BANKING MODUL

ON BALANCE SHEET ASSET PRODUCTS

Prepared by Ahmad Subagyo
www.ahmadsubagyo.com
<table>
<thead>
<tr>
<th>No.</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Banking</td>
</tr>
<tr>
<td>2</td>
<td>Bank Financial Statement and Performance</td>
</tr>
<tr>
<td>3</td>
<td>On Balance Sheet Asset Products</td>
</tr>
<tr>
<td>4</td>
<td>Consumer/Retail Banking</td>
</tr>
<tr>
<td>5</td>
<td>On Balance Sheet Liability Management</td>
</tr>
<tr>
<td>6</td>
<td>Payment System and Electronic Banking</td>
</tr>
<tr>
<td>7</td>
<td>Trade Product</td>
</tr>
</tbody>
</table>
ON BALANCE SHEET ASSET PRODUCTS - CORPORATE

1.1 Types of corporate lending products
1.2 Lending Policies and Procedures
1.3 Lending to Business Firms and Pricing Business Loans
Lesson 1.1
TYPES OF CORPORATE LENDING PRODUCTS

GOALS
List type of corporate banking lending products
Making loans is the principal economic function of banks. For most banks, loans account for half or more of their total assets and about half to two-thirds of their revenues.

Risk in banking tends to be concentrated in the loan portfolio. Uncollectable loans can cause serious financial problems for banks.
TYPES OF LOANS MADE BY BANKS

- Real Estate Loans
  Credit extended to purchase or improve real property, such as land and buildings.

- Financial Institution Loans
  Credit extended to banks and other financial service providers.

- Agriculture Loans
  Credit extended to support farm and ranch operation

- Commercial and Industrial Loans
  Credit extended to business firms to support the production and distribution of their products and services.

- Loans to individuals
  Credit extended to household.

- Lease Financing Receivables
Lesson 1.2
LENDING POLICY AND PROCEDURES

GOALS

Explain why sound lending policies are important to banks and other lenders and the public they serve and how to spot and deal with problem loans when they appear in an institution’s portfolio.
BANK’S WRITTEN LOAN POLICY

1. Goal Statement for Bank’s Loan Portfolio
2. Specification of Lending Authority of Each Loan Officer and Committee
3. Lines of Responsibility in Making Assignments and Reporting Information
4. Operating Procedures for Reviewing, Evaluating and Making Loan Decisions
5. Required Documentation for All Loans
6. Lines of Authority for Maintaining and Reviewing Credit Files
7. Guidelines for Taking and Perfecting Collateral
8. Policies and Procedures for Setting Loan Interest Rate
9. Statement of Quality Standards for All Loans
10. Statement of Upper Limit for Total Loans Outstanding
11. Description of the Bank’s Principal Trade Area
12. Discussion of the Preferred Procedures for Detecting, Analyzing and Working Out Problem Loans
STEPS IN LENDING PROCESS

- The customer fill out a loan application
- An interview with a loan officer usually follows right away
- If a business or mortgage loan is applied for, a site visit is usually made by an officer of the bank to assess the property
- The customer is asked to submit several crucial documents, such as financial statements
- The credit analysis division of the bank analyses the application and prepares a brief summary and recommendation
- Recommendation goes to the loan committee for approval
- If the loan is approved, the loan officer check on the property that is pledged as collateral in order to ensure that the bank has immediate access to the collateral if the loan agreement is defaulted. This is often referred to as perfecting the bank’s claim to collateral.
CREDIT ANALYSIS

The division of the bank responsible for analyzing and making recommendations about loan applications is the credit department.

Is the Borrower Creditworthy?
This usually involves a detailed study of six aspects of the loan application: character, capacity, cash, Collateral, conditions, and control.
THE SIX BASIC C’s OF LENDING

1. **Character** – Specific Purpose of Loan and Serious Intent to Repay Loan
2. **Capacity** – Legal Authority to Sign Binding Contract
3. **Cash** – Ability to Generate Enough Cash to Repay Loan
4. **Collateral** – Adequate Assets to Support the Loan
5. **Conditions** – Economic Conditions Faced By Borrower
6. **Control** – Does Loan Meet Written Loan Policy and How Would Loan Be Affected By Changing Laws and Regulations
COMMON TYPE OF COLLATERAL

- Accounts Receivables
- Inventory
- Real Property
- Personal Property
- Personal Guarantees
Altman’s Z-Score

\[ Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5 \]

- \( X_1 \) = working capital to assets
- \( X_2 \) = retained earnings to total assets
- \( X_3 \) = Earnings before interest and taxes divided by total assets
- \( X_4 \) = market value of equity divided by book value of liabilities
- \( X_5 \) = sales divided by total assets

Lower bound 1.80 (fail)
Upper bound 2.99 (nonfail)
Zone of ignorance 1.80 to 2.99
ANALYSING CUSTOMERS’ FINANCIAL STATEMENTS

1. Common Size Ratios of Customer Over Time
Common-size ratios are given in percentages such as percentages of total assets and percentages of total sales. These percentage-composition ratios control for differences in size of firm, permitting the loan officer to compare a particular business customer with other firms and with the industry as a whole.

2. Financial Ratio Analysis of Customer’s Financial Statements
Information from balance sheets and income statements allow us to do a financial ratio analysis. The financial ratio analysis gives us information about a business in the following areas:
   - Control Over Expenses
   - Operating Efficiency
   - Marketability of Product or Service
   - Coverage
   - Liquidity and Profitability
   - Leverage

3. Current and Pro Forma Sources and Uses of Funds Statement
FINANCIAL RATIOS (1)

- Control over expense. A borrowing customer’s ability to control its expenses is an important indicator of its management quality and its earnings prospects for the future. These ratios are:
  - Wages and salaries/net sales
  - Overhead expenses/net sales
  - Depreciation expenses/net sales
  - Interest expense on borrowed funds/net sales
  - Cost of goods sold/net sales
  - Selling, administrative and other expenses/net sales

- Operating efficiency shows how effectively are assets being utilized to generate sales and cash flow for the firm and how efficiently are sales converted into cash? Important financial ratios here are:
  - Annual cost of goods sold/average inventory
  - Net sales / Total assets
  - Net sales/ Net fixed assets
  - Net sales/ Accounts and notes receivable
  - Average collection period = Accounts receivable/ Annual credit sales /360
FINANCIAL RATIOS (2)

- **Marketability of Product or Service.** A business has to be able to market its products or services successfully in order to generate adequate cash flows to repay a loan. In this respect we analyze the growth rate of sales revenues, changes in the business customer’s share of the available market, and the gross profit margin (GPM).
  - GPM = Net sales - Cost of goods sold / Net sales
  - NPM = Net income after taxes / Net sales

- **Coverage Ratios: Measuring the Adequacy of Earnings.** Coverage refers to the protection afforded creditors of a firm based on the amount of the firm’s earnings. The best known coverage ratios include the following:
  - Interest coverage = EBIT / Interest payments
  - Coverage of all fixed assets = EBIT and lease payments / (Interest payments + Lease payments)
  - Coverage of interest and Principle payments = Income before interest and taxes / {Interest payments + (Principal Repayments / 1 - Firms marginal tax rate)}
FINANCIAL RATIOS (3)

- **Liquidity Indicators.** The borrower’s liquidity position reflects his or her ability to raise cash in timely fashion at reasonable cost, including the ability to meet loan payments when they come due.
  - Current ratio = Current assets / Current liabilities
  - Acid-test ratio = Current assets – Inventory / Current liabilities
  - Net liquid assets = Current assets – Inventories of raw materials or goods – Current Liabilities
  - Net working capital = Current assets – current liabilities

- **Profitability Indicators.** Most loan officers look at both pretax net income and after-tax net income to measure the overall financial success or failure of a prospective borrower relative to comparable firms in the same industry.
  - Before-tax net income / total assets, net worth, or total sales
  - After-tax net income / total assets, net worth, or total sales
**Financial Leverage.** Any lender of funds is concerned about how much debt a borrower has taken on in addition to the loan being applied for. The financial leverage refers to the use of debt in the hope that the borrower can generate earnings that exceed the cost of debt, thereby increasing the potential return to a business firm’s owners (stockholders). Key financial ratios are:

- **Leverage Ratio** = Total Liabilities / Total assets
- **Capitalization Ratio** = Long-term debt / Total long-term liabilities and net worth
- **Debt-to-sales ratio** = Total liabilities / Net sales

**High Leverage Ratio:**
The higher the leverage ratio becomes, the less likely it is that additional loans will be granted to a customer until he or she pays down some of the outstanding indebtedness. Moreover, if a loan is granted to a highly leverage borrower, it is likely to carry a higher interest rate plus a requirement that more collateral be pledged.

**Capitalization Ratio:**
The capitalization ratio focuses upon the business customer’s use of permanent financing, essentially comparing the degree to which the firm is supported by long-term creditors as opposed to its owners’ equity capital (net worth).

**Debt-to-Sales Ratio:**
Business debt can also be linked to business sales, because those sales ultimately provide the funds needed to retire the debt. If a firm’s liabilities increase relative to its sales, management will have to compensate for the heavier debt burden by either finding less-expensive sources of credit or lowering expenses.
PARTS OF TYPICAL LOAN AGREEMENT

- The Note
- Loan Commitment Agreement
- Collateral
- Covenants
  - Affirmative
  - Negative
- Borrower Guaranties and Warranties
- Events of Default
PARTS OF TYPICAL LOAN AGREEMENT

1. The Note: It is signed by the borrower and it specifies the principal amount, interest rate, and the term of repayment.

2. Loan Commitment Agreement: This is done for large loans and home mortgage loans. Bank promises to make credit available to the borrower over a certain period.

3. Collateral: Bank loans may be either secured or unsecured.

4. Covenants: Most formal loan agreements contain restrictive covenants, which are usually one of two types:
   
   **Affirmative Covenants:** Require the borrower to take certain actions, such as periodically filing financial statements with the bank, maintaining insurance coverage on the loan and on any collateral pledged.

   **Negative Covenants:** Restrict the borrower from doing certain things without the bank's approval, such as taking on new debt, acquiring additional fixed assets, participating in mergers, and selling assets.

5. Borrower Guaranties or Warranties: The borrower guarantees or warranties that the information supplied in the loan application is true and correct.

6. Events of Default: Most loans contain a section listing events of default, specifying what actions or inactions by the borrower would represent a significant violation of the terms of the loan agreement, and what actions the bank is legally take in order to secure its funds.
WARNING SIGNS OF PROBLEM LOANS

- Unusual or Unexpected Delays in Receiving Financial Statements
- Any Sudden Changes in Accounting Methods
- Restructuring Debt or Eliminating Dividend Payments or Changes in Credit Rating
- Adverse Changes in the Price of Stock
- Net Earnings Losses in One or More Years
- Adverse Changes in Capital Structure
- Deviations in Actual Sales from Predictions
- Unexpected and Unexplained Changes in Deposits
LENDING TO BUSINESS FIRMS AND PRICING BUSINESS LOANS

GOALS

Explore explore how bankers can respond to a business customer seeking a loan and to reveal the factors they must consider in evaluating a business loan request.

Explain the different methods used by bankers today to price business loans and to evaluate the strengths and weaknesses of these pricing methods for achieving a bank’s goals.
SHORT TERM LOANS

- **Self-Liquidating Inventory Loans**
  These loans usually are used to finance the purchase of inventory raw materials or finished goods to sell. Such loans take advantage of the normal cash cycle in a business firm. It takes about 60-90 days to borrow the cash and pay it back.

- **Working Capital Loans**
  Provide business with short-run credit, lasting from a few days to about one year. The working capital loan is designed to cover seasonal peaks in the business customer's production levels and credit needs.

- **Interim Construction Loans**
  A popular form of secured short-term lending for most commercial banks is the interim construction loan, used to support the construction of homes, apartments, office buildings, shopping centers, and other permanent structures.

- **Retailer Financing**
  Banks support consumer installment purchases of automobiles, home appliances, furniture, and other durable goods by financing the receivables that dealers selling these goods take on when they write installment contracts to cover customer purchases.

- **Asset-Based Financing**
  In asset-based loans, credit secured by the shorter-term assets of a firm that are expected to roll over into cash in the future. The key business assets used for the majority of these loans are accounts receivable and inventories of raw materials or finished goods.
LONG TERM LOANS

- Term Loans
  Term loans are designed to fund long and medium-term business investments, such as the purchase of equipment or the construction of physical facilities, covering a period longer than one year. The loan is paid in monthly or quarterly installments. Term loans are secured by fixed assets (e.g. plant or equipment) owned by the borrower and may carry either a fixed or a floating interest rate.

- Revolving Credit Lines
  Revolving credit line allows a business customer to borrow up to a prespecified limit, repay all or a portion of the borrowing, and reborrow as necessary until the credit line matures. One form of business revolving credit is the use of credit cards.

- Project Loans
  The most risky of all business loans are project loans – credit to finance the construction of fixed assets designed to generate a flow of revenue in future periods. Eg oil refineries, pipelines, mines, power plants, bridges, and harbor facilities.

- Loans to Support Acquisitions of Other Business Firms
SYNDICATED LOANS

A Loan or Line of Credit Extended to a Business Firm By a Group of Lenders in Order to Reduce the Risk Exposure to Any One Lending Institution
MSME = MICRO SMALL MEDIUM ENTERPRISE

DEFINITION VARIES ACROSS COUNTRIES, BUT IN GENERAL,
- **MICROENTERPRISES** HAVE BETWEEN 1-5 EMPLOYEES AND THEY OPERATE MORE INFORMALLY.
- **SMALL ENTERPRISES** HAVE BETWEEN 6-10 EMPLOYEES
- **MEDIUM ENTERPRISES** HAVE BETWEEN 11-100 EMPLOYEES AND CARRY OUT THEIR ACTIVITIES IN AN ORGANIZED AND FORMAL WAY

COMMON CHARACTERISTIC MICRO AND SMALL ENTERPRISE
- THEY ARE ENTREPRENEURS WHO DO NOT POSSESS SUFFICIENT COLLATERAL TO QUALIFY FOR COMMERCIAL BANK LOANS
- THEY HAVE NONE OR LIMITED CREDIT HISTORY
- THEY ARE FAMILY BUSINESSES AND HAVE LESS THAN 10 EMPLOYEES

WHY DOES THE FINANCING OF MSEs DESERVE A SPECIAL TREATMENT RELATIVE TO OTHER BUSINESSES?
- MSE HAS A LIMITED OR NO ACCESS TO BANK CREDIT AS COMPARED TO LARGE BUSINESSES
- THERE IS A STRONG EXCESS DEMAND FOR BANK CREDIT FROM THE MSME SECTOR
METHODS USED TO PRICE BUSINESS LOANS

- Cost-Plus Pricing Models
- Price Leadership Pricing Models
- Below Prime Market Pricing (Markup Model)
- Loans Bearing Maximum Interest Rates
- Customer Profitability Analysis
### COST PLUS

<table>
<thead>
<tr>
<th>Loan Interest Rate</th>
<th>Marginal Cost of Raising Loanable Funds to Lend to Borrower</th>
<th>Nonfund Bank Operating Costs</th>
<th>Estimated Margin to Compensate Bank for Default Risk</th>
<th>Bank's Desired Profit Margin</th>
</tr>
</thead>
</table>

- Cost of Loanable Funds (how much banks pay for deposits, or borrowed funds)
- Operating Cost (wages and salaries, rent)
- Compensation for the Default Risk (how much of banks’ loan portfolio is not repaid)
- Profit Margin (after paying all expenses how much profit will banks make)

**Example:**
- Loan size: $5 million
- Marginal cost of loanable funds: 5%
- Operating cost: 2%
- Default risk: 2%
- Profit margin: 1%

Loan interest rate = 5 + 2 + 2 + 1 = 10%
Prime Rate (Base Rate):

Prime rate or the base rate is the lowest rate charged on a bank’s most credit worthy customers on short-term, working capital loans.

Example: 3 year, medium-sized business customer, if the prime rate = 8%,

default risk = 2%, term risk = 2%,

the loan rate is = 8 + 2 + 2 = 12%
## Below Prime Market

<table>
<thead>
<tr>
<th>Loan Interest Rate</th>
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<th>Interest Cost of Borrowing in the Money Market</th>
<th>+</th>
<th>Markup for Risk and Profit</th>
</tr>
</thead>
</table>
CAP RATE MODEL

Banks Offer a Floating Rate Loan With an Agreed Upon Upper Limit on the Loan Contract Regardless of the Course of Future Interest Rates

Example:

- Assume that a borrowing customer is offered a prime-plus-2 floating rate loan with a cap of 5 percentage points above the initial loan rate. This means that if the loan were made when the prime was 10%, the initial loan rate would be $10\% + 2\% = 12\%$.

- But the rate could rise no higher than 17%.
COST-BENEFIT LOAN PRICING

- Some banks have developed sophisticated loan-pricing systems that indicate whether the bank is charging enough for a loan to fully compensate it for all the costs and risks involved. One such system is called cost-benefit loan pricing. This system has three steps:
  1. Estimate the total revenue the loan will generate under a variety of loan interest rates and other fees
  2. Estimate the net amount of loanable funds
  3. Estimate the before-tax yield from the loan by dividing the estimated loan revenue by the net amount of loanable funds the borrower will actually use.
COST-BENEFIT LOAN PRICING

- Suppose a customer requests a $5 million line of credit, but actually uses only $4 million at a contract loan rate of 20%. The customer is asked to pay a commitment fee of 1% of the unused portion of the credit line. Moreover, the bank insists that the customer maintain a deposit (compensating balance) equal to 20% of the amount of the credit line actually used and 5% of any unused portion of the line. Deposit reserve requirements imposed by the central bank are assumed to be 10%. From this information, we have the following:

  - Estimated loan revenue: $4,000,000 \times 0.10 + 1,000,000 \times 0.01 = $810,000
  - Estimated bank funds used by the borrower: \$4,000,000 - ($4,000,000 \times 0.20 + $1,000,000 \times 0.05) + 0.10($4,000,000 \times 0.20 +$1,000,000 \times 0.05) = $3,235,000
  - Estimated (before tax) yield to the bank from the loan: $810,000 / $3,235,000 = 25.0%
This loan pricing method begins with the assumption that the bank should take the whole customer relationship into account when pricing each loan request. CPA focuses on the rate of return from the entire customer relationship, calculated from the following formula:

\[
\text{Net (before tax)} \times \frac{\text{Revenue from loans and other services provided}}{\text{Rate of return to these services}} \times \frac{\text{Expenses from providing loans}}{\text{Net loanable funds used in excess of this}}
\]

\[
\text{bank from the whole customer relationship = to this customer to this customer}
\]
**Revenues:** Loan interest, commitment fees, fees for cash management services, and data processing charges.

**Expenses:** wages and salaries of bank employees, credit investigation costs, interest accrued on deposits, account reconciliation and processing costs (including checks paid, loan and deposit recordkeeping and collection)

**Net Loanable Funds:** are the amount of credit used by the customer minus his or her average collected deposits (adjusted for required reserve)