Discussion of "Foreign Exchange Intervention in Colombia" by Vargas, Gonzales, Rodriguez

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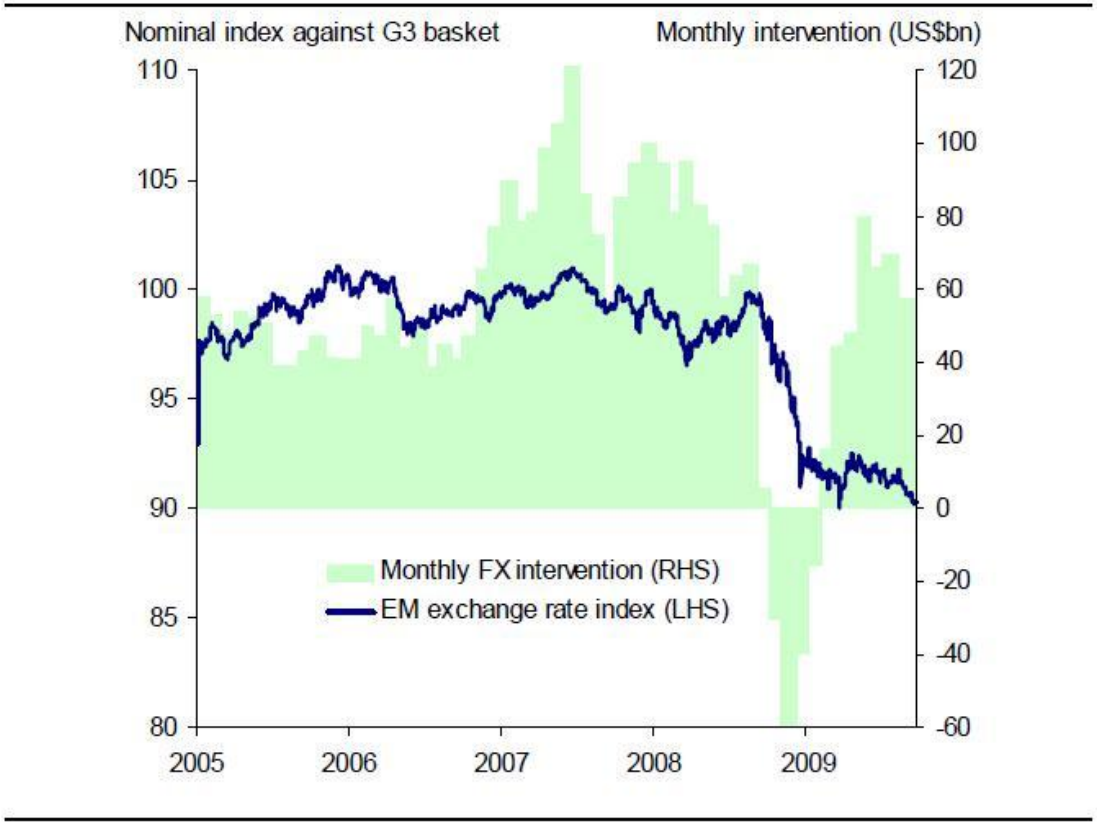
Main Features

- Pessimism about the role of interventions as a systematic monetary policy instrument working alongside the interest rate channel
  - two instruments-two objectives
- A simple DSGE model with a banking/financial sector with endogenously determined stocks
- FX interventions imply higher volatility of credit and consumption – financial stability issue
- Inflation targeting policies neutralize the effects of FX interventions on the exchange rate – interventions have little role in full-fledged regimes

Interventions had always been important, but largely ignored



Source: Haver, CEIC, Bloomberg, UBS estimates

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Importance has increased after the crisis

- Both developed and emerging markets
  - Includes such IT stalwarts as Israel, Switzerland or Poland
  - Intensive discussions even in the “hands-free” Czech Republic
- After the crisis the use of FX interventions has intensified and search begun for finding a paradigm acknowledging the role of FX interventions as a systematic instrument

Finding a role of FX interventions has its problems

- One target – one instrument
- The focus on the Taylor rule
  - Transmission channel of exchange rate policies practically identical to that of the standard interest rate channel
- Two instrument approach
  - Berg at al. (2013), Ostry et al (2012),
  - Vargas, Gonzales and Rodriguez et al.

The Model

- Relatively standard New-Keynesian DSGE
  - price rigidities in the NT sector a la Rotemberg
  - a financial sector a la Berg et al.
- Endogenously determined financial stocks – imperfect substitutes
- Balance sheet effects on the real economy open an additional transmission mechanism for FX intervention policy
- Two instruments: interest rate and FX interventions

Balance sheets

Central Bank	
FX reserves	CB Bonds (sterilization instruments)

Financial Sector	
CB Bonds	Foreign Debt
Loans to HH	

Households	
	Loans
	Net worth

Held in FCY

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Intervention transmission mechanism: balance sheets

- Loans and CB bonds are not perfect substitutes

$$r = \frac{r^* q_{+1}}{q} - f\left(\frac{l}{b}\right), f'(.) > 0$$
$$r^l = \frac{r^* q_{+1}}{q} + g\left(\frac{l}{b}\right), g'(.) > 0$$

- As the stock of sterilization (*b*) increases (following FX purchases by the CB):
  - Risk premium increases, depreciating the currency
  - Lending rate falls to equilibrate the balance sheet

- Direct effects on both the exchange rate as well as the loans and the real economy

Policy rules

- FX interventions stabilizing the relative price of NT and T:

$$\frac{b}{l} = \frac{\bar{b}}{l} - \omega\left(\frac{p^T}{p^N} - \frac{\overline{p^T}}{p^N}\right)$$

- Interest rate policy rules:
  - Simple Taylor rule (without output gap)
  - Strict inflation targeting: $\pi = \bar{\pi}$
  - Efficient rule: $\pi^N = \bar{\pi}$

Authors' conclusions

- The systematic use of interventions in response to foreign interest rate and terms-of-trade shocks
  - increases macroeconomic volatility
  - not very effective in stabilizing the exchanger rates (especially when strict inflation targeting)

Example

fall in foreign rates

FX purchase and sterilization

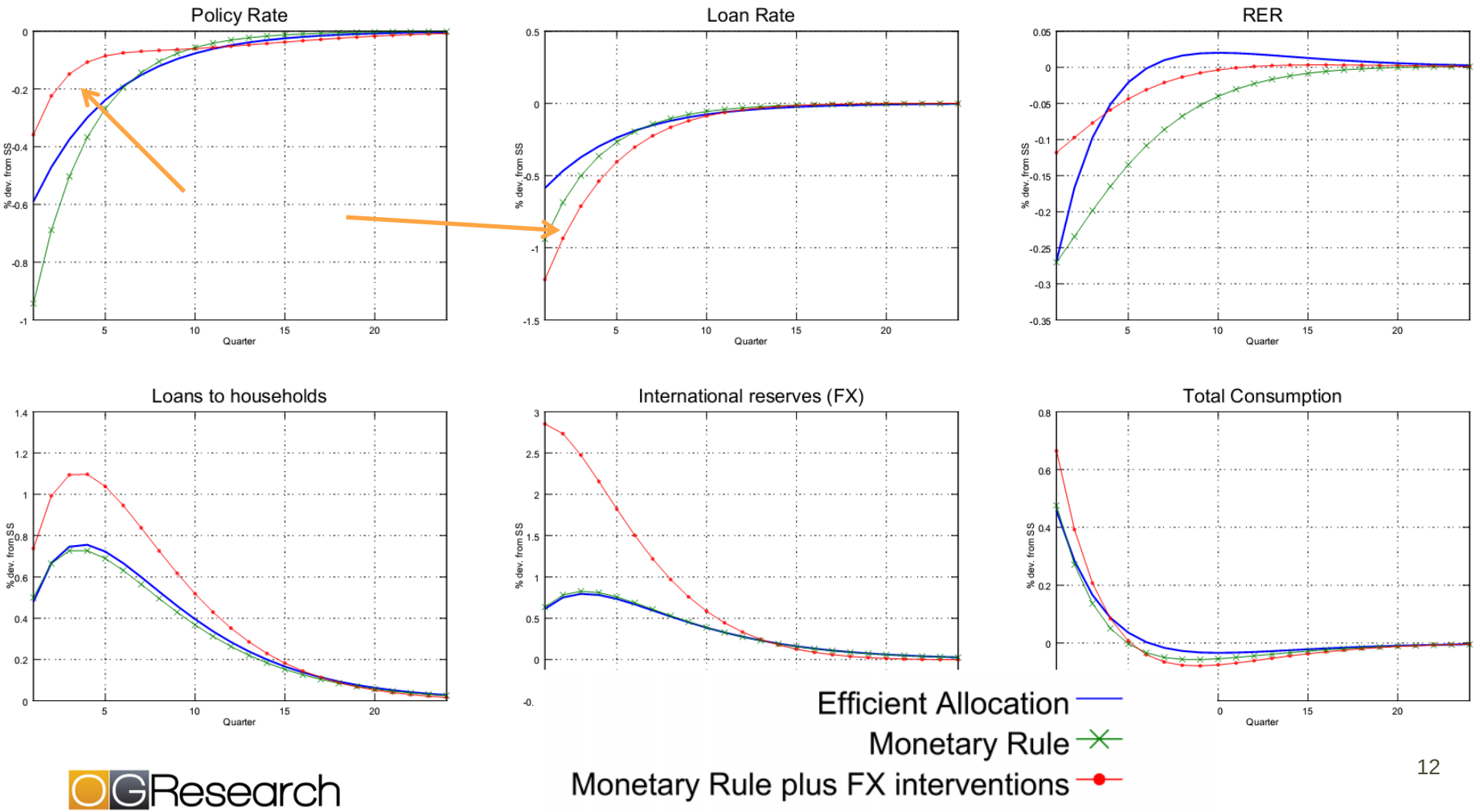
increase of *b/l*

fall in lending rates to balance *b/l* back

higher consumption and lending than is the efficient allocation

The interest rate shock

Figure 7: Capital inflow shock with Taylor rule



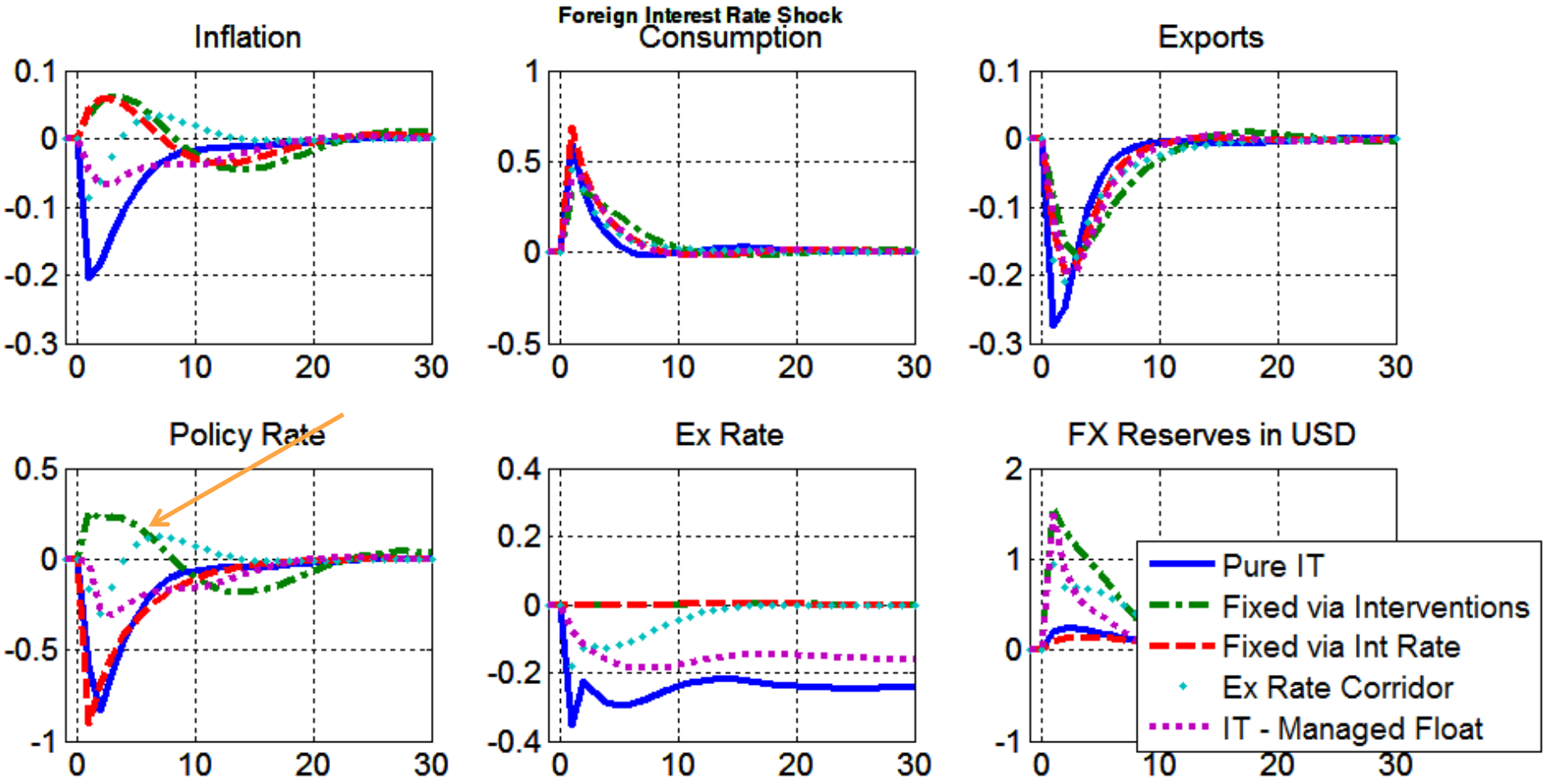
Discussion points (I)

- Why do these results differ so much from Ostry et at and Berg et al?
- Could it be because of differences in specifying the rules?
  - If yes, then not very robust
- Could it be because of the lending rate channel?
  - Significant results worth exploring, because Berg et al actually switch it off
  - Back-up empirically

Results of Berg et al and Ostry et al

- Study of various exchange rate regimes under different shocks
- When output/consumption stability is of primary concern, some kind of exchange rate management through interventions will help under several shock types.
- On the other hand, if inflation is the main objective, then the free float is a robust policy response.

The same shock -- Berg et al



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Discussion points (II)

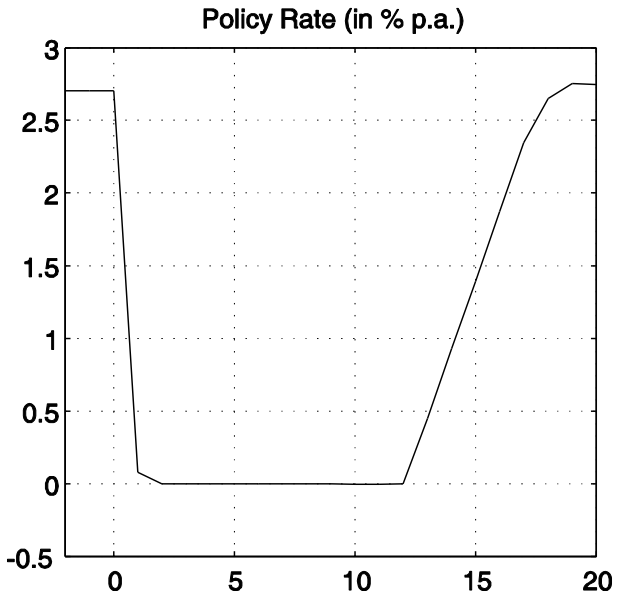
- Is the extra volatility always a problem disqualifying the use of interventions in the post-crisis world?
  - Or can it actually be a welcome feature to revive the economy in a deflationary trap?

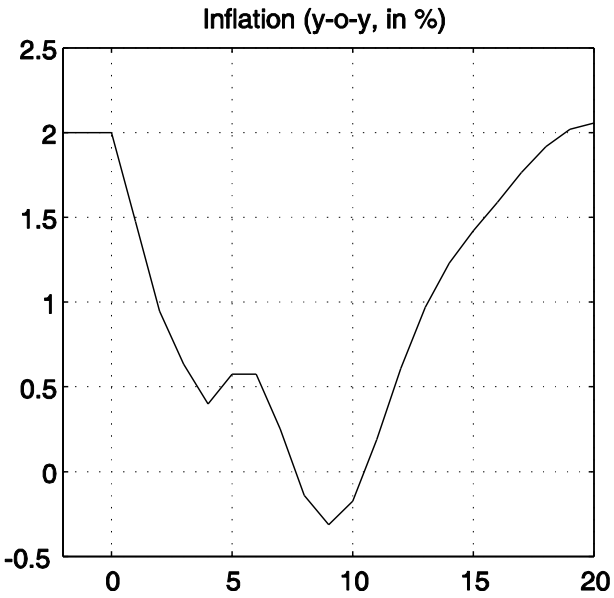
Using FX intervention to escape a deflationary trap

- Can interventions help and should there be a commitment?
  - Based on Benes, Bulir, Hurnik, Vavra (2013)
- Two different strategies when trying to escape the “deflation trap" using FX interventions
- A. Commitment to particular exchange rate targets or a reaction function
  - Svensson (2001, 2003 and 2007) the proposal of the exchange rate commitment.
- B. agents know about interventions in general, but without particular details or commitments
  - Simulating this strategy we replicate the exchange rate target from the commitment strategy leaving economic agents surprised each period by its exact value.

Baseline case

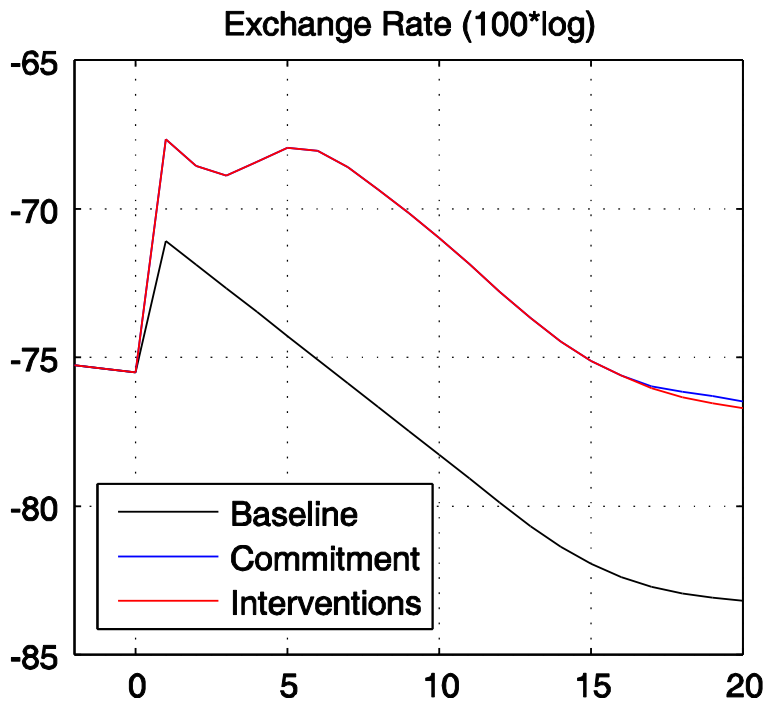
- Inflation Targeting with the Taylor rule, following a world-crisis scenario





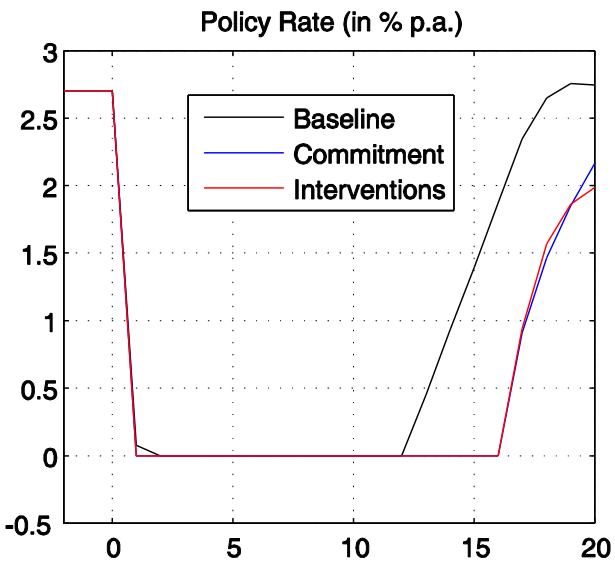
FX interventions to weaken the currency

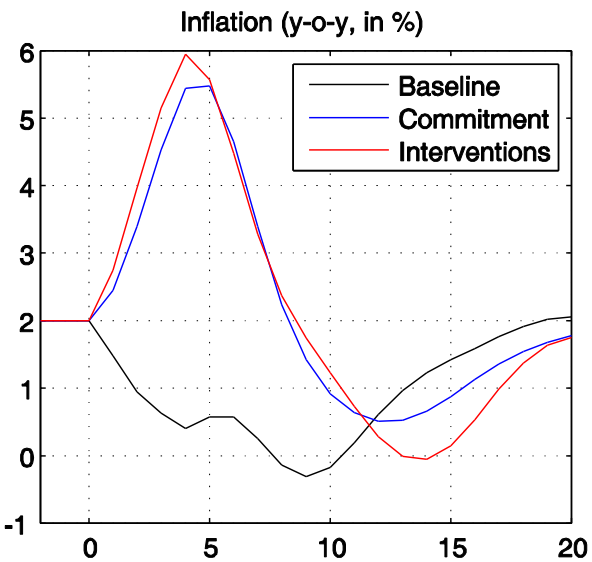
- A weaker exchange rate using FX interventions …



Results (I)

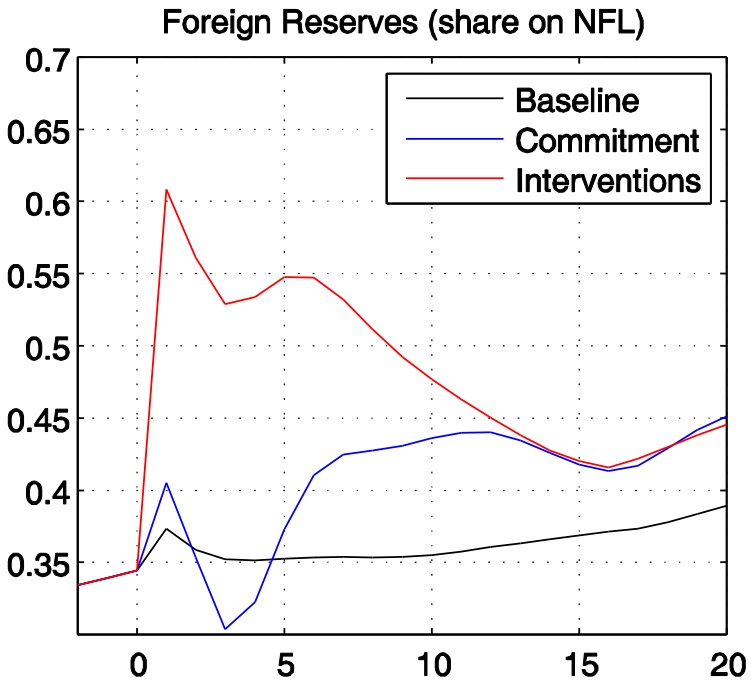
- FX interventions under both commitment and non-commitment are able to generate inflation and escape the trap





Results (II)

- But the implications for output and FX reserves are very different

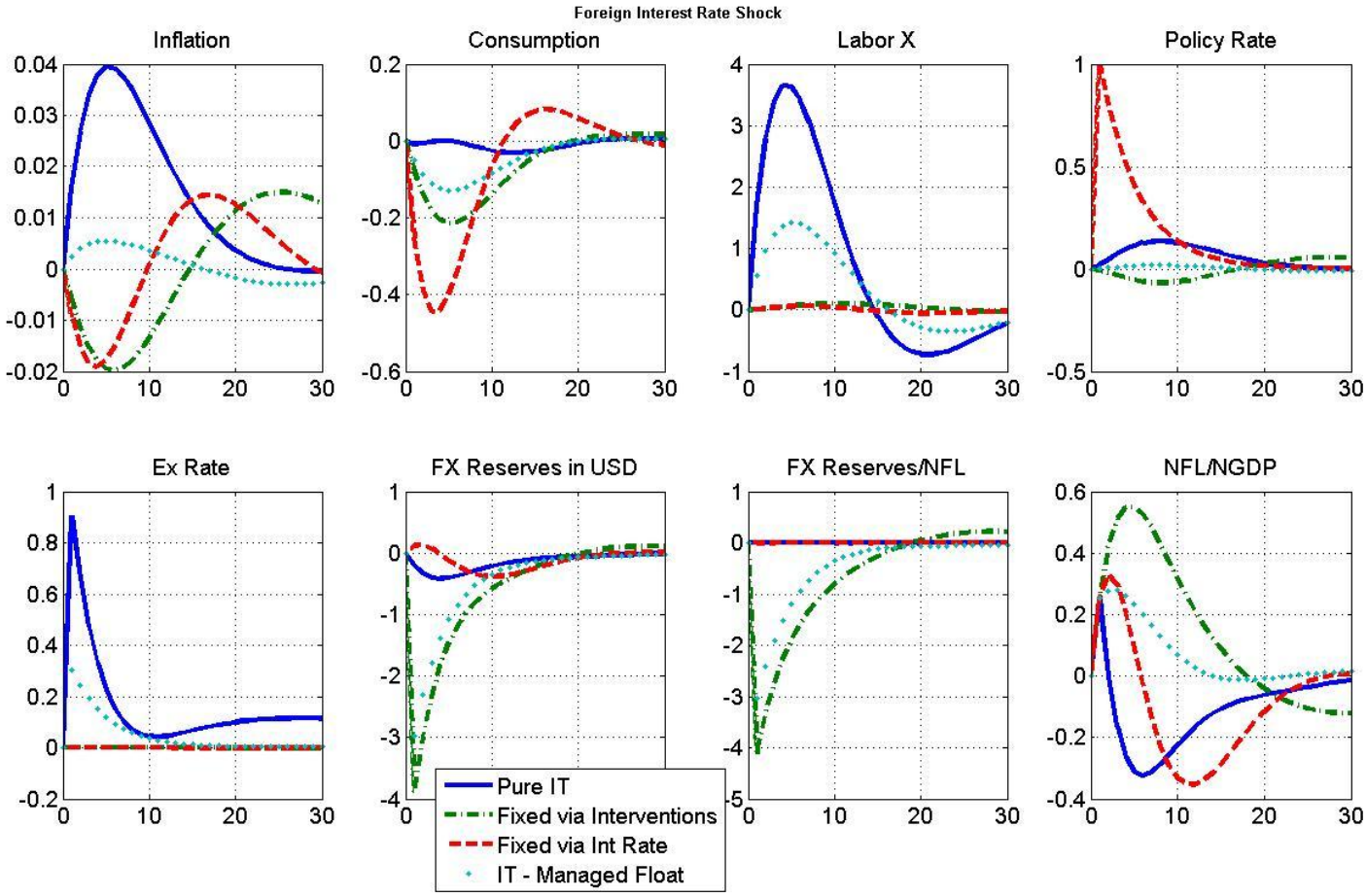


Results: Conclusion

- Exchange rate commitment enables the central bank escape the deflationary situation not only with significantly lower impact on its balance sheet but also with lower social costs
- While under exchange rate commitment the central banks doesn't have to buy any foreign reserves to depreciate the exchange rate (on average during the first few periods), under interventions it doubles its foreign reserves almost immediately.

Thank you

Discussion Points (III)


Foreign Interest Rate Shock
Inflation
Consumption
Labor X
Policy Rate
Ex Rate
FX Reserves in USD
FX Reserves/NFL
NFL/NGDP
Pure IT
Fixed via Interventions
Fixed via Int Rate
IT - Managed Float