When is foreign exchange intervention effective? Evidence from 33 Countries

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Discussion

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[1] The opinions expressed and conclusions drawn are those of the author and do not necessarily reflect the views of the Bank of Italy.

- Excellent paper on a crucial question: do foreign exchange interventions (FXI) affect the exchange rate? Under which conditions?
- Novel daily dataset allows to say a lot about FXI.
- **Theory**: Why should FXI affcet the FX rate?
  1. If assets of different countries are not perfect substitutes, returns depend on the relative supply of these assets.
  2. FXI signal the central bank's policy stance.

Methodology

- Suppose CB buys (sells) foreign currency. Three success criteria:
  1. Event: FX rate depreciates (appr.) **during this intervention** (int.).
  2. Smoothing: FX rate depreciation (appr.) **during and for 5 days** after the int. is smaller than during the 5 days leading up to the int.
  3. Stabilization: FX rate kept in a **band of 2 percentage points** during the int. and the following two weeks.
- $\forall$ criterion, estimate the following model for the success rate c_{ir} in country i and regime r:

$$c_{ir} = \theta_r + \gamma X_i + \epsilon_{ir}.$$

- X_i is a vector of FXI specific variables (such as the size of FXI) while θ_r captures exchange rate regime fixed effects.
- Three FX regimes: flexible, broad band, narrow band.
- Compare estimated c_{ir} with placebo success rates.

Main Results

- FXI have a success rate higher than 80% in narrow bands regimes.
- Large FXI increase the probability of affecting the FX rate in floating regimes.
- FXI smooth the FX rate in all regimes.
- FXI more effective if they are noticed and made published by oral communication.

Question #1: How much FX rate is affected?

- Suppose a big purchase of foreign assets in a free-floater, around 1% of GDP.
- Estimates in the paper suggest that the exchange rate is going to depreciate almost surely.
- However, policy makers want to know quantitative estimates of FXI on FX rate.
- Big challenge: identiying the quantitative impact of FXI on FX rate.
- Problem: huge reverese causality issue. FXI are big when market pressure is high.

Question #2: Why is intervention size not (so) important?

- **Event criterion**. In free floaters, an average FXI increases success rate by:

$$100 \left(\underset{av.daily\ \ FXI}{0.02} \times \underset{est.elasticity}{0.33} \right) = 0.6 \ p.p.$$

- **Smoothing/Stabilization criterion**: intervention size does not matter.
- Quite surprising: large interventions have the same probability to affect FX rate of small interventions.
- Only big interventions matter? Any non-linear effects of size?
- Probably, the reason is again that FXI are endogenous: the stronger market pressure, the larger FXI.

Suggestion #1: The precautionary motive

- EMEs tend to accumulate international reserves also for precautionary reasons. Are FXI successful under this perspective?
- It could be tested whether FXI are associated with a less volatile business cycle/current account or whether they reduce the probability of sudden stops.

Suggestion #2: FXI are a signal

- Central banks can use FXI to provide information on thier policy stance.
- Therefore, FXI can be effective not only by affecting assets supply, but also by driving markets' expectations.
- Interesting to disentangle these two channels.
- The 1st channel is likely to prevail during the intervention, the 2nd channel should dominate in the following days.
- So you can define other criteria (for instance, based only on the effectivenss *after* the FXI.)

Suggestion #3: Non-succesful FXI

- FXI are often seen as first-resort measure to affet the FX rate. Other tools (i.e. mon. policy) may have unintended consequences on domestic stability.
- If they are not succesfull, it is likely that policy makers will try with other instrument.
- You can test this! Do policy makers change interest rates/capital controls when a FXI is not succesfull?

Conclusions

- Interesting and well-executed paper on a old but still very hot topic: convinving evidence that FXI are successful in affecting the FX rate.
- More precise quantitative estimates are needed to inform policy makers and to guide economic models.
- Look forward to see how the authors will exploit such a rich dataset!