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 ➞ ↑; corporate debt
- Macro-prudential regulation to cap leverage
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
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%
  - 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 yrs

- FSB (2015): Regulatory haircut for non-bank to non-bank transactions
  - Guidance but self-assessment of risk; aims to be non-disruptive; exempts G bonds
  - 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, 2009)

- BIS (2013) 3 approaches for capital requirements for bank equity
  - Risk-based look thru option; strongest (fall back option) 1.250% risk weight

- 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 relatively
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 assets (Woodford 2016)
- 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?
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
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
    - \( \downarrow \) tendency to take too much risk in good times and financial boom bust cycles
Macroprudential 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)
Use in India

- 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%) ⇒ leverage

- 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 competitiveness
- PSBs: 90s reforms; overtook private banks; post GFC outperformed
- Heeded Government’s call: infrastructure financing
  - But gaming the system?
  - Reduce loopholes: Accountability, bankruptcy laws and institutions, stronger boards
- Private banks concentrated on low-risk retail; now doing better
  - PSUs also shifting to retail lending; who will lend to firms?
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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<th>S. Korea</th>
<th>Indonesia</th>
<th>India</th>
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<tr>
<td>% of GDP</td>
<td>75</td>
<td>15</td>
<td>54</td>
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<tr>
<td>Size: US $ bn</td>
<td>1701</td>
<td>124</td>
<td>1200</td>
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<td>Share of foreign investors</td>
<td>10.6%</td>
<td>38%</td>
<td>4%</td>
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<td>10 yr yld vtn taper-on 2013</td>
<td>6.3%</td>
<td>17.4%</td>
<td>1.3%</td>
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Experience with FI Investment in LCY

### Indonesia

- **Interest Rate Spread: 10yrs - 2yrs**
- **Yield: 10yr LCY Bonds**

### Korea

- **Interest Rate Spread: 10yrs - 2yrs**
- **Yield: 10yr LCY Bonds**

### India

- **Interest Rate Spread: 10yrs - 2yrs**
- **Yield: 10yr LCY Bonds**
Post global crisis reversal of capital account convertibility

- 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
Types of financial risk

- Credit risk: borrower default
  - Poor systems; moral hazard; own capital $\Rightarrow$ 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 criterion

- Too little and too much risk both reduce innovation; rewards $\uparrow$ 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 bailouts
- 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 asymmetries
- Better systems would follow a better balance of power
- G-20 dialogues?

Thank you