Effects of the U.S. Quantitative Easing on the Peruvian Economy

Discussion by

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Summary

• The effect of QE on small open economies.

• Effects on key macroeconomic variables for the Peruvian economy.

• Method: SVAR with block exogeneity
  – Estimate including period prior to QE policy

• “We find small but significant effect over inflation and output in the medium term.”
  – QE shock produces positive GDP (and CPI?) response
Initial Setup

• Data from December 1998 – December 2013

• Why not start in January 2008?
  – How are innovations in the M1 Money Stock prior to 2008 related to quantitative easing?
  – Use approach of Gambacorta et al. rather than Pesaran and Smith.

• Could then drop federal funds rate.
Modeling the U.S.

• The U.S. Block:
  – Economic policy uncertainty
  – Term spread
  – M1 Money supply
  – Federal funds rate
  – CPI
  – Industrial production

• Identifying restrictions for QE shock:
  – Money supply = Positive
  – Term spread = Negative
  – Funds rate = Zero
An Alternative

- Gambacorta, Hofman, Peersman (BIS 2012)
  - “An unconventional monetary policy shock is identified as an exogenous innovation to the central bank balance sheet.”

- U.S. Block:
  - GDP
  - CPI
  - Federal reserve assets (FRA)
  - VIX

- Identifying assumptions (on impact and following month):
  - FRA increases
  - VIX decreases
  - FRA has lagged impact on GDP and CPI
Suggestions for U.S. Block

• Start in 2008

• Drop the federal funds rate

• Replace M1 Money Stock with securities on Federal Reserve balance sheet

• Replace economic policy uncertainty with measure of financial stress
  – VIX
  – Chicago Fed’s National Financial Conditions Index (NFCI)

• Consider alternative identifying assumptions
  – Maybe negative effect on financial stress
  – Simplifying (e.g. dropping w) would allow for simpler solution.
  – Negative effect on term spread? Major “flight to quality” pushing yields up.
Fig 1: The U.S. 10 Year Yield
Does QE Composition Matter?

• QE1
  – Announced Nov 25, 2008
    • A program to purchase agency debt and MBS
    • “To provide greater support to mortgage lending and housing markets”
    • Up to $600 billion
  – Expanded Mar 18, 2009
    • An additional $850 billion of same securities
    • $300 billion in long-term Treasuries “to help improve conditions in private credit markets”
Federal Reserve Balance Sheet

Chart showing the Federal Reserve's balance sheet over time, with categories including Treasuries, MBS, and Agency Debt.
The Domestic Block

- The Peru Block:
  - Terms of trade
  - Real exchange rate
  - Interbank interest rate
  - Aggregate Credit in Dollars
  - Aggregate Credit in Soles
  - CPI
  - Real GDP
Suggestions for Peru Block

• Simplify and include the **macroprudential** policies
  – Reserve requirements and FX intervention
  – Quispe and Rossini (2011)

• Alternative Peru Block:
  – GDP
  – CPI
  – Macroprudential Policies
  – QE Shocks

• Focus on the Peruvian response
  – Did the macroprudential policies **mitigate** the effect of QE shocks on Peruvian GDP and CPI?
  – Run the **counterfactual** on Peruvian policy.

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<tr>
<th>U.S. Block:</th>
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<tr>
<td>U.S. GDP</td>
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<td>U.S. CPI</td>
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<td>Federal reserve assets (FRA)</td>
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<td>VIX</td>
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Expanding the Analysis

• Include other countries
  – What about Japanese QE?
  – Effect on South American countries similar/different?

• Consider how QE should be measured
  – Purchases or announcements?
  – Look at “Kuttner” surprises (relative to 10 yr futures)?

• Try to differentiate QE from forward guidance
  – Expectations hypothesis: long rate is future short rate.
Look at QE Exit!

• “There has been widespread concern among policy-makers in emerging economies about the effects of quantitative easing…”

• What about exit from QE? (negative QE shocks)
  – This seems to be the more pressing question.

• QE may produce benefits and exit may bring costs.
• Could be a volatility issue due to foreign capital flows.
Global Monetary Policy Implications

• Is there a feedback effect on the U.S.?
  – In the block model, the U.S. block is independent of the Peru block.
  – Is this true for emerging markets as a whole?

• Is there a need for policy coordination?
  – (Ragu Rajan, Reserve Bank of India)
Big Question

• The role of the dollar in the global economy

• The dollar is the global reserve currency in the post Bretton-Woods, post-gold-standard world.

• Does the U.S. have a responsibility for financial stability beyond U.S. borders?

• Is this another reason for Peru to de-dollarize?
Peru’s Ministry of Economy and Finance

Annual Program of Public Indebtedness and Debt Management 2010
Minor Comments

• Be clearer about the components of $y$ in the paper (not just the appendix)

• State the findings more clearly in the abstract.