

# Understanding recent events on the rupee and analysing policy alternatives

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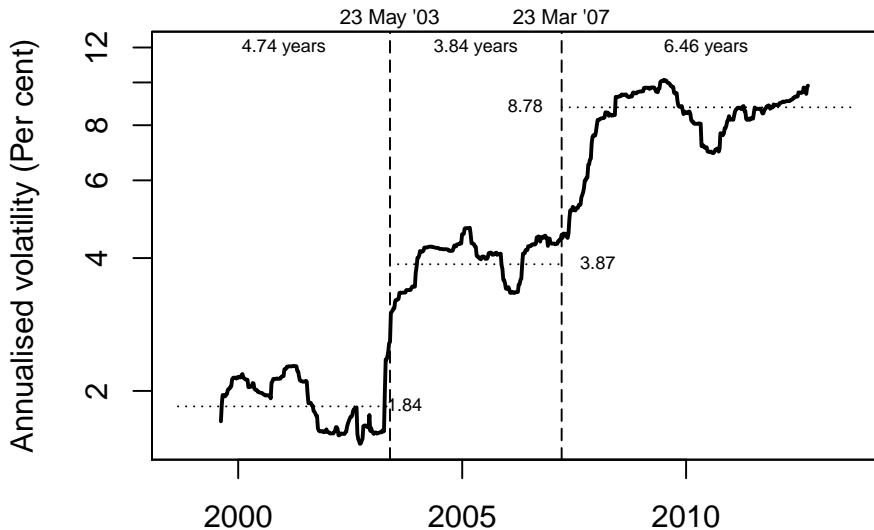
National Institute of Public Finance and Policy  
<http://macrofinance.nipfp.org.in>

September 8, 2013

# Part I

## Background

# Rupee moved to a float



# The Indian strategy on macro/finance

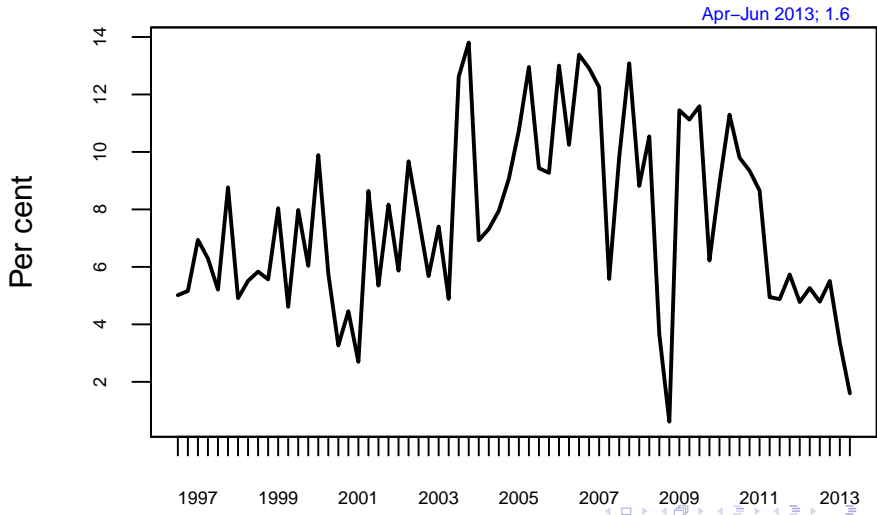
- Exchange rate policy: Move towards a float
- Capital account openness: Increasing *de facto* openness
- Monetary policy: Lack of commitment to inflation, lack of nominal anchor.

## Part II

# Present macroeconomic conditions

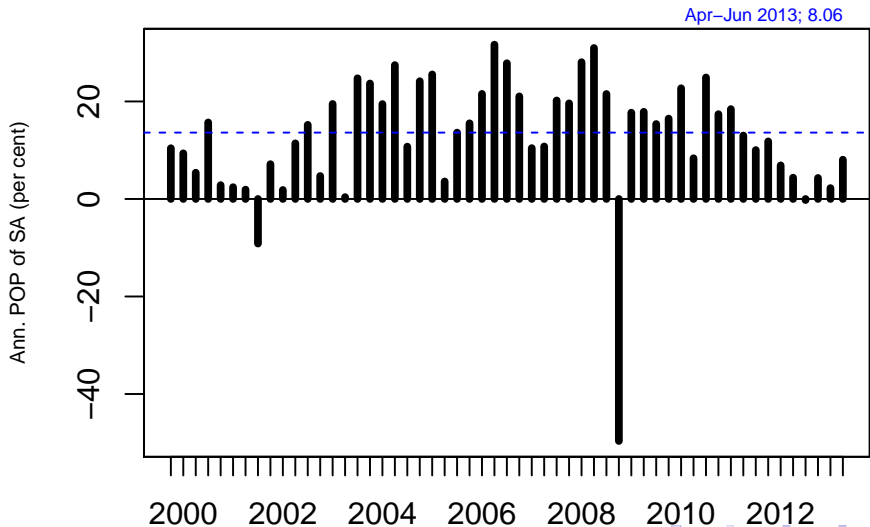
# GDP growth

GDP non-agri non-government, real, pop sa



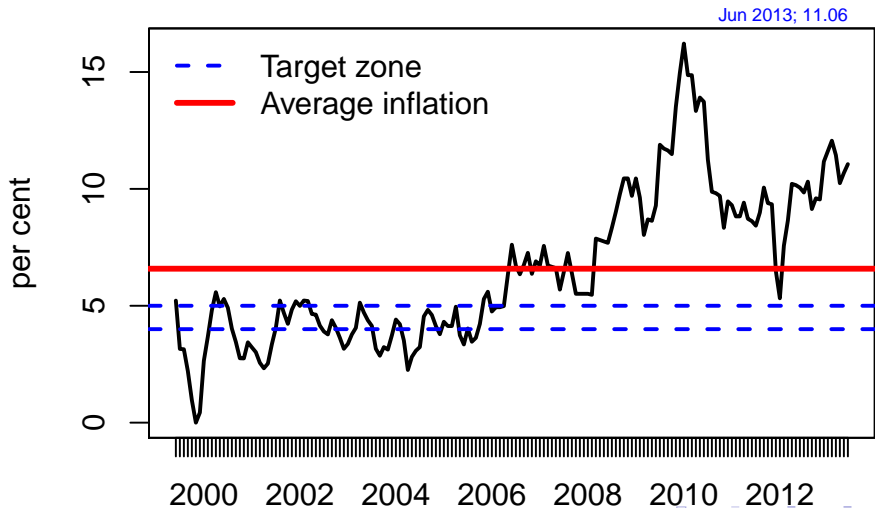
# Revenue growth of large firms

Nominal, pop sa, of index of net sales of listed non-oil non-finance firms



# CPI inflation

Headline inflation: Year-on-year





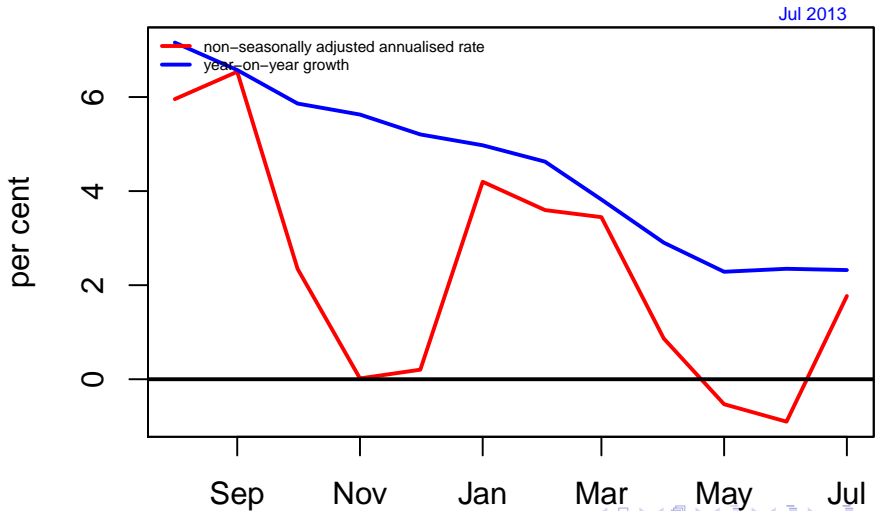
# Current inflation data

Pop, SA, CPI inflation



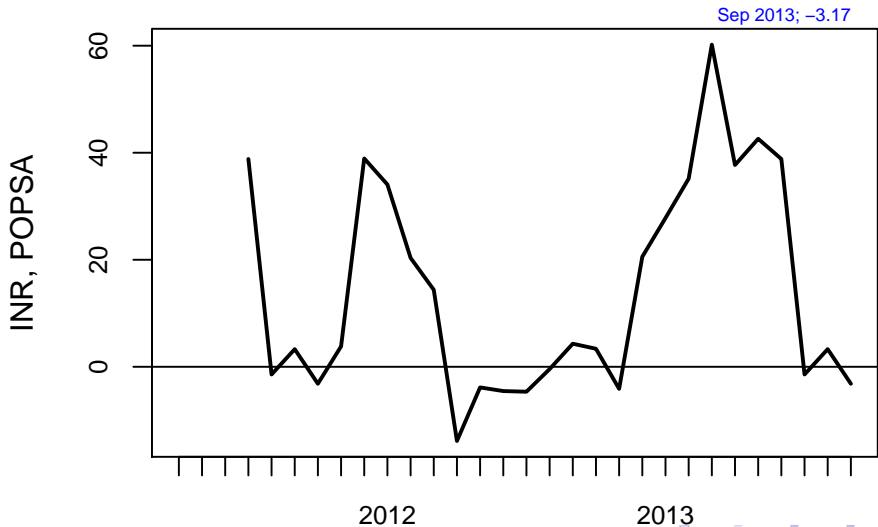
# Tradeables inflation is low

WPI non-food non-fuel



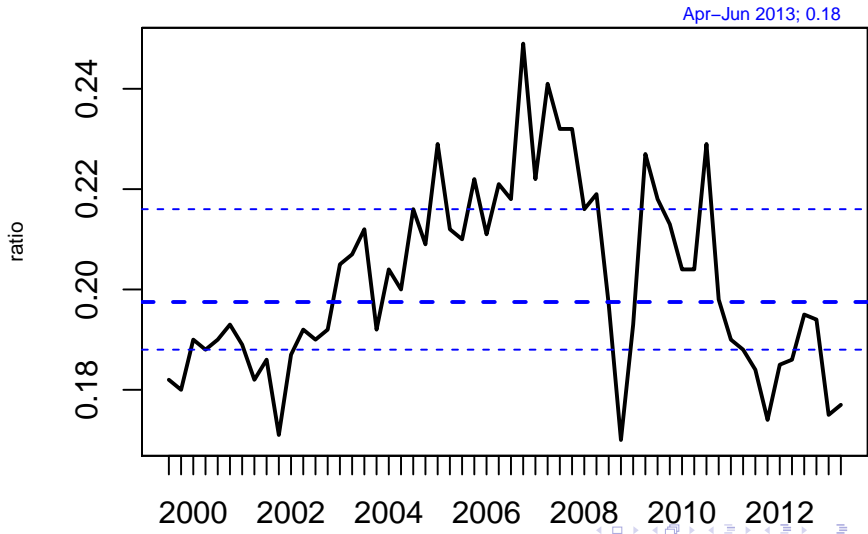
# Outlook on tradeables inflation is good

US PPI, expressed in rupees, POP SA



# Helps hold down operating profit margin of large firms

All listed non-oil non-finance firms



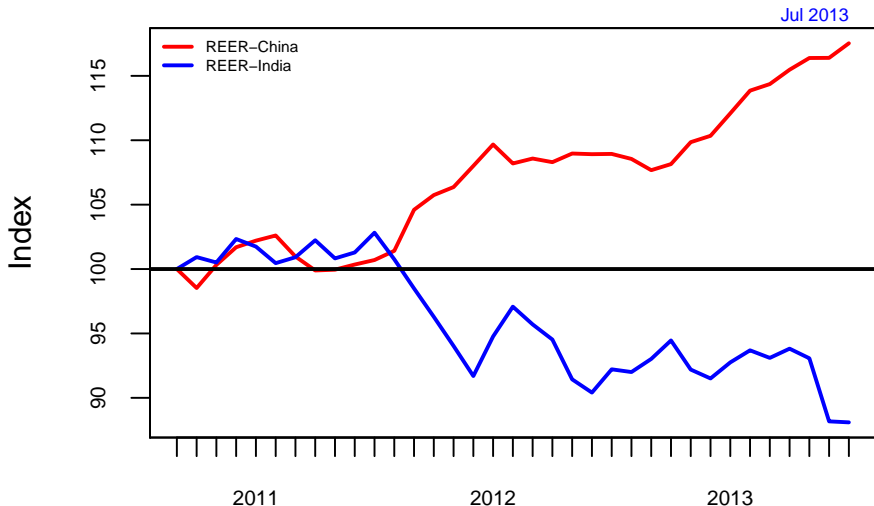
# Part III

## The recent rupee depreciation

# The rupee has depreciated



# The Chinese and the Indian REER in recent years



# Why such a tizzy?

- Depreciations are expansionary
- A strong depreciation was a common ingredient of an old style IMF program
- As long as the corporate sector is intact, they can claw back into growth on the back of a big depreciation.



# Did we have terrible corporate unhedged currency exposure?

- Sometimes, governments fight to prevent LCY depreciation in order to protect the corporate sector
- The backdrop is typically reckless unhedged foreign currency borrowing

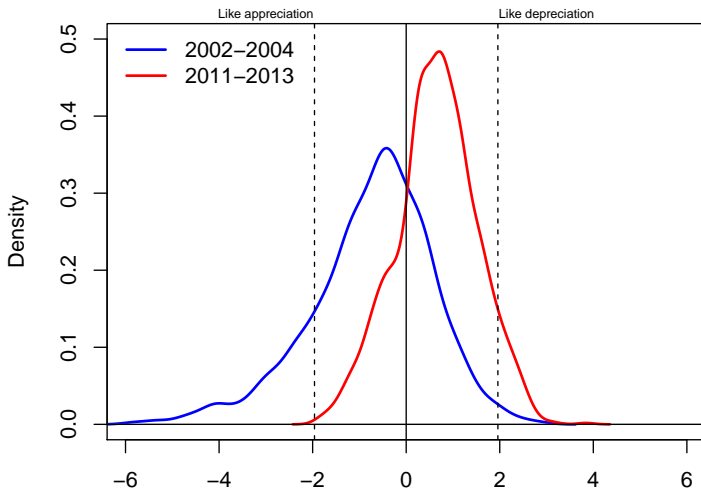
# Did we have terrible corporate unhedged currency exposure?

- Sometimes, governments fight to prevent LCY depreciation in order to protect the corporate sector
- The backdrop is typically reckless unhedged foreign currency borrowing
- Why might corporations be reckless? Two possibilities:
  - 1 BCD Nexus is inadequately developed
  - 2 Moral hazard: Government has promised to take care of them.

# Quantifying corporate exposure

- 1 For a 1% change in INR/USD, what's the impact on the stock price?
- 2 Measurement methodology from *Does the currency regime shape unhedged currency exposure?* by Ila Patnaik, Ajay Shah. *Journal of International Money and Finance*, page 760-769, 29(5), September 2010.
- 3 For each firm, we get a measure of this exposure, and we get a  $t$  statistic.
- 4 We implement this using the latest 2 years of weekly returns data.
- 5 For a comparison we also show the results obtained for 2002-2004.

# Distribution of the $t$ statistic of the currency exposure



# The defence of the rupee

- 1 Damage the liquidity of the market for the rupee
- 2 Interest rate defence of the rupee (in a peculiar way).
- 3 Restrictions on gold
- 4 Other moves - e.g. trade barriers

# If a strong rupee was desired, what might work?

- 1 Raise rates
- 2 Give access for foreigners to assets that were previously closed off
  - QFI
  - INR denominated bonds in Bombay
  - Currency derivatives to go with this.

*Key insights:* The magnitude of impact upon INR of a 25 bps rate hike depends on how open we are on the bond market. Our bang for the buck depends on KAL.

- 3 Make India more attractive – e.g. reverse policy mistakes

# The short term problem

- Most currency defences end in failure
- India is a *de facto* open capital account – defence is impossible.
- As long as GOI is defending the rupee, what's the rational speculator to do?
- Possibilities :
  - 1 Sell assets in India and take money out
  - 2 Sell assets in India and buy gold
  - 3 Short rupee on NSE
  - 4 Take money out and short rupee on DGCX or CME or ICE or NDF.

## More controls are not a choice

- 1 Huge gross flows on the current account: Misinvoicing can be used to shift 5% to 10% of GDP when the government interferes with other mechanisms of capital mobility.
- 2 Foreigners who have invested in India require currency hedging. Capital controls or attacks on market development, that hinder their currency market operations, will induce reductions of ownership of Indian assets.



## Acute uncertainty

- Long period average after March 2007: 8.78% volatility
- Implied vol off ATM options at NSE on last Friday : 20.27%
- 95% confidence interval on a one month horizon:  $\pm 11.5\%$
- At Rs.67 to the dollar this runs from 59.3 to 74.7 over a one month horizon.

## Bernanke FOMC dates: Big days for India

September 17-18

October 29-30

December 17-18

So far Bernanke has only described future events when he will reduce the magnitude of bond buying from \$85 billion a month. On one of these four dates, there's a good chance that the actual decline will be announced. Further out, he will stop buying and further out he will start raising rates and possibly selling bonds.

## Difficult outlook

- The defence of the rupee should not have been attempted
- The means adopted in this defence have been harmful
- The defence of the rupee has failed
- The harmful steps taken in this defence have not been reversed
- Market liquidity has declined; small shocks generate big movements.
- The market is illiquid, tense, volatile
- Implied vols are outrageously high
- Every investment in India – local or foreign – is a bet on the future of economic reforms in India. But the outlook for India is now darker with an illiberal and incompetent leadership.
- External conditions could worsen

Thank you.  
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