Discussion of

Capital Flows, House Prices and the Macroeconomy...

by

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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?

The “BIS View”
The linkages are much more complex

- Global liquidity
- Global credit
- Current account flows
- Demand for housing
- House prices
- ?
- ?
- ?
- ?
- ?
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.

### Table: Effects of sterilization

<table>
<thead>
<tr>
<th>Rest of World</th>
<th>Peruvian central bank</th>
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<tbody>
<tr>
<td><strong>Assets</strong></td>
<td><strong>Liabilities</strong></td>
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- 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.
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 → 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 ⇒ bank reserves ↑
- Loan supply ↑ ⇒ relaxation of credit constraints
- Private saving ↓, S curve shifts to the left
- CA balance ↓
- Capital inflows (including cross-border bank lending) ↑

### Peruvian central bank

<table>
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<th>Liabilities</th>
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<tr>
<td>Peruvian government debt</td>
<td>Sol denominated Bank reserves</td>
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<tr>
<td>US T-Bills</td>
<td>Bank reserves</td>
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### Peruvian commercial bank

<table>
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<tr>
<th>Assets</th>
<th>Liabilities</th>
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<tbody>
<tr>
<td>Loans</td>
<td>Reservable domestic deposits ↑</td>
</tr>
<tr>
<td>Reserves</td>
<td>Reservable (?) foreign deposits ↑</td>
</tr>
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</table>
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 → 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 $\sigma$.

\[
\frac{R_t}{P_t} = (i_t + \tau^p_t)(1 - \tau^y_t) + \sigma_t + \delta - \frac{\dot{P}_t^e}{P_t}
\]

• 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 $\sigma$. 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 ⇒ **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.