



Strategic Asset-Liability Allocation for Foreign Exchange Reserves

Some Comments

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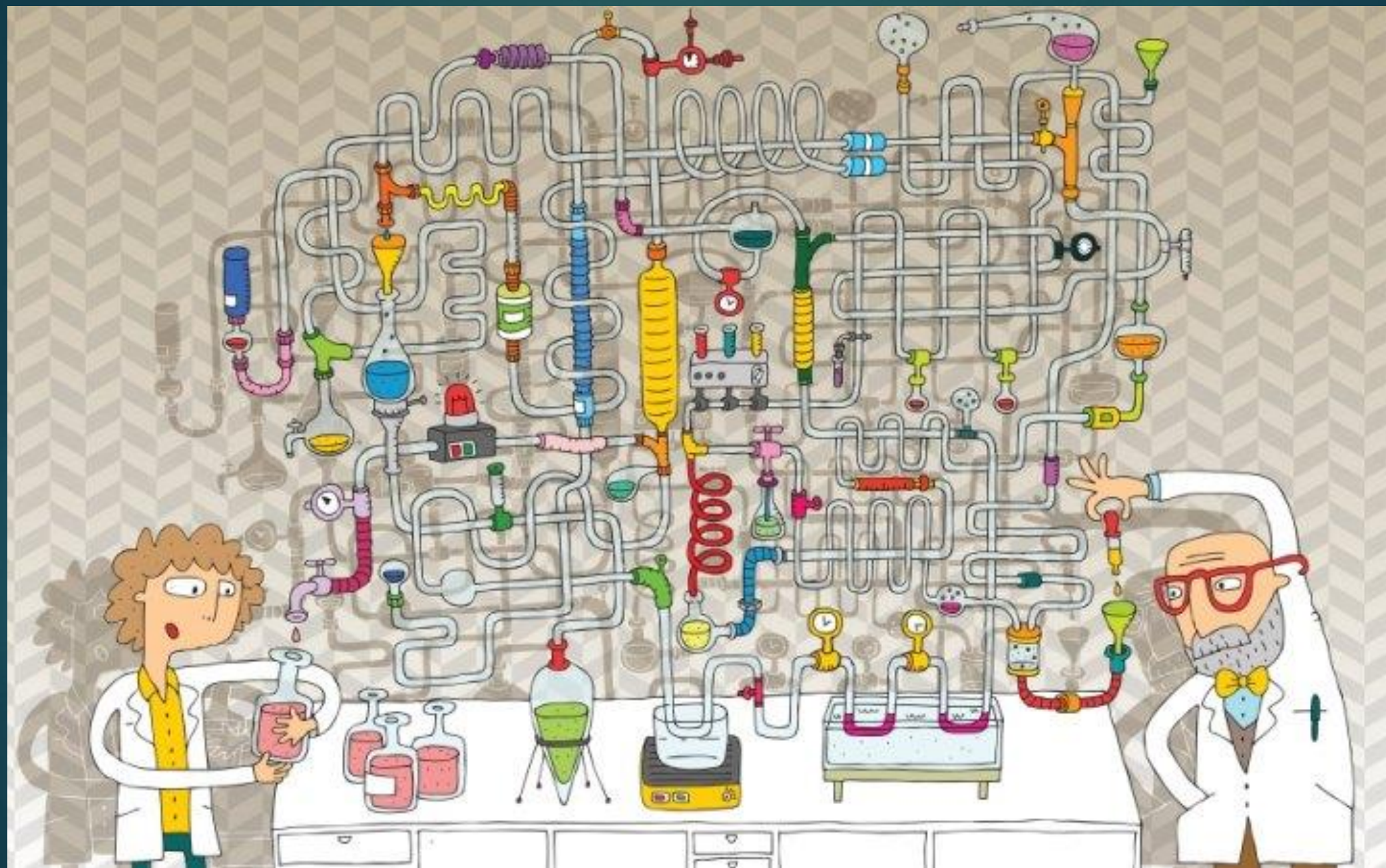
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Summary of Paper

- ▶ Problem
 - ▶ Central banks need to decide what assets to hold in their reserves
- ▶ Objectives
 - ▶ Maximize return
 - ▶ Hedge liabilities
 - ▶ Preserve capital
- ▶ Paper provides a framework for making this decision
- ▶ Concludes that in the case of Chile portfolio should include Asia-Pacific government bonds, European bonds, and US treasuries



▶ What is the framework?





▶ Why should we care?

Past: a non-issue

- ▶ Central banks have been money-making machines
 - ▶ Hold interest-earning assets (fx reserves)
 - ▶ Print non-interest bearing liabilities (currency)
- ▶ Investment rule:
 - ▶ No need to worry about returns
 - ▶ Keep reserves in safe, liquid assets = US Treasuries



▶ What's changed?



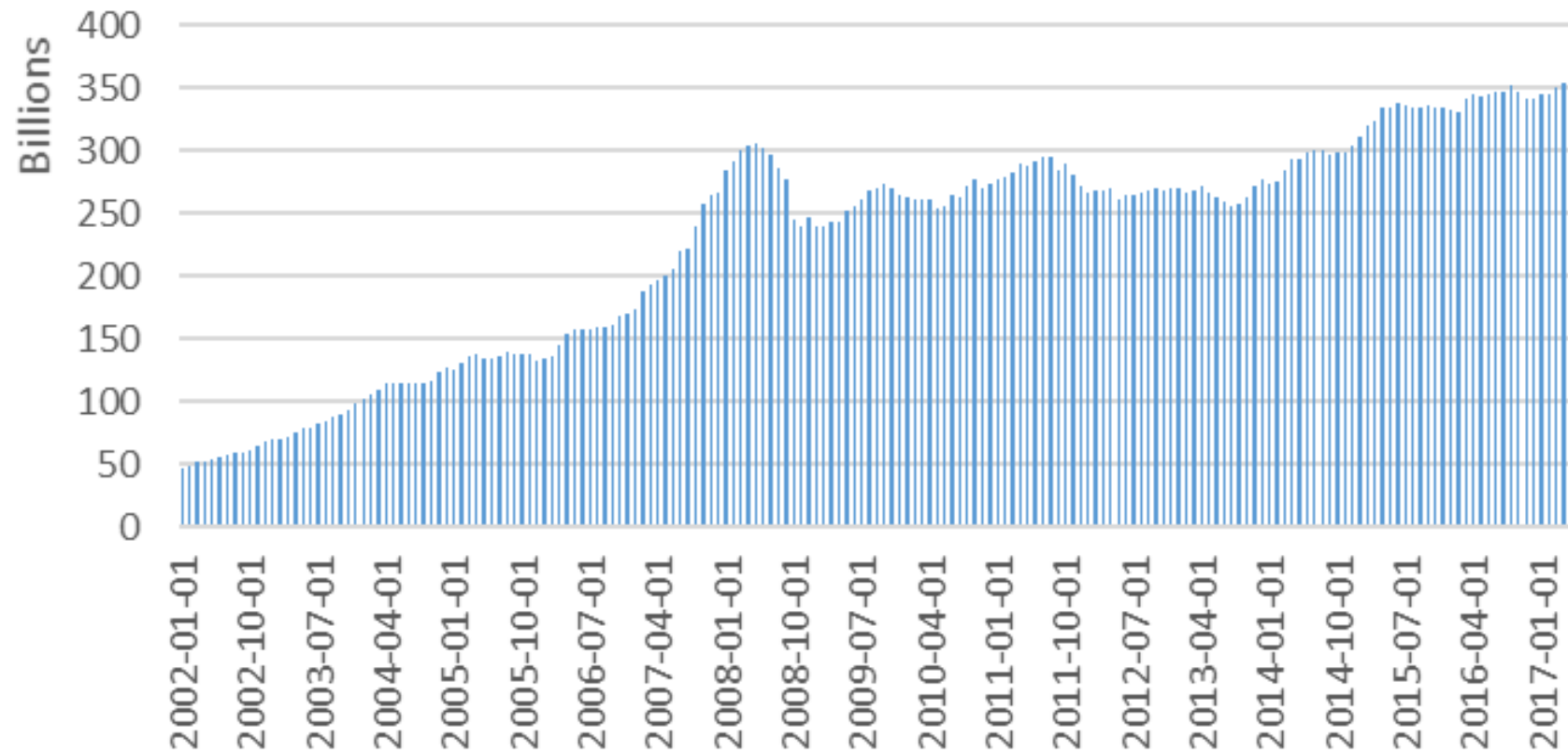
▶ Answer: Growing Asset-Liability
Mismatch in EM's

Asset/Liability Problem

- ▶ Central banks hold foreign exchange reserves
- ▶ When they purchase fx, sell bonds (“sterilise”)
- ▶ Prevents inflation, but creates currency mismatch
- ▶ Mismatch can lead to two problems
 - ▶ Valuation losses
 - ▶ Negative net interest income

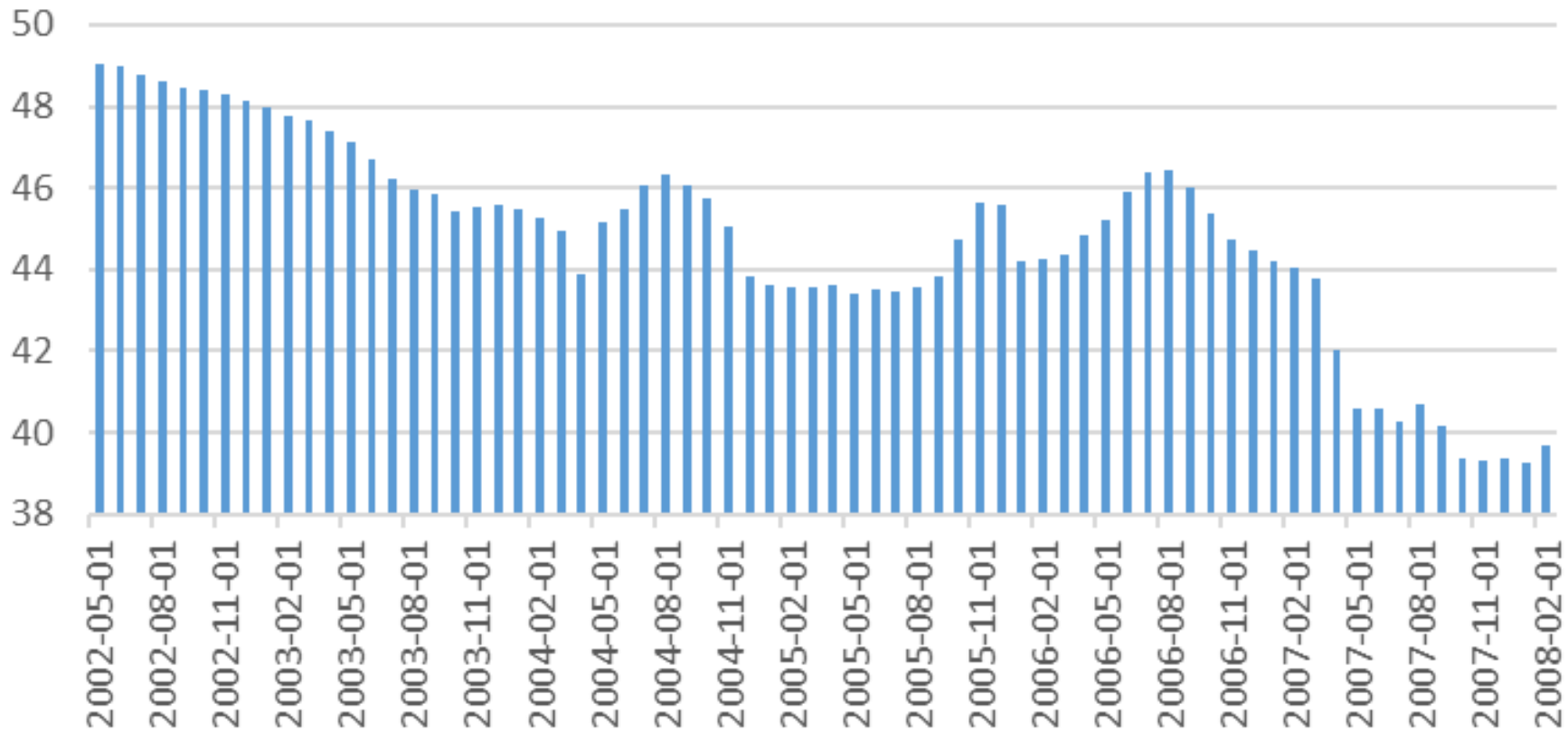
Early 2000s: Growing Reserves

**India: Reserves Excluding Gold
(Billions of US dollars)**



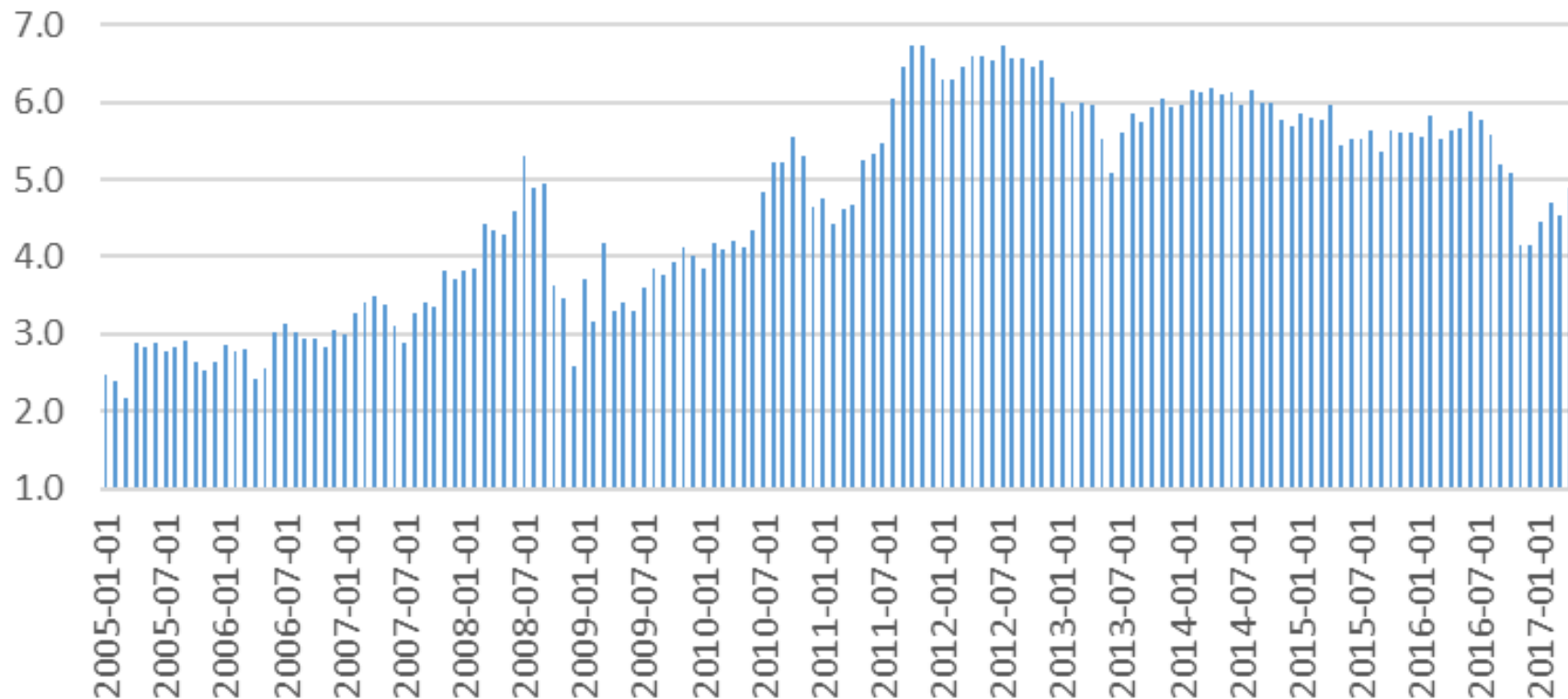
Early 2000s: Valuation Losses

Rupee/Dollar Exchange Rate



Last Decade: Negative Net Interest Income

India/US Interest Rate Differential (10-year government securities)



Doom Loop

- ▶ High interest rates attract capital inflows, create appreciation pressure
- ▶ Central bank decision
 - ▶ Allow appreciation
 - ▶ Intervene
- ▶ Consequence of appreciation
 - ▶ Loss of competitiveness
 - ▶ Valuation loss
- ▶ Consequences of intervention
 - ▶ Reserves increase
 - ▶ Lose more money from yield gap
 - ▶ Exchange rate “guarantee” attracts more inflows

Income imperative

- ▶ Central banks have been paying more attention to bottom line
- ▶ Many have divided reserves into three tranches:
 - ▶ Safety
 - ▶ Investment
 - ▶ Intermediate

Evaluating Paper/1

- ▶ Key recommendation: diversify away from US dollars
- ▶ Conventional view: many have made the same recommendation over the past decade
- ▶ But central banks haven't listened
- ▶ Chile still holds two-thirds of its reserves in dollars
- ▶ Why?

Evaluating Paper/2

- ▶ Unclear whether recommendations are truly robust
- ▶ Different models employed give very different results
- ▶ System used to rank models is not explained clearly

Evaluating Paper/3

- ▶ Paper recognises that reserves are used for three important roles
 - ▶ Fx intervention
 - ▶ Lender of last resort in fx
 - ▶ Bank bailouts
- ▶ First two objectives met most efficiently by holding dollar assets
 - ▶ Asia-Pacific bonds would need to be sold for dollars, then converted to pesos
 - ▶ After GFC there was a “dollar shortage”
- ▶ Can paper be extended to take the special role of the USD into account?



▶ Thank you!