# The Bahamas Association of Compliance Officers Seminar

**November 15, 2006**

# The Implications of Basel II on Banking in the Bahamas

**Steve Patterson**
**Head of Credit Risk**
**RBC, Bahamas & Caribbean**

# Agenda

- The Evolution of Basel II
- Highlights of Basel II
- RBC's Approach to Basel II
- Regional Implications
- Questions

- **Basel named after Basel, Switzerland, home of Bank of International Settlements ("BIS")**

- **BIS Mission Statement**

**" Excellence in Service to Central Banks and Financial Authorities"**

# The BIS

- Aims at promoting monetary and financial stability
- Acts as a forum for discussion and cooperation among central banks and the financial community
- Acts as a bank to central banks and international organizations

# History of the BIS

- Established in 1930
  1. to handle reparation payments imposed on Germany after the First World War
  2. to provide Central Banks with an institutional forum for cooperation

# History of the BIS

- 1930's "The Great Depression". Central Bank meetings continued although with understandable limitations
- In 1939, with Advent of Second World War, all meetings suspended, BIS remained neutral
- 1944 Bretton Woods Agreement called for abolition of BIS, with Bretton Woods framework, IMF and World Bank taking over
- Central banks in Europe favored keeping BIS alive

# History of the BIS

- Bretton Woods era saw international monetary system based on freely convertible currencies at fixed but adjustable exchange rates
- Removal of foreign exchange controls facilitated free trade and BIS played significant role in assisting with this in Europe
- BIS continued to play roll in coordinating crisis management among central banks (gold price, reserve currencies & other monetary imbalances)

# History of the BIS

- By the early 1970's, value of the dollar determined by markets, marked the end of the Bretton Woods system
- Bretton Woods legacy is one of institutionalized cooperation among central banks
- In 1973 EEC put limits on exchange rate fluctuations between participating European currencies ("Snake mechanism") & BIS appointed agent for it
- European Monetary System introduced in 1979 with BIS responsibilities remaining

# History of the BIS

- 1970s saw growth of international financial markets and cross-boarder money flows
- Collapse in 1974 of Bankhaus Herstatt in Germany and Franklin National Bank in the US prompted G10 central bank governors to set up Basel Committee on Banking Supervision
- In 1988 this Committee issued the Basel Capital Accord introducing a credit risk measurement framework for internationally active banks that became a globally accepted standard

# History of the BIS

- In June 1999, the Committee released a proposal to replace the 1988 accord with Basel II, which captures operational risk and relates the allocation of capital to actual risk
- Basel II addresses not only capital regulation but also encompasses supervisory review and market discipline (the Three Pillars)

# History of the BIS

## Some examples of destabilizing events:

- Several Bank failures
- Barings Bank in Far East
- Recent example of Hedge Fund which lost significant portion of value in less than 1 week
- Mexican crisis in 1994-95
- Thailand & Korea in 1997
- Russian debt default
- Turkish & Argentine crises

# What has changed over time?

- More complex economies
- Economies more intertwined, events in one economy may have worldwide implications
  1. Financial institutions over reach many geographies
  2. Revenue drivers in an economy may be dependent on outside interests (e.g. tourism)
  3. Reliance on external commodities (e.g. oil)

# What has changed over time?

- Financial institutions have changed too
  1. Far larger array of products
  2. More different lines of business
  3. Larger institutions active in many countries, difficulties/mistakes in one country can destabilize bank across entire operations (Barings Bank)
  4. More complex products, some of which are off balance sheet (interest rate swaps, foreign exchange forwards/futures etc)

# What has changed over time?

- Financial institutions Risk & Return perspective, all risks are not equal
  1. A residential mortgage vs. a credit card
  2. Structured finance, bigger spreads, bigger fees and also bigger risks
  3. Lending with limited regard for TDS in consumer portfolio, higher rates however, especially in a down turn, greater chance of default
  4. LTV multiples on residential mortgages

# What has changed over time?

- As capital is the "cushion" for the financial institution, as products and business practices become more complex, then capital calculations too have grown in complexity
- Also review/oversight of these institutions continues to grow in complexity
- Investor information and transparency for stakeholders in these institutions also needs to expand

- The above are the 3 Pillars of Basel II

# Three Pillars

1. Minimum Capital Requirements
2. Supervisory Review of institutions capital adequacy and internal assessment process
3. Market Discipline which addresses institutions disclosure practices

# Minimum Capital Requirements
## - Credit Risk

**Three key approaches to measure Credit Risk**

1. Standardised Approach
2. Foundation Internal Rating Based (“IRB”)
3. Advanced IRB

# Minimum Capital Requirements
# - Credit Risk

## Standardised Approach

- Based on external ratings, may be credit rating agencies or risk weights dictated by accord &/or local regulator
- Different asset types will have different risk weightings e.g. Corporate 100%, Retail 75%, Residential Mortgages 35%

# Minimum Capital Requirements
## - Credit Risk

**Standardised Approach**

- Off Balance sheet items will be converted into credit exposure equivalents utilising credit conversion factors

- Example would be Commitments where over 1 year attracts 50% CCF, under 1 year 20% & fully cancellable 0%

# Minimum Capital Requirements
## - Credit Risk

**IRB Approaches**

- For calculation of Risk Weighted Assets reliant on 4 quantitative inputs
    1. Probability of Default
    2. Loss given Default
    3. Exposure at default
    4. Maturity

# Minimum Capital Requirements
## - Credit Risk

**IRB Approaches**

- Difference between Foundation IRB & Advanced IRB is that with Advanced, quantitative inputs provided by bank based on own estimates, whereas with Foundation with exception of Probability of Default Supervisors provide values

# Minimum Capital Requirements
## - Credit Risk

### IRB Approaches

- Assets divided into classes with 3 key elements:
  1. Risk Components – estimates of risk parameters provided by Banks/Regulators
  2. Risk Weight functions – how risk components are transferred into risk weighted assets
  3. Minimum Requirements – requirements that must be met for bank to use IRB approach for given asset class

# Minimum Capital Requirements
## - Operational Risk

- **The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, includes legal risk.**

# Minimum Capital Requirements
## - Operational Risk

### Capital Calculation Options

1. Basic Indicator Approach – 15% of 3 year average of gross income
2. Standardised Approach – Divides bank into 8 business lines and in each takes gross income times a predetermined beta (Retail banking 12%)
3. Advanced Measurement Approaches – Regulatory Capital will equal risk measure provided by Bank's internal measurement system utilising specified quantitative and qualitative criteria

# Minimum Capital Requirements
## - Market Risk

- Defined as the risk of losses in on and off balance sheet positions arising from movement in market prices. Risks subject to this provision are:

  1. Risks pertaining to interest rate related instruments & equities in the trading book
  2. Foreign exchange risk and commodities risk throughout the Bank

# Minimum Capital Requirements
## - Market Risk

- Direction provided on how to calculate risk weighting of various elements of market risk

# Pillar 1 – Other Guidelines

- Also addresses treatment of investments in other financial institutions, financial subsidiaries, insurance companies and other commercial entities.
- Tightens up allowable amounts of these investments before deductions have to be made to a Bank's capital
- Principal here is that capital has to be available for use and employed within financial institution

# Supervisory Review

- **Supervisory review process not only ensures Banks have adequate capital but to encourage banks to develop & use better risk management techniques in monitoring and managing their risks**

# Supervisory Review

## 4 Key Principles

1. Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels

2. Supervisors should review and evaluate Banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the results of the process

# Supervisory Review

## 4 Key Principles

3. Supervisors should expect Banks to operate above the minimum regulatory capital ratios and should have the ability to require Banks to hold capital in excess of the minimum

4. Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored

# Supervisory Review

**Committee of European Bank Supervisors issued a list of the following Risk Factors:**

- **Credit Risk – Obligor's failure to meet terms of contract or failure to perform as agreed. Includes concentration risk, residual risk, credit risk in securitization, and cross boarder risk**
- **Market Risk – Addressed earlier in presentation**
- **Interest Rate Risk – Adverse movements in interest rates in the banking book**
- **Liquidity Risk – Inability to meet its liabilities when they come due without incurring unacceptable losses**

# Supervisory Review

## Committee of European Bank Supervisors issued a list of the following Risk Factors (cont.):

- **Capital Risk** – Inadequate composition of own funds for the scale and business of the institution or difficulties in raising additional capital, especially if this needs to be done quickly or at a time when market conditions are unfavorable

- **Earnings Risk** – Inadequate diversification of earnings or the inability to provide sustained profitability due for example to an inadequate cost to income ratio

# Supervisory Review

**Committee of European Bank Supervisors issued a list of the following Risk Factors (cont.):**

- **Operational Risk** – Covered earlier
- **Strategic Risk** – Changes in the business environment and from adverse business decisions, improper implementation of decisions or lack of responsiveness to changes in the business environment
- **Reputation Risk** – Adverse perception of the image by customers, counterparties, shareholders/investors, or regulators

# Market Discipline

- Compliments Pillars 1 & 2
- Committee to develop a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes and hence the capital adequacy of the institution
- Providing disclosures that are based on a common framework is an effective way of informing the market and provides a consistent & understandable disclosure which allows for comparability

# Market Discipline

## Possible Disclosure Items

1. financial position
2. financial performance
3. risk exposures
4. risk management processes and strategies
5. accounting policies
6. business, management & governance information

## RBC Approach

- RBC Group adopting AIRB approach and to be fully operational by early 2007
- Approach and time frames influenced by host regulator
- Within AIRB protocol, for operations of financial institutions within smaller markets and of a lesser scale, can adopt Standardized Approach as long as the aggregate of these adoptions are not material
- RBC after careful study has elected to go with Standardized Simple for the Caribbean
- It is likely other major Canadian banks and their subsidiaries are following similar approach

# CARIBBEAN APPROACH

- Support groups assessed/gained knowledge of local operations
- Looked at products offered, accounting systems, data bases and IT systems capabilities
- Determined what would be entailed to qualify for AIRB vs. Standardized approach
- Weighed merits of both approaches (cost/benefit & other considerations) Decision made to proceed with Standardized

# CARIBBEAN APPROACH

- Determined then what options available within Standardized and preferred courses
- Established data requirements necessary, where housed, and taking confidentiality regulations into account
- Undertook one time clean up of data
- Built interfaces, mapped data, transmitted
- Developed test cases to test data for integrity
- Final clean up of data and mapping

# EXAMPLE OF DECISIONING

## Do mortgages qualify for 35% risk weighting?

## Considerations:

- Mortgage indemnity kicks in at 80% vs. 75% in Canada
- Indemnity in Canada provided by Government entity vs. commercial insurer here
- Do exceptions to TDS etc. occur more often here while not prevalent in Canada as portfolio has to meet securitization standards?
- What are minimum data fields required, is that information currently captured/available?

# CHALLENGES OF BASEL II

- Significant $ cost on institution in funding necessary technology and increased human resources.
- Resources (IT, Risk Management) preoccupied with Basel at expense of neglecting business imperatives.
- Availability of resources
- Compressed timelines
- Internal interdependencies
- Varying implementation times of regulators
- Aligned regulators

# Myths & Misconceptions

1. We can just take GL balances for each product and based on total, capital will be calculated. Does not meet granular reporting requirements.

2. Clarity will exist at outset. Approaches have to be discussed / worked out with the host regulator.

3. Once we "go live" with capital calculations, work will be over. Data integrity has to be maintained and we have the other 2 Pillars to worry about.

# Myths & Misconceptions

4. Only requests for data will be driven from Basel reporting needs. Other functions/interests saw opportunity to expand their data bases.

5. Let's slow it up, Basel 2 will blow over. The Bank understandably wants to be fully compliant with our host regulator so that is not an option.

# TIMING

- International Banks are being driven by home regulators and, in some cases, will be Basel II compliant before host (local) regulator addresses Basel II implementation

- Decisions are made on assumption of cooperation between regulators and a similar interpretation of accord

- Would be unfortunate and costly if a local regulator were to insist on differing approaches which necessitated an unwinding (AIRB implementation, capital engine locally)

# COOPERATION BETWEEN REGULATORS

- Difficult environment for international banks if regulators not aligned with interpretation/application
- Through cooperation/communication, likely can learn from each other to avoid each regulator "reinventing the wheel"
- Can reliance be placed on home regulators to monitor overall risk profiles of international banks, with home regulator and bank agreeing to summary communication to host to provide info for comfort levels

# INDIGINOUS & REGIONAL BANKS

- While implementation likely 3 to 4 years off, they are probably becoming familiar with accord and likely implications
- Discussions will soon take place with regulators (if they have not already occurred) on an approach and alignment with regulator view
- Likely approach would be the Standardized
- Even with Standardized, may need to revisit risk policies/principles/processes ensuring adequate documentation and acceptable underwriting standards

# ALL BANKS

- Increased regulator oversight will lead to ongoing analysis around underwriting criteria

- From an RBC perspective, on a consumer book underwriting factors we wrestle with include
  1. What is right max TDS (tax free environment but no credit bureaus)
  2. How religiously do we apply it
  3. Should security (mortgage, wage assignment) override TDS
  4. What is the right LTV or Loan to Cost?

# ALL BANKS

5. Should different assets & Borrowers be treated differently? Raw Land vs. residential homes vs. loans to non residents to buy second homes

5. Within certain products, do we not have a social responsibility such as lot loans for first time homebuyers, relaxation of financial reporting and simplified loan structure for small business

# ALL BANKS

7. How many waived payments are allowed in a year

8. What is the criteria for restructuring a loan and how often should we restructure over the life of a loan

- If more liberal criteria is adopted, should this not be reflected in increased capital requirements for the financial institution?

# INDIGINOUS & REGIONAL BANKS

- Risks other than credit risk, Banks will need to address
- Focus will likely not only be quantitative to calculate required capital but qualitative as well
- Risks may vary over time and by geography, however strategic, liquidity, capital etc. could be real in the Bahamas
- Focus should not only be looking back at past difficulties but forward looking, stress testing processes, trying to anticipate future risks

# SUPERVISORY REVIEW

- As contemplated in the protocol, regulator roll will likely be more expanded
- Intent would be to work with banks to ensure appropriate capital levels are maintained, with these capital requirements conceivably adjusted in different economic environments
- Also to encourage banks to develop & use better risk management techniques in monitoring & managing their risk
- Regulator can be of assistance to banks as they benefit from experience/learnings

# SUPERVISORY REVIEW

- Regulator will need to ensure appropriate laws/legislation in place to provide regulator with authority contemplated and force disclosure
- Likely will need increased staff with ability to carry out mandate
- Training of staff could be prevalent

# CLOSING COMMENTS

- **In Risk Management success is not having a portfolio where there is no delinquency and no loan growth**
- **Nor is success having high loan growth with lots of delinquency**
- **It is to assist the business in growing revenues while maintaining the portfolio within an acceptable risk profile**

# CLOSING COMMENTS

- **To me, in the same vein, success with Basel II would be implementation of the accord with improved capital guidelines & calculation, better risk management processes and techniques as evidenced by supervisory verification, and improved disclosure levels.**

  **However this should be accomplished in an environment allowing for continuing business momentum and Basel associated costs which are reasonable for the scale and complexity of the operation.**