University of Global Village (UGV), Barishal
Department of Business Administration

Course Title: Credit Management Portfolio

Course Code: RFIB: 0412-523	Credits: 03
Semester End Examination (SEE) hours: 03	CIE Marks: 90 SEE Marks: 60

❖ **Course Learning Outcomes (CLOs): Upon completing this course, students should be able to**

CLO1	Understand what is credit risk management, what are the lending objectives, and how to measure credit risk
CLO2	Illustrate the practical knowledge about the credit management system in Banking Industry
CLO3	Define the practical knowledge about the credit management policy and Operational system in Banking Industry
CLO4	Know about problem loan, causes and indicators of problem loan and how to handle problem loan to reduce loan default rate

❖ **Course plan specifying Topics, Teaching time and CLOs**

SL. No.	Topic	Hours	CLOs
1	**Credit Management (Concepts and Principles)**	5	CLO1 CLO2
2	**Credit Management (Policy and operations)**	5	CLO1 CLO3
3	**Credit Management (Problem/ Distressed loans)**	4	CLO3 CLO4
4	**Pricing Business Loans**	3	CLO2 CLO3
5	**Loan Classification and Provisioning**	4	CLO1 CLO4
6	**Loan Rescheduling**	3	CLO2 CLO3
7	**Loan Syndications**	3	CLO4

			CLO2
8	**Short –Term Credit**	4	CLO1 CLO3

Course plan specifying content, CLOs, Teaching Learning and Assessment Strategy Mapped with CLOs: (TLS= Teaching Learning Strategy, AS= Assessment Strategy)

Week	Course Content	TLS	AS	CLOs
1	**Credit Management (Concepts and Principles):** What is meant by credit, Credit vs Investment, Characteristics of Bank Credit, Functions of Bank loans, Classification of Bank loans.	▪ Lecture ▪ Discussion ▪ Assignment ▪ Case	▪ Question & Answer (Oral)	**CLO1** **CLO2**
2	**Credit Management (Concepts and Principles):** Further classification of loan by periodicity, Importance of Bank credit, Sources of Information, Examples of acceptable and unacceptable loan requests of commercial banks	▪ Lecture ▪ Discussion ▪ Assignment ▪ Case ▪	▪ Question & Answer (Oral) ▪	**CLO1** **CLO2**
3	**Credit Management (Concepts and Principles):** Method of loan pricing, Consideration in loan pricing, Important elements of an efficient loan policy, Principles of sound lending .	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral) ▪ Class Test	**CLO1** **CLO2**
4	**Credit Management (Policy and operations):** What is Bank credit policy and Elements of bank credit policy, Loan Management Structure, Steps in Loan Operations.	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case ▪	▪ Question & Answer (Oral) ▪ Class Test	**CLO1** **CLO2**
5	**Credit Management (Policy and operations):** Credit Analysis and steps of credit analysis, 5 C's, Use of Financial Ratios for Credit Analysis, Documentation of Loans, Loan Supervision Activities, Frequently Used Security.	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral)	**CLO1**
6	**Credit Management (Problem/ Distressed loans)** What is Problem / Distressed loan? Good Loans vs Problem Loans, Loan Review, Purposes and Considerations of Loan Review.	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral)	**CLO1** **CLO2**
7	**Credit Management (Problem/ Distressed loans)**	▪ Lecture ▪ Discussion ▪ Exercise	▪ Question & Answer (Oral)	**CLO1** **CLO2**

	What is Problem / Distressed loan? Indicators of Problem Loans, Causes of Problem Loans, Handling Problem/ Distressed loans	▪ Assignment ▪ Case		
8	**Pricing Business Loans** Methods Used to Price Business Loans, Cost-Plus Loan Pricing, Price Leadership Model, Below-Prime Market Pricing (The Markup Model)	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral) ▪ Class Test	**CLO2**
9	**Pricing Business Loans** Customer Profitability Analysis, Math Solution	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case ▪	▪ Question & Answer (Oral) ▪ Class Test ▪	**CLO2**
10	**Loan Classification and Provisioning** Categories of Loans and Advances, Basis for Loan Classification, Maintenance of Provision, Base for Provision, Eligible Collateral	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral) ▪ Class Test	**CLO2**
11	**Loan Rescheduling** Guidelines for Considering Application for Loan Rescheduling**,** Time Limit for Rescheduling**,** Down Payment of Term Loans**.**	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case ▪	▪ Question & Answer (Oral) ▪ Class Test ▪	**CLO2**
12	**Loan Rescheduling** Down Payment of Demand and Continuous Loan**,** New Loan Facility After Rescheduling, Special Conditions	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral) ▪ Class Test	**CLO2**
13	**Loan Syndications** What is Loan Syndication, why is Loan Syndication Required? Advantages of Loan Syndication, Parties to a Loan Syndication	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral)	**CLO1**
14	**Loan Syndications** Loan Syndication Fees & Charges, Loan Syndication Process, Pre-Mandate Stage, Post-Mandate Stage, Information Memorandum	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case	▪ Question & Answer (Oral)	**CLO1**
15	**Short –Term Credit**	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment	▪ Question & Answer (Oral) ▪ Class Test	**CLO1** **CLO2** **CLO3**

	Sources of short term credit . Trade credit . Who bears the cost of funds for trade credit	▪ Case		
16	**Short –Term Credit** Terms of Trade Credit , Cost of Trade Credit, Compensating Balances , Factors determining the terms of Trade Credit, Factors determining the volume/amount of Trade Credit	▪ Lecture ▪ Discussion ▪ Exercise ▪ Assignment ▪ Case ▪	▪ Question & Answer (Oral) ▪ Class Test ▪	**CLO1** **CLO2** **CLO3**
17	**Short –Term Credit** Mathematical Problem and Solutions	▪ Lecture ▪ Discussion	▪ Question & Answer (Oral) ▪ Class Test	**CLO1** **CLO2**

Assessment and Evaluation

1) Assessment Strategy: Group Discussion, Class tests, Case Study, Term Paper, Presentation.

2) Marks distribution:

a) Continuous Assessment:

- Class attendance is mandatory. Absent of 70% classes; disqualify the student for final examination only authority recommendation will be accepted with highly reasonable causes.

- Late submission of assignments is not allowed. Late submission of assignments will be only taken with highly reasonable causes and 20% mark will be deducted.
- To pass this course student will have to appear mid-term and final examination.

b) Summative:

❖ **CIE- Continuous Internal Evaluation (90 Marks)**

Bloom's Category **Marks (out of 90)**	**Test** (45)	**Assignments** (15)	**Quiz** (15)	**External Participation in Curricular/ Co-curricular activities** (15)
Remember	10			**Bloom's affective domain: (Attitude or Will)** Attendance: 15
Understand	05	05	05	
Apply	10		05	

Analyze	05	05		Copy or Attempt to copy: -10 Late Assignment: -10
Evaluate	10	05	05	
Create	05			

- **SEE- Semester End Examination (60 Marks)**

Bloom's Category	**Test**
Remember	10
Understand	10
Apply	10
Analyze	10
Evaluate	10
Create	10

3. Make-up Procedures: Dates for exams will be strictly followed. No makeup exam (Normal case), for exceptional case university rules and regulation should be followed

Recommended Books:

1. Credit Management By Glen Bullivant
2. The Business Guide to Credit Management by Jonathan Ruevid

CREDIT MANAGEMENT (CONCEPTS AND PRINCIPLES)

Lesson-1

WHAT IS MEANT BY CREDIT ?

- Formal agreement between a bank and borrower to provide a fixed amount of loan for a specific period.

- According to the **Dictionary of Banking and Finance**, loans can be defined as, “the lending of a sum of money by a lender to a borrower to be repaid with a certain amount of interest.”

CREDIT VS INVESTMENT

S.L	Points of Differences	Credit	Investment
1	Transaction Type	Debt transactions	Mostly Equity Transaction
2	Knowledge of maturity period	Known to lender, borrower and other interested parties	Except debentures, not known in other types of instruments
3	Term	May vary from several days to even 40 years	Depends on the investment policy of the banks
4	Negotiation	Based on views of both bankers and borrowers	Terms and conditions are pre-fixed

S.L	Points of Differences	Loan	Investment
5	Income Source	Only interest and penal interest	Dividends, bonus share, right share etc.
6	Operation area	Mostly, within the command area	Operation is wider, both national and international as well
7	Intensity and Extent of risk	Except prime customers, most of the loans face default risk	Risk is comparatively lower
8	Volume of Fund	Except industrial loans, most of the loans are of smaller volumes	Mostly, Volume of funds is larger

CHARACTERISTICS OF BANK CREDIT

- Parties
  - ✓ Bank
  - ✓ Loan applicant
- Amount of loan
  - ✓ May vary –small, medium or large
- Ultimate Decision
  - ✓ Bank's decision is final in case of loan application
- Mode of loan
  - ✓ Generally , loans are given in cash
- Nature of distribution
  - ✓ Banks disburse loan on installment basis

CHARACTERISTICS OF BANK CREDIT

- Security
  - ✓ Loans are sanctioned against collateral
- Loan price
  - ✓ Loans are sanctioned against interest or profit
- Periodicity of bank loan
  - ✓ Loan may be sanctioned for immediate use, short-term , mid-term or long-term basis
- Repayment of loan
  - ✓ Loans are repaid on installment basis

FUNCTION OF BANK LOANS

- Provided to individuals:
  I. Consumption Loan
  II. House Loan
  III. Automobile Credit
  IV. Probate Loan
  V. Education and Medical Loan
  VI. Holiday Tour Loan
  VII. Wedding and Social Ceremony Loan

FUNCTION OF BANK LOANS

- Provided to Business Organization:
  I. Working Capital Loan
  II. Seasonal Deficit Loan
  III. Economic Cycle Requirement Loan
  IV. Asset Replacement Loan
  V. Fixed Asset Acquisition Loan
  VI. Bridge Loan
  VII. Export-Import Loan

CREDIT MANAGEMENT (CONCEPTS AND PRINCIPLES)

Lesson-2

CLASSIFICATION OF BANK LOANS

- **Based on Users:**

A. **Individual loan:**

1. Consumer Loan
2. Housing Loan
3. Education/Medical Loan

B. **Industry Loan:**

1. Working Capital Loan
2. Fixed Capital Loan

C. **Loans for Business Persons:**

1. Working Capital Loan
2. Export-Import Loan

D. **Loans for Farmers:**

1. Crop Loan
2. Non-Crop Loan
3. Farming Equipment Loan

- **Based on Term/Periodicity:**
  - A. Short- Term Loan
  - B. Medium- Term Loan
  - c. Long - Term Loan
- **Based on Security:**
  - A. Unsecured Loan
  - B. Fully Secured Loan
  - C. Partly secured Loan

FURTHER CLASSIFICATION OF LOAN BY PERIODICITY

- **Revolving Credit Line:**
  - It is the credit facility for specific amount and specific terms (more than 1 year), which can be renewed again at the end of the maturity after paying the previous loan amount.

- **Non revolving Credit Line:**
  - A designed amount beyond 1 year but does not have the automatic facility to borrow again –needs to be processed as are done for new loan cases.

- **Stand By Credit Line:**
  - **Firm assurance of credit arrangement based on commercial paper, L/C etc.**

IMPORTANCE OF BANK CREDIT

- **Importance of bank loan in trade and commerce:**
- ✓ Creation of Credit Deposit
- ✓ Increased formation of capital
- ✓ Increased volume of investment of capital and working capital
- ✓ Raise the proportion of the sectoral GDP to the total GDP
- **Importance of loan in International Business:**
- ✓ Financing Export-Import
- ✓ Discounting Bill of Exchange, Bank Draft etc
- ✓ Regional Development

- **Importance of loan in Agriculture:**
  - ✓ Crop Credit
  - ✓ Poultry and Fisheries
  - ✓ Improved technology credit
  - ✓ Other tools and Machines Credit
- **Importance of Providing Consumption:**
  - ✓ Housing Loan
  - ✓ Education Loan
  - ✓ Car Loan
  - ✓ Marriage Loan
- **Self Employment Loan:**
  - ✓ Women self employment loan
  - ✓ Small business self employment loan

SOURCES OF INFORMATION

- **Internal Source:**

✓ Filled in Application

✓ Interview

✓ Financial Statements

✓ Bank's Own Record

- **External Source**

✓ **Govt. or Regulatory Authority:**

1. Income tax office/Revenue Board
2. Government Gazette
3. Records from the other govt. office

- **Other Sources:**
    1. Inspection/investigation
    2. Market Report
    3. Credit Information Bureau
    4. News Paper
    5. Audit Firm
    6. Other Banks Record
    7. Trade Journal

EXAMPLES OF ACCEPTABLE AND UNACCEPTABLE LOAN REQUESTS OF COMMERCIAL BANKS

SL NO	Acceptable Loan Request	Unacceptable Loan Request
1	Loans to be proven and creditworthy borrowers where the source of repayment is almost certain	Construction loans without making clear the source and schedule for repayment
2	Construction loans for housing/real estate of which the ownership is undisputable	Unsecured loan for real estate purposes
3	Loan to successful businessmen with very high reputation	Loans based on unmarketable securities

METHOD OF LOAN PRICING

- The price of the loan is the interest rate the borrowers must pay to the bank, in addition to the amount borrowed(Principal).

- Price of Loan (Interest Rate Charge)

  = Base Rate + Risk Premium(Profit)

✓ Base Rate (True Cost of a Loan)

  = Interest Expense+ Administrative Cost+ Cost of Capital

- There are several methods of calculating loan prices:

1. **Interest based pricing:**
   - Variable Rate: The rate of interest changes depends on the demand for and supply of the fund.
     a. Caps and Floors
     b. Prime times: This rate is number of times greater than the prime rate.
   - Fixed Rate : The rate that fixed until maturity.
     a. Prime Rate
     b. General Rate

2. **Determining loan price without Interest**:

- ✓ **Compensating balances:**

  Deposit balances that a lender may require to be maintained throughout the period of the loan.

- ✓ **Fees, Charges etc:**
  - After sanctioning credit but before disbursing the amount to the borrower , a charge is taken for this interim period.
  - This charge helps to prevent the loan taker from making unnecessary delay in taking loans.
  - Sometimes on special cases, no interest is taken but 3-5% service is charged on small loans.

CONSIDERATION IN LOAN PRICING

Internal

1. Amount of Loanable Funds
2. Cost of bank fund
3. Administrative and Transactional Cost
4. Expenses for credit investigation and Credit Analysis
5. Security maintenance expenses
6. Supervision and collection expenses of loans
7. Cost of Risk
8. Cost of default loan
9. Bank-Customer relationship
10. Shareholders expectation of the rate of dividend

- External

1. Guidance of the government and bank regulatory agencies
2. Number of competitors and their capacity to control the market
3. Nature of loan pricing by the competitors
4. Risk of increase and decrease of interest rate
5. Possibility and Costs of raising funds

IMPORTANT ELEMENTS OF AN EFFICIENT LOAN POLICY

- A goal statement: types, maturities, sizes, quality etc
- Lending authority – Who can sanction and How much
- Lines of responsibility- assignments and reporting
- Operating procedures- application to final stage of the decisions
- Documentation
- Guidelines relating to collateral
- Pricing strategies
- Basis of judging loan status
- Guidelines for supervision, monitoring, recovery drives
- Guidelines to handle problem loans

PRINCIPLES OF SOUND LENDING

- Qualitative Factors

- ✓ Purpose of the loan
- ✓ Safety
- ✓ Social Responsibility
- ✓ Business Ethics
- ✓ National Interest
- ✓ Recovery Possibility

- Quantitative Factors

- ✓ Liquidity
- ✓ Profitability
- ✓ Business Solvency
- ✓ Adequacy of Collateral

Question banks

1) What is Credit ? Differentiate between loan and Investment.
2) Discuss the functions of bank credit.
3) Discuss the various types of bank credit.
4) Is every loan acceptable to the bank ? Provide appropriate rationales with examples in favor of your answer.
5) Discuss the various method of loan pricing.
6) As a student of Banking, discuss what sorts of businesses are eligible to get loan ?
7) Discuss the principles of sound lending.
8) Discuss the various sources of credit information. Can a bank go without collecting these ?
9) **Short Notes**: Revolving Credit Line, Stand by Credit Line, Bank Credit, Base Rate, Prime rate

Lesson-3

CREDIT MANAGEMENT
(POLICY AND OPERATIONS)

What is Bank Credit Policy ?

- Bank Credit policy is the compilation of some wise decisions, which help the loan officer in every steps of the loan process to execute his/her duty efficiently and properly.

  - ✓Board of Directors has ultimate power and responsibility to prepare credit policy
  - ✓Both Written and Unwritten credit policies are practice in different banks.
  - ✓Loan policy can be rigid and flexible

Elements of Credit Policy

- **General Elements**
  - ✓Goals and objectives of loan management
  - ✓Duties and responsibilities of the loan personnel
  - ✓Liquidity Strategy
  - ✓Determining Loanable fund
  - ✓Determining higher and lower level of loans
  - ✓Geographic area of loan operations
  - ✓Loan –Maturity mix
  - ✓Strategy to face the competitors
  - ✓Business Ethics
  - ✓Loan review procedure
  - ✓Loan Classification

- **<u>Policy-procedure related Elements :</u>**

  - ✓Loan documentation
  - ✓Maintenance of accounts of loan transactions
  - ✓Regulatory scope of loan operation
  - ✓Deregulation of authority to the executives
  - ✓Loan Pricing
  - ✓Loan sanctioning authority
  - ✓Strategy of collecting credit information
  - ✓Processes and steps of credit analysis
  - ✓Repayment schedule
  - ✓Identification of problem loans
  - ✓Minimum deposit balance of loanee
  - ✓Arrangement of selling collaterals of default loans
  - ✓Steps to be taken in handling problem loans

Loan Management Structure

Steps in Loan Operations

- Generally, loan operations are executed by the 9 steps:
  1) Receiving loan application
  2) Collecting loan information
  3) Credit analysis
  4) Final decision about the loan
  5) Loan documentation
  6) Loan agreement
  7) Recording loan transactions
  8) Review and monitoring of loan agreement execution
  9) Collection of loan

- **Receiving loan application:**
  - Inviting and receiving loan application
  - Checking whether the loan applications are properly filled in with all information required
- **Collecting loan information:**
  - Interview
  - Collecting statement of accounts & other information relating to the business
  - Collecting relevant information from other sources
- **Credit analysis :**
  - Analyzing the collected information
  - Making report on the basis of loan analysis
- **Final decision about the loan:**
  - Making decisions basing on credit analysis
  - Sanctioning/rejecting loan application
  - Determining securities & other terms and conditions through decisions

- **Loan documentation:**
  - Preparation of loan agreement
  - Collecting loan/credit documentations
- **Loan agreement:**
  - Signing loan agreements by the bank & the loanee for home loan is sanctioned
  - Taking charges of the securities offered
  - Starting disbursement of credit installments
- **Recording loan transactions:**
  - Recording loan transactions through journals & ledgers
  - Filing the documentation of the securities
  - Making separate file for each of the loan cases

- **Review and monitoring of loan agreement execution:**
  - Giving notice of installments dues
  - Acknowledging the receipts of the installment
  - Making list of the monthly default cases to be pledged before the board of directors
  - Reporting on the periodical inspection of the business unit /factory of the loanee
  - Classification of the loans according to risks involved
- **Collection of loan/ Credit recovery :**
  - Conducting loan recovery operations
  - Identifying the problem loans
  - Adjusting, if necessary, the terms and conditions of the problem loan cases through discussion with loanees
  - Taking legal steps against the willful defaulters

Credit Analysis

- Credit analysis means analysis of the eligibility for getting loan in the light of applications.

Eligibility in getting loans:

- ✓ History of the past loan transaction data
- ✓ Ability to use loan and the characteristics of the potential borrower
- ✓ Ability to repay the applied loan amount
- ✓ Amount of capital to support any contingencies
- ✓ Influence on the repayment ability by the domestic and international economic condition
- ✓ The presence of any risk factors that may make him a defaulter by interfering his cash flow stream.

Steps of Credit Analysis

1) Collecting loan information of the applicant
2) Collecting business information for which loan is sought
3) Collecting the primary risk related information
4) Assembling all credit information together
5) Analyzing sensitive risky credit information
6) Analyzing refined & very essential risk information
7) Making decision on the basis of loan analysis
8) Design the appropriate loan structure according to the positive decision

5 C's

- 5 C's are popularly used in many countries for credit analysis around the world. This method is introduced by Jack R Crigger. 5 C's are :
  - ✓Character
  - ✓Capacity
  - ✓Capital
  - ✓Collateral
  - ✓Condition

5 C's	What does it indicate ?	How it is determined?
Character	Will the potential borrower repay the loan according to the loan contract ?	1. Past tract record of loan transactions with this bank 2. Information from other lenders 3. Examining the accuracy of the information provided in the loan application
Capacity	Does the loan applicant have the capability of repaying the loan ?	1. Monthly net cash flow 2. Stability and certainty of the source of income 3. Stability of the financial condition 4. Positive liquidity condition
Capital	Does the loan applicant have the opportunity to collect funds from alternative sources to repay and to face the adverse situation ?	1. Amount of net assets 2. Amount of personal assets in case of partnership business 3. Personal relationship

Collateral	Will the sale proceed of the collateral be sufficient to satisfy the full loan obligation ?	1. Loan to collateral ratio 2. Easy Marketability
Condition	Is there any possibility of arising problems in repaying the loan under the current financial position of the business ?	1. Forecasting of general economic condition during the loan period 2. The possibility of the stability of the forecasted source of income of the loan applicant

Other Methods For Credit Analysis

- 5 R's :
  - ✓Responsibility
  - ✓Reliability
  - ✓Respectability
  - ✓Resource
  - ✓Return possibility
- CAMPARI :
  - ✓C= Character
  - ✓A= Amount
  - ✓M= Means
  - ✓P= Purpose
  - ✓A= Accountability

Use of Financial Ratios for Credit Analysis

- ✓ Measures of Liquidity
- ✓ Measures of Management Efficiency
- ✓ Measures of Loan- Equity Balance
- ✓ Measures of Profitability

Purposes of use	Title of ratio	Determining formula
Assessing Liquidity: Examine the ability to meet the short term obligations	1. Current Ratio 2. Acid Test Ratio 3. Current Test Ratio	**= Current Assets/ Current Liabilities** **= (Current assets- Stock in trade) / Current Liabilities** **= Working Capital / Current Assets**
Assessing Management Efficiency : Examine the skill and efficiency of the management by earning profit through the increase of sales	1. Average Collection Period 2. Stock Turnover Ratio 3. Profit to Sales Ratio	**= Receivables / No, of days in a year** **= Sales / Average Stock in trade** **= Profit / Sales**

<u>Leverage Ratio :</u> Determined the date capacity of the organization along with interest pay ability of the debts managed	1. Debt to total assets ratio 2. Debt Equity Ratio 3. Times of Interest Earned	**= Total Debts / Total Assets** **= Total Long Term Debts / Total Equity Capital** **= Income before interest & Taxes / Annual Interest Expenses**
<u>Profitability Ratios :</u> Measuring profit earning potentiality	1. Income to Total Sales 2. Income to Total Assets 3. Net Income to Equity 4. Total Income to Sales	**= Net Income / Sales** **= Net Income / Total Assets** **= Net Income / Total Equity** **= Net Income / Sales**

Documentation of Loans

- The following documents are commonly used for approving a loan:
  - ✓ Original Loan Agreement
  - ✓ Filled up the loan application form
  - ✓ Financial statement of the borrower
  - ✓ Credit Analysis report
  - ✓ Proofs of certificates and documents of the collateral
  - ✓ The name and signature of the authorized person
  - ✓ The surety from the authorized person of the economy
  - ✓ Mortgage and Trust agreement
  - ✓ Certificates of earnest money given on assets
  - ✓ The copy of partnership deed and the statement of the assets ,etc.

Loan Supervision Activities

- Loan supervision should be done
  - ✓ Before Approving the loan
  - ✓ After approving and disbursing the loan, supervise and monitor the cash inflow and outflow until the full repayment of loan
  - ✓ After repayment of loan, bank should try to retain the most creditworthy borrowers
- Following are the ways to supervise loans:
  - ✓ Personal Contact
  - ✓ Periodical Report
  - ✓ Financial Statement
  - ✓ Trends of deposit balance
  - ✓ Collection of information from those having business transaction with borrower

Frequently Used Security in Bank

- Personal Surety
  - ✓ Third party gives the guarantee who is financially sound and renowned in his business
- Immovable Property
  - ✓ Fixed Assets like Building, Land, Machinery etc
- Pledge of Goods
  - ✓ The goods are held at the custody of the bank
  - ✓ But ownership remains to the borrower's name
  - ✓ If borrower defaults, a bank will collect money by selling goods with a prior notice to the borrower.
- Marketable Securities
  - ✓ Securities that traded in the capital market or in the money market like share, stock, debenture, treasury bills, Govt. bills, bonds etc.

- Documents of Title of Goods
  - ✓ Bill of exchange, bill of lading, railway receipt, truck receipt, ware house receipt etc
- Certificate of Fixed Deposit
  - ✓ Certificates provided by a bank for the fixed deposit
  - ✓ Highly secured document
  - ✓ Remains valid till the duration of the FDR
- Insurance Polices
  - ✓ Life insurance policy is more acceptable
- Others
  - ✓ Besides these, gold , valuable documents and other expensive materials are also taken as security

Question banks

1) What is Bank Credit policy and Discuss the Elements of loan policy ?
2) How does a bank officer take steps in a bank's loan operation ?
3) Discuss elaborately the Credit Analysis.
4) Which Financial ratios are important for credit analysis and Why ?
5) Which types of security is commonly used in bank for approving loan?
6) Discuss the way of loan Supervision.
7) **Short Notes :**

   Bank Loan Policy, 5 C's, Pledge

Credit Management
(Problem/ Distressed loans)
Lesson-4

What is Problem / Distressed loan ?

- Bank loans can be divided into two categories , such as :
  - ✓ Ideal loan
  - ✓ Problem loan
- The loans which can not easily be recovered from borrowers are called problem loan.
- When the loans can't be repaid according to the terms of initial agreement or in an otherwise acceptable manner, it will be called problem loans.
- The recovery of loan is unquestionable is known as **good or ideal loan.**

- Loan classification may be shown through the following ways :
  - ✓Willingness to repay + Ability to repay = Ideal Loan
  - ✓Unwillingness to repay + Ability to repay = Problem Loan
  - ✓Willingness to repay + Inability to repay = Problem Loan
  - ✓Unwillingness to repay + Inability to repay = Problem Loan

- Loans become problem loan as a result of many factors, such as :

1. The credit analysis may have been faulty because it was based on inadequate information or incomplete analytical procedures.
2. Economic conditions may change adversely after the loan is granted so that the borrower can't meet debt service requirements.
3. A borrower may simply choose not to repay .

Good Loans vs Problem Loans

S.L N.O	Points of Difference	Good Loans	Problem Loans
1	Meaning	Repayments made on time	Failed to make repayments on time & identified as defaulters
2	Quantum of loans	Generally , the lion share	Generally, not more than one-fourth of the total loans
3	Repayment Schedule	100% repayment schedule is adhered to, with approved exception, if any	Partial adherence to the repayment schedule, often violates the schedule without the approval of the bank.
4	Nature of clients	Most of the clients are prime customers	Most of the clients are non-prime customers

Good Loans vs Problem Loans

S.L N.O	Points of Difference	Good Loans	Problem Loans
5	Partiality in Sanction	Loans are sanctioned to the right borrowers without any nepotism.	Most of the loans are sanctioned through favoritism
6	Nature of Terms	Mostly, traditional & follow able	In most of the time, terms and conditions are strict & difficult to follow
7	Credit Analysis and Identification of Right Borrowers	Loan identification are made through proper credit analysis	Improper and inadequate credit analysis is made, rather loans are sanctioned in an unusual process
8	Intensity of Supervision	Minimum and appropriate supervision is applied	Absence of meaningful supervision

Good Loans vs Problem Loans

S.L N.O	Points of Difference	Good Loans	Problem Loans
9	Security	Adequate security offered by reliable clients	Inadequate security offered by large number of non reliable clients
10	Profit-Loss	Transactions increase profit	Transactions increase loss
11	Contact/ Communication	Most cordial & cooperative in making communications through letters, telephones, personal visits, etc	Non cooperative and difficult to respond letters, telephones calls, personal visits, etc

Loan Review

- **Loan review** is a process of periodic investigation of all outstanding loans on a bank’s books to make sure each loan is paying out as planned, all necessary documentation is present, and the bank’s loan officers are following the institution’s loan policy.

Purposes of loan Review

1) Identification of actual & potential problem loans
2) Encouraging loan executives in the recovery of loan
3) Facilitating the loan executive in making report about the conduct of the borrowers
4) Ensuring identical documentation among the bank
5) Ensuring compliance of loan policy , procedure etc.
6) Keeping the board of directors updated about the trend of latest conditions of the problem loans
7) Creation of adequate reserve against bad and doubtful loans

- ✓ Loan review helps banks to ensure the expected discipline in loan activities in due time.
- ✓ By loan review, banks compel the employees in loan activities from the bottom level to top level to complete every step of loan activities carefully.
- ✓ As a result, loan collection of whole banking system remains comparatively good and bank's profitability will increase smoothly.

Considerations for Loan Review

- For loan review purpose, the following factors are needed to be considered:
  1) The borrower's financial condition & repayment capacity
  2) Adherence to loan policy
  3) Proper maintenance of all the necessary loan documents
  4) Accurate compliance of the legal and statutory regulations
  5) Obtaining reliable securities and ensuring income from the collaterals thereof without any loss
  6) Designing and applying realistic profit planning

Indicators of Problem Loans

- The symptoms of problem loans can be classified in the following way:

1) Quantitative Indicators
2) Qualitative Indicators

Quantitative Indicators

- ✓ Preparation of irregular and delayed financial statements
- ✓ Refusal of large insurance claim
- ✓ Imbalanced expansion & modernization in improper time
- ✓ Creating hindrances to the main source of income
- ✓ Diminishing deposit balance
- ✓ Excessive increase in inventory
- ✓ Inability to pay the debt of the creditors other than the bank

- ✓ Non-repayment of the loan installments as and when fell due
- ✓ Repeated requests for refixing the loan repayment dates
- ✓ Entering into big loan contracts frequently with institutions and persons other than the existing bank
- ✓ Continuous decline in the market price of the shares of the borrowing company
- ✓ Frequent Liquid crisis
- ✓ Decrease in the volume of sales

Qualitative Indicators

- ✓ Sudden death or accident of chief executive of the business
- ✓ Avoiding communication with the lending bank
- ✓ Not welcome the loan inspectors in their office
- ✓ Frequent departure of key executives of the borrowing organization for better opportunities
- ✓ The borrowing organization is not operating smoothly due to some conflicts among the executives and among the board members
- ✓ Adverse business situation resulting from conflict between the borrower's country and supplier's country

- ✓ Continuing strike or labor unrest
- ✓ Bitter relationship between borrower and lending bank
- ✓ Deteriorating relationship with the raw materials suppliers
- ✓ Occurrence of theft , fraud, robbery, or hijacking in the organization of the borrowers.
- ✓ Conflict among the heirs of the owners of the borrowing organization
- ✓ Lack of depth in managerial decision making

Causes of Problem Loans

- The causes of problem loans can be classified in the following way:

1) Quantitative Causes
2) Qualitative Causes

Quantitative Causes

1) Disbursement of funds before documentation finished
2) Renewal of large sized loans without asking for additional collaterals
3) Loans given to the basis of transaction rather than net worth
4) Loans made on the size of the deposit rather than net worth
5) Loans based on unmarketable shares, stocks or bonds
6) Inaccurately assessing the capacity of inflow of cash
7) Improper analysis of the loan proposal

Qualitative Causes

1) Absence or inadequate loan review
2) Absence or inadequate loan supervision
3) Loans to borrowers with bad moral character
4) Poor communications with borrower
5) Analyzing creditworthiness based on incomplete/ wrong credit information
6) Failure to inspect borrower's business premises
7) Loans for speculative business

Handling Problem/ Distressed loans

- Problem loans can be handled in different ways such as:

  - Taking legal action through the court
  - Bank's own steps in relation to problem loans

Legal Steps through Courts

- If bank finds no way to handle problem loans, then bank goes for taking legal action to handle it. This can be done in two ways. Such as:

1. **<u>General recovery suit :</u>**

- When the bank finds that the borrower has the ability to repay the loan but he/she has no interest to pay , at first, Bank tries to resolve the matter by mutual discussion.
- If it fails then the bank goes for general recovery suit to collect the loan along with the expenses of suit from the borrower.
- In this case, the borrowing institution pays the amount declared in the verdict.

2. **Recovery suit by Liquidation:**

- ✓ In this case, the borrowing institution is really unable to repay the debt.
- ✓ When the borrowing organization becomes bankrupt , the bank along with all the creditors may go for recovery suit through liquidation of the borrowing organization .
- ✓ In this case, net asset of the borrowing company is smaller than the net claim of the creditors .
- ✓ Court employs a liquidator or receiver . This liquidator distributes the proceeds from selling the assets of the company to all the creditors proportionately.

Steps by Bank itself

- In this case, the lending bank can take two steps to handle problem loans. These are:

  A. Preventive Steps
  B. Curative Steps

A. Preventive steps

- ✓ Preventive steps involve identifying the cause of problem loans & taking necessary steps to control it. Bank can take the following steps to handle problem loans:
  - **Discussion & Advice:**
  - ✓ At the end of a specific time , bank asks the borrower for discussion
  - ✓ If any problem arises on the part of the borrower, bank will provide appropriate advice regarding the problem.

- **<u>Arrangement of new loan:</u>**
  - ✓ Arrange new loan to the borrower to increase the ability to repay loan.
- **<u>Additional Collateral :</u>**
  - ✓ Additional collateral is required when the value of the previous collateral has decreased.
- **<u>Advice for inventory control :</u>**
  - ✓ Bank may advice the borrower to control the inventory level in such a way that huge amount of money is not kept idle.
- **<u>Accountability of the loan officer :</u>**
  - ✓ Every loan officer must perform his/her duty according to the established loan policy.

- **Limit based Loan :**
  - ✓ Bank have specific limits for specific type of loans
- **Discouraging loan to directors :**
  - ✓ If not mentioned in the loan policy , it is better not to sanction loans to the directors.
- **Not making loan without proper credit analysis**
- **Loan supervision and review**
  - ✓ If loan supervision and inspection is conducted in a regular interval , the borrowers will not take any detrimental steps with the loan amount.

Curative Steps

- ✓ In order to control problem loans, banks need to be very careful about the financial discipline of the borrowing organization. Banks can undertake the following steps in order to get rid of problem loans:
- ❖ **<u>Adjusting financial structure :</u>**
- ✓ Bank will encourage them to use more equity financing rather than debt financing
- ❖ **<u>Additional loan facilities:</u>**
- ✓ The bank will provide additional loan facilities in order to help the firm to recover from it's present crisis

- **Change of repayment schedule of loan :**
  - If the bank changes the repayment schedule in favor of the cash flow pattern of the firm; most of the problem loan borrowers will be able to make the repayments.
- **Correction of loan diversion :**
  - If bank finds that the reason of problem loan is utilization of loan in unproductive sector by the borrower, then to cure the problem loan, banks need to correct the loan diversion .
- **Exemption of due installments and interests payment :**
  - Banks may exempt due installments & interest payments of honest and reputed borrower.

- **<u>Advice to merge :</u>**
  - To minimize the loss, the client may be advised to merge with other big organization. The combined company may be able to repay the debt.
- **<u>Advice to temporarily defer modernization and expansion plan</u>**
- **<u>Advice to change credit policy of the bank:</u>**
  - A businessman generally collects raw materials on credit. On the other hand, it may sells the goods on credit also to the agents or wholesalers. If the term of credit provided is greater than the term of credit taken, liquidity problem of the firm may arise. By changing credit terms, the firm may be able to repay the loan.

Question Banks

- ✓ Short Notes:

  Problem loan, Good loan, Loan review

1) Differentiate between Good loans and Problem loans.
2) Discuss the objectives of loan review?
3) Discuss the indicators of problem loans ?
4) Discuss the reasons that usually cause problem loan ?
5) How does a banker handle problem loan?
6) What legal actions bank may adopt to recover problem loans ?
7) What factors should be considered while reviewing loan cases ?

Lending Policies and Procedures: Managing Credit Risk

Lesson-5

McGraw-
Bank Ma

❑ Factors Determining the Growth and Mix of Loans

- Characteristics of the market area
- Lender size
  - Wholesale lenders vs. retail credit
  - **Wholesale lenders**: provide loan to large businesses institution
  - **Retail credit**: provide loan to individuals, families and small businesses
- Experience and expertise of management
- Loan policy
- Expected yield of each type of loan
- Regulation

Uniform Financial Institutions Rating System

- Each banking firm is assigned a numerical rating based on the quality of its asset portfolio
- The federal examiner may assign one of these ratings:
  - 1 = strong performance
  - 2 = satisfactory performance
  - 3 = fair performance
  - 4 = marginal performance
  - 5 = unsatisfactory performance

Asset Quality

- **Criticized loans**: Loans that are performing well but have a minor weaknesses because the bank has not followed its own loan policy or has failed to get full documentation from the borrower .
- **Scheduled loans:** Loans that appear to contain significant weaknesses or that represent what the examiner regards as a dangerous concentration of credit in one borrower or in one industry
- Adversely classified loans
  - **Substandard loans:** where the bank's margin of protection is inadequate due to weaknesses in collateral or in the borrower's repayment abilities.
  - **Doubtful loans:** which carry a strong probability of an uncollectible loss to the bank.
  - **Loss loans:** which are regarded as uncollectible

CAMELS Rating

- Capital adequacy
- Asset quality
- Management quality
- Earnings record
- Liquidity position
- Sensitivity to market risk exposure

- All six dimensions of performance are combined into one overall numerical rating, referred to as the CAMELS rating

Establishing a Good Written Loan Policy

- Important in order to meet regulatory standards
- What should a written loan policy contain?
  - A goal statement for the entire loan portfolio
  - Specification of lending authority of each loan officer and loan committee
  - Lines of responsibility in making assignments and reporting information
  - Operating procedures for soliciting, evaluating and making loan decisions
  - Required documentation for all loans

- Lines of authority for maintaining and reviewing credit files
- Guidelines for taking, evaluating, and perfecting loan collateral.
- Procedures for setting loan rates and fees and the terms for repayment of loans
- A statement of quality standards applicable to all loans
- A statement of the preferred upper limit for total loans outstanding
- A description of the lending institution's principal trade area
- Procedures for detecting and working out problem loan situations.

Loan Workouts

- **Loan workout – the process of resolving troubled loan so the bank can recover its fund .**
- **Warning Signs of Problem Loans**
  1. Unusual or unexpected delays in receiving financial statements
  2. Any sudden changes in accounting methods
  3. Restructuring debt or eliminating dividend payments or changes in credit rating
  4. Adverse changes in the price of stock
  5. Losses in one or more years
  6. Adverse changes in capital structure
  7. Deviations in actual sales from projections
  8. Unexpected or unexplained changes in deposits

Warning Signs of Weak Loans and Poor Lending Policies

The manual given to bank and thrift examiners by the FDIC discusses several telltale indicators of problem loans and poor lending policies:

Indicators of a Weak or Troubled Loan

- Irregular or delinquent loan payments
- Frequent alterations in loan terms
- Poor loan renewal record (little reduction of principal when the loan is renewed)
- Unusually high loan rate (perhaps an attempt to compensate the lender for a high-risk loan)
- Unusual or unexpected buildup of the borrowing customer's accounts receivable and/or inventories
- Rising debt-to-net-worth (leverage) ratio
- Missing documentation (especially missing financial statements)
- Poor-quality collateral
- Reliance on reappraisals of assets to increase the borrowing customer's net worth
- Absence of cash flow statements or projections
- Customer reliance on nonrecurring sources of funds to meet loan payments (e.g., selling buildings or equipment)

Indicators of Inadequate or Poor Lending Policies

- Poor selection of risks among borrowing customers
- Lending money contingent on possible future events (such as a merger)
- Lending money because a customer promises a large deposit
- Failure to specify a plan for loan liquidation
- High proportion of loans outside the lender's trade territory
- Incomplete credit files
- Substantial self-dealing credits (loans to insiders—employees, directors, or stockholders)
- Tendency to overreact to competition (making poor loans to keep customers from going to competing lending institutions)
- Lending money to support speculative purchases
- Lack of sensitivity to changing economic conditions

- **What steps should a lender take when a loan is in trouble?**
  1. Do not forget the goal: Maximize full recovery of funds
  2. Rapid detection and reporting of problems is essential
  3. Loan workout should be separate from lending function
  4. Should consult with customer quickly regarding possible options
  5. Estimate resources available to collect on loan
  6. Conduct tax and litigation search
  7. Evaluate quality and competence of management
  8. Consider all reasonable alternatives

Loan Review

- **Loan review** is a process of periodic investigation of all outstanding loans on a bank's books to make sure each loan is paying out as planned, all necessary documentation is present, and the bank's loan officers are following the institution's loan policy.

Question Banks

- What are the Factors of Determining the Growth and Mix of Loans?
- Define Uniform Financial Institutions Rating System.
- What is the CAMELS rating, and how is it used?
- What should a good written loan policy contain?
- What is Loan Workouts?
- What are the Warning Signs of Problem Loans?
- What steps should a lender take when a loan is in trouble?
- What is loan review?
- What are the Indicators of poor lending policies?
- Short Notes: Criticized loans, Scheduled loans, Substandard loans, Doubtful loans, Loss loans.

Pricing Business Loans

Lesson-6

Methods Used to Price Business Loans

- Cost-Plus Loan Pricing Method
- Price Leadership Model
- Below Prime Market Pricing
- Customer Profitability Analysis

Cost-Plus Loan Pricing

- Setting loan request rates based upon bank operating costs and a desired profit margin.

Cost-Plus Loan Pricing

Loan Interest Rate	=	Marginal Cost of Raising Loanable Funds to Lend to Borrower	+	Nonfund Bank Operating Costs	+	Estimated Margin to Compensate Bank for Default Risk	+	Bank's Desired Profit Margin

Problem Solution

- If the marginal cost of Loanable funds for this particular loan will be 5%. Nonfunds operating costs to analyze, grant and monitor this loan are estimated at 2% of the 5% loan request. The bank's credit department may recommend adding 2% of the amount requested to compensate the bank for the risk that the loan will not be repaid in full and on time. Finally, the bank may desire 1% profit margin. **What will be the loan interest rate that will be offered to the borrower?**

Price Leadership Model

- Setting loan rates using a base interest rate in the industry plus markups for risk.
- **Prime rate:**

✓ The rate at which the commercial bank provides loan to their best customers.

Loan Interest Rate	=	**Base or Prime Rate**	+	**Default Risk Premium for Non-Prime Borrowers**	+	**Term Risk Premium for Longer Term Credit**

Problem Solution

- A medium sized business customer asking for a three year loan to purchase new equipment , **What will be the loan interest rate**, if prime rate is 8% plus 2% for default risk and another 2 % for term risk.

LIBOR

- ✓ The London Interbank Offer Rate.
- ✓ The London Inter-bank Offered Rate is the average of interest rates estimated by each of the leading banks in London that it would be charged were it to borrow from other banks
- ✓ **DIBOR** :is a rate at which banks will lend to each other for a specific maturity period in the Dhaka market.
- ✓ **LIBOR Based loan rate**= LIBOR+ Default risk premium+ Term-risk premium+ Profit margin

Problem Solution

- A One year loan based on a one-year LIBOR rate of 6.80%, Default risk premium 0.125%, Term risk premium 0.25% and Profit margin 0.125%.**What will be the LIBOR-based loan rate?**

Below-Prime Market Pricing(The Markup Model)

- Loans granted to a bank's top-credit-rated customers whose interest rate is usually tied to money market interest rates.

Loan Interest Rate	=	**Interest Cost of Borrowing in the Money Market**	+	**Markup for Risk and Profit**

Problem Solution

- If the borrow of Central Bank Funds in today market for 5.50% and a top quality business customer requests a 30 day BDT 10 million credit line and 0.25% markup for risk and profitability. **What loan rate should be quoted for this borrower?**

- **Cap rates:**

✓ The maximum interest rate a lender can charge a borrower under the terms of a loan agreement.

Customer Profitability Analysis

- A method of evaluating the acceptability of a loan by considering all the revenues a borrower generates for the bank and all the costs a bank meet servicing that borrower divided by the net amount of loanable funds requested.
- Net before –tax rate of return to the bank from the whole customer relationship=(Revenue from loans and other services provided to this customer – Expenses from providing loans and other services to this customer)/ Net loanable funds used in excess of this customer's deposit)

- Net investable funds for the bank =

Customers average deposit balance – Average amount of float in the account – (Required reserve x Net amount of collected fund in the account)

- Amount of earning credit=

Annual earnings rate x Fraction of the year are available from the deposit x Net investable funds

Problem Solution

- RCB corporation has posted an average total deposit balance this month of BDT 1,125,000. Float from uncollected check accounts for BDT 125,000 of this balance, yielding net collected funds of BDT 1 million. Required legal reserves are10%. **What is the amount of net investable funds available to the bank**.

  Suppose RCB's bank agrees to give RCB credit for an annual interest return of 6.60% on the net investable funds provided to the bank by the company. **How much of an earnings credit from the bank will RCB earn?**

Questions Bank

- What is Loan Pricing? What methods are in use today to price business loans?

Short –Term Credit

Short Term Credit : Funds available for a period of one year or less is

- Short term credit is defined as any liability originally scheduled for payment within one year

Sources of short term credit :

a) **Spontaneous Financing :** Spontaneous financing arises from the normal operations of the firm. Sources are

i . Trade credit

- Open Account
- Notes Payable
- Trade Acceptance

ii. Advance from Customers

iii. Accrued Expenses

b) **Money Market Credit**

- Commercial Paper : Short –term unsecured promissory notes generally issued by large corporations.
- Banker's Acceptance : Short –term promissory trade notes for which a bank (by having "accepted" them) promises to pay the holder the face amount at maturity.

- **Short term unsecured bank loan;** A form of debt for money borrowed that is not backed by the pledge of Specific assets. Types are -

- Line of credit : An informal arrangement between a bank and its customer specifying the maximum amount of credit the bank will permit the firm to owe at any one time.
- Revolving credit : a formal, legal commitment to extend credit up to some maximum amount over a stated period of time.
- Single payment credit Transaction loan : A loan agreement that meets the short –term funds needs of the firm for a single, specific purpose.

c) **Secured short term bank credit :** A form of debt for money borrowed in which specific assets have been pledged to guarantee payment.

Trade credit : Credit guaranteed from one business to another. Trade credit refers to accounts payable that arises from the purchase of goods and services. It is an inter firm debt arising from credit sales and recorded as an accounts receivable by the seller and as an accounts payable by the buyer. Examples of trade credits are **–**

- **Open Account :** the seller ships goods to the buyer with an invoice specifying goods shipped , total amount due , and the terms of the sale.
- **Notes Payable :** the buyer signs a note that evidences a debt to the seller.
- **Trade Acceptance :** the buyer draws a draft on the buyer that orders the buyer to pay the draft at some future time period.

Who bears the cost of funds for trade credit.

a) **Supplier** – when trade costs cannot be passed on to buyers because of price competition and demand.

b) **Buyers** – When costs can be fully passed on through higher prices to the buyer by the seller.

c) **Both** – When costs can partially be passed on to buyers by sellers.

Terms of Trade Credit :

i. Cash on delivery (COD)
ii. Cash before delivery (CBD)
iii. Net period ; No Cash Discount
iv. Net Period with Cash Discount , for example 2/10 net 30
v. Seasonal Dating.

Cost of Trade Credit

Terms of sale 2 / 15 , net 45 . If the buyer forgo the cash discount the cost of trade credit will be : –

Effective Interest Rate (EIR) = $\frac{CD}{100-CD}$ x $\frac{360}{CP-DP}$ x 100

Here , CD = Cash discount rare

CP = Credit period

DP = Cash discount period

EIR = $\frac{2}{100-2}$ x $\frac{360}{45-15}$ x 100 = 24.49 %

Compensating Balances : In providing loans and other services, a bank may require the business customers either pay a fee for the service or maintain a minimum account balance referred to as a compensating balance**.**

Suppose , Sonali Bank gives loan to a firm Tk. 5,00,000 at 10% . The firm is required to maintain compensating balance @ 15% of the loan amount.

$$\text{EIR} = \frac{Total\ interest}{Loan\ Utilized} \times 100 = \frac{5{,}00{,}000\ x.10}{5{,}00{,}000-75{,}000} \times 100$$

$$= \frac{50{,}000}{4{,}25{,}000} \times 100 = 11.76\%$$

Cost of Commercial Paper

$$\text{EIR} = \frac{Face\ value-Sale\ value}{Net\ \ Sale\ value} \times \frac{360\ days}{Repayment\ period\ in\ days} \times 100$$

Suppose , A commercial paper with a face value of Tk. 1,000 each sold at Tk. 950 for 120 days. Cost of issue Tk. 50. What will be the cost of commercial papers.

$$= \frac{1{,}000-950}{1{,}000-50} \times \frac{360}{120} \times 100$$

$$= \frac{50}{900} \times \frac{360}{120} \times 100 = 0.05556 \times 3 \times 100 = 16.67\ \%$$

Factors determining the terms of Trade Credit

i. Policies of sales administration

ii. Sales volume

iii. Financial condition of the seller
iv. Nature and behavior of the buyer
v. Financial condition and Goodwill of the buyer
vi. Risk of credit
vii. Distance and communication between the buyer and seller
viii. Nature and size of the market
ix. Nature of goods or services
x. Trade cycle

Factors determining the volume/amount of Trade Credit

i. Capital Structure Policy

ii. Nature of the buying company

iii. Size of business

iv. Seasonal variation of demand and supply

vi. Ability to repay loan
vii. Cost of loan
viii. Liquidity position
ix. Market condition
x. Sales/credit policy of the seller
xi. Ability and willingness of the seller
xii. Ability of fund from other source

Problem : –STF -01 (2015)

Rahman Chemical Complex needs working capital of TK. 5 crore. There are there alternative methods of financing:-

(A) To forgo cash discount granted on the basis of 3/15, net30

(B) To borrow from a bank at 14 percent interest rate per annum. The bank requires 20% compensating balance on loan amount.

(C) To issue Commercial paper at 12 percent. The cost of issuing the Commercial paper would be TK. 50,000 in each six month period.

Required :

Which method should the company should choose?

Solution: STF -01 (2015)

First of all calculate the effective interest rate (EIR) of all there alternative methods of financing.

Method A:

Cost of Trade Credit = $\frac{Cash\ discount\ rate}{100-Cash\ discount\ rate} \times \frac{360\ day}{Net\ period-Discount\ p}$ x 100

$= \frac{3}{100-3}$ x $\frac{360}{30-15}$ x 100 = $\frac{3}{97}$ x $\frac{360\ day}{15\ day}$ x 100 = 74.23 %

Method –B : Cost of Bank loan

Annual interest = TK. 5,00,00,000 x .14 = TK. 70,00,000

Compensating balance = TK. 5,00,00,000 x .20 = TK. 1,00,00,000

Net amount of loan = TK. 5,00,00,000 – 1,00,00,000 = TK. 4,00,00,000

EIR = $\dfrac{Interest\ PAYable}{\text{Loan Utilized}}$ x 100 = $\dfrac{TK.70{,}00{,}000}{4{,}00{,}00{,}000}$ x 100 = 17.5%

Option C: Commercial Paper at 12% with Issue Cost

- **Loan Amount Needed:** TK. 5 crore
- **Nominal Interest Rate:** 12%
- **Issue Cost:** TK. 50,000 every six months = TK. 1,00,000 per year
- **Effective Interest Rate** (annualized):

$$\text{Effective Rate} = \frac{\text{Interest Paid} + \text{Issue Cost}}{\text{Loan Amount}}$$

  - Interest Paid = $\text{Loan Amount} \times \text{Nominal Interest Rate} = 5 \times 0.12 = \text{TK. } 0.6 \text{ crore}$
  - Issue Cost = TK. 0.01 crore

$$\text{Effective Rate} = \frac{0.6 + 0.01}{5} \times 100 = \frac{0.61}{5} \times 100 = 12.2\% \text{ per annum}$$

Conclusion: The effective annual cost of issuing commercial paper is **12.2%**.

- **Issue cost= TK. 0.01 crore because 100,000/1,00,00,000**

Problem : – STF -02 (2015)

Apex Footwear Ltd . Wants to raise working capital of TK. 1 crore . It has the following alternative sources :-

(1) Credit purchase granted on terms of sale of 2/10, net 40;

(2) Borrowing from AB Bank Ltd. at 15% interest rate per annum maintaining 12% compensating balance.

(3) Issuing commercial paper at face value of TK. 1.08 crore for six months. Cost of issue is TK.50,000 per issue (twice in a year)

Which alternative method should be accepted by the company? Why?

Solution of problem : STF -02 (2015)

(1) **Cost of trade credit :**

$$\textbf{EIR} = \frac{Cash\ discount\ rate}{100-Cash\ discount\ rate} \times \frac{360\ day}{Net\ period-Discount\ p} \times 100$$

$$= \frac{2}{100-2} \times \frac{360}{40-10} \times 100 = \frac{2}{98} \times \frac{360\ day}{30\ day} \times 100 = 24.49\ \%$$

Method –B : Cost of Bank loan

Annual interest = TK. 1,00,00,000 x .15 = TK. 15,00,000

Compensating balance = TK. 1,00,00,000 x .12 = TK. 12,00,000

Net amount of loan = TK. 1,00,00,000 – 12,00,000 = TK. 88,00,000

$$\text{EIR} = \frac{Interest\ payaable}{\text{Loan utilized}} \times 100 = \frac{TK.15,00,000}{88,00,000} \times 100 = 17.05\%$$

Option 3: Issuing Commercial Paper

- **Loan Amount Needed:** TK. 1 crore
- **Face Value of Commercial Paper:** TK. 1.08 crore
- **Nominal Interest Rate:**

$$\text{Nominal Rate} = \frac{\text{Face Value - Loan Amount}}{\text{Loan Amount}} = \frac{1.08 - 1}{1} = 0.08 \text{ (for 6 months)} = 16\% \text{ (annualized)}.$$

- **Cost of Issue:** TK. 50,000 per issue, twice a year = TK. 1,00,000 per year
- **Effective Interest Rate** (annualized):

$$\text{Effective Rate} = \frac{\text{Interest Paid} + \text{Issue Cost}}{\text{Loan Amount}}$$

  - Interest Paid = $\text{Loan Amount} \times 0.16 = 0.16 \text{ crore}$
  - Issue Cost = TK. 0.01 crore

$$\text{Effective Rate} = \frac{0.16 + 0.01}{1} \times 100 = 17\% \text{ per annum}$$

Conclusion: The effective annual cost of issuing commercial paper is **17%**.

Problem : – STF -03 (2015)

Alam Trading Ltd. Needs working capital of Tk. 5,00,000. There are three alternative methods of financing : -

- To forgo cash discount granted on basis 3/15 , net 45 ;
- To borrow from a bank at 15% interest rate per annum . The bank requires 20% compensating balance on loan amount ;
- To issue commercial paper at 12%. The cost of issuing the commercial paper would be Tk. 25,000 per year.
- The maturity of the paper is one year.

Required : Suggest the best alternative .

Solution: STF -03 (2015)

Method -01 : Cost of trade credit :

EIR = $\frac{Cash\ discount\ rate}{100 - Cash\ discount\ rate} \times \frac{360\ day}{Net\ period - Discount\ p}$ x 100

$= \frac{3}{100-3}$ x $\frac{360}{45-15}$ x 100 = $\frac{3}{97}$ x $\frac{360\ day}{30\ day}$ x 100 = 24.49 %

= 0.0309 x 12 x 100 = 37.08%

Method – 02 : Cost of bank loan

Interest = Tk.5,00,000 x .15 = 75,000

Compensating balance = (20 % of Tk. 5,00,00) = 1,00,000

Used loan = Tk. 5,00,000 - Tk. 1,00,000 = Tk.4,00,000

EIR = $\dfrac{\textit{Interest payable}}{\text{Loan utilized}}$ **X** 100 = $\dfrac{TK.75{,}000}{4{,}00{,}000}$ x 100 = 18.75%

Option 3: Issuing Commercial Paper

- **Loan Amount Needed:** Tk. 5,00,000
- **Nominal Interest Rate:** 12%
- **Cost of Issue:** Tk. 25,000 per year
- **Effective Interest Rate** (annualized):

$$\text{Effective Rate} = \frac{\text{Interest Paid} + \text{Issue Cost}}{\text{Loan Amount}}$$

- Interest Paid = $\text{Loan Amount} \times \text{Nominal Interest Rate} = 5,00,000 \times 0.12 = \text{Tk. } 60{,}000$
- Issue Cost = Tk. 25,000

$$\text{Effective Rate} = \frac{60,000 + 25,000}{5,00,000} \times 100 = \frac{85,000}{5,00,000} \times 100 = 17\% \text{ per annum}$$

Conclusion: The effective annual cost of issuing commercial paper is **17%**.