

# **IIF OPEN PROGRAM – SETTING A BANK’S RISK APPETITE**

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SESSION I - GLOBAL TRENDS, LOCAL  
CONSEQUENCES

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# Outline

- What is Risk Appetite
- Who Sets It
- Risk Appetite Parameters
- Measuring and Modeling Risk
- Risks Difficult to Quantify
- Setting Risk Limits
- Conclusions

# What is Risk Appetite

- Risk Appetite is the degree of risk an institution is willing to accept in pursuing its objective/s or desired value
- Where risk is defined as the likelihood of, and degree, of missing an objective over time, or the probability and severity of financial loss, or the variability around an expected result (mean / desired value)

# Who Sets It

- Arriving at a Bank's Risk Appetite is an elaborate process, that involves factoring in the expectations of multiple stakeholders
- While coordinated by the Risk Group, it necessitates factoring in the risk tolerance of Shareholders, Regulators, Ratings Agencies, Management, and Creditors
- It is ideally deliberated upon by the Board's Risk Committee, and approved by the full Board

# Risk Appetite Parameters

- A Risk Appetite Document is likely to include the following parameters -
  - Desired External Risk Rating
  - RAROC hurdle rate
  - Weighted Average Portfolio Rating
  - Relative internal capital allocation to Credit, Market and Operational Risk, etc.
  - Concentration Thresholds (Obligor, Sector, Country)
  - ALM mismatch
  - Liquidity Thresholds and metrics
  - Connection to Business Strategy
  - Controlled or undesirable exposures
  - Targeted levels of Risk Asset Ratios, or leverage

# Risk Appetite Parameters

- A Risk Appetite Document may also include the anticipated risk management response under various adverse scenarios, and their expected frequency over a business cycle
- For example, the likely frequency of profit warnings, dividend cuts, capital increase, re-capitalization, or even wind down
- It may also include an indication of risk capacity under abnormal stressed scenarios, in other words the maximum amount of risk the bank can tolerate for short periods of stressed conditions

# Modeling and Measuring Risk

- Risk Models attempt to project return (loss outcomes) under various scenarios, with associated probability distributions, relating to various risk types and exposures
- Models can be an important means of depicting the range and likelihood of outcomes, under normal circumstances, for highly quantifiable risk types
- They are therefore helpful in assessing Risk Appetite under these circumstances, and for these risk types

# Modeling and Measuring Risk

- As has been demonstrated in the recent market cycle, models can be a dangerous source of comfort under stressed conditions
- Under such conditions important assumptions such as correlations, probabilities, severities and underlying distributions can be highly distorted
- Hence the importance of stress tests, based not only on historic events, but also hypothetical scenarios that are plausible, or can identify the areas of vulnerability of the bank to various developments

# Modeling and Measuring Risk

- It is not only modeling that creates a challenge in assisting to express Risk Appetite, but even the basic measurement of some risks can be a problem
- Generally Credit, Market and Operational risks can be expressed in terms of the probability of a loss event occurring and the severity of such occurrence, but when it comes to risk distributions and correlations within risk types and amongst them a host of difficulties arise
- Many will be familiar with fat tail risks in market and credit risk distribution curves, not to mention skewedness, and inter-risk correlation including market, ops, credit and liquidity risks, etc.
- More challenging problems arise with Operational Risk types, such as Model Risk, for example, and other untested distributions in relation thereto
- Generally all low frequency-high severity Operational Risks represent issues

# Difficult to Quantify Risks

- This includes a wide range of risks such as reputational risk, strategic or business risk, and other risks where data, research and/or distributions are difficult to come by
- In our region this even includes some categories of credit and market risk given the paucity of data
- In such instances, it is not uncommon to use proxies from other markets, databases or indexes
- These difficulties make aggregating economic capital as much an art as it is a science, and the use of defensible judgment and assumptions become a necessity

# Difficult to Quantify Risks

- Such bold assumptions require that a significant margin of error be built in to the economic capital aggregation process
- In the case of Operational Risks, the process of setting Key Risk Indicators (KRI's), and comparing them with industry databases to determine an indication of the level of risk in various processes is important
- While modeling and measuring risk is subject to error there is little alternative to their use and development
- The modeling and measurement process is a dynamic and iterative process where refinement over time is essential

# Setting Risk Limits

- Setting Risk Limits is usually a top down, then bottom up process
- Risk Appetite implies a quantum of economic, regulatory, and accounting capital that is allocated to various business units and risk types depending on business strategy and risk tolerance
- Once units present their business plans and budgets these need to factor in the “risk license” or economic capital available based on the top down strategy
- These plans should incorporate limits based on the economic capital set aside for a given unit

# Setting Risk Limits

- When limits are set, they should reflect variability of results against expectations both under normal, and under stressed conditions, for various products
- This entails that limits need to be set for both scenarios
- Likely behavior, under stressed conditions, should ideally factor in a component of capital for all major risk types (credit, market, ops)
- Such economic capital assessments will obviously require a margin of error being set aside for model risk, and fat tail events
- This is likely to be a judgmental factor, which may be influenced by the degree of conservatism adopted in making correlation assumptions within and between risk types

# Conclusions

- Setting Risk Appetite is a consensus building exercise that involves multiple stakeholders
- It is both an Art and a Science that requires reasoned judgments and assumptions
- It is an iterative process that requires continued refinement
- In our region the use of proxies becomes a necessity due to data paucity
- Areas that may require revisiting given the recent debacle in financial markets, include
  - the design of executive incentive plans,
  - assumptions relating to models, correlations and confidence intervals (fat tail events),
  - and for our region, concerted effort to address data paucity