13th Annual Neemrana Conference
ICRIER-NCAER-NBER,
December 16-18, 2011

Ashima Goyal
Structure of the Presentation

- Bank risks; GFC and relative ranking
  - More nuanced picture of risks in EM banks required

- Comparison: advanced and EMS

- Indian banking reforms
  - Structural change

- Risks and regulations
  - Lacunae in international regulatory reform
  - Impact on EMs

- Sources of risks for Indian banks
  - Markets and macroeconomic policy
    - Assessment of risk
A Relative Picture: MM and EM
A Relative Picture

➢ Scale
   ✷ 2010 UK: India; Banks no. 318:81; Assets 4 times UK output: 92% of Indian output
   ✷ Advanced country leverage 25:1; Indian 10:1

➢ Cross border exposures
   ✷ Short-term USD funding, FX swaps
   ✷ Cross currency mismatches

➢ Liquidity
   ✷ Leveraged balance sheets exceed deposit liabilities: endogenous expansion
   ✷ US liquidity creation ➞ dollar carry trade even if EM banks traditional
   ✷ EM more conservative banks at receiving end
Figure 1: External positions of reporting banks in developed countries: Liabilities (Total: $19307.35 USD)

Figure 2: External positions of reporting banks in emerging markets: Liabilities (Total: $2151.18 USD)

Source: Calculated from [http://www.bis.org/publ/qtrpdf/r_qa1103.pdf?page=7](http://www.bis.org/publ/qtrpdf/r_qa1103.pdf?page=7)

Indira Gandhi Institute of Development Research, Mumbai
### Table 1: International positions by nationality of ownership of reporting banks. Amounts outstanding (USDb)

<table>
<thead>
<tr>
<th>Parent country of bank</th>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Developed Countries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>421</td>
<td>751.3</td>
</tr>
<tr>
<td>Canada</td>
<td>885</td>
<td>749.3</td>
</tr>
<tr>
<td>Euro Area</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>France</td>
<td>4,443.80</td>
<td>4,233.70</td>
</tr>
<tr>
<td>Germany</td>
<td>4,552.80</td>
<td>3,598.40</td>
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<tr>
<td>Italy</td>
<td>1,025.70</td>
<td>1,046.70</td>
</tr>
<tr>
<td>Japan</td>
<td>3,637.70</td>
<td>2,039.80</td>
</tr>
<tr>
<td>UK</td>
<td>4,570.20</td>
<td>4,492.00</td>
</tr>
<tr>
<td>US</td>
<td>4,043.20</td>
<td>4,570.30</td>
</tr>
</tbody>
</table>
Table 2: International positions by nationality of ownership of reporting banks. Amounts outstanding (USDb) (contd.)

<table>
<thead>
<tr>
<th>Parent country of bank</th>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emerging Markets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Brazil</td>
<td>202.3</td>
<td>223.8</td>
</tr>
<tr>
<td>Chinese Taipei</td>
<td>258.5</td>
<td>275.9</td>
</tr>
<tr>
<td>India</td>
<td>142.1</td>
<td>168.5</td>
</tr>
<tr>
<td>Indonesia</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Mexico</td>
<td>44.8</td>
<td>45</td>
</tr>
<tr>
<td>Russia</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>South Africa</td>
<td>78.6</td>
<td>78.3</td>
</tr>
<tr>
<td>South Korea</td>
<td>222.2</td>
<td>225.1</td>
</tr>
<tr>
<td>Turkey</td>
<td>163.4</td>
<td>196.5</td>
</tr>
</tbody>
</table>

Source: Calculated from table 8A [http://www.bis.org/publ/qtrpdf/r_qa1103.pdf#page=7](http://www.bis.org/publ/qtrpdf/r_qa1103.pdf#page=7)
Figure 3: Volatile constituents of capital flows

Figure 4: Banks off-balance sheet items (Rs. Crs)

Source: Report on trend and progress of banking in India, RBI (2011)
Structural Transformation
Table 4: Changing Indian banks

<table>
<thead>
<tr>
<th></th>
<th>1991</th>
<th>2004</th>
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<tbody>
<tr>
<td>CRR</td>
<td>15</td>
<td>4.5</td>
</tr>
<tr>
<td>SLR</td>
<td>38.5</td>
<td>25</td>
</tr>
<tr>
<td>RoA</td>
<td>0.15</td>
<td>1.01</td>
</tr>
<tr>
<td>CRAR</td>
<td>1.5</td>
<td>12.8</td>
</tr>
<tr>
<td>Public sec. deposits</td>
<td>92</td>
<td>75</td>
</tr>
<tr>
<td>Gross NPA</td>
<td>12.8*</td>
<td>2.4**</td>
</tr>
</tbody>
</table>

Note: * Figure for 2000; **2009-10
Reforms

- Reversing financial repression
  - From controls to markets

- Banks and markets
  - Money markets
    - LAF and its evolution: ↓ in volatility of interest rates; ↑ transmission
  - FX markets
    - Turnover: USD 3b in 2001; 34b in 2007; 60b in 2011
    - OTC swaps, futures; NDF 50%
  - G-secs markets
    - Interest rates discovered in markets—but thin markets
    - Large variation in the cost of G borrowing
    - Term structure weak—10 year G-secs most traded
    - SLR 25% statutory lower limit but 29% held so scope for OMOs
    - HTM reduces traded volumes, hedging, OMOs
    - Does it hold down the cost of Govt. borrowing? G debt 60% of GDP
    - Substantial risk free treasury income ⇒ hold at lower rates?
    - MTM procyclical
Figure 5: Bank nonperforming loans to total gross loans (%)

Source: Calculated from World Bank dataset

Figure 6: LAF daily: 2004-07
**Figure 7: LAF daily: 2008-10**

![Line chart showing daily LAF rates from 2008 to 2010](chart.png)

**Figure 8: Transmission of RBI repo rates**

![Line chart showing transmission of RBI repo rates from January 2008 to December 2010](chart2.png)

Source: RBI (2011)
Reforms

Skills and technology

- Internal risk rating—VaR models
  - Lacunae in data, industry benchmarks, implications of legal changes
  - Member of FATF; centralized KYC, UID
- Strengths of traditional risk management
  - Capital adequacy at Basel 111 levels already

Change from control philosophy

- Prudential norms plus supervision
- High growth, legal changes e.g. SARFAESI Act

Outcomes

- Improvement in most parameters; NPAs historic low
- Entry: 27 public, 22 private, 32 foreign banks
  - Skill differentials
  - Diversity and learning time
- Retail and loan based business model; short-term wholesale funding ltd
Risks and Regulation
Typology of Risks

- Measurable uncertainty
  - With some probability of loss
    - Finance, volatility: expected values not realized

- Types of financial risk
  - Credit risk: borrower default
    - Poor systems; moral hazard; G forces loans on non-commercial grounds
    - Slowdown
  - Market risk
    - Interest and currency risk: thin markets
    - Liquidity and systemic risk: GFC

- Fundamental trade-offs: incentive v. insurance criterion
  - 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 who diversify
  - These aggregators to the Govt: Retain the upside, pass on the downside thru bailouts
  - But capital buffers ⇒ bear too much risk, reduce innovation too much; so alternative?
Shift from micro-intervention to macro-management

- Focus on broad patterns rather than individual transactions
  - Capital adequacy but also income recognition, asset classification, provisioning
- Real estate prices rose: provisioning for such loans

Good incentives in broad pattern prudential norms

- LTV and countercyclical provisioning
  - Sectoral provisioning requirements directly impact the Profit and Loss Account
  - Compared to risk weights
- Conservative accounting standards
  - Provide 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
International Reforms

- US Dodd-Frank Act; Basel III; UK Vickers commision
  - Too strong: capital buffers; Too weak: exemptions, delays, lags
    - Systemic risk: spilllovers, procyclicality; councils delays
    - Shadow banks: exemptions
  - Buffers lags: 2018, difficult to impose in bad times, reduce lending
    - Risk based capital $\Rightarrow$ high potential leverage; arbitrage increases risk
    - Euro sovereign bonds assigned zero risk weights

- Broad ratios: LTV, taxes, position limits, margin reqts.
  - Automatically countercyclical $\Rightarrow$ improved incentives
  - Simple, so can be universal, prevent competitive risky strategies
  - Since reduce risk-taking without forcing too much risk on risk aggregators
  - would improve financial stability yet protect financial innovation
    - $\downarrow$ tendency to take too much risk in good times
    - $\downarrow$ financial boom bust cycles—observed over centuries
Viewpoint from India

- BASEL III CRAR already satisfied but
- 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
- SLR as source of liquidity and low risk for banks not recognized
- Also continued development burdens
  - Priority sectors, unbanked population 60%
- Use of regulatory ratios as substitute for capital adequacy?
- But this should be accepted globally, not as a special exemption
- Since it would fill existing gaps in international reforms
Risk Assessment: Indian Banks
Markets developed but still thin

- Large impact of shocks
  - TED spreads high and erratic but liquidity related, new LAF may help
- Lending rates—wide gap
  - Definitional change BPLR sharp fall in India-US gap
  - Heterogeneous borrowers: lending rates very high for some
- Risk reducing regulation
- Opportune measures to improve fine tuning of liquidity
Figure 9: Spreads between 3 month T-Bill and inter-bank rates

Figure 10: Spreads between bank rate and lending rate

Source: Calculated from RBI
Monetary policy

- But levels of interest rates higher and more variation

- Pass through higher since of less competition in the banking sector

- More loan based activity so higher impact of interest rate changes
  - Especially on modern sector, slowdown

- Market determined exchange rate, volatility, shocks from capital flows
  - Both interest and exchange rate rise adds to current cost shocks
  - Creates loan quality concerns

- IMF overheating: repo 8.5 industry growth fall to 2.7 Q2 (-5 Oct.), inflation still high
  - Oct. WPI 9.7%; manufacturing 7.7%
<table>
<thead>
<tr>
<th>Bank lending rate</th>
<th>For sectors</th>
<th>For bank types</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agriculture</td>
<td>Industry</td>
</tr>
<tr>
<td>Call Rate</td>
<td>0.664</td>
<td>0.733</td>
</tr>
<tr>
<td></td>
<td>(0.030)**</td>
<td>(0.022)**</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>0.159</td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>(0.012)**</td>
<td>(0.009)**</td>
</tr>
<tr>
<td>Size</td>
<td>0.314</td>
<td>0.237</td>
</tr>
<tr>
<td></td>
<td>(0.070)**</td>
<td>(0.033)**</td>
</tr>
<tr>
<td>Observations</td>
<td>852</td>
<td>1039</td>
</tr>
</tbody>
</table>

Source: Ansari and Goyal (2011)
Note: ** significance at 5%; p-values in brackets
Risk Assessment for Indian Banks

Structural risks reduce but cyclical rise

- Default risk
  - Govt. ownership but no cross border exposures
  - Mild rise in NPAs from historic lows
  - Some industries stressed but portfolio of industries larger now
  - Average credit growth 18.6% pa: 29.6% in high growth period

- Market risk
  - Policy tightening
  - Sharp rise in interest, exchange rates
  - Loan based, thin markets, policy must smooth rates
  - So IMF advice to raise rates sharply inconsistent: created risks

Heterogeneous impact so no systemic concerns

- Across banks and rating agencies: SBI NPAs and profits rise, ICICI both fall
  - Growth prospects better than most other countries; diverse demand sources
  - Market cap of private banks ↑ since free to raise funds
Conclusion

➢ Sensitivity to where difference can be a strength
  ▶ Awareness among analysts; policies also more nuanced and differentiated

➢ Some regulatory differences if included in reforms
  ▶ Would fill international reforms gaps

➢ Easier CCLs and swaps: ↓ aggregate contagion costs
  ▶ Since EMs at receiving end
  ▶ Better regulations
    ◦ Smooth volatility of private capital
    ◦ Allow further opening

Thank you