Foreign Exchange Intervention and Monetary Policy Design: A Market Microstructure Analysis
Carlos Montoro and Marco Ortiz

Discussion: Santiago, 26 April 2013
by Paolo Vitale

Ud’A
Contribution: Mix a GE approach with a market microstructure component to analyze FX intervention and monetary policy:

- Within a DSGE model for a small open economy with nominal rigidities;
- FX transactions are completed via risk-averse dealers;
- the CB follows a Taylor rule and undertakes FX intervention to either lean against the wind or reduce exchange rate volatility;
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Suggestions:

★ Welfare analysis is possible within a GE formulation;
★ The GE formulation allows for normative analysis;
★ FX intervention and monetary policy can be coordinated;
★ FX intervention plays a signalling role;
★ Homogeneous information simplifies analysis and magnifies the role of central bank;
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- Dominguez and Frankel (1993b, 1993c) show that FX intervention affects exchange rate expectations.

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- Evans and Lyons (2002), Payne (2003), Berger et al. (2005), Biønnes and Rime (2005), Froot and Ramadorai (2005) show **large, persistent and significant impact** of order flow on returns.
- Evans and Lyons (2008) show that customer order flow **predicts** FX fundamentals.
- Breedon and Vitale (2010) show that order flow impacts FX returns via both portfolio-balance and information effects.
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  - Vitale (2011): model of *signalling* and *portfolio-balance channels*.
  - Vitale (2003): model of *FX intervention* and *monetary policy*.

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Montoro and Ortiz’s Formulation

- **General Equilibrium:**
  - Households’ preferences over leisure and consumption of domestic and foreign goods;
  - Labor is the input of competitive intermediate goods firms;
  - Monopolistic competitive firms produce domestic and foreign final goods.

- **FX market microstructure:**
  - Risk-averse dealers absorb capital inflows from investors and central bank;
  - Market clearing yields modified UIP:
    
    \[ E_t[\bar{s}_{t+1}] = (i_t - i^*_t) + \gamma \sigma^2 (\bar{w}_t^d + \bar{w}_t^{cb}). \]
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- Monetary policy follows simple **Taylor rule**: \( i_t = f(\Pi_t) + \eta_t \).

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  - discretionary: \( w_t^{*\Delta} = \epsilon_t \);
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- FX intervention *stabilizes* the economy and *reduces* volatility.
- The impact of discretionary FX intervention is larger than that of pre-announced FX intervention.
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• Paper shows plenty of results: some need economic intuition.

• Show moments of macro-variables at different leads.

• Consider sensitiveness analysis to parametrization. Could choose calibration specific to Latin-American countries.

• Compare the impact of FX intervention on existence of equilibria (Figure 2) with Vitale (2011).

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- Numerical methods could permit:
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The trade account makes dynamics and welfare analysis richer.

- In the FX market customers’ orders correspond to capital and commercial flows, but in the model:

  - Capital flows are exogenous.
  - Commercial flows are absent.

  Commercial flows stem from the trade account balance:

  \[ B_t - B_{t-1} = P_{t-1}^d Y_t - C_t + \left( 1 + \frac{r_t}{100} - 1 \right) B_{t-1} + \text{REST}_t. \]

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- While analytically challenging, investigating it could be fruitful.
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