Theory and Practice of Banking
First Year Second Semester
Bachelor of Business Administration (BBA)

Chapter-5

Risk Issues in Bank Financial Institutions

Definition of risk

Risk is the probability that an actual return on an investment will be lower than the expected return.

According to Brigham, “Risk is the chance that some unfavourable events will occur.”

Risk and Uncertainty

Basis for Comparison	Risk	Uncertainty
Meaning	The probability of winning or losing something worthy is known as risk.	Uncertainty implies a situation where the future events are not known.
Ascertainment	It can be measured	It cannot be measured.
Outcome	Chances of outcomes are known.	The outcome is unknown.
Control	Risk is Controllable	Uncertainty is Uncontrollable
Minimization	Risk can be minimized	Uncertainty cannot be minimized
Probabilities	Assigned	Not assigned

Why banks should be concerned about risk

Risk Identification

- Risk management outlines various categories of risks faced by banks including operational, financial, strategic, compliance related and environmental, political, safety and health risks.

Risk Management

- This includes the information about the evaluation of various risks and four options for managing each risk.

Business recovery planning

- Outlines disaster planning and also minimizes the impact of the disaster on banks that is why bank should be concerns about risk and this includes aspects such as data security, employees, insurance policies and equipment.

Why banks should be concerned about risk

Prevention of crime

- Now a day's banks are facing many money thefts and account hacking problems this outlines crimes disturbing their businesses.

Scams

- It also lists the methods that could help to avoid scams such as investigating the source of the scam, keeping and maintaining proceedings and filtering the scam.

Business recovery planning

- Outlines disaster planning and also minimizes the impact of the disaster on banks that is why bank should be concerns about risk and this includes aspects such as data security, employees, insurance policies and equipment.

Money laundering

- Risk management helps to protect, such as adopting simple safety measures and by keeping track of the staff and inventory.

Data Security

- This offers a variety of information, which protects the businesses and also secures data. Includes disaster recovery, risk assessment, backups and policies regarding data security.

Asset -Liability management by bank

Asset Liability Management (ALM) can be defined as a mechanism to address the risk faced by a bank due to a mismatch between assets and liabilities either due to liquidity or changes in interest rates.

Responsibilities of the ALM

- To oversee the growth and sustainability of assets and the liabilities.
- To manage and oversee the overall activities of Money Market. To manage liquidity and market risk of the bank.
- To understand the market dynamics i.e. competition, potential target markets etc.
- For expansion of the business.
- To Provide inputs regarding market views and to suggest proper balance sheet
- Movement (expand or shrink) to cope with the changing situation in the market or in the economy.

Objectives of ALM

- Planning to Meet the Liquidity Needs
- Arranging Maturity Pattern of Assets and Liabilities
- Controlling the rates received and paid to assets /liabilities to maximize the spread or net interest income is the final responsibility of ALM
- Spread Management
- Gap Management
- Interest Sensitivity Analysis

Rate sensitive assets & Rate sensitive liabilities

Rate sensitive assets: Rate Sensitive Assets (RSA) Rate sensitive assets are bank assets, mainly bonds, loans and leases, and the value of these assets is sensitive to changes in interest rates; these assets are either re-priced or revalued as interest rates change. Rate sensitive assets are given following-

- Cash (cash in vault, effectives, money in transit, cheques purchased) and balances with the Central Bank.
- Financial assets where fair value change is reflected to income statement
- Money market placements
- Loans
- Investments held to maturity
- Due from banks
- Bonds

Rate sensitive assets & Rate sensitive liabilities

Rate sensitive liabilities: Interest sensitive liabilities are types of short-term deposits with variable interest rates that a bank holds for customers. Interest sensitive liabilities make up a significant amount of the assets of most banks, encompassing money market certificates, savings accounts, and the Super NOW account. Examples of interest sensitive liabilities includes-

- Money market certificates
- Savings accounts
- Super NOW account.
- Interbank deposits
- Other deposits
- Money market takings
- Miscellaneous payables
- Marketable securities issued
- Funds provided from other financial institutions

Types of Risk face by Bank

Risk can be various types according to their nature and impact. Risk will differ for various business institutions. Types of risk in the area of banking is given below-

- Credit risk
- Market risk
- Operational risk
- Liquidity risk
- Business risk
- Reputational risk
- Systemic risk
- Moral hazard

Types of Risk face by Bank

- **Credit risk:** A credit risk is the risk of default on a debt that may arise from a borrower failing to make required payments.
- **Market Risk:** Market risk is the possibility of an investor experiencing losses due to factors that affect the overall performance of the financial markets in which he or she is involved.
- **Operational Risk:** The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.
- **Liquidity Risk:** Liquidity risk is the risk that a company or bank may be unable to meet short term financial demands.
- **Business Risk:** Business risk is the possibility a company will have lower than anticipated profits or experience a loss rather than taking a profit.
- **Reputational Risk:** Reputational risk is the risk of damage to a bank's image and public standing that occurs due to some dubious actions taken by the bank.
- **Systematic risk:** Systematic risk, also known as "market risk" or "un-diversifiable risk", is the uncertainty inherent to the entire market or entire market segment.
- **Moral hazard:** It arises when both the parties have incomplete information about each other.

Interest rate risk

Interest rate risk is the chance that an unexpected change in interest rates will negatively affect the value of an investment.

Models for understanding interest rate risk

Duration is the most commonly used risk measure for measuring the interest rate risk exposure of a security Convexity usually complements duration, providing a closer approximation to interest rate risk Consider a bond with cash flows Ct, payable at time t. The bond sells for a price P and is priced using a term structure of continuously compounded zero-coupon yields given by y (t) Example: Compute the Interest-Rate Risk Exposure Let's take an option-free bond with an 8% coupon, ten-year bond with a price of 125. Yield to maturity is 7%.

Duration model

Duration is a measure of the sensitivity of the price -- the value of principal -a fixed-income investment to a change in interest rates. Duration is expressed as a number of years. Bond prices are said to have an inverse relationship with interest rates.

Re-pricing model

Re-pricing risk is the risk of changes in interest rate charged (earned) at the time a financial contract's rate is reset. It emerges if interest rates are settled on liabilities for periods which differ from those on offsetting assets. Re-pricing risk also refers to the probability that the yield curve will move in a way that influence by the values of securities tied to interest rates -- especially, bonds and market securities.

Market risk

Market risk is the possibility of an investor experiencing losses due to factors that affect the overall performance of the financial markets in which he or she is involved. Market risk, also called "systematic risk," cannot be eliminated through diversification, though it can be hedged against.

Off balance sheet risk

Off balance sheet risk is the risk posed by factors not appearing on an insurer's or reinsurer's balance sheet. Excessive (imprudent) growth and legal precedents affecting defence cost coverage are examples of off-balance-sheet risk.

Liquidity risk

The Bank defines liquidity risk as the risk of incurring losses due to an inability to meet payment obligations in a timely manner when they become due. The Bank categorizes liquidity risk into funding liquidity risk, which occurs when payment obligations cannot be fulfilled because of an inability to obtain new funding, and market liquidity risk, which occurs when the Bank is unable to sell or transform assets in the liquidity buffer into cash without significant losses. The Bank's business model gives rise to liquidity risk mainly through maturity mismatches between assets (loans and treasury investments) and liabilities (borrowing and equity).

Operational risk

The Bank defines operational risk as the risk of direct or indirect losses or damaged reputation due to failure attributable to technology, employees, processes, procedures or physical arrangements, including external events and legal risks. The Bank is exposed to operational risk in all its activities.

Green banking

Green Banking Green banking is like a normal bank, which considers all the social and environmental/ ecological factors with an aim to protect the environment and conserve natural resources. It is also called as an ethical bank or a sustainable bank.

Banks' in house Green activities

- Use of papers on both sides for internal consumption
- Introduction of e- statement for customers in lieu of paper statement.
- Use of online communications in the best possible manner.
- Using more daylight instead of electric lights and proper ventilations' in lieu of using air conditioning.
- Using energy saving bulbs.

Banks' in house Green activities

Video /audio conferencing in lieu of physical travel.

Conversion of bank's vehicles into CNG and use of energy efficient electronic equipment.

Efficient use of printer cartridges, photocopy toner, office stationary etc.

Sharing electronic files, voice mail, and e-mail instead of paper memos.

Common use of table stationeries instead of individual use.

Thank You for your Patients