IMPLEMENTATION OF BASEL II IN DEVELOPING COUNTRIES: THE CASE OF CHILE

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AGENDA

1. Key issues for implementing Basel II in developing countries.
2. Preparing the transition in Chile.
3. Chile’s road map for Basel II.
OVERVIEW

- Basel II promises key advances in risk management and banking supervision around the world.
- It is a substantial improvement on the existing accord, but is much more than a new formula for calculating regulatory capital.
- It provides a comprehensive framework for dealing with risk management and banking supervision, and seeks to attain best standards and practices.
- Implementation will have positive effects for financial stability around the world, some of which are already evident.
GLOBAL ACCEPTANCE

- In the coming years, Basel II will become a global standard.
- It will be adopted by a great majority of countries: 88 out of 107 non G-10 countries have expressed their intention of implementing Basel II.
- This high level of acceptance is seen in all regions of the world.
## Non G-10 Countries Intending to Adopt Basel II

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of survey respondents</th>
<th>Respondents intending to adopt Basel II</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>18</td>
<td>15</td>
<td>83.3</td>
</tr>
<tr>
<td>Africa</td>
<td>22</td>
<td>16</td>
<td>72.7</td>
</tr>
<tr>
<td>Latin America</td>
<td>15</td>
<td>11</td>
<td>73.3</td>
</tr>
<tr>
<td>Caribbean</td>
<td>7</td>
<td>5</td>
<td>71.4</td>
</tr>
<tr>
<td>Middle East</td>
<td>8</td>
<td>7</td>
<td>87.5</td>
</tr>
<tr>
<td>Non-BCBS Europe</td>
<td>37</td>
<td>34</td>
<td>91.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>88</strong></td>
<td><strong>82.2</strong></td>
</tr>
</tbody>
</table>

*Source: Survey conducted by the FSI*
BANKING ASSETS IN NON G-10 JURISDICTIONS EXPECTED TO BE SUBJECT TO BASEL II IN 2007-09 *

(PERCENTAGE OF WEIGHTED AVERAGE ASSETS)

* ASSETS OF JUST OVER 5,000 BANKS IN 73 JURISDICTIONS.
SUPERVISORY ASSESSMENT

- The new framework requires fulfillment of certain prerequisites as regards the existing quality of regulation, supervision, and risk management.
  - Prior to implementation, it will be necessary to establish an accurate diagnosis of the state of regulation, supervision, and bank management.
  - In any case, a number of aspects must be examined:
    - the legal and regulatory framework;
    - the supervisory system (risk-based vs. rules-based supervision);
    - financial infrastructure (accounting and auditing rules);
    - corporate governance in the banking industry;
    - financial disclosure and market discipline.
BCP COMPLIANCE

• Most prerequisites are contained in the Core Principles for Effective Banking Supervision of the Basel Committee (BCP).
  - A formal assessment of BCP compliance under an FSAP is a good option since this uses a proven and standard methodology.
• In general, developing countries show only partial compliance with these principles.
• This is a key issue for the implementation of the new capital framework.
GENERAL BCP COMPLIANCE BY COUNTRY GROUPING

- Advanced: 93%
- Developing: 59%
- Transition: 70%

Legend:
- Green: advanced
- Yellow: developing
- Purple: transition
COMPLIANCE WITH SUB-GROUP OF BASEL PRINCIPLES RELEVANT FOR CAPITAL ADEQUACY

- **Advanced**: 92%
- **Developing**: 44%
- **Transition**: 54%
RECURRENT PROBLEMS IN DEVELOPING COUNTRIES

• Credit risk under-estimation.
• Over-valuation of credit risk mitigants (guarantees & collateral).
• Under-provisioning.
• Absence of capital charges for market risks.
• Under-estimation of capital requirements.
• Accounting rules not aligned with international standards.
• Lack of consolidated supervision.
• Mitigating factor: bank capital requirements usually above the minimum 8% ratio.
IMPLICATIONS OF THIS DIAGNOSIS FOR DEVELOPING COUNTRIES

• What are the implications of this diagnosis?
• It can be argued that Basel II implementation should be postponed until satisfactory compliance with BCPs is achieved.
• But it can also be argued that Basel II is an extension and deepening of BCPs, and that the transition should start immediately as part of a wider process of improvement of regulation, supervision, and risk management.
THE CHALLENGE FOR DEVELOPING COUNTRIES

- Developing countries must take this as an opportunity to raise standards and achieve an important qualitative leap.
- In this sense, the transition to Basel II must be defined as part of a comprehensive program aimed at strengthening risk management and banking supervision.
- This requires identifying the gaps to be filled and setting priorities correctly.
CONCERN ABOUT MACROECONOMIC EFFECTS

- In developing countries, banks are the main financial intermediaries and bank lending is the major source of finance.
- This explains why Basel II has become such a sensitive issue and its implementation has raised so many legitimate concerns, mainly as regards its potential macroeconomic effects.
- The potential negative effects that are most often cited include:
  - the level and volatility of capital flows;
  - the length and depth of economic cycles (pro-cyclical effect);
  - the behavior of international banking groups, especially on account of lack of recognition of portfolio diversification.
- These concerns have not been fully dissipated and may be settled in the transition to Basel II.
ADEQUATE BALANCE BETWEEN PILLARS

- Basel II comprises 3 equally important and mutually reinforcing pillars.
- In most developing countries, the main challenges will lie in the implementation of Pillars II and III.
- It will, therefore, be important to establish the right balance between the implementation of the different pillars.
- It would not, for example, be prudent to move rapidly to the more advanced approaches while weaknesses remain either in the supervisory review process or in financial transparency.
THE KEY ROLE OF PROVISIONING

• The proper management of provisions is essential for advancing in the implementation of the new framework.
• This is particularly so in developing countries, considering their inherent economic fluctuations.
• Provisions are related to expected risks or losses, which can be assessed using the same concepts proposed by the new framework.
• In this context, provisioning must, in practice, be considered as a fourth pillar in these countries.
FLEXIBILITY IN IMPLEMENTATION

• In any case, flexibility is key for successful implementation.
• This flexibility is provided for in the new framework and has the support of international organizations, like the IMF and the World Bank.
• Developing countries have achieved different levels of progress on risk management and banking supervision.
• Each country should come up with the transition road and speed that best suit it.
NO UNIFORM PATTERN FOR THE TRANSITION

• The transition will not, therefore, follow a uniform pattern or time schedule across countries.
• It will be a complex process and might take a relatively long time.
• As a result, it will require a great deal of realism and pragmatism.
STEPWISE IMPLEMENTATION

- Stepwise or gradual implementation seems best suited to the needs of most developing countries.
- A natural process might include 2 or 3 steps, starting with the fulfillment of prerequisites, then moving on to the standardized approach and finally, once the necessary capacities are in place, implementing the advanced approaches.
- This may be complemented by the parallel operation of the existing and new frameworks during the transition period.
- This does not rule out the possibility that some non-G-10 countries may proceed to immediate full implementation of advanced internal approaches and models.
COMPLEXITIES

- Most of the complexities of Basel II are associated with the implementation of the advanced approaches.
- Moving from the present capital regime to the standardized approach ought to be reasonably simple and should not impose an excessive burden either on supervisors or banks.
- For this reason, some developing countries may decide, based on the structure and risk profile of their banking industry, to keep the standardized approach for a long time. Under Basel II, this is a perfectly valid option.
OTHER CRITICAL ISSUES FOR THE TRANSITION (1)

- Assessing the competitive or level-playing-field implications of different policy options.
- Making a decision as regards the options for small banks.
  - Cross-border communication and cooperation (home/host issue).
  - Communication and cooperation with other local financial-sector supervisors (insurance and pension funds).
OTHER CRITICAL ISSUES FOR THE TRANSITION (2)

- Simultaneous advance on other fronts: convergence of accounting rules and ongoing improvements in corporate governance.
- Communication and dialogue with bankers.
- Preparation of an implementation plan (road map), providing guidelines for the industry.
- Getting banks and bankers involved, particularly boards of directors and top managers.
OTHER CRITICAL ISSUES FOR THE TRANSITION (3)

- Strengthening of the private ratings industry (particularly important for the standardized approach to credit risk).
- Development of supervisory capacities for the implementation of advanced approaches.
- Training and retaining front-line supervisory staff.
- Preparing legal and regulatory changes.
PREPARING THE TRANSITION TO BASEL II IN CHILE
PERMANENT IMPROVEMENT AS PREPARATION FOR BASEL II

• In Chile, preparation for Basel II has to a large extent coincided with a permanent process of integral improvement of regulation, supervision, and risk management.
• This process goes back to the 1980s when, after a major financial crisis that resulted in the system’s bankruptcy, the foundations of prudential regulation and supervision were laid.
• Improvements in prudential supervision have been in line with international standards and Basel Committee recommendations.
• Preparations included some far-reaching reforms as well as specific actions taken recently.
MAIN REFORMS AND ACTIONS IN PREPARATION FOR BASEL II

- External assessment of BCP compliance.
- Implementation of a new risk-based supervisory model.
- Reform of the loan classification and provisioning system.
- Convergence of domestic accounting rules with international standards.
ASSESSMENT OF BASEL CORE PRINCIPLES

- An external evaluation of these principles was carried out in 1999 and revealed a 76% level of compliance.
- During the first semester of 2004, a new evaluation, carried out by the IMF/World Bank under an FSAP program, found compliance of 83%.
- As a result, critical points and weaknesses have been clearly identified and some are on the way to being resolved.
COMPLIANCE WITH BASEL CORE PRINCIPLES IN CHILE

1999: External assessment conducted by independent experts.
2004: Formal assessment under an FSAP.
The new model focuses on banks’ risk management. Special attention is given to relevant risks: credit, market, and operational risks. This is a major improvement on the traditional rules-based model. Banks are evaluated periodically and receive an internal rating on a 3-category scale (A, B, and C). When weaknesses are detected, corrective measures are recommended and the involvement of the board is required. The implementation of corrective measures is monitored by the supervisor.
REFORM OF THE LOAN CLASSIFICATION SYSTEM
IN LINE WITH PILLAR I (1)

- A new loan classification system was introduced in January 2004.
- This system is an effective tool for managing expected losses and provisions.
- It requires close involvement of boards of directors and top management.
- It permits the use of internal models by banks.
- A standardized scale of 10 categories is recommended for the classification of corporate loans so as to facilitate the supervisory review process.
REFORM OF THE LOAN CLASSIFICATION SYSTEM
IN LINE WITH PILLAR I (2)

• In order to estimate loan loss reserves, banks are expected to apply models based on probabilities of default (PD) and other advanced credit-risk concepts.
• A period of consolidation of this reform is required before moving on to the advanced approaches of the new capital framework.
• Banks have already started to disclose the risk profile of their portfolio according to the new methodology.
RISK PROFILE OF CORPORATE LOANS ACCORDING TO THE NEW CLASSIFICATION SYSTEM

(FIGURES FOR JANUARY 2005)
CONVERGENCE OF LOCAL ACCOUNTING RULES WITH INTERNATIONAL STANDARDS

- This is essential to enhance financial disclosure and market discipline.
- Implementation started in 2004.
- All deviations from international standards have already been identified.
- An evaluation of the extent and significance of these deviations has been carried out.
- Regulations which, for prudential reasons, may need to be stricter than international standards are also being identified.
- The complete implementation of this project will take 2-3 years.
SPECIFIC ACTIONS IN PREPARATION FOR BASEL II

• Quantitative impact studies.
• Stress testing for capital adequacy.
• Assessment of external credit ratings.
The three largest Chilean banks took part in the QIS 3.
Subsequently, a similar exercise was carried out for the whole banking system.
The evaluation was based on the guidelines of the standardized approach.
The results show that Basel II would not have a major impact on capital requirements.
In fact, using strict Basel criteria, the study shows a slight reduction in those requirements.
### RESULTS OF THE QUANTITATIVE IMPACT STUDY FOR THE CHILEAN BANKING SYSTEM

<table>
<thead>
<tr>
<th>Simulation</th>
<th>Credit Risk Impact</th>
<th>Operational Risk Impact</th>
<th>Overall Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. According to strict Basel II criteria</td>
<td>-13.27%</td>
<td>10.33%</td>
<td>-2.94%</td>
</tr>
<tr>
<td>2. According to stricter criteria (higher risk weights)</td>
<td>-4.77</td>
<td>10.33%</td>
<td>5.57%</td>
</tr>
<tr>
<td>3. According to even stricter criteria (same risk weights as simulation 2, excluding use of credit-risk mitigants).</td>
<td>-2.58%</td>
<td>10.33%</td>
<td>7.75%</td>
</tr>
</tbody>
</table>

**Notes:**

a) The simulation used the standardized approach to credit risk and the alternative standardized approach to operational risk.

b) Figures show the percentage increase (decrease) in capital requirements.
STRESS TESTING EXERCISE

- Stress tests were conducted to simulate the potential effects of significant macroeconomic shocks on the profitability and solvency of the banking system as a whole.
- The macroeconomic shocks considered were: a major currency devaluation or revaluation (25% from previous level); a drastic change in interest rates (200 basis points); and a significant deterioration in credit quality measured by a large increase in loan loss reserves.
- The results show that these macro shocks would have an impact on profitability as measured by ROE, but only a limited impact on solvency as measured by the Basel I capital index.
## STRESS TEST FOR ROE AND CAPITAL ADEQUACY

<table>
<thead>
<tr>
<th></th>
<th>Interest rate shock (1)</th>
<th>Exchange rate shock (2)</th>
<th>Portfolio impairment (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex-ante ROE</td>
<td>14.4</td>
<td>14.4</td>
<td>14.4</td>
</tr>
<tr>
<td>Ex-post ROE</td>
<td>3.2</td>
<td>13.4</td>
<td>-8.1</td>
</tr>
<tr>
<td>Ex-ante Basel I index</td>
<td>14.0</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Ex-post Basel I index</td>
<td>14.0</td>
<td>14.0</td>
<td>13.1</td>
</tr>
</tbody>
</table>

1) Interest rate change of 200 basis points.
2) Devaluation or revaluation of 25%.
3) Assumes that loan loss reserves double their level as of 1997-2002, the highest in 20 years.
The external ratings industry shows an intermediate level of development and appears to be prepared to support the implementation of the standardized approach to credit risk.

External ratings are used extensively for regulatory purposes in the insurance and pension fund industries, and are starting to be used in the banking sector.

The number of corporate and financial institutions with an external risk rating is growing, while 34% of the loan and investment portfolio of banks is subject to external ratings.
THE ROAD MAP FOR THE TRANSITION TO BASEL II PRESENTED TO THE CHILEAN BANKING INDUSTRY
GENERAL DECISIONS (1)

- The road map was presented in January 2005.
- It provides general guidelines for the transition period.
- Both Spanish and English versions can be found on our website: www.sbif.cl
- It is currently available for comments from the industry and market analysts.
- This process is being led jointly by the Superintendency of Banks and the Central Bank.
- Close communication and coordination with the industry will be maintained.
- The transition will be gradual and stepwise.
GENERAL DECISIONS (2)

- In the first stage, only the standardized approaches to credit and operational risks will be adopted.
- The transition to the standardized approaches is relatively simple and all banks will, therefore, be in a position to make it.
- In the second stage, the option of adopting advanced models will be offered.
- In this stage, large banks and the branches or subsidiaries of international banks will most probably move on to advanced internal models, while smaller banks maintain the standardized approaches.
During the first stage, only the regulatory powers of the Superintendency of Banks and the Central Bank will be used.

The legal reforms to consolidate the transition will be discussed and come into force at the end of the first stage.
KEY DEFINITIONS ON PILLAR I
APPROACHES AVAILABLE IN THE FIRST STAGE

- Credit risk: standardized approach.
- Operational risk: alternative standardized approach (*).
- Market risk (two options):
  - standardized methodology;
  - internal models approach.

(*) The standardized approach, which takes into account 8 lines of business, may also be considered.
### CREDIT-RISK WEIGHTS UNDER THE STANDARDIZED APPROACH

<table>
<thead>
<tr>
<th>Type of loan</th>
<th>Current risk weight</th>
<th>New proposed risk weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans secured by residential property</td>
<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>Retail loans</td>
<td>100%</td>
<td>90% (* *)</td>
</tr>
<tr>
<td>Claims on corporate firms</td>
<td>100%</td>
<td>rating</td>
</tr>
<tr>
<td>Claims on banks</td>
<td>20%-100%</td>
<td>rating</td>
</tr>
<tr>
<td>Claims on sovereigns</td>
<td>10%-100%</td>
<td>rating</td>
</tr>
</tbody>
</table>

(*) This applies if the portfolio is adequately diversified.
## Minimum Capital and Capital Limit Applicable in Stage I

<table>
<thead>
<tr>
<th>Concept</th>
<th>Formula</th>
<th>Rule status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Capital (MC)</td>
<td>$MC \geq 0.08 \times RWA$</td>
<td>Legal rule</td>
</tr>
<tr>
<td>Capital Limit (CL)</td>
<td>$CL \geq 0.08 \times RWA + MR + OR$</td>
<td>Regulatory rule</td>
</tr>
</tbody>
</table>

**Notes:**
1. RWA = risk-weighted assets; MR = capital requirement for market risk; OR = capital requirement for operational risk.
2. Some banks are required to hold a minimum capital higher than 8% of RWA.
TIMETABLE OF MAIN ACTIVITIES IN THE TRANSITION TO THE FIRST STAGE

2005
- Quantitative impact exercises by banks.
- Incorporation of market risk according to the standardized approach.
- Stress testing for capital adequacy by banks.
- Option to move on to the internal models approach to market risk

2006
- Application of capital limit incorporating credit, market and operational risks.
- Disclosure of information concerning risk management and capital adequacy.

2007
SUPERVISORY REVIEW

- The assessment of capital adequacy will be an important additional factor of our risk-based supervisory review.
- Risk and capital management will be formally considered in the process of assigning supervisory ratings.
- Banks will have to carry out stress testing for capital adequacy.
- Capital will be considered adequate if, under adverse conditions, it remains over the required minimum.
BRANCHES AND SUBSIDIARIES OF INTERNATIONAL BANKS

- From the start of the process, we will offer international banks and supervisors of their headquarters all the cooperation necessary to implement the new capital framework in their home countries.
- For this purpose, we have already established contact and relations with banks and headquarters’ supervisors in a number of home countries.
- However, all banks operating in our jurisdiction, whether local or foreign, will be subject to the decisions and recommendations contained in the road map.
DISCLOSURE OF INFORMATION

- Ownership structure, management, and scope of application.
- Provisions for credit risks.
- Credit, market and operational risks and their corresponding capital requirements.
- Capital structure.
- Capital adequacy.
AMENDMENT OF THE BANKING ACT

- A proposal for amendment will be drawn up during the first stage of the transition.
- Amendments will refer particularly to:
  - explicit charges for market and operational risks;
  - additional capital charges for banks under certain specific circumstances (i.e. very small banks);
  - the use of advanced models in the second stage of Basel II.
MAIN TASKS IN PREPARATION FOR THE SECOND STAGE

- Raising risk management standards in banks (achieving full command of advanced concepts and techniques).
- Preparing resources to move to advanced models in the next phase (collecting data, designing and calibrating models, etc.).
- Developing supervisory capacities in line with the requirements of advanced approaches.
THANK YOU FOR YOUR ATTENTION