Capital Flows and Capital Account Management in Selected Asian Economies

Rajeswari Sengupta (IGIDR, Mumbai)
Abhijit Sen Gupta (Asian Development Bank, Delhi)

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- EMEs undertaken diverse capital account management measures to stem flow of capital.

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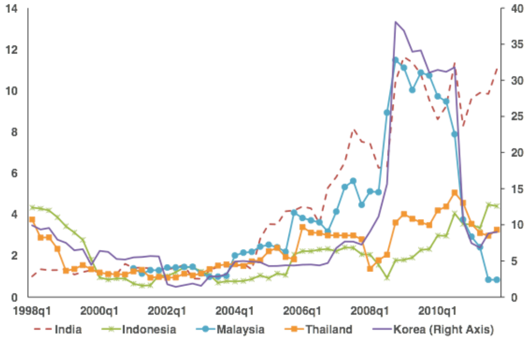
    3. Imposition or relaxation of capital controls on inflows and outflows
- Evaluate efficacy of these measures by analyzing whether they achieved desired goals.
    - Impact on Stock price indices and exchange rates

Volatile Flows

- India, Indonesia, South Korea, Malaysia, Thailand; 1998Q1-2011Q4.
- We assess increase in volatility by calculating standard deviation of quarterly gross capital inflows over last 8 quarters (Forbes, 2014).
- Gross capital inflows–extremely volatile in recent years in EAEs.

Figure 1: Volatility in Capital Inflows in Asia



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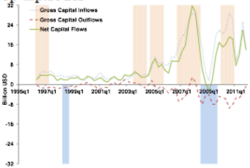
- 2 main phases of stops: AFC and GFC.
- India experienced most number of surge episodes (5), Malaysia did not witness any.
- India & Thailand witnessed longest surge episodes before GFC.
- Longest stop episode- Thailand during AFC

Figure 2: Net and Gross Flows to Asian Economies along with Surge and Stop Episodes



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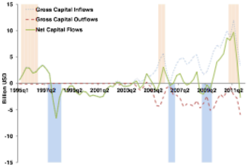
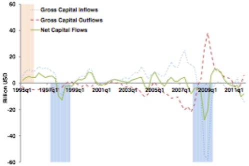


(b)Indonesia



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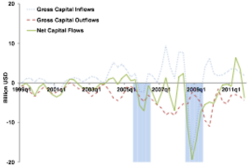

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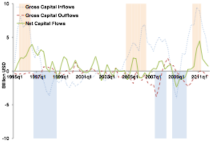

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Surge Episodes

- India: Mostly bank & non-bank flows (mid 1990s, 2004-05 & 2006-08 surges) and portfolio equity flows (2003-04 & 2010 surges); FDI peaking during longest pre-GFC surge.
- Indonesia: FDI flows big driver (pre-AFC and post-GFC surges) along with portfolio debt flows.
- Korea: Single surge episode in mid 1990s driven by bank & non-bank flows (56.9%) and portfolio debt flows (28.3%)
- Thailand: Primary drivers - bank & non-bank flows (mid 1990s and post-GFC); FDI and portfolio equity flows accounted for 2004-06 surge

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Stop Episodes

- Stop Episodes during AFC and GFC: bank & non-bank flows and portfolio equity were main channels of reversal.
- FDI inflows remained fairly constant during both crises.

- Policymakers' desire to prevent capital surges stems from risks associated with such episodes.
  - Rapid exchange rate appreciation can hurt exports of EMEs (Subramanian and Rajan, 2005; Prasad et al., 2007)
  - In underdeveloped financial systems, foreign capital channeled towards easily collateralized, non-tradable investments like real estate causes asset price booms, with subsequent busts disrupting the economy (Prasad and Rajan, 2008)
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  - 15% of capital inflow episodes over past two decades have resulted in a crisis (Schadler, 2010)
- Policymakers can resort to 3 broad macroeconomic measures to counter surges.

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- Open economy Trilemma: Impossible to attain monetary independence (MI), exchange rate stability (ERS) and capital market openness (KO), simultaneously.
    - We use empirical methods (Aizenman, Chinn, & Ito 2010; Hutchison, Sengupta, & Singh, 2013; Sen Gupta & Sengupta, 2012) to describe EAEs' experience with Trilemma.
        - 2000Q1-2011 Q4; period split into 3 equal segments.
        - Examine validity of Trilemma framework: testing whether sum of 3 policy variables adds up to a constant.
        - To obtain contribution of each policy variable, we multiply estimated coefficients with average of each variable for each phase.

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    - Korea fairly consistent focusing on MI followed by ERS.
        - KO increased pre-GFC; but GFC, followed by Euro crisis led to a slump in capital flows in last period.

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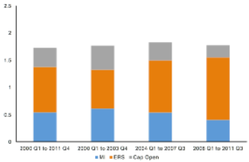

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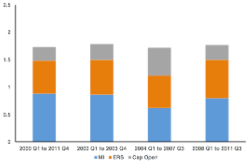

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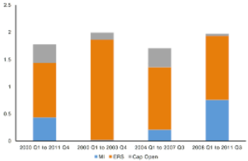

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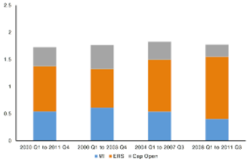

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    - Evidence across all 5 EAEs that central banks pursued asymmetric intervention in forex market to counter surges & stops of capital flows.
- Costly sterilization attempts coupled with raising banks' reserve requirements to contain money supply (India, Korea).

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    - Thailand - In December 2006 BOT imposed an URR of 30% on all foreign transactions.

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- Moderate success in lowering volume of gross inflows in some cases (Thailand & Indonesia in 2006-07) but not much success in other cases.

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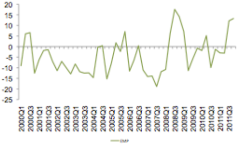
  - Sequential relaxation of controls impacted liabilities composition.

EMPI

- A central bank's capital account management could be driven by a desire to manage exchange rate stability.
- So we measure exchange market pressure (EMP) for 5 EAEs: combination of NER depreciation & reserves loss (Girton and Roper, 1977; Aizenman et al, 2012)
- Although EAEs experimented with capital controls, impact on EMP not significant.
- EMP indices of 5 EAEs display remarkably symmetric trend during 2000-2011.

Figure 6: Exchange Market Pressure Indices



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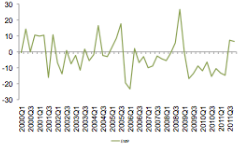

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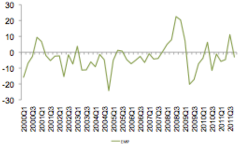

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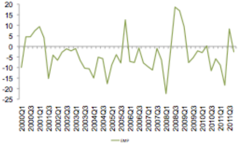

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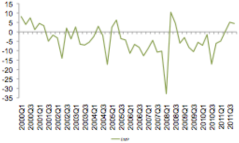

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- Study attempts to enrich current debate ongoing in global policy circles on measures adopted by countries to deal with volatile capital flows.
- Relevant especially at a time when EMEs about to face repercussions of potential rate hike by US Fed and/or launch of fresh QE measures by ECB.
- Countries have resorted to multiple ways of dealing with capital flows-changing Trilemma trade-offs, asymmetric forex interventions and/or capital controls.
    - Adhoc capital controls in response to surges/stops not as effective; perhaps a longer term approach towards capital account management necessary.
- Alternative policies include developing domestic financial markets & banking institutions through reforms such that capital inflows/outflows can be managed least disruptively.

Thank You For Your Attention!