IS INDIA HEDGED AGAINST SYSTEMIC RISK?
AN ATTEMPT AT AN ANSWER

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Acknowledgement: ISI, and my family
... requirements for purity ... severely limit the questions that can be addressed, not to mention what can get published. Adhering to a purist position in the name of “science” makes economics irrelevant....”

(Gorton, Gary B., 2012)
“... the competition for reputation as "realists" works toward a condition in which students of society are loath to take a minority position.”

(Philbrook, 1953, “Realism” in policy espousal, AER)
“Overall, 86 per cent of the crises in emerging economies are crises with multiple *domestic* vulnerabilities…”

• Work in progress
• Extensive but not comprehensive
• Brief on each aspect, and coverage is uneven
• Policy work based on basic secondary data (some shown here)
• It is analytical and not quantitative work; theoretical discussion minimized here
• Long-term policy suggestions - in isolation and in entirety
• Disproportionate reference to my own research
PLAN

• Risks (familiar and unfamiliar)
  (1) Asset markets (stocks, real estate and gold)
  (2) Banks
  (3) Fiscal deficit
  (4) Current account deficit
  (5) Inflation

• Mitigating factors
  (a) Financial repression in banks (costly)
  (b) Unanticipated jumps in inflation rate (costly)
  (c) Somewhat regular bail-outs (costly)
  (d) Misplaced confidence (unreliable ‘hedge’)
  (e) Growth (camouflage)

• Policy (old and new)
THE STOCK MARKET

Trailing P/E = 17
Forward P/E = 13.5
Trailing P/B = 3
Market cap/GDP = 0.64
Dividend yield = 1.54

and given other data (including leverage) for the present and the past,

the stock market prices on average appear ‘stable’ at present from the viewpoint of systemic risk

some concern
(a) operational risk
(b) possible pull-out by FIIs (more later)
INFLATION-ADJUSTED HOME PRICES

Real Home Price Index
1890=100

Source: Case-Shiller
Figure 7.2. Nominal and real German house prices, 1970–2010.

Data source: OECD.
Figure 8.1. Real house prices in Japan, 1970–2010.

Data source: OECD.
REAL ESTATE MARKET

• ‘Housing is the largest part of a household’s portfolio.’ (Haliassos, 2008)

Ratio of house price to (cost of construction + opportunity cost of land) after adjusting for location

• Real estate prices seem to be high in some parts of India relative to
  (a) ‘fundamentals’,
  (b) prices in other parts of India, and
  (c) prices in many parts of the world.

• Little diversification
GOLD DEMAND IN INDIA

Gold - an important asset in India

‘…households’ gold holding … matches the total savings … in the Indian banking sector’ (Purfield, 2007)

RBI purchased 200 metric tonnes of gold from IMF during October 19-30, 2009 for Rs 31,490 crore ($6.7 billion)
Total Real Return Indexes, 1802 through December 2006

- Stocks: $755,163
- Bonds: $1,083
- Bills: $301
- Gold: $1.95
- Dollar: $0.06

The graph illustrates the performance of different investment types over a period of 200 years, from 1802 to 2006.
Banks

- Banks – NPAs (and low ratings of banks)
- About 24-29% of bank funds in government bonds with low rating
  (Moody’s rating: Baa3, outlook negative)

However, the risk in G-secs is often not recognized. So bank capital actually inadequate.

- If government defaults, possible banking crisis
- If government redeems with RBI help, possible inflation crisis
  (Cochrane (2010) in the US context)
GOVERNMENT-BACKED BANKS, AND BANKS-BACKED GOVERNMENT

- Government-backed banks –
  *government deposit insurance*,
  *government capital in banks*,
  *government control of many banks*, and
  *regulation and supervision of banks*.

- Banks-backed government –
  *SLR requirement* (implicit in Gupta et al., 2010).
HOLDING PATTERN OF G-SEC

(end-Sept 2011)

- RBI: 12%
- Corporates: 2%
- Provident Funds: 7%
- Insurance Companies: 23%
- Primary Dealers: 11%
- Others: 5%
- Banks: 40%
## Stylized Bank Balance Sheet

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td>Deposits</td>
</tr>
<tr>
<td>Cash</td>
<td>Capital (private)</td>
</tr>
<tr>
<td>Government bonds</td>
<td>Capital (government)</td>
</tr>
</tbody>
</table>
FISCAL SITUATION

- Deficit/GDP ratio high
- Debt/GDP ratio not alarming

However, other measures (Reinhart-Rogoff, 2009) debt/revenue ratio is quite high
deficit/revenue ratio is quite high
Early 2010

<table>
<thead>
<tr>
<th></th>
<th>Greece</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt-GDP ratio</td>
<td>1.08</td>
<td>0.60</td>
</tr>
<tr>
<td>Tax-GDP ratio</td>
<td>0.335</td>
<td>0.177</td>
</tr>
<tr>
<td>Debt-tax ratio</td>
<td>3.23</td>
<td>3.40</td>
</tr>
</tbody>
</table>
INFLATION RISK

- Given the past record, hardly any serious high inflation risk in India (above 20% pa cut-off (Reinhart and Rogoff, 2009))

- However, amongst ‘inflation sensitive’ nations, inflation is high and variable in India

- Implications for financial and non-financial savings, and insurance
CURRENT ACCOUNT DEFICIT

- Current account deficit is high
- Capital account surplus is partly due to volatile capital inflows by FIIs
- Volatile capital flows are 81.3% of reserves in June, 2012 (RBI FSR, December, 2012, p. 10)
- Though FII pull out is unlikely, it cannot be ruled out.
Mitigating Factor I: Banks: Protection and Repression

- Good policies
- Public sector banks (PSBs) stable in 2007-09 but PSBs had guarantee from government (Acharya et al., 2010)

- The SLR requirement provides a captive market for government bonds

- Interest rate on GOI bonds is not truly market determined.

- However, the SLR requirement has a persistent cost as
  (1) bank credit shrinks, and emerging firms lose (less growth)
  (2) capital market acquires greater role (more volatility)
  (3) real assets acquire importance (less productive)
MITIGATING FACTOR II: INFLATION

- Unanticipated jumps in inflation

- Default on debt in real terms due to jump in inflation
Historic CPI inflation India (yearly basis)

Source : Economic times
Mitigating factor III: ‘Ex-ante’ bail-outs

- Airline companies (so a GM kind of situation does not arise)
- Loan waiver (so foreclosure kind of situation does not arise)
- LIC buys shares of public sector undertakings (PSUs) (so stock market crash related to PSUs pre-empted)
- Restructuring of bank loans (this shows up as less NPAs)
- Barriers to entry into banking (more profits for existing banks)

These kinds of bailouts pre-empt financial crises but these have an opportunity cost.
MITIGATING FACTOR 4: MISPLACED CONFIDENCE

- There is considerable confidence in banks in India due to government backing.

- However, the general public does not ask whether or not the government itself is financially strong. So misplaced confidence.

- Though confidence useful for macro-financial stability, it is not a reliable ‘hedge’ against systemic risk.
MITIGATING FACTOR IV: ECONOMIC GROWTH

- The growth rate is high in India by international and historical standards. This helps.
  
  e.g. growth can lower debt/GDP ratio over time

- Growth can be a camouflage for weaknesses.

- However, if growth rate drops, there can be a vulnerability.

- In any case, growth can be higher still in the absence of vulnerabilities and the need to take care of these
POLICY – ASSET MARKET

- Behavioural finance (Keynes (1936), Shleifer (2000), and so on)
- Sentiment of ordinary investors directly or indirectly
- A new paradigm - *prescription portfolio choice* (Singh (2009), Basu (2010))
- An analogy – medicine
- Patients obtain a prescription from *medical practitioner*
- Similarly, investors can be required to obtain *prescription* from competent, independent, qualified, and licensed *finance practitioners*
- Need to expand and improve finance education in India
- Financial inclusion of (a) the poor, and (b) the wary.
Real farmland values, in U.S. 2006 dollars, per acre, decadal 1900-1910, annual 1911-2006
Policy - Gold

- Let the RBI set an example, not buy gold, and even sell gold

- Education, and public awareness – a long term campaign

- Do away with some practices e.g. gold, silver and bronze medal

- Indexed bank deposits, indexed government bonds and gold bonds
POLICY – REAL ESTATE

“Given inelastic supply, real estate prices rise due to rising population, rising incomes, rising urbanization, and rising black money.”

This argument is exaggerated, if not incorrect.
HOME PRICES AND LOCAL LAND-USE REGULATION

![Graph showing the relationship between 2005 mean house price (in 2000$) and Wharton Residential Land Use Regulatory Index. The graph is a scatter plot with 'x' markers indicating data points. The y-axis ranges from 100,000 to 700,000, and the x-axis ranges from -1 to 2.]
POLICY – REAL ESTATE (SUPPLY SIDE)

- Urban land area accounts for only 2.6% of total land area in the US.’ (Shiller, 2009, p. 73)

- Need to build entirely new large urban centres

- It is possible to increase supply in the medium to long run with
  1. investment in infrastructure,
  2. increase in licenses for more projects, and
  3. relaxation of requirements such as FAR (at least in the new projects),
     (Glaeser and Gyourko(2008), Shiller (2009))

- Prices can stop rising and can even fall gradually in some places.
FISCAL POLICY AND MACROECONOMIC STABILITY

- Check tax exemptions and tax evasion (black money at 30% of GDP, Report (2012))
- Improved targeting of subsidies for priority sectors
  (this over time reduces the need for priority sector lending by banks)

- Reduce deficit
- Increase tax/GDP ratio and have a meaningful welfare state
- This can reduce the need for other forms of mixed economy
  (PSUs, PSBs, licensing, and direct intervention in several markets)

- Gradually create ‘fiscal space’
- Use extended fiscal policy for macro-financial stability
  This includes overcoming zero lower bound on interest rate (Singh, 2012)

- Gradually lower SLR
- Government can borrow in a truly free market
MONETARY POLICY

- Given *extended fiscal policy*, meaningful to have *narrow monetary policy*
  
- Inflation targeting
  
- Take care of financial stability
POLICY – CURRENT ACCOUNT

- Large current account deficit and volatile capital flows by FIIs
  Need for appropriate policy

  *Check insider trading by FIIs*
  *Allow Indians to invest through foreign funds*
  *Expand and improve finance education in India*
  *Meaningfully allow Indians to invest abroad*
  *Reduce corruption and other scary events*
  *Encourage Indians to buy, if FIIs panic and leave suddenly*

  *Buy a credit line (Singh, 2012)*
**Policy - Banks**

- **Capital**
  Phase out *ordinary capital* from PSBs, and bring in ex-ante *contingent capital* explicitly to all banks (Kashyap et al., 2008)

- **Liquidity**
  At present, the RBI acts as the lender of last resort to *banks*. Possibly *constructive ambiguity*.

  Alternatively, RBI can sell a credit line to *all financial institutions* for a fee, examine ex-ante and monitor continuously and *unambiguously* provide funds in a crisis.
### APPROPRIATE REGULATION IN BANKS

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<thead>
<tr>
<th></th>
<th>Regulation needed</th>
<th>Regulation not needed</th>
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</thead>
<tbody>
<tr>
<td>Regulation in place</td>
<td></td>
<td>Financial repression</td>
</tr>
<tr>
<td>Regulation not in place</td>
<td>Lacunae in regulation</td>
<td></td>
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</table>

**Decrease**

1. SLR, given a better fiscal situation,
2. CRR, given capital adequacy, and credit line from the RBI, and
3. priority sector lending, given subsidies for the priority sector.

**Increase**

Bank licenses (for non-industrial business houses).
POLITICAL RISK

Maplecroft's Political Risk (Dynamic) Index 2013

Legend:
- Extreme risk
- High risk
- Medium risk
- Low risk
- No Data
SUMMARY ON ECONOMIC POLICY

- Fiscal correction
- Phasing out financial repression in banks
- Credit line from the IMF or elsewhere
- Reducing license-permit-quota raj in real estate
- Prescription portfolio choice
- Low and stable inflation rate
- Phase out regular bailouts

- Strengthen and expand macro-finance education and research
CONCLUDING REMARKS

- Macro-financial stability in India over last 20 years or so
- There is a need to move to macro-financial stability without
  (1) financial repression
  (2) jumps in inflation rate
  (3) frequent explicit or implicit bailouts
- Need for resistance to a change in
  (a) confidence
  (b) fall in growth rate
Thank you 😊