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# **Basel Issues for Emerging Market Economies**

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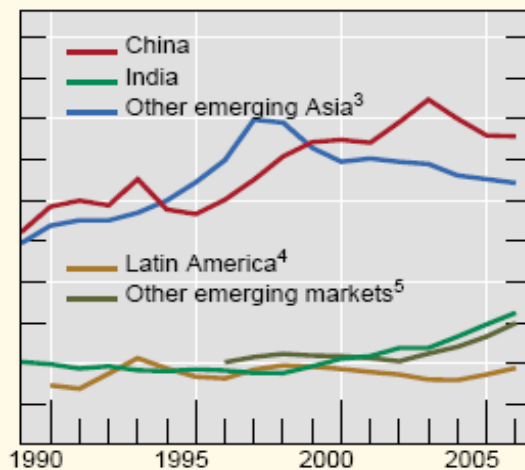
## Outline

- **Financial stability versus access to financial services**
- Why Basel II? Who is adopting Basel II?
- More capital?
- Ratings and risk exposures
- Supervision

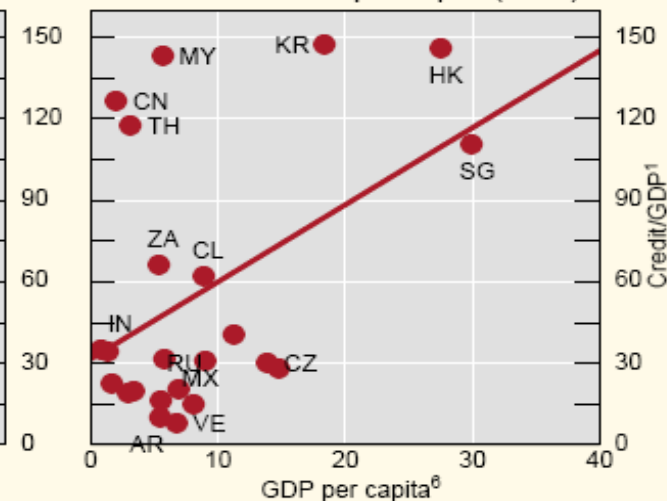


### Bank credit in emerging markets

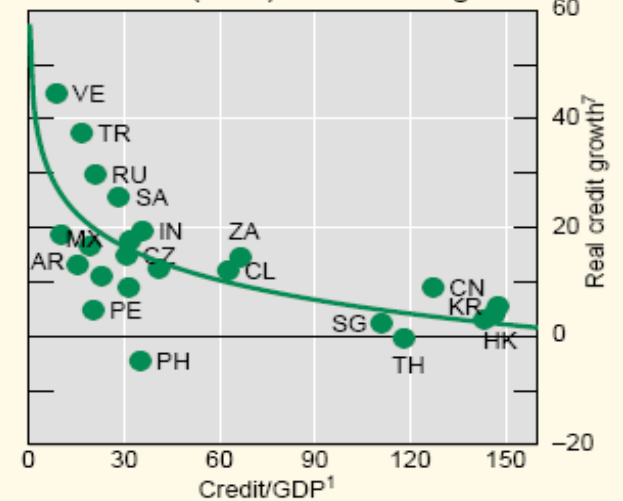
Credit/GDP<sup>1, 2</sup>



Credit/GDP & GDP per capita (2006)



Credit/GDP (2003) & real credit growth



<sup>1</sup> Credit to the private sector as a percentage of GDP; for China, credit to non-central government. <sup>2</sup> Simple average of country data. <sup>3</sup> Hong Kong SAR, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand. <sup>4</sup> Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. <sup>5</sup> The Czech Republic, Hungary, Poland, Russia, Saudi Arabia, South Africa and Turkey. <sup>6</sup> In nominal terms; in thousands of US dollars. <sup>7</sup> Deflated by consumer prices; compound annual growth, 2004-06.

Sources: IMF; national data.



## Financial stability versus access to financial services

- Two goals of financial sector policies (1) ensure financial stability; (2) enhance access to financial services for savers and borrowers
- Financial stability protects savers and borrowers, and more broadly investors and workers from economic disruption. Important because financial crises
  - Have long-lasting adverse effects on output (output does not return to original trend path);
  - Are associated with low ratios of financial intermediation to GDP (eg in Latin America)
- Maintenance of financial stability requires more effective risk management - goal of bank supervisors and other policymakers
  - Recognition of risks and related costs can lower access to credit in short-run to less credit worthy sectors
  - Over medium-term, should improve access to financial services for population at large via more robust financial institutions and financial deepening



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## Why Basel II?

- Crude Basel I framework overweighted some risks and underweighted others.
  - Regulatory arbitrage: Best firms would bypass banks and go directly to markets for funding, banks would engage in credit risk transfer via securitisation to avoid capital charges.
- Concerns:
  - Loss of best business which could worsen banks' portfolios;
  - Were risks leaving (regulated) banking system transferred to (less regulated) institutions less able to bear them?
- Basel II response: more risk sensitivity in capital allocation.
  - 3 pillars – Capital adequacy, supervisory review, market discipline.



## The three pillars

- *Pillar 1.* Capital allocations against credit, market and operational risks.
  - Standardised approach (focus here) resembles Basel I with somewhat better discrimination of risks.
- *Pillar 2.* Relies on supervisory input to take into account risks outside Pillar 1 framework (eg concentration risk, liquidity risk) and country-specific characteristics
  - Changes in bank regulation and supervision, and bank governance so as to encourage a risk-based approach
  - May involve promoting complementary risk-management methods like stress testing
- *Pillar 3.* Role for market discipline for the first time.





## Who is adopting Basel II?

- Basel Committee and international organisations have encouraged implementation of Basel Core Principles for Effective Banking Supervision (BCP)
- Basel II implementation only required by Basel Committee in those EMEs adopting it as part of their supervisory system, or only for internationally active banks
- Many EMEs plan to implement Basel II anyway, replacing Basel I
  - Reason: growing global financial integration implying competition with foreign banks, and internationally active banks
  - Desire to keep up with best practices in risk management



## Who is adopting Basel II? (2)

- More than 90 countries plan to adopt it, including Basel Committee members
  - 2006 Basel II Implementation Survey (updates 2004 FSI survey). 98 non-Basel Committee member countries participated.
  - Roughly same percentage of banking assets to be subject to Basel II, over 80% overall, higher in most regions
- Many EMEs adopting standardised approach (85%) plus basic indicator/standardised approach for operational risk.
  - Some regulators see relatively low compliance and switchover costs as it resembles Basel I
  - Some believe additional capital requirements might be limited but there might be an issue for some countries here (see below)
  - Both domestic and foreign banks may adopt standardised approach (even if some foreign banks use IRB globally)



## Who is adopting Basel II? (3)

- IRB (67%)/Advanced approaches (55% available). To be adopted by
  - Advanced EMEs
  - Possibly some foreign banks in EMEs (provided that they can show that their models are suited to domestic conditions);
  - Future: domestic banks in less advanced EMEs
    - Example: Around 2010 some countries sees transition to IRB and advanced IRB and advanced measurement approaches for operational risk. In the meantime, banks can build up databases to estimate default probabilities and other variables for use in advanced models.
- Perhaps reflecting more awareness of constraints, compared to 2004, timetable is somewhat less ambitious today.
  - Some countries that were planning to adopt IRB/Advanced approaches have postponed this.



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## **More capital**

- Better risk assessment may identify the need for more capital
- Bank operations more costly as they recognize more fully risks associated with credit, market or operational risk
- How well positioned to raise more capital?



## Basel issue 1: Will more capital be required?

- QIS 5 – more capital for non-G10 banks under Basel II.

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### Overall results

Average change in total minimum required capital  
relative to current Accord, in per cent

	Standardised approach	FIRB approach	AIRB approach	Most likely approach
G10 Group 1 (82)	1.7	-1.3	-7.1	-6.8
G10 Group 2 (146)	-1.3	-12.3	-26.7	-11.3
Other non-G10 Group 1 (6 banks)	1.8	-16.2	-29.0	-20.7
Other non-G10 Group 2 (54 banks)	<b>38.2</b>	11.4	-1.0	<b>19.5</b>



## Why more capital?

- New capital allocation for operational risk
- Risks better recognized.
  - Higher risk weights on some bank assets.
  - In one country, way market risk calculation done and exposure to government bonds means pre-Basel II capital allocation for market risk as much as 50% below standardised approach (See Vargas, 2006).
- New accounting standards can imply fuller recognition of losses.
- Some research/regulators suggest additional capital needed may be small.



## **Will cushions eliminate the need for more capital?**

- Capital adequacy ratios typically well in excess of 8% in EMEs.
- However, if cushion is for something else (eg for consolidating risks) and should not be allocated to operational risk, or to cover shortcomings in market risk, more capital will be needed.
- Even when need to raise capital may be limited on aggregate, weaker banks may still need to raise capital.





## What is best approach for raising more capital?

- Choices: Float equity? Rely on other instruments? Merge?
- Cost, liquidity, market discipline and corporate control considerations.
- Raising capital may be a particular issue for state owned banks.
  - India (press, ratings agency commentary): Active measures taken by banks to raise capital to meet their needs under Basel II and to expand
  - However, there is strong tradition of state-owned banking and requirement of 51% state ownership. What role privatisation versus public injections of capital? Or for instruments that raise capital but do not dilute public control?



## Mergers and consolidation

- Need for capital and lower forbearance under Basel II and competitive pressures may lead to *mergers and consolidation*.
  - Since 1999, number of commercial banks in a set of emerging market economies surveyed increased only in China, Saudi Arabia and Colombia while falling 10-30% elsewhere. (Mihaljek, BIS Papers 28, 2006).
- Pros and cons? Should the government help this process along?
  - “Single-presence concept” in some countries implies restrictions on banks holding more than a certain share in more than one bank.
    - Affects foreign banks and in might affect government ownership.
  - Would higher concentration in banking sector raise competition concerns?



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- **Ratings and risk exposures**
  - Ratings penetration/dealing with unrated
  - Preferential risk weights for retail
- Supervision



## Risk weights: Corporate and Retail

### *Corporates*

- Basel II allows for variations in risk ratings among corporate borrowers.
- Standardised risk weights now in 5 categories, 20%, 50%, 100%, 100% and 150% for ratings AAA/AA- to below B-.
- Unrated has 100% risk weights.

### *Retail (unrated)*

- Mortgages (secured) 35%.
- Other retail. Preferential weights. 75% assumes diversification benefits.

Standardised approach does not address all issues of ratings and risk. What guidance can research give to policymakers and supervisors?



## Low ratings penetration

- Very small proportion of corporate borrowers are rated in many EMEs.
- How to raise penetration?
  - **More developed financial markets** (so ratings agencies become familiar with borrowers by rating their issues). A lot of recent BIS work on bond markets.
  - **Domestic rating agencies** (international rating agencies might not increase penetration)
    - Qualifications? How determined?
    - Incentives for forbearance in ratings (ratings paid by clients) vs value of reputation/ratings franchise?
    - Will ratings methodology be consistent across countries?
  - Would encouraging domestic tie-ups with foreign rating agencies address issues?



## Transition issues

- Disincentives to being rated if high risk because lowest rating has higher risk weight (150%) than no rating (100%).
  - The impact on countries where ratings are rare would have been very large had a higher risk weight been applied to credits to unrated companies.
- Possible solution:
  - 100% risk weight for unrated
  - Supervisors adjust risk weights for unrated firms (Pillar 2).



## ***Higher capital charges for high risk assets under IRB than under standardised approach***

- No incentive to switch to IRB if banks have low quality portfolio (Kupiec 2001, Reisen 2001).
- Banks with high risk portfolios might have a competitive advantage by following the standardised approach (Neumann and Turner, 2005).
- Possible solutions:
  - Raise standardised approach risk weights for higher risk credits (Neumann and Turner, 2005)?
  - Stronger emerging markets banking systems: Lowering risks in loan portfolios means IRB approach would require less capital than standardised approach in some EMEs (like in developed countries). Could lower risks with (1) more foreign banks; (2) sufficiently long credit histories from credit bureaus for consumers and enterprises (allows picking the best credits); (3) more stable macro policies (eg. flexible exchange rates, etc).
    - How to assess strength of banking systems over time, particularly seeing through the business cycle?



## Are preferential risk weights for retail lending appropriate in EMEs?

- On the one hand, provides more access
- On the other hand, history of crises associated with retail lending
  - Asian crisis: problems in property markets
  - LTV ceilings in residential mortgage lending in a number of emerging markets, plus restrictions or penalties on real estate transactions in some countries (eg Korea).
  - Credit card problems in Korea and efforts to curb risks in lending to households in Thailand





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## Role of supervisors in Basel framework

- Effective banking supervision key in BCP
- Regulator supported better bank governance.
  - Pillar 2 strategy: increase accountability of board for risk management design, monitoring; increase professional qualifications of board members to fulfil this responsibility. Contrast to family boards often found in EME banking systems.
    - (See Basel Committee for Banking Supervision, “Enhancing corporate governance for banking organisations”, February 2006).
- Efforts to strengthen supervision to address weaknesses identified in earlier reviews



## **Four issues in supervision/regulation in EMEs (post Asian crisis)**

- 1. Absence of consolidated supervision in some countries.* Subsidiaries of banking institutions could experience undetected financial difficulties.
- 2. Deficiencies in risk management.* No culture of risk management in banking institutions; compliance with banking regulations is largely mechanical. Regulations on credit exposures and on connected lending are seen as not strict enough. In some countries there are insufficient regulations for managing market risk.



## Four issues in supervision/regulation in EMEs (continued)

3. *Problems in measuring bank performance.* Some measures of bank performance can give a misleading picture of risks to the financial system. Capital adequacy ratios are sometimes not calculated on a consolidated basis, risk weightings are inadequate because of a lack of appropriate measures, or inappropriate inclusion of capital components.
4. *Remedial measures deficient,* reducing the incentives for diligent risk management. Undue forbearance (ie the willingness of regulators to postpone action when certain thresholds are breached), the lack of supervisory capacity or authority for timely intervention, and the lack of immunity for supervisors. Some improvements in bankruptcy legislation in some countries, but problems in enforcing creditor rights remain formidable.

Source: IMF/World Bank (2002)



## Revision of BCP emphasises some of these issues

- Item 1. Cross border banking – (i) effective consolidated supervision; (ii) arrangements for cooperation and information sharing between home and host
- Item 2, 3.
  - Bank governance – more attention to effective control over a bank’s entire business and board and senior management responsibilities
  - Risk management practices (i) integrated approach; (ii) liquidity risk; (iii) operational risk; interest rate risk in banking book
  - Greater disclosure (market discipline) – required rather than “promoted”
- Item 4. Governance, transparency and accountability of supervisory agencies



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- **End of presentation.**

**Thank you**



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**Additional slides**



## Basel issues 2: Ratings and risk exposures under the standardised approach

- Basel II standardized approach has finer treatment of risks.
- More discrimination in exposure to government risk (no longer the OECD versus non-OECD distinction).
  - Zero risk weight if government bond held in domestic currency and funded in local currency
  - Sovereign rating if foreign currency bonds held

Sovereign ratings or ECA classifications						
Credit rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unassessed
ECAs	0-1	2	3	4-6	7	
Risk weights sovereigns	0%	20%	50%	100%	150%	100%





## Is domestic bank exposure to government debt a concern?

- An issue in a number of countries, eg Argentina, Colombia, India, Philippines. (see Mohanty (2006), Moreno (2006) and Vargas (2006))
- Does zero weight on sovereign for debt in domestic currency account for all risks to banking system? Should macro considerations, such as fiscal dominance and the possibility that central bank might inflate away value of local currency debt be taken into account in assessing riskiness of government debt?
- Implications of exposure to sovereign foreign currency bonds via foreign banks? In some jurisdictions, domestic banks can gain exposure to internationally issued government debt via foreign banks (credit-linked notes); the rating of the issuer may be higher than the rating of the sovereign. In the past, these bonds were held by foreigners.
- How should policy respond? Should limits be imposed on bank holdings of government bonds? (eg Argentina in July 2006 cut public debt ceiling as proportion of bank assets to 35% from 40%)



## Adoption by category

- Credit risk (52%) will implement all 3 approaches
  - Standardised approach (85% adoption)
  - Foundation IRB approach (67%)
  - Advanced IRB (55% availability)
- Operational risk
  - Basic Indicators (79%)
  - Standardised approach (70%)
  - Advanced Management Approach (51% available)
- Pillar 2 – Supervisory review (88%)
- Pillar 3 – Market discipline (82%)



## Are other risk exposures a concern?

- *Concentration risks, and other risks.*
  - Asian crisis – counterparties and full range of exposures not so easily identified.
  - Cross guarantees (and connected lending) posed significant and not easily assessed risks. Relevant in Turkey, Korea and today in China.
- *Risks transferred from banks to borrowers.* eg loans denominated in foreign currency in dollarised or euroised economies.



## Strengthening bank performance

- *Market discipline – what is best approach:*
  - *Greater disclosure/less forbearance.* Can banks take higher volatility in earnings? Can more disclosure produce instability.
  - Reliance on financial markets and ratings
- *Competition/larger foreign bank presence.*
  - Benefits and costs
  - Would competition between foreign and domestic banks be distorted because supervisors are less qualified to deal with advanced approaches? (Griffith-Jones and Spratt, 2001)



## BCP summary

- 25 principles, in groups
- Objectives, independence, powers, transparency and cooperation (principle 1)
- Licensing and structure (principles 2 to 5)
- Prudential regulation and requirements (principles 6 to 18)
- Methods of ongoing banking supervision (principles 19-21)
- Cross-border banking supervision (24-25)