# India's openness on the capital account Ila Patnaik

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#### **Outline**

- India's openness on the capital account
- Interest Parity
- Forward market mispricing



## Gross capital inflows

(Gross inflows, percent to GDP)

Year	Total	Private
1991-92	11.59	8.81
1995-96	7.22	6.34
2002-03	9.75	9.19

What changed!?

### **Elements of openness**

- Current account The current account was sharply liberalised in the 1990s, and is a well known channel for evading capital controls.
- Investment flows FDI, foreign portfolio investment, outward flows: These are new, and least-controlled.
- "Other capital flows" These may play a role in evasion of capital controls.
- Loans These are subject to significant restrictions.
- Banking flows RBI has detailed control on capital flows intermediated by banks e.g. RBI sets the *interest rate* on "NRI deposits".

#### Growth of current account

	1991-92 2001-02		1991-92 2	2001-02	
	(Billion USD)		(Percent to	(Percent to GDP)	
Merchandise					
Exports	18.3	44.0	6.9	9.3	
<b>Imports</b>	21.0	51.6	7.9	11.9	
Invisibles					
Exports	9.5	36.7	3.6	7.4	
Imports	7.9	23.2	2.9	4.5	
Sum	56.7	155.5	21.3	33.1	

## Growth and deregulation of capital account

(Gross private flows, percent to GDP)

	1990-91	1995-96	2000-01
Investment flows	0.05	1.99	5.92
Other capital flows	1.85	1.20	1.88
Loans	3.76	4.62	8.16
Banking flows	8.40	3.63	5.63
Total	14.07	11.43	21.59

Gross private flows (capital + capital account) From  $\approx$  35% of GDP to  $\approx$  55% of GDP in a decade.

# **Interest Parity**

## **Uncovered Interest Parity**

- Return on rupee deposits
- Expected depreciation

## **Covered Interest Parity**

- Return on rupee deposits
- Arbitrage
- Forward premium

#### Restrictions on the INR/USD forward market

- Most direct participants in the current account and the capital account are permitted to do "hedging" transactions.
- In a normal currency forward market, covered interest parity determines the forward premium.
- RBI mostly prohibits currency forward arbitrage so CIP is broken.
- Errors between fair value and market value are arbitrage opportunities.

### Measurement of currency expectations

- An extensive literature is based on measures of currency expectations.
- They impact on market microstructure, capital flows, etc.
- In pegged regimes, currency expectations are very important, since they shape capital surges, speculative attacks, etc.
- Typically based on survey evidence.
- Example: Currency forecasters digest (CFD), now called Financial Times currency forecaster.
- There is no comparable dataset in India.

#### The forward market!

- CIP arbitrage is blocked by the rules.
- RBI generally does not manipulate forward prices.
- The forward premium ends up reflecting contemporary speculative views about the rupee.
  Example: If rupee appreciation is expected, the exporter hedges but the importer does not. This puts downward pressure on the forward premium.
- This is a unique source of data about expectations daily frequency, not merely a survey.
- Note: Agents do not forecast economic fundamentals; they are just forecasting the behaviour of RBI.

#### Fair value versus market value

