

# *Responding to Global Financial Risks*

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# Overview

- ❑ Responses to weaknesses in financial reforms
  - ❑ Current global financial risks
  - ❑ Arbitrage: growth of hedge funds and ETFs
  - ❑ Liquidity: market-making
  - ❑ Oil shocks and global growth
  - ❑ EMs: QE  $\Rightarrow$   $\uparrow$ ; corporate debt
  - ❑ Macro-prudential regulation to cap leverage
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# Risks from Reform Weaknesses

- ❑ US Dodd-Frank Act; Basel III; UK Vickers commission
    - ❑ Too strong: capital buffers; too weak: exemptions, delays, legal wrangling
      - ❑ **Spillovers, procyclicality, systemic risk: stability councils ⇒ delays**
      - ❑ **Bank focused; exemptions ⇒ shadow banks**
    - ❑ Buffers lags: 2018, difficult to impose in bad times, reduce lending
      - ❑ **Loss-absorbing buffers built up in bad times are pro-cyclical**
      - ❑ **For preventing risky behaviour quality of capital more important: own capital at risk**
      - ❑ **Admati and Hellwig (2013): 20 units equity for 100 units of assets ⇒ only 5 times leverage**
      - ❑ **Basel III total leverage ratio also (0.03) allows 33.3 times leverage (debt to equity)**
      - ❑ **Lehman Brothers leverage was 30 and in Bear Sterns 33**
      - ❑ **Too much capital required in order for buffers to be effective**
    - ❑ EU, France and Germany diluting the capital requirements on their universal banks
  - ❑ Hedge funds different from banks—they are agents not intermediaries
    - ❑ So cap adequacy won't do for them
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# Arbitrage and Response

- ❑ US: Focus on customer protection, microprudential regulation, SIFIs
  - ❑ Not on systemic effects
- ❑ MFs Global AUM rose from \$50 tr in 2004 to \$ 76 tr in 2014 to 40% of GDP
  - ❑ ETF \$400b in 2005 to \$3tr in 2015
  - ❑ FSB: shadow banking 1.5 times GDP in US; China 0.75 times but 30% growth last 3 y
- ❑ FSB (2015): Regulatory haircut for non-bank to non-bank transactions
  - ❑ Guidance but self-assessment of risk; aims to be non-disruptive; exempts G-SIBs
  - ❑ Collateral haircut limits credit raising; stricter collateral for short-term lending
  - ❑ Calculated over the cycle
  - ❑ Haircuts normally aggravate cycles, trigger fire sales (Shleifer and Vishny, 2005)
- ❑ BIS (2013) 3 approaches for capital requirements for bank equity
  - ❑ Risk-based look thru option; strongest (fall back option) 1.250% risk weight; 10% haircut
- ❑ FSB (2016): Proposed measures of leverage in MFs
  - ❑ No leverage caps on hedge funds; lack of uniform measures risk for financial stability
  - ❑ Simple leverage caps are easier to apply universally: Would reduce SIFI leverage relative to banks

# Liquidity

- ❑ Regulatory tightening more on banks
    - ❑ Has also reduced their market making ability
  - ❑ Fears of market freezes, one-sided selling
    - ❑ Funding risk
  - ❑ But CB repo on risky assets as part of QE
    - ❑ Has reduced risk spreads and risk-taking, may prevent fire sales of a
    - ❑ Lend to MFs also? CB dependence?
  - ❑ Proposed limits on illiquid investments
    - ❑ Liquidity mismatch: ETFs, open-ended MFs (FSB, 2016)
    - ❑ Mitigants designed to protect investors, not for systemic effects
  - ❑ Focus on better data and information to regulators
    - ❑ But regulatory reaction delayed and ex-post
    - ❑ Why not ex-ante incentives?
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# *Effects of high liquidity without leverage restriction*

- ❑ QE: Liquidity in search of high EM yields
    - ❑ Creating bubbles to raise wealth and revive demand
    - ❑ While infrastructure finance in EMs remained inadequate
    - ❑ Capital flow surges: asset price booms and busts
    - ❑ Drove up asset prices, oil prices
    - ❑ Oil price volatility has harmed global growth
  
  - ❑ Chinese demand not only factor affecting oil price
    - ❑ Chinese growth had slowed to 7.7 in 2012 from 9.3
    - ❑ But oil prices fell only in 2014
    - ❑ Supply response and tightening regulations pricked the bubble in 2014
  
  - ❑ Commodity futures bubbles
    - ❑ Deviation from fundamental prices
    - ❑ More in countries with lax margin requirements and position limits
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# Macroprudential Regulations

- ❑ Macroprudential regulations: Designed for systemic risk
  - ❑ Due to behavioural aberrations not just SIFIs
  - ❑ Better incentives for market participants, less discretion for regulators
    - ❑ **Compatible with development of markets**
  - ❑ Reduce pro-cyclical expansion of balance sheets, leverage
  - ❑ Allow demand stimulus from QE without adding to financial risk (Woodford, 2016)
  
- ❑ Examples: Lender-based position limits, leverage caps, taxes
  - ❑ Countercyclical; simple, so can be universal
  - ❑ Reduce risk-taking without forcing too much risk on risk aggregators as capital buffers do
  - ❑ So improve financial stability yet protect financial innovation
    - ❑ **↓ tendency to take too much risk in good times and financial boom bust cycles**

# Macprudential Policies: Implementation

- ❑ FSB: macro prudential neglected—rules in Europe but not implemented
    - ❑ Borrower based: LTV; LTI
    - ❑ Lender based leverage caps required
  
  - ❑ EMs use more macro-prudential tools
    - ❑ Four times more intensively compared to AEs before the GFC
    - ❑ 3.3 after the GFC (Claessens, 2014)
  
  - ❑ Prudential measures more effective in reducing leverage
    - ❑ Compared to buffers, even for banks (IMF, 2013)
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- ❑ Broad pattern prudential norms in 2000s reduced volatility
  - ❑ Real estate prices rose: provisioning for such loans ↑
  - ❑ Countercyclical sectoral provisioning
    - ❑ **Directly impacted the Profit and Loss Account**
    - ❑ **Compared to risk weights**
  - ❑ Conservative accounting standards
    - ❑ **Provided for losses while ignoring gains: countercyclical**
  - ❑ Exposure limits for sectors
- ❑ So steady market development
  - ❑ Yet escaped GFC
  - ❑ ⇒ preserve some ↑ regulatory features even with modern risk management

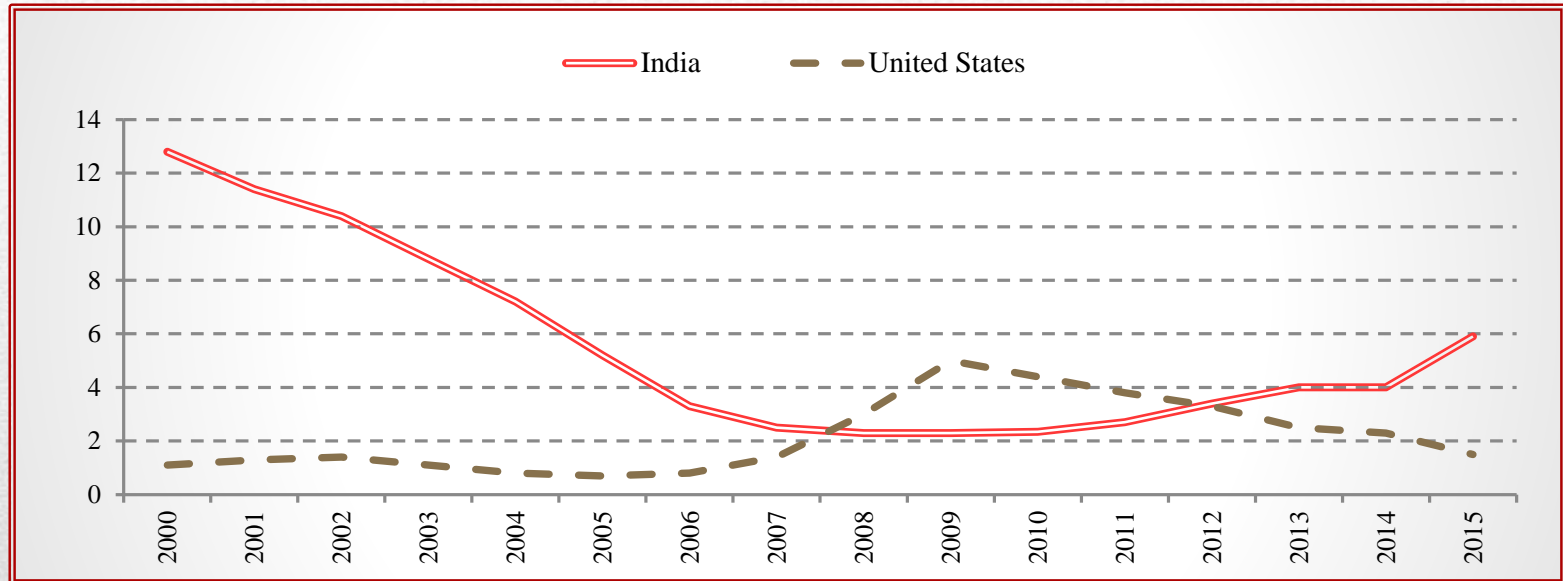
# Effects on leverage

- ❑ RBI 4.5% equity against total assets (Basel III 3%) ⇒ lev
- ❑ But Indian banks leverage 10:1 (5:1 in PSBs); 25:1 average
  - ❑ With development, scale, credit ratios to rise to international levels, so
    - ❑ **Bank focused regulation burdens EM bank-based financial sector**
    - ❑ **Does not address arbitrage through shadow banks**
    - ❑ **Which create risks for EMs from volatile capital flows**
  - ❑ Also continued development burdens
    - ❑ **Priority sectors, large unbanked population**
  - ❑ Use of regulatory ratios as substitute for capital buffers?
  - ❑ But this should be accepted globally, not as a special exemption
  - ❑ Since it would fill existing gaps in international reforms

# *Non-Performing Assets*

- ❑ Weaknesses also, but need to take a historical view on NPA
- ❑ Diversified system; source of strength; changes in relative c
- ❑ PSBs: 90s reforms; overtook private banks; post GFC outp
- ❑ Heeded Government's call: infrastructure financing
  - ❑ But gaming the system?
  - ❑ Reduce loopholes: Accountability, bankruptcy laws and institutions, stronger
- ❑ Private banks concentrated on low-risk retail; now doing be
  - ❑ PSUs also shifting to retail lending; who will lend to firms?

# Bank Non-Performing Loans to Total Gross Loans (%)



# Controls: Effect on EM Corporate Debt

- ❑ Literature: controls do not work
  - ❑ Create distortions, evasion; open CA with two-way movement more stable
  - ❑ Blanchard (2016) EM capital controls + AE QE better than macropolicy coordination
    - ❑ **Controls more effective than FX intervention**
- ❑ Rise in EM corporate \$ debt: \$ 1.7 tr 2008- 4.3 tr 2015
  - ❑ Effect of low  $r^*$  and cross border search for yield
    - ❑ **But Indian debt lowest among EMs; limits on foreign borrowing**
    - ❑ **Private sector external debt USD 105 bn (59 in 2008)**
    - ❑ **Market borrowing allowed diversification from bank loans**
- ❑ Total non-financial corporate debt
  - ❑ IMF: Steep rise 74% of GDP in 2014 (45% in 2005)
  - ❑ China, Turkey, LA most change over 2007-14
    - ❑ **India (14%), large absolute but still low as a ratio to GDP; China (164%) US (67%)**
    - ❑ **Debt concentrated in large infrastructure firms; debt-equity ratios around 1**

# Controls and Market Development in EMs

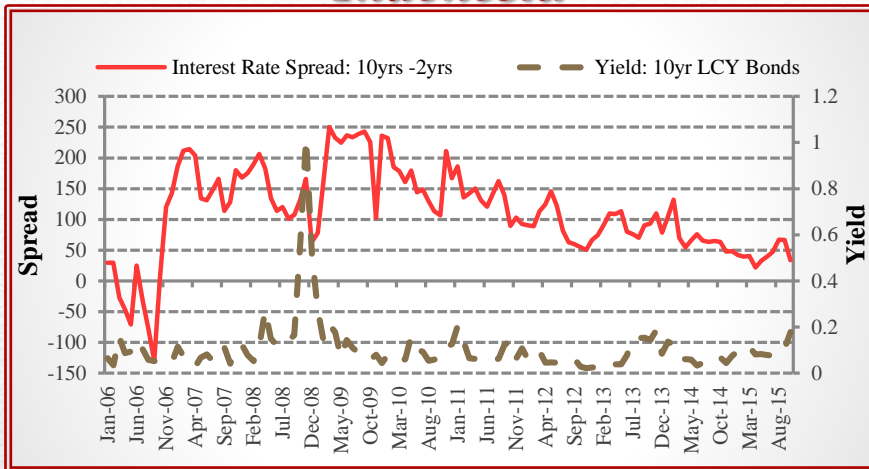
- ❑ Sequencing between domestic market development and foreign entry
    - ❑ Foreign investment in local currency bonds
    - ❑ Currency risk borne by foreign investors; but ⇒ interest rate volatility
      - ❑ **Indian yield volatility less than more open developed and less developed EMs**
      - ❑ **Limits that rise gradually as domestic markets deepen**
      - ❑ **Current limit US \$ 81 bn; larger share for LT investors**
      - ❑ **G secs limit to ↑ from US \$ 30 bn to 60 bn by 2018 (5% of stock) in stages**
    - ❑ Warning for EMs from Chinese credit and shadow banking growth
    - ❑ Impact of global risk-offs
      - ❑ **Fed rate rise? Brexit? Oil price volatility?**
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# EM Bond Markets 2014

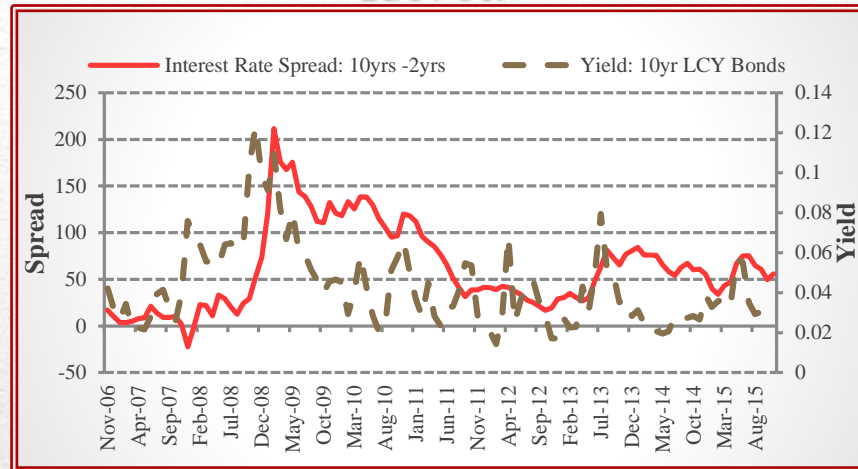
	<b>S. Korea</b>	<b>Indonesia</b>	<b>India</b>
% of GDP	75	15	54
Size: US \$ bn	1701	124	1200
Share of foreign investors	10.6%	38%	4%
10 yr yld vtn taper-on 2013	6.3%	17.4%	1.3%

# Experience with FI Investment in LCY

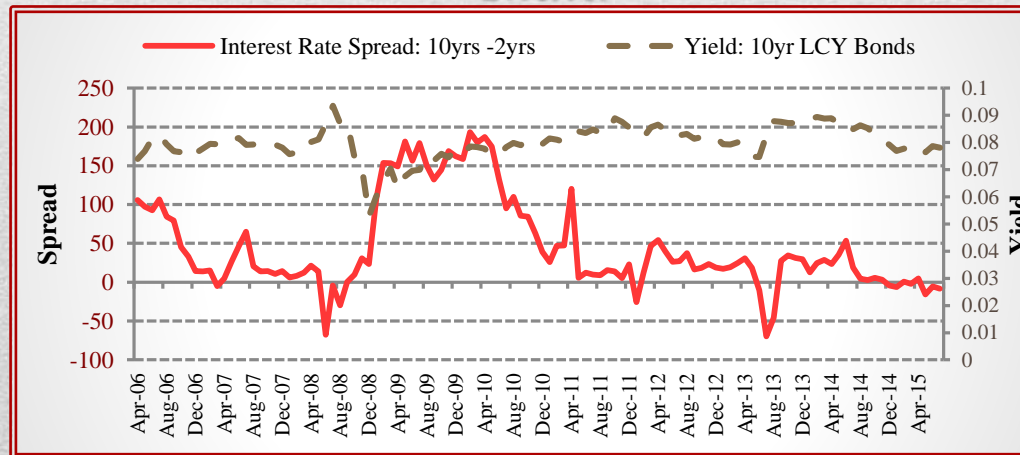
## Indonesia



## Korea



## India





# Reversal of capital account liberalization

- ❑ Post global crisis reversal of capital account conversion
    - ❑ Aimed at reducing short-term inflows given global excess liquidity
    - ❑ Indonesia (2010), Philippines (2009), Russia (2010), South Africa (2010),
    - ❑ Thailand (2010), South Korea (2009-10), Turkey (2010), Brazil (2010), Taiwan
      - ❑ **Brazil, 2% tax**
      - ❑ **Indonesia lengthen debt maturity; limits on banks net FX open positions**
  
  - ❑ Korea
    - ❑ Reserves security led to high short-term debt
    - ❑ So restriction on use of banks foreign currency loans
    - ❑ Limits on use of FX derivatives: banks and companies
  
  - ❑ Pure controls: restrictions on cross border by residence
    - ❑ Market based controls: URR, taxes
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# Typology of Risks

- Types of financial risk
  - Credit risk: borrower default
    - **Poor systems; moral hazard; own capital ⇒ better assessment**
  - Market risk
    - **Interest and currency risk: thin markets**
    - **Liquidity, rollover, funding, maturity mismatch: systemic risk**
  - Regulatory risk
    - **Market risk preferable to regulatory discretion**
- Fundamental trade-offs: incentive v. insurance criteria
  - Too little and too much risk both reduce innovation; rewards ↑ with risk
  - Who can control risk should bear it; but some transfer to risk aggregators
  - These aggregators retain the upside, pass on the downside thru balance sheet
  - But capital buffers give them much risk, reduce innovation too much

- ❑ Brexit: Populace in financial centres also dissatisfied
- ❑ Effectiveness of direct restraints: Leverage reducing
- ❑ But focus on EMs to take action against capital surges
- ❑ Simple universal lender based measures?
  - ❑ Trade-offs with capital buffers
- ❑ Regional alternatives as a corrective for asymmetric power
  - ❑ Better systems would follow a better balance of power
  - ❑ G-20 dialogues?

# THANK YOU

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