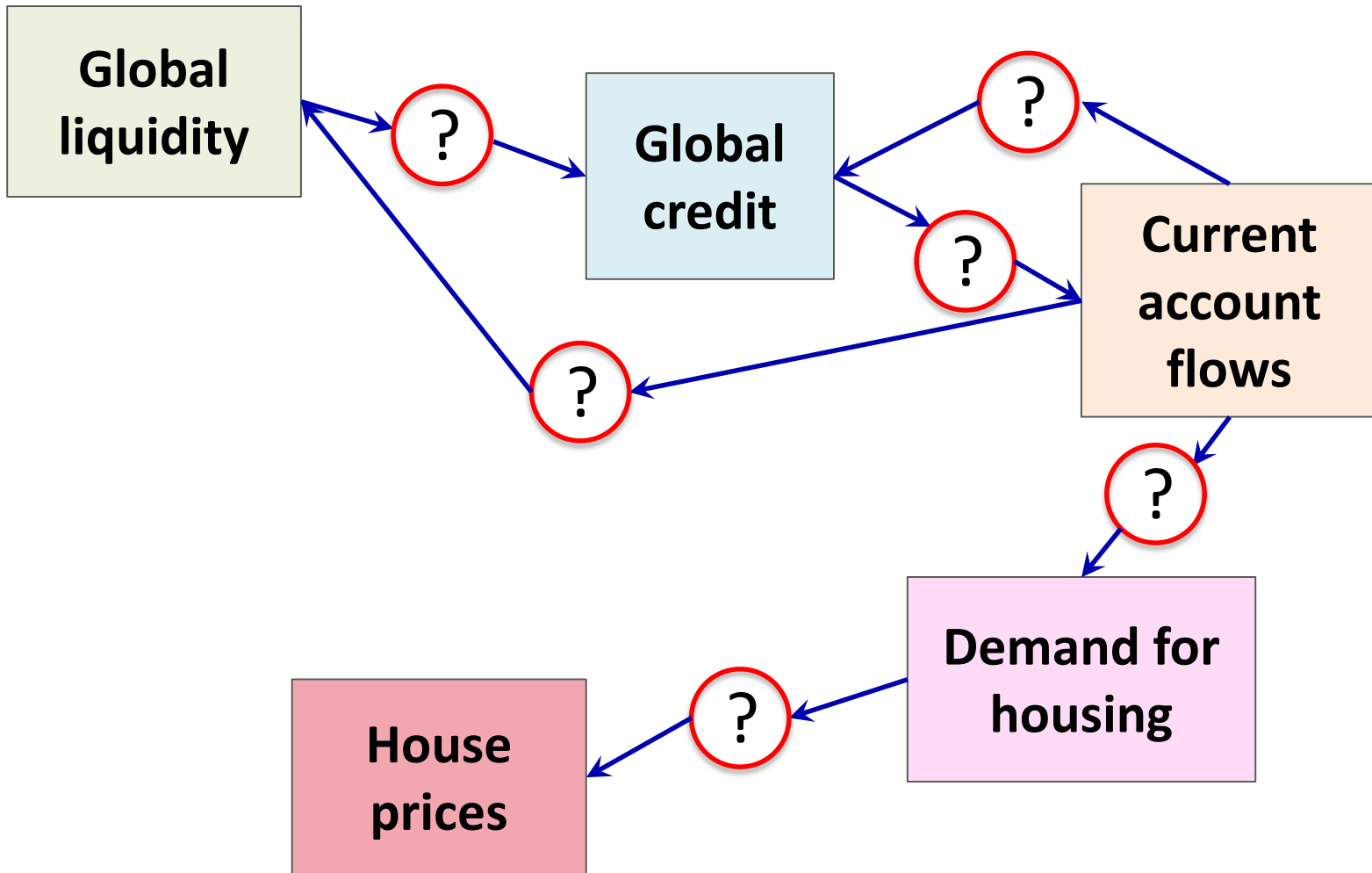
But first, a rant about "global liquidity"

The "world availability of USD denominated liquid assets," a proxy for "world monetary policy stance."

What is "official global liquidity"?

- US monetary base + official reserves (excluding gold).

- Increased by expansionary US monetary policy.

What is the US monetary base?

- Until QE, **almost 100% currency**. That's $3000 for every person in the US! (Mostly held in Zimbabwe, Bolivia, Afghanistan...)
- US was a trivially small supplier of official GL prior to 2008.

What is "official global liquidity"?

- US monetary base + official reserves (excluding gold).

- Increased by expansionary US monetary policy.

- Also increased by other countries' FX intervention
  - China's FX holdings comprise 34% of total world reserves.

- FX accumulation is a response to capital flows and the CA balance.

- More a measure of global trade imbalances than "liquidity" or monetary policy.

Sterilization sets monetary policy stance

- **Sterilized**: Peru buys T-bills, sells domestic government debt.

- **Unsterilized:** Peru buys T-bills, increases reserves.

- Policy "spillovers" depend on sterilization, effects on r.

- Either way, no change in USD denominated liquid assets.

Rest of World		Peruvian central bank	
Assets	**Liabilities**	**Assets**	**Liabilities**
Other stuff Peruvian government debt US T-Bills	Stuff	Peruvian government debt US T-Bills	Sol denominated Bank reserves ↑

What is "private global liquidity"?

- "External positions of reporting banks vis-à-vis the non-bank sector." (BIS)

  - Aggregate global lending converted into USD terms.

  - Deutsche Bank lending to General Electric private $\rightarrow$ GL.

- Not necessarily "liquid" or "dollar denominated."

- A plausible measure bank-originated capital flows…

- …but not the "stance of world monetary policy."

End of rant.

- Instead of "private global liquidity," call it "**global cross-border bank lending**" (**GCBBL**).

- It *may* represent loan supply...
  - ...but it is only indirectly related to monetary policy...
  - ...and may also reflect loan demand.

- An interesting research question: how *does* monetary policy affect GCBBL?

One story linking reserves, GL and borrowing

- **Official** GL, unsterilized FX purchases $\Rightarrow$ bank reserves ↑
- Loan supply ↑ $\Rightarrow$ **relaxation of credit constraints**
- Private saving ↓, **S** curve shifts to the left
- **CA balance** ↓
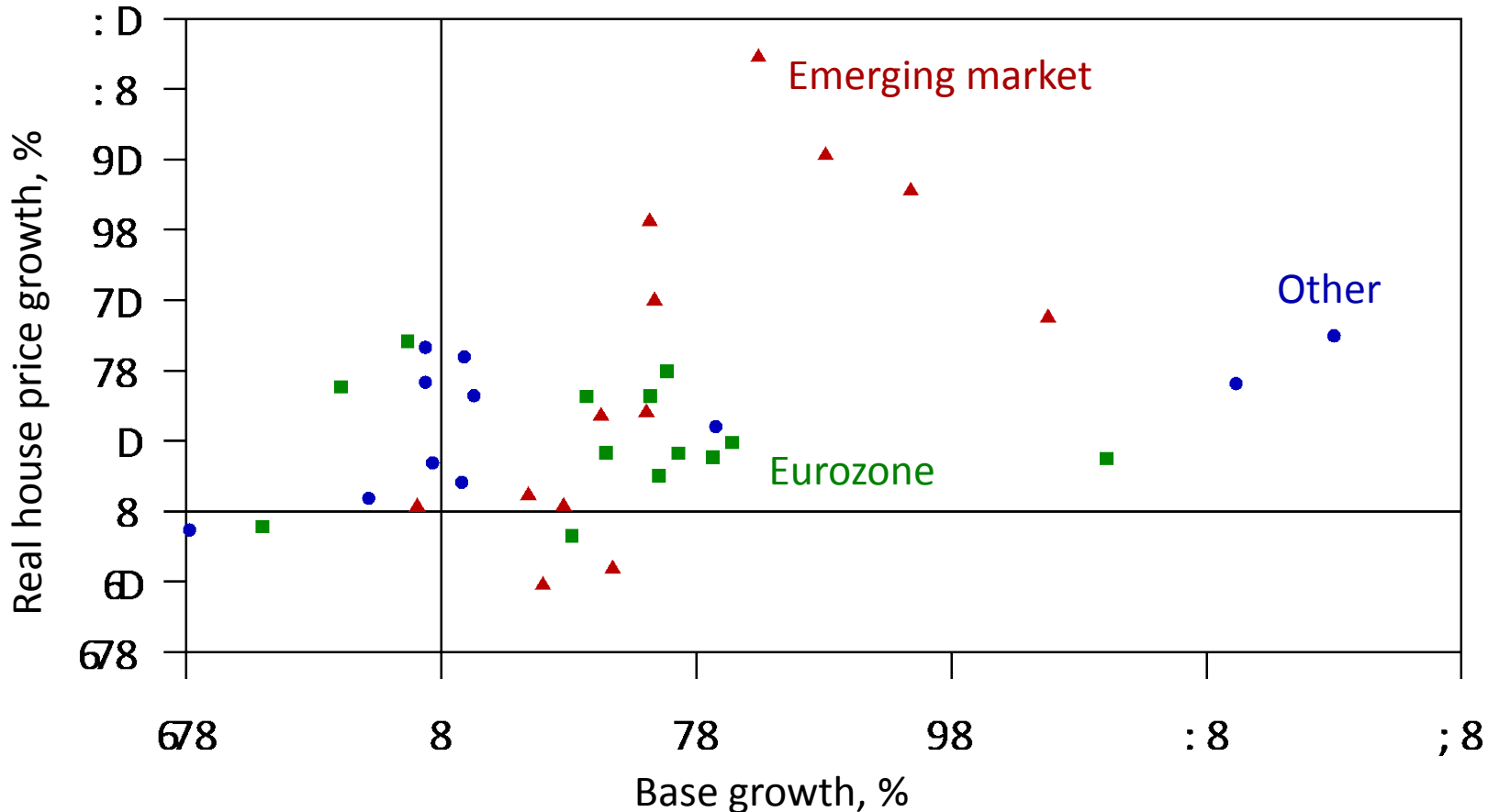- Capital inflows (including **cross-border bank lending**) ↑

Peruvian central bank

Assets	Liabilities
Peruvian government debt US T-Bills ↑	Sol denominated Bank reserves ↑

Peruvian commercial bank

Assets	Liabilities
Loans ↑ Reserves ↑	Reservable domestic deposits ↑ Reservable (?) foreign deposits ↑

Did base growth fuel house prices?

- Extremely rapid **monetary base growth** *was* associated with housing booms in EMEs.

Source: Kuttner (2012)
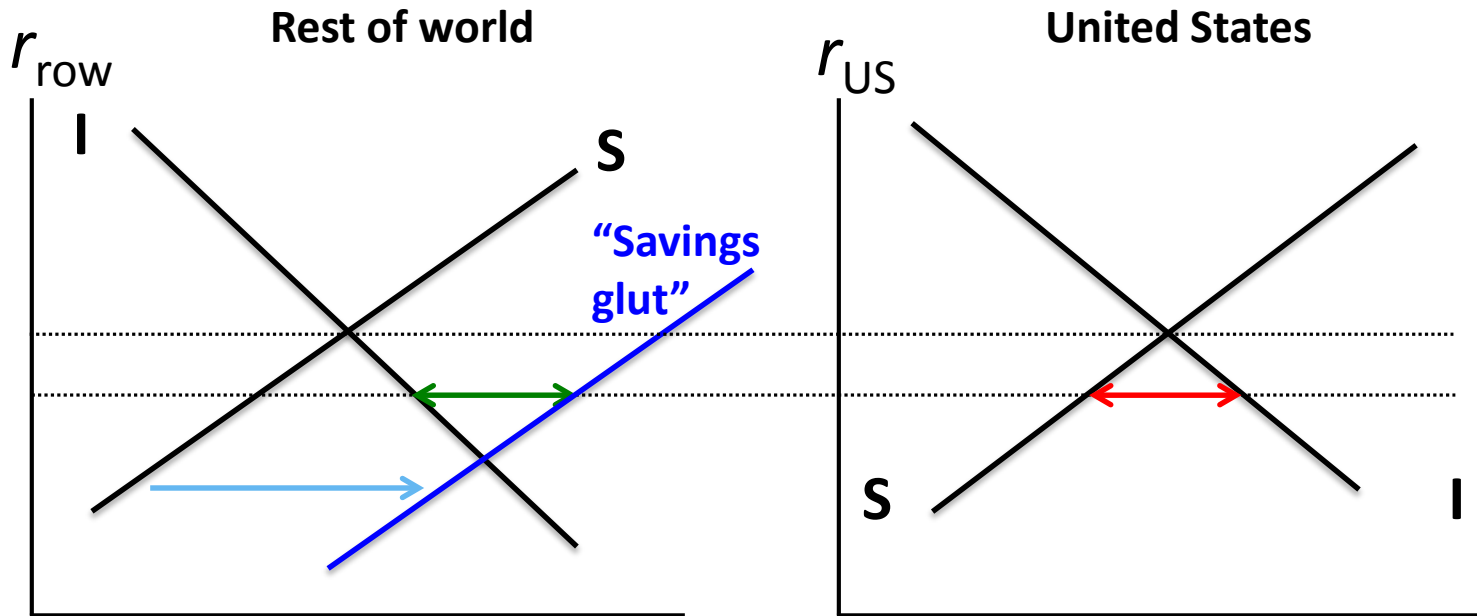
Which GL definition matters?
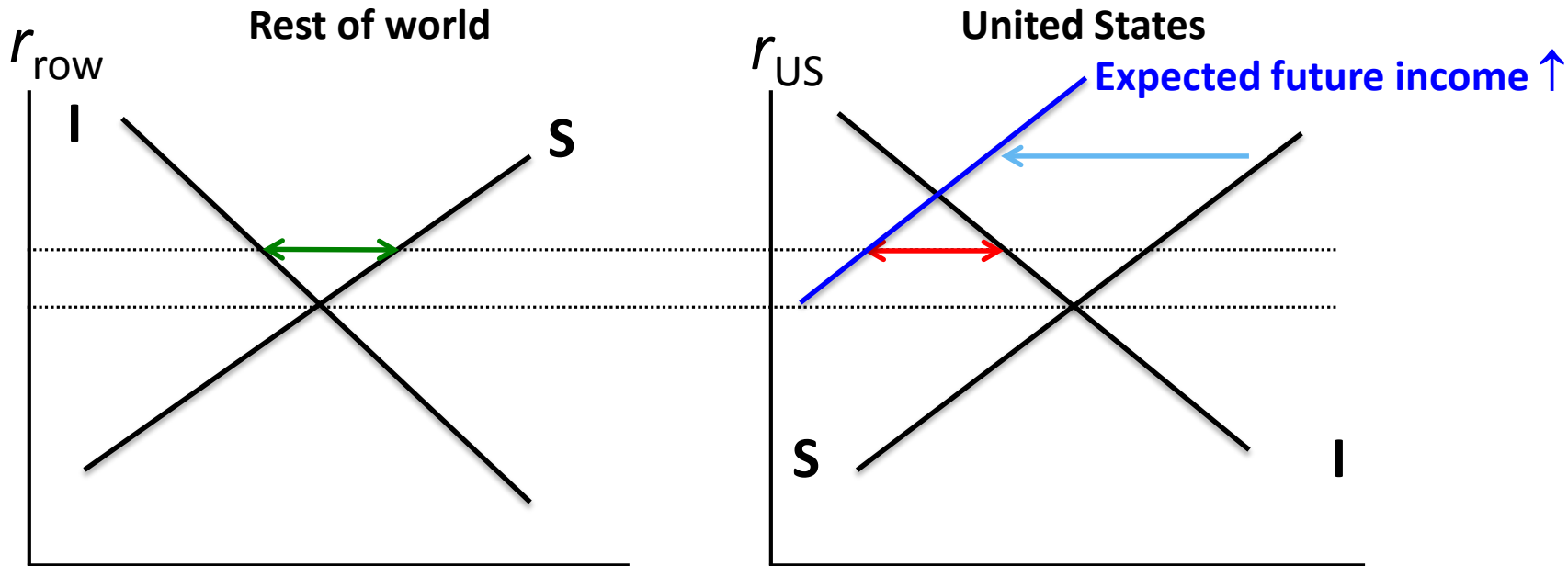
Real house prices 2005-2012
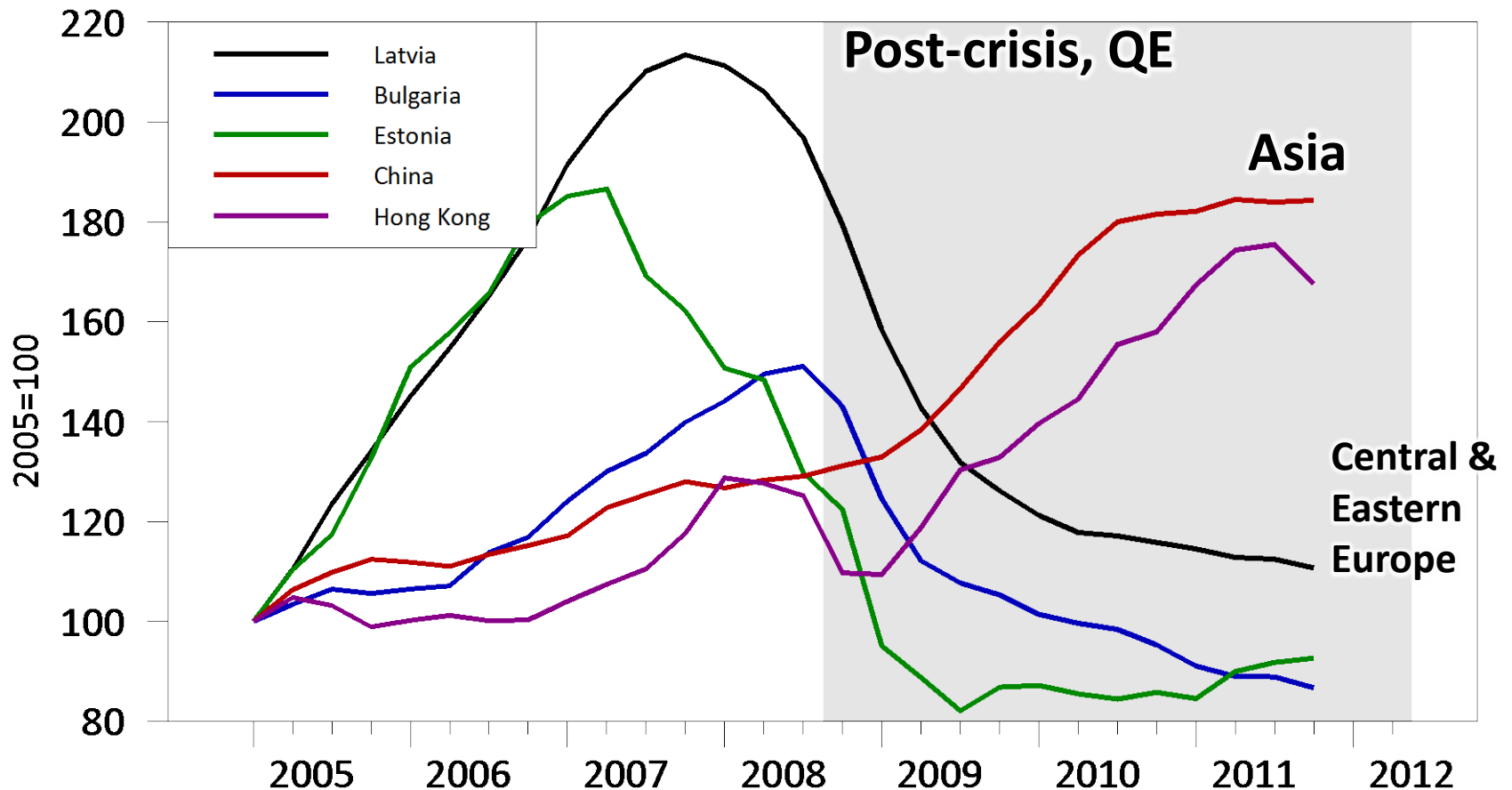
- Post crisis, **official** GL rose (QE), **private** GL fell (deleveraging).
- CEE responds to private, Asia to official? Or both to macro conditions?

What does GL have to do with the CA?

- **Real** saving/investment decisions → CA, global "credit supply."

What does GL have to do with the CA?

- **Real** saving/investment decisions $\rightarrow$ CA, global "credit supply."
- **Private** GL is simply a **part** of the CA/KFA.
- Endogenous to macro conditions, hence the VAR approach.

How does all this affect prices?

- In a world without credit constraints, house prices should be determined by **user cost** (interest rate, taxes, depreciation, rent) and risk premium σ.

$$\frac{R_t}{P_t} = (i_t + \tau_t^p)(1 - \tau_t^y) + \sigma_t + \delta - \frac{\dot{P}_t^e}{P_t}$$

- GL could affect price through the interest rate – but the evidence suggests this effect is quantitatively small.

- Maybe GL increases relaxes credit constraints, increasing the demand for housing?

- BIS conjecture: through the risk premium σ. What is the mechanism?

Two puzzling results

- **Why does the CA not respond** to private GL shocks? Inconsistent with the hypothesized links between GL, global credit and the CA balance.

- Why does the **domestic interest rate *rise*** in response to a positive liquidity shock? Inconsistent with cross-border easy money spillovers as a transmission mechanism.

Questionable "small country" assumption

- If GL really were exogenous from the standpoint of an individual country, why do country-specific shocks affect GL? (See variance decomposition in figure 10.)

  - **Is China really small**? FX reserves = 26% of GL as of 2012.

  - **Is the US really small**? Monetary base = 23% of GL as of 2012.

- 50% of official GL is directly affected by these two countries' shocks.

- The US is presumably a big supplier of private GL.

Econometric issues

- Theory $\Rightarrow$ **real** interest rate belongs in the VAR.

- It *can* matter whether MG estimates are weighted or unweighted.

- Country-specific estimates are probably not independent. How does the MG standard error calculation take into account?

- CA/GDP should be I(0). Consumption levels vary hugely across countries, why not C/GDP too?

- OK to include crisis episodes (e.g. Argentina's hyperinflation)?

- Careful with EME data: very "spiky" & crisis-prone in early years.

- Careful interpreting EME results: experience is more recent than AE, global environment has changed (e.g. greater capital mobility).

- How many countries are dropped in MG VAR analysis?

What are the policy implications?

- Can GL inflows be mopped up with higher reserve requirements?

  - Prevents FX accumulation from increasing domestic credit.

  - **China** has sharply raised requirements, but property prices have boomed anyway.

  - Kuttner & Shim (2013): hiking reserve requirements does little to check house price and housing credit growth.

Bottom line

- Great data, nice description, uncovers interesting patterns.

- CA balances are a key element – surely true!

- The "global liquidity" story is unsatisfying.

  - GL has **little to do with monetary policy** *per se*.
  - The **linkages and causality** are not clear.
  - Empirical results provide **little support** for the hypothesized transmission mechanisms.
  - **Relaxation of credit constraints** may be be the real story.