Basel II and Financial Stability: Singapore’s Experience

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Outline

• Discretion and responsibility under Basel II
• Considerations for Scope & Timing
• National Discretions under Pillar 1
• Flexibility under Pillar 2
• Flexibility under Pillar 3
• Effects of implementation
• Singapore’s experience
Discretion & Responsibility

- Scope of Implementation
- Menu of Approaches
- Implementation Timeline
- National Discretions under Pillar 1
- Pillar 2 Approach
- Pillar 3 Approach
Considerations for Scope & Timing of Implementation

- **Suitability of banks for Basel II:**
  - Size (e.g. share of assets in banking system)
  - Nature and complexity of operations
  - International presence
  - Risk profile and risk management capabilities
  - Governance, controls and culture

- **Banks’ readiness and data sufficiency**
  - Many banks in Asia and in other developing countries lack sufficient data to derive robust risk estimates
  - Data series should take into account complete local market cycles and region’s unique economic and default history
Scope of Implementation

• To which banks should Basel II apply
  – EU: applicable to all banks and investment firms
  – US: applicable only to core banks, smaller banks can opt in or adopt Basel IA
  – Singapore: All Singapore-incorporated banks
# Implementation Timelines

<table>
<thead>
<tr>
<th>Country</th>
<th>Standardised Approach</th>
<th>Foundation IRB</th>
<th>Advanced IRB</th>
<th>BIA / SA</th>
<th>AMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>2008</td>
<td>2010</td>
<td>2010</td>
<td>2008 for BIA</td>
<td>2010</td>
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<td>2010 for SA</td>
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<tr>
<td>Malaysia</td>
<td>Jan 2008</td>
<td>Jan 2010</td>
<td>TBD</td>
<td>Jan 2008 for BIA</td>
<td>TBD</td>
</tr>
<tr>
<td>Thailand</td>
<td>End 2008</td>
<td>End 2008</td>
<td>End 2009</td>
<td>End 2008</td>
<td>TBD</td>
</tr>
<tr>
<td>US</td>
<td>NA</td>
<td>NA</td>
<td>Jan 2009</td>
<td>NA</td>
<td>Jan 2009</td>
</tr>
</tbody>
</table>
Singapore’s Implementation Approach

- Singapore’s implementation of Basel II generally aligned with BCBS’ recommendations

- Allowing full menu of approaches
  - Banks to choose approach commensurate with their risk profiles and risk management capabilities
  - Banks to adopt Basel II only when they are ready

- Adoption of advanced approaches
  - Bank’s aim should be to enhance risk management, not mere compliance with minimum requirements to reap capital savings
  - Substantive and consistent adoption of advanced approaches to avoid arbitrage
National Discretions under Pillar 1

- Basel II Accord largely based on experience, data, and practices of banks in G10 jurisdictions
- Supervisory parameters largely based on G10 data
  - Risk-weights
  - Collateral haircuts
  - Supervisory LGDs
  - Asset correlations
  - Scaling factor
- Substantial flexibility and discretion offered under Basel II to cater for differing local circumstances and needs
National Discretions under Pillar 1

• Important for all regulators, particularly those in non-G10 jurisdictions, to:
  – identify assumptions
  – study their applicability
  – fit local context, where appropriate
Standardised Approach (SA)

• Basel II
  – Risk weights vary depending on obligor or issue credit rating
  – Mapping of risk weights to credit ratings based on G10 default data
  – Collateral haircuts based on G10 collateral impairment experience
  – Prescribed risk weights (e.g. 35% for residential mortgages) are based on G10 data
Standardised Approach (SA)

- Non-G10 Reality
  - Absence of a rating culture - most corporate borrowers are unrated
  - Lack of vibrant and sophisticated capital markets
  - Domestic rating agencies may not have sufficient data history, may have varying rating methodologies and may adopt different definitions of defaults – making it difficult to achieve robust mapping against Basel risk weights
  - Collateral impairment levels likely to vary across jurisdictions in practice
  - Prescribed risk weights may not fit domestic experience
Standardised Approach – Some Examples

• Basel allows for ND in applying 50% risk weight instead of 100% for past due loans with ≥ 50% provisions, possibly to encourage prudent provisioning
  – MAS has decided not to exercise this ND and to apply the default 100% risk weight instead
    • bank provisioning is already subject to IAS 39, no reason to introduce further incentives

• Basel provides flexibility for national supervisors in categorizing residential mortgages under SA
  – MAS has applied further prudential criteria and existing regulations
    • LTV ratio
    • CPF 1st lien
Foundation IRB Approach (F-IRB)

- Basel II
  - Supervisory LGDs based on G10 experience
    (eg. senior claims (45%) vs subordinated claims (75%) on corporates, sovereigns, banks)
  - Recognition of IRB collateral primarily based on G10 experience
  - Firm-size adjustment threshold based on G10 experience
Foundation IRB Approach (F-IRB)

• Non-G10 Reality
  – Differences will exist across jurisdictions:
    • in types of pledged collateral and their market price volatilities
    • in recovery rates and techniques
    • in laws surrounding recovery of pledged security and bankruptcy
    • in tolerance for default and attitude towards debt
  – €50 million cut-off for the firm-size adjustment may not be appropriate, depending on country’s corporate structure
Asset Correlations

- Asset correlations used in risk weight functions largely based on G10 data

  E.g.

<table>
<thead>
<tr>
<th>Asset type</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporates/banks/sovereigns</td>
<td>0.12-0.24</td>
</tr>
<tr>
<td>Residential mortgages</td>
<td>0.15</td>
</tr>
<tr>
<td>Credit cards</td>
<td>0.04</td>
</tr>
<tr>
<td>Other retail</td>
<td>0.03-0.16</td>
</tr>
</tbody>
</table>

- National regulators may wish to study if asset correlations are representative of different asset classes within their respective jurisdictions
Scaling Factor

• Scaling factor of 1.06 is calibrated based largely on G10 data to maintain broadly constant aggregate capital levels during the transition from Basel I to Basel II

• National regulators may wish to assess whether domestic capital levels using 1.06 scaling factor is in line with their expectations, and consider policy options if not
Flexibility under Pillar 2
Pillar 2 – Singapore Approach

- MAS' guiding philosophies are:
  - Banks are responsible for developing own Internal Capital Adequacy Assessment Process (ICAAP)
  - No one-size-fits-all approach for ICAAP
  - MAS will consider bank’s ICAAP as an input in supervisory review process
  - MAS will take supervisory action where appropriate
Concentration Risk

• Basel II is intended to apply to internationally active banks that are well-diversified:
  - Geographically
  - Across product lines
  - Across single borrowers

• Non-G10 Reality:
  - Less likely to find such banks outside of G10 jurisdictions
  - More likely to have portfolio concentrations to particular markets, sectors, counterparties
  - Supervisors have to take this into consideration under Pillar 2, and address using appropriate supervisory measures
Pro-cyclicality

• Effectiveness of capital & provisions as counter-cyclical buffers?

• Effectiveness of stress-testing and downturn LGDs?
Flexibility under Pillar 3

• Considerations for disclosure requirements under Pillar 3
  – Disclosure culture
  – Infrastructure for disclosure
  – Size of market
  – International accounting standards
  – Materiality of information

• Flexibility offered in:
  – Frequency of disclosure
  – Location of disclosure
  – Level of detail required
Pillar 3 – Singapore’s Approach

- MAS has been working closely with the industry in coming up with Pillar 3 disclosure requirements
  - A Working Group including industry representatives has been formed to develop Pillar 3 disclosure templates and reporting forms
- MAS believes that close interaction and cooperation with the industry would best achieve the objectives of Pillar 3, while balancing the interests of all concerned, given the features unique to the Singaporean market
Effects of Implementation

• Need to consider the consequences and impact of Basel II implementation on different participants in the domestic market, and on the financial system as a whole
Risk Transfers

- Due to use of different approaches with different risk sensitivities across banks
- May result in “risk polarization”
  - Banks adopting more risk-sensitive approaches are likely to target lower-risk borrowers, as these exposures would incur lower capital charges
  - Banks adopting less risk-sensitive approaches may end up targeting higher-risk borrowers due to under-pricing of risks, as these exposures are likely to incur a standard capital charge of 100% under Standardised Approach
  - This potentially may result in substantial risks residing in banks which are least able to manage these risks
Other Possible Market Effects

- Lending to weaker borrowers attract higher capital charges which potentially raises their borrowing costs.

- Retail lending may increase as a result of lower risk weights for retail exposures:
  - Basel I: 100% (50% for qualifying residential mortgages)
  - Basel II under SA: 75% (35% for qualifying residential mortgages)

- Concerns over credit rationing of SMEs:
  - These do not benefit from lower risk weights under Standardised Approach because not rated or poor rating.
  - Generally higher probability of default means higher risk weights under IRB.
Singapore’s Experience So Far…

- No dramatic shifts in capital expected
- QIS 5 results In line with expectations
- Slightly lower capital levels under F-IRB, slightly higher capital levels under SA
- Main increase from operational risk, main reductions from retail
- SMEs: no strong evidence of credit rationing, largely due to firm-size adjustment and collateral
Monitor Actual Experience vs. Data Assumptions

• Internal studies suggest default experience in line with Basel assumptions in certain categories such as residential mortgages (ie. low defaults)

• Further studies needed to assess applicability of Basel II asset correlations

• Parallel run results to be monitored for sudden shifts
Continued Vigilance

• Imposition of capital floors to manage transition capital levels
  – MAS can adjust capital floors and extend the period over which they apply

• Supervisory oversight
THANK YOU