Financial Market & Statement Analysis

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Course Code : 0412-727, 0412-644	**Credits : 03**
Semester End Exam (SEE) Hours : 03	CIE Marks : 90 SEE Marks : 60

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Rationale of the Course:

- This course provides students with essential skills to understand financial market dynamics and evaluate the financial health of organizations. Students learn how financial markets operate, the role of various assets, and how economic indicators impact investment decisions.
- The course also covers the analysis of key financial statements—such as income statements, balance sheets, and cash flows—to assess a company's performance, profitability, liquidity, and solvency.

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Course Learning Outcomes: At the end of the Course, the Student will be able to-

CLO 1	Understand the fundamentals of financial markets, including their structure, key participants, and how various financial instruments are traded.
CLO 2	Explain the roles and functions of financial institutions, including banks, insurance companies, investment firms, and central banks, in the economy and financial system.
CLO 3	Analyze and interpret key financial statements (income statement, balance sheet, cash flow) to evaluate company performance and financial health.
CLO 4	Apply financial ratios and performance metrics to assess profitability, liquidity, and solvency.
CLO 5	Develop critical thinking skills to make informed decisions regarding investments, financial analysis, and corporate financial strategies.

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Course Contents:

Serial No.	Contents	Hours	CLOs
01	Introduction to Financial Market and Money Market & Capital Market	5	CLO1
02	Financial Institutions	3	CLO2
03	Financial Statements	4	CLO3
04	Income statement, Financial position or balance sheet and Cash flows statement	10	CLO3 CLO5
05	Financial Ratio Analysis	10	CLO4 CLO5

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Text Books:

- Accounting Principles, 12th Edition by Weygandt, Kimmel & Kieso.

Reference Books:

- Intermediate Accounting, 17th edition by *Kieso*, Weygandt, and Warfield.
- Belverd E. Needles, Marian Powers and Susan V. Crosson. *Principles of Accounting* (Houghton Mifflin Company).

Course Plan specifying content, CLOs, Teaching Learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching Learning Strategy	Assessment Strategy	Aligned to CLOs
1	**Introduction to Financial Market:** Definition of Financial market, Functions of Financial market, Components of financial market, Structure of Financial market.	Lecture Discussion	Question & Answer (Oral)	CLO 1

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2	**Money Market & Capital Market: Definition of money market and capital market, Money market instruments and capital market instruments, Functions of money market and capital market.**	**Lecture Discussion**	**Question & Answer (Oral) Class test**	**CLO1**
3	**Primary Market & Secondary Market:** Definition of stock exchange, Primary market and secondary market, Definition of banking and functions, Central Banking definition and functions, CRR, SLR.	Lecture Discussion Problem Solving Exercise Home work	Question & Answer (Oral)	CLO1

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4	QUIZ/ASSIGNMENT/CASE STUDY/PRESENTATION	Written exam MCQ test Assignment Presentation	Written exam MCQ test Oral test	
5	**Financial Institutions:** Definition of Financial Institutions, Functions, Objectives of FI, Central banking, Commercial Bank, Investment bank, Islamic Banking, Insurance company, Leasing company, Savings banks, Non-Banking Financial Institutions, Mutual Fund.	Lecture Discussion Exercise Assignment	Question & Answer (Oral)	CLO 2

6	**Financial Statements: Definition of Financial statements, Types of financial statements, Elements of financial statements.**	▪ **Lecture** ▪ **Discussion** ▪ **Home work**	▪ **Question & Answer (Oral)**	**CLO3** **CLO5**
7	**Financial Statements:** Classifications of different types of assets and liabilities, Format of financial statements	▪ Lecture ▪ Discussion ▪ Problem Solving ▪ Exercise	▪ Question & Answer (Oral) ▪ Class Test	CLO3

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8	**Income statement: Definition, Objectives of income statement, Procedure of preparing income statement, Income statement exercise.**	▪ **Lecture** ▪ **Discussion** ▪ **Problem Solving** ▪ **Home work**	▪ **Question & Answer (Oral)**	**CLO3** **CLO5**
9	**Financial position or balance sheet:** Financial position or balance sheet exercise, Income statement and Financial position or balance sheet exercise	▪ Lecture ▪ Discussion ▪ Oral Presentation	▪ Question & Answer (Oral) ▪ Class Test	CLO3

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10	**Classified Income statement & balance sheet:** **Preparation of classified income statement and balance sheet with examples.**	▪ **Lecture** ▪ **Discussion** ▪ **Problem Solving** ▪ **Exercise** ▪ **Home work**	▪ **Question & Answer (Oral)**	**CLO3** **CLO5**
11	**Cash flows statement:** Definition, Objectives, Classification and methods of cash flows, Cash flows from operating, investing and financing activities.	▪ Lecture ▪ Discussion ▪ Problem Solving ▪ Oral presentation	▪ Question & Answer (Oral) ▪ Class Test	CLO3 CLO4

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12	**QUIZ/ASSIGNMENT/CASE STUDY/PRESENTATION**	▪ **Written exam** ▪ **MCQ test** ▪ **Assignment** ▪ **Presentation**	▪ **Written exam** ▪ **MCQ test** ▪ **Oral test**	
13	**Cash flows statement:** Exercise of Cash flows statement.	▪ Lecture ▪ Discussion ▪ Problem Solving ▪ Exercise	▪ Question & Answer (Oral) ▪ Class Test	CLO2 CLO3

14	**Financial Ratio Analysis: Definition, Objectives, Different types of financial ratios.**	▪ **Lecture** ▪ **Discussion**	▪ **Question & Answer (Oral)** ▪ **Class Test**	**CLO4** **CLO5**
15	**Financial Ratio Analysis:** Horizontal analysis, Vertical analysis and Trend analysis.	▪ Lecture ▪ Discussion ▪ Problem Solving ▪ Exercise	▪ Question & Answer (Oral)	CLO4 CLO5

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16	**Financial Ratio Analysis: Industry average method, Financial ratio analysis numerical examples.**	▪ **Lecture** ▪ **Discussion** ▪ **Problem Solving** ▪ **Exercise** ▪ **Assignment**	▪ **Question & Answer (Oral)** ▪ **Class Test**	**CLO4** **CLO5**
17	**Problem solving and revision class/makeup class**	▪ Lecture ▪ Discussion ▪ Problem Solving	▪ Question & Answer (Oral)	CLO3 CLO4 CLO5

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ASSESSMENT PATTERN

Total Marks Per Credit 50 Marks	
3 Credits Course	150 Marks
2 Credits Course	100 Marks
CIE	60%
SEE	40%

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CIE- Continuous Internal Evaluation (90 Marks)

Bloom's Category	Quiz	Assignments	External Participation in Curricular/ Co-curricular activities	Test (45)
Marks (out of 90)	(15)	(15)	(15)	
Remember			Bloom's affective domain: (Attitude or Will) Attendance: 15 Copy or Attempt to copy: -10 Late Assignment: -10	10
Understand	05	05		05
Apply	05			10
Analyze		05		05
Evaluate	05	05		10
Create				05

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SEE- Semester End Examination (60 Marks)

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

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Financial Market and Statement Analysis

Course Instructor:

Murshed Alam

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Financial Market

Week- 1 (Slide 1-6)
Week-2 (Slide 7-15)
Week-3 (Slide 16-26)

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After studying this chapter, the students will be able to..

*Define financial market
*Explain the financial market
*Differentiate money market vs. capital market
* Differentiate primary market vs. secondary market
* Explain the bank and central bank

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Financial market

Definition: Financial market is the place where the different types of securities & instruments like share, debenture, bond, mutual fund etc. are bought or sold.

The role of financial market is the movement of funds from the savings sector to the investment sectors.

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Functions of Financial Market

1. The mobilization of savings and their channelization into more productive uses.
2. It is helpful to discover the price of their securities on the basis of the demand and supply.
3. It provides the liquidity to the financial asset.
4. It reduces the cost of transactions.

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Components of Financial market

- Capital market: It consists of stock market and bond market.
- Commodity market: It provides the scope for trading in commodities.
- Money market: It facilitates the short-term debt financing and investment.
- Derivatives market: It specializes the financial risk sharing and risk management.
- Futures market: It issues the contracts for trading commodities at some future date.
- Foreign exchange market: It specializes in trading of foreign exchange and international currencies.

Money Market

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Definition:

- Money market is a mechanism through which short term financial instruments like Commercial Paper, Certificate of Deposit, Treasury Bills etc. are traded.
- They are highly liquid (cash equivalents) in nature, and that is why their redemption period is limited to one year. They provide a low return on investment, but they are quite safe trading instruments. All commercial banks are the members of money market.

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Money market instruments

The money market instruments include:

a) Treasury bill
b) Commercial paper
c) Banker's acceptance
d) Repurchase agreement
e) Negotiable certificate of deposit

Treasury bill: Treasury bill are short-term, non-interest bearing obligations, issued at a discount and redeemed at maturity for full face value. T-bills are free of default risk as these are fully guaranteed by the government.

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Commercial paper: Commercial paper consists of short-term, unsecured promissory notes issued by well-known companies that are financially strong and carry high credit ratings.

Banker's acceptance: Banker's acceptance is a time draft drawn on a bank by an exporter or an importer to pay for the merchandise or to buy foreign currencies. If the bank honors the draft, it will stamp "accepted" on its face and endorse the instrument.

Repurchase agreement: Under this agreement, the dealer sells securities to a lender but makes a commitment to buy back the securities at an established higher price at a specified future time.

Negotiable certificate of deposit (CD): It is a short term investment, negotiable time deposit at a commercial bank or savings institution paying a fixed or variable rate of interest for specified time.

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Functions of money market

1. It provides short-term funds to the public and private institutions needing such financing for their working capital requirement.
2. It provides an opportunity to banks and other institutions to use their surplus funds profitably for a short period.
3. The money market helps the govt. in borrowing short-term funds at low interest rates on the basis of treasury bills.

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4. A well developed money market helps in the successful implementation of the monetary policies of the central bank.

5. The money market helps in financial mobility by facilitating the transfer for funds from one sector to another.

6. The Money market promotes liquidity and safety of financial assets.

7. The money market brings equilibrium between the demand and supply of loanable funds.

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Definition

- Capital market is the financial market where the government or company securities are created and traded for the purpose of raising long-term finance to meet the capital requirement.
- The securities which are traded includes stocks, bonds, debentures, etc. whose maturity period is not limited up to one year or sometimes the securities are irredeemable (no maturity).

Difference between money market and capital market

Money market	Capital market
1. Money market is a mechanism through which short term funds are loaned and borrowed.	1. It is a market in which long-term securities like shares, debentures, bonds etc. are traded and exchanged.
2. It supplies current capital for the short term.	2. It supplies fixed capital for the long term.
3. Money market is a part of capital market.	3. Capital market is a part of financial market.
4. Money market has low risk	4. It has high risk of investment.
5. Central bank controls the money market.	5. Securities and Exchange Commission controls the capital market.

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and capital market

Money market	Capital market
6. The main instruments of money market are commercial papers, treasury notes, treasury bills, banker's acceptance.	6. The main instruments of capital market are share, bond, debenture and treasury bond etc.
7. Transaction cost is minimum in this market.	7. It has higher cost than money market.
8. Commercial banks are the main stakeholders of this market.	8. Listed companies are the principal stakeholders of this market.

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Stock exchange

Definition: Stock exchange is an organized market for the purchase and sale of industrial and financial security. It is convenient place where trading in securities is conducted in systematic manner according to rules and regulations adopted by securities exchange commission (SEC).

The investor can invest in share market through two markets-

1. Primary market and
2. Secondary market

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Primary market:

A market where fresh securities are offered to the public for subscription is known as Primary Market. Companies issue new securities like stock and bonds to raise capital. Initial Public Offering (IPO) is the typical method to issue new stocks in the primary market.

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Secondary market:

A market where already issued securities are traded among investors is known as Secondary Market. Here, the investors purchase securities from other investors not from the issuing companies. The price of a particular security is determined in secondary market by the force of demand and supply.

Difference between primary market and secondary market

Primary market	Secondary market
1. A market where fresh securities are offered to the public for subscription is known as Primary Market	1. A market where already issued securities are traded among investors is known as Secondary Market.
2. The main purpose of primary markets is to enter the secondary market by issuing new securities.	2. It's main purpose is to stabilize the capital market by providing facilities of buying and selling securities.
3. Investment in primary market is less risky.	3. Investment in secondary market is more risky.
4. The price of securities in primary market is fixed.	4. In this market, price fluctuates continuously.

Difference between primary market and secondary market

Primary market	Secondary market
5. Merchant bankers and underwriters are major intermediaries in this market.	5. Brokers and depositors are the main intermediaries in this market.
6. Primary markets are short-term markets.	6. Secondary markets are long-term markets.
7. The period of transaction is fixed in the primary market.	7. The period of transaction is not fixed in the secondary market.

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The functions of Central bank

1. Control of the money supply to avoid severe inflation.
2. Regulation and supervision of commercial banks and other financial institutions
3. Controlling the foreign exchange
4. Stabilizing the money market and capital market.

5. Maintaining and improving the payment mechanism.

6. Achieving maximum sustainable output and employment

7. Promoting stable prices

8. Acting as banker to the government

9. Money laundering prevention.

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Bank Company

Definition: Banks are the financial institutions that accept deposit and channel the money into lending activities. Bank business is basically conducted by the money of depositors. In our country, banking business is regulated by Banking Company Act-1991.

Functions of Bank Company:

1. The borrowing, raising and taking up of money.
2. The lending or advancing of money either upon or without security
3. Granting and issuing of letter of credit, travelers cheque, bank cards etc.

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Functions of Bank Company

4. Buying and selling of foreign exchange including foreign bank notes
5. Receiving of all kinds of bonds or other valuables on deposit or for safe custody.
6. Providing of vaults for the safety of the deposits.
7. Acting as agents for the govt., local authorities or any other person.
8. Undertaking and executing trusts

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Minimum paid up capital and reserve:

All commercial banks of Bangladesh need to maintain tk. 400 crore as their paid up capital and reserve. Of the amount, the paid up capital must worth a minimum of tk. 200 crore.

Cash Reserve Ratio (CRR):

Cash reserve ratio is the minimum specified amount of the total deposits of customers that commercial banks have to hold with the central bank.

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Statutory Liquidity Ratio (SLR):

Statutory Liquidity ratio is the amount that banks require to maintain in its reserve in the form of liquid assets, such as gold or govt. approved securities. Bangladesh bank determines these two rates to regulate the money supply in the economy.

Financial Institutions

Week-5

After studying this chapter, the students will be able to…

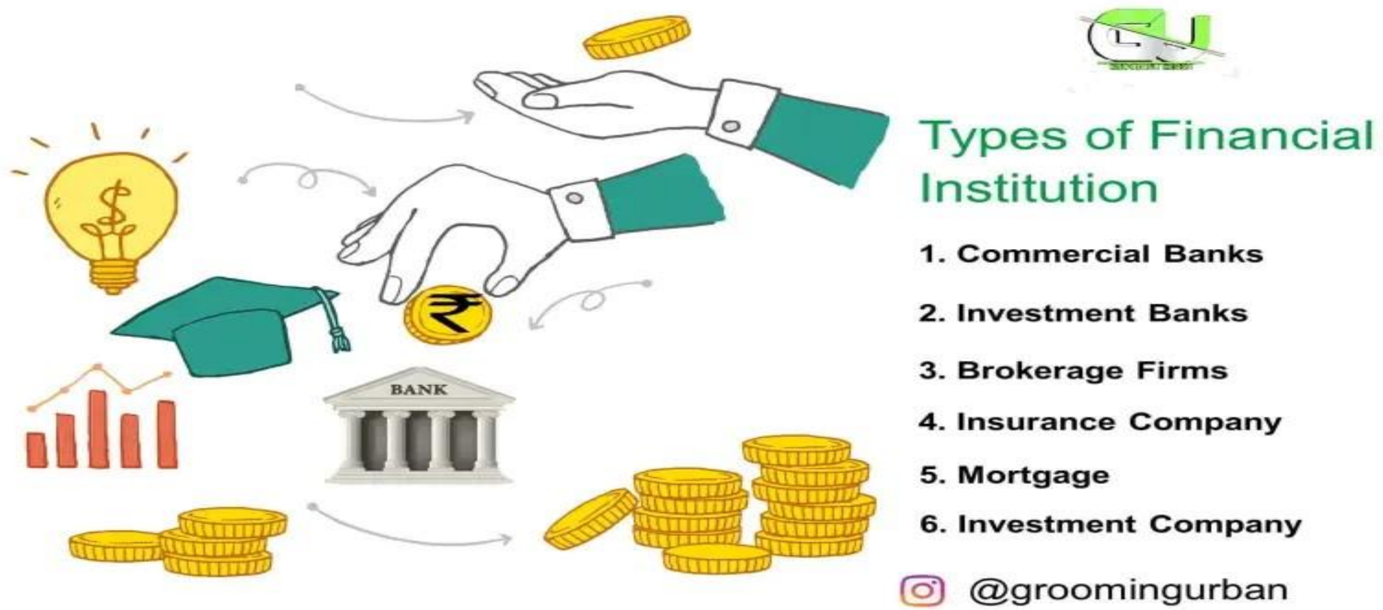
- ❑ Define financial institutions
- ❑ Explain the types of financial institutions
- ❑ Describe the non-banking financial institutions

Definition:

In financial economics, a financial institution acts as an agent that provides financial services for its clients. Financial institutions generally fall under financial regulation from a government authority.

Types of Financial Institutions

Common types of financial institutions include banks, Insurance Co, Leasing Co, Investment Co, Mutual Funds etc.



Banks

- A **bank** is a commercial or state institution that provides financial services, including issuing money in various forms, receiving deposits of money, lending money and processing transactions and the creating of credit.

1. Central Bank

- A **central bank**, **reserve bank** or **monetary authority**, is an entity responsible for the monetary policy of its country or of a group of member states, such as the Bangladesh Bank (BB) of Bangladesh, European Central Bank (ECB) in the European Union, the Federal Reserve System in the United States of America, State Bank in Pakistan.

1. Central Bank

- Its primary responsibility is to maintain the stability of the national currency and money supply, but more active duties include controlling subsidized-loan interest rates, and acting as a *“lender of last resort”* to the banking sector during times of financial crisis

2. Commercial Banks

- A commercial bank accepts deposits from customers and in turn makes loans, even in excess of the deposits; a process known as fractional-reserve banking.

3. Investment Banks

Investment banks help companies and governments and their agencies to raise money by issuing and selling securities in the primary market. They assist public and private corporations in raising funds in the capital markets (both equity and debt), as well as in providing strategic advisory services for mergers, acquisitions and other types of financial transactions.

4. Saving Banks

- A **savings bank** is a financial institution whose primary purpose is accepting savings deposits. It may also perform some other functions.

5. Micro Finance Banks

- For the purpose of poverty reduction program, such kind of banks are working in the different countries with the contribution of UNO or World Bank.

6. Islamic Banks

- **Islamic banking** refers to a system of banking or banking activity that is consistent with Islamic law (*Sharia*) principles and guided by Islamic economics. In particular, Islamic law prohibits usury, the collection and payment of interest, also commonly called *riba* in Islamic discourse.

7. Specialized Banks

BKB & RKUB

- The **Bangladesh Krishi Bank** and **Rajshahi Krishi Unnayan Bank** are the Specilized bank for the welfare of remote area.
- It is the premier financial institution geared towards the development of the agricultural sector through the provision of financial services and technical know-how.

7. Specialized Banks

SME Bank

- Promote the business.
- Positive impact on Financial environment.
- Financing of projects.
- Tell revenue generation schemes to entrepreneurs.

8. Non-banking financial company

- **Non-bank financial companies** (NBFCs) also known as a **non-bank** or a **non-bank bank**, are financial institutions that provide banking services without meeting the legal definition of a bank, i.e. one that does not hold a banking license.

8. Non-banking financial company

- Operations are, regardless of this, still exercised under bank regulation. However this depends on the jurisdiction, as in some jurisdictions, such as New Zealand, any company can do the business of banking, and there are no banking licenses issued.

8. Non-banking financial company

- Non-bank institutions frequently acts as suppliers of loans and credit facilities, supporting investments in property, providing services relating to events within peoples lives such as funding private education, wealth management and retirement planning

8. Non-banking financial company

- However they are typically not allowed to take deposits from the general public and have to find other means of funding their operations such as issuing debt instruments. In India, most NBFCs raise capital through Chit Funds.

9. Investment company

- Generally, an "investment company" is a company (corporation, business trust, partnership, or limited liability company) that issues securities and is primarily engaged in the business of investing in securities.

9. Investment company

- An investment company invests the money it receives from investors on a collective basis, and each investor shares in the profits and losses in proportion to the investor's interest in the investment company.

11. Leasing Companies

A **lease** or **tenancy** is the right to use or occupy personal property or real property given by a lessor to another person (usually called the lessee or tenant) for a fixed or indefinite period of time, whereby the lessee obtains exclusive possession of the property in return for paying the lessor a fixed or determinable consideration (payment).

12. Insurances Companies

Insurance companies may be classified as

1. *Life* insurance companies, which sell life insurance, annuities and pensions products.
2. *Non-life* or *general* insurance companies, which sell other types of insurance.

Mutual Fund

An investment which is comprised of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market securities and similar assets.

Mutual funds are operated by money mangers, who invest the fund's capital and attempt to produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

10. Brokerage Houses

- Stock brokers assist people in investing, online only companies are called 'discount brokerages', companies with a branch presence are called 'full service brokerages' or 'private client services.

Financial Institution Functions

Financial institutions provide a service as intermediaries of the capital and debt markets. They are responsible for transferring funds from investors to companies, in need of those funds. The presence of financial institutions facilitate the flow of cash through the economy.

Financial Institution Functions

- To do so, savings accounts are pooled to mitigate the risk brought by individual account holders in order to provide funds for loans. Such is the primary means for depository institutions to develop revenue.

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Financial Statements

Week - 6 (Slide 1-6)
Week- 7 (Slide 7-12)

After studying this chapter, the students will be able to..

- Define financial statement
- Classify the financial statement
- Explain the elements of financial statement

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Financial Accounting

Financial accounting is the branch of accounting that is concerned with the summary, analysis and reporting of financial transactions relating to a business.

The end product of Financial Accounting involves the preparation of Financial Statements for the users of accounting information.

Types of Financial statements

1. An Income statement or Profit and Loss Statement is a Financial Statement showing Company's revenue and expenses for a particular period.
2. A Balance Sheet is a statement of financial position indicating a company's assets, liabilities, and owner's equity at a given point in time.
3. A statement of changes in Equity shows the changes in equity of the company during the stated period.
4. A cash flow statement is a summary of Cash receipts and cash payments from the operating, financing and investing activities of a company.
5. Notes of financial statements.

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Elements of Financial Statements

1. Assets
2. Liabilities
3. Equity
4. Investments by owners
5. Distributions to owners
6. Revenues
7. Expenses
8. Gains
9. Losses
10. Comprehensive Income Statement

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ASSETS :

Asset is an item of economic value that is expected to yield a benefit in the future. Assets can be classified into:

Tangible Assets:

Tangible Assets are those assets which have physical existence and they can be seen and touched. Examples of tangible assets are machinery, furniture, building, etc.

Intangible Assets:

Intangible assets are those assets which do not have physical existence and they cannot be touched and seen. Examples of intangible assets are goodwill, patents, trademarks, etc.

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Fixed Assets:

Fixed Assets are those assets which are put to use for more than one accounting period and its benefit is derived over a longer period. For example, computer, machinery, land, etc.

Current assets:

Current assets are the assets which are readily convertible into cash and generally absorbed within one accounting period. For example, debtors exist to convert them into cash, bills receivable, etc.

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LIABILITIES

Definition:

A liability is a present obligation of the enterprise arising from past events, the settlement of which is expected to result in an outflow from the enterprise of resources embodying economic benefits.

In other words, liability is the amount owed by the business to the proprietor and to the outsiders.

Liabilities are generally categorized into 2 broad categories such as Current Liabilities and Non Current Liabilities.

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Current Liabilities:

It refers to those obligations or payments which are repayable during the current financial year. Examples of current liabilities are Creditors, bills payable.

Non -Current Liabilities/Long term Liabilities:

It comprises of those payments which are due for payment over a long period of time and there is no need to discharge it immediately. For example Debentures, long term loans, etc.

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EQUITY:

Equity represents ownership interest in a firm in the form of stock. Being precise in the accounting terms, it is the difference between value of assets and cost of liabilities of something owned. It is mainly a residual amount adjusted by the assets against liabilities.

Equity= Assets – Liabilities

INVESTMENT BY OWNERS:

It depicts an increase in equity resulting from transfer of resources in exchange of an ownership interest .It basically describes any owner's contribution to the firm. Issue of ownership shares of stock by a company in exchange for cash represents an investment by owners.

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DISTRIBUTION TO OWNERS:

It represents a decrease in equity which results from transfer to owners. It determines the owners' withdrawal from ownership interest of the firm. A cash dividend paid by a corporation to its shareholders is an example of distribution to owners.

REVENUE/INCOME:

Revenue is the income that a business earns from its normal business activities. It is an inflow of assets, which result in an increase in owner's equity. Exchange of goods and services for money consideration is an example of revenue.

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GAINS:

Gain is an increase in owner's equity from peripheral transactions which are irregular and non recurrent in nature.

For example, Sale of machinery for an amount greater than its book value (original cost less depreciation) would result in a gain for an enterprise which is engaged in the business other than that of sale and purchase of machinery.

EXPENSES:

Expenses are the gross outflows incurred by the business enterprise for generating revenues. An expense is charged to Profit and Loss Account.

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LOSSES:

Loss is a decrease in owner's equity from peripherals transactions which are irregular and non recurrent in nature.

For example, Sale of machinery for an amount lesser than its book value (original cost less depreciation) would result in a gain for an enterprise which is engaged in the business other than that of sale and purchase of machinery.

COMPREHENSIVE INCOME:

Comprehensive income is the change in equity of a business enterprise from transactions from non owner sources. It includes all changes in equity of an enterprise other than those resulting from investments by owners and distributions to owners.

Format of

Income statement and Balance Sheet

Week-8

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Format of Income Statement

Particulars	Amount	Amount
Revenues or Income:		
Sales		
Less: Sales Returns and Allowances		
Sales Discounts		
Net sales		
Rent revenues		
Total revenues or incomes		
Less: Cost of Goods Sold:		
Inventory, January 1 or Beginning inventory		
(+) Purchases		
Less: Purchases Returns & Allowances		
Purchases Discounts		
Add: Transportation-in		
Net purchases		
Merchandise available for Sales		
Less: Inventory, December 31 or Ending inventory		
Cost of goods sold		
Gross Profit		

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Particulars	Amount	Amount
Less: Operating Expenses		
Selling expenses:		
Sales salaries		
Add: Due or Accrued sales salary		
Less: Advance sales salary		
Sales Commission		
Advertising		
Transportation-out		
Delivery expense		
Add: Due/Accrued delivery expense		
Depreciation: Delivery equipment		
Total selling expenses		
Administrative Expenses:		
Officers' Salaries		
Add: Accrued or due salary		
Office salaries		
Add: Accrued office salary		
Office supplies		
Less: Unused		

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Particulars	Amount	Amount
Insurance		
Less: Prepaid insurance		
Utilities expense		
Rent expenses		
Depreciation of Building, Furniture etc.		
Total administrative expenses		
Income from Operations		
Add: Non-operating income:		
Extra ordinary gains		
Dividend income		
Interest income		
Less: Non-operating expenses:		
Extra ordinary losses		
Loss on sale of equipment		
Interest on debentures		
Income before Income Tax		
Less: Income tax		
Net income		

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Format of Balance Sheet

Particulars	amount	amount
Cash		
Account receivables		
Bank deposit		
Merchandise inventory (31st December)		
Unused office supply		
Prepaid insurance		
Advance any expense		
Accrued or Due income		
Total current assets		
Non-current assets/Fixed Assets:		
Property, Plant		
Less: Accumulated depreciation + Depreciation		
Land and Building		
Less: Accumulated depreciation + Depreciation		

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Particulars	Amount	Amount
Delivery equipment		
Less: Accumulated depreciation + Depreciation		
Long term investment		
Total Non-current assets		
Total Assets		
Liabilities and Owners' equities:		
Liabilities:		
Current Liabilities:		
Accounts payable		
Short term bank loan		
Short term notes payable		
Accrued or due any expenses		
Accrued salary		
Accrued delivery expenses		
Advance any income		
Total current Liabilities		

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Particulars	amount	amount
Long term Liabilities:		
Long term notes payables		
Mortgage payable		
Long term bank loan		
Total Long term Liabilities		
Total Liabilities		
Owner's equities:		
Common stock		
Retained earnings		
Add: Net income		
Less: Net loss		
Less: Dividend		
Total owner's equities		
Total Liabilities and Owner's equities		
Asset will be equal to total liability and equity		

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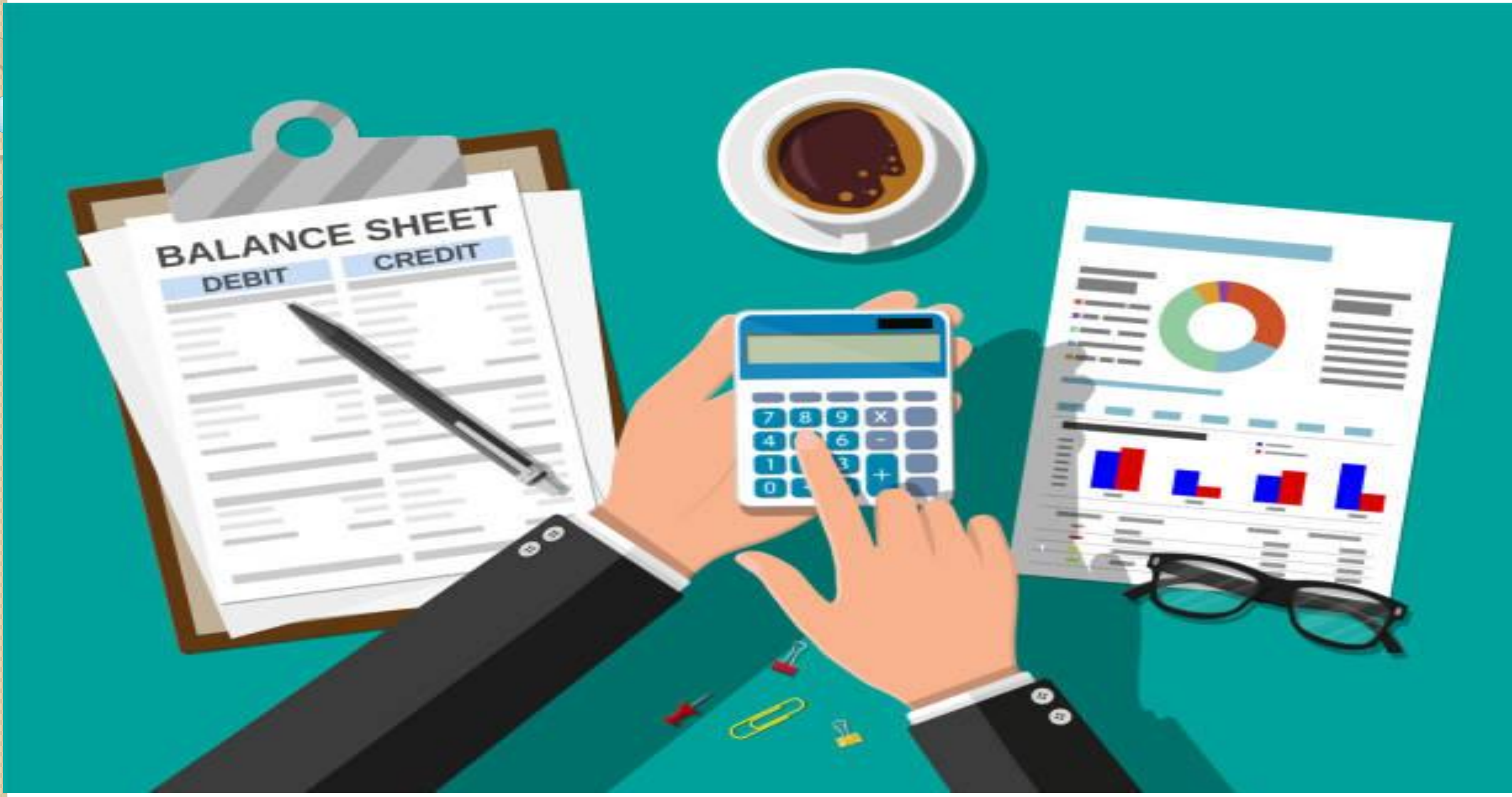
Income Statement and Balance Sheet



Week- 9 (Slide 1-5)

Week- 10 (Slide 6-9)

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After studying this chapter, the students will be able to..

- Define income statement
- Define balance sheet
- Explain the procedure of preparing income statement and balance sheet
- Design the income statement and balance sheet

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ABC Company was organized on January-1, 2016. The company prepares yearly financial statements. The adjusted trial balance amounts at December-31 are shown below.

Debits	Tk.	Credits	Tk.
Cash	6,700	Accumulated Depreciation-Equipment	850
Accounts Receivable	600	Accounts Payable	1,510
Prepaid Rent	900	Salaries and Wages Payable	400
Supplies	1,000	Interest Payable	50
Equipment	15,000	Unearned Rent Revenue	500
Owner's Drawings	600	Owner's Capital	15,500
Salaries and Wages Expense	9,400	Service Revenue	14,200
Rent Expense	1,500	Rent Revenue	800
Advertisement Expense	1,500	Notes Payable	5,000
Supplies Expense	200		
Utilities Expense	510		
Interest Expense	50		
Depreciation expense	850		
Total debits	38,810	Total credits	38,810

(a) Prepare the income statements for the end of the year 31st December, 2016.

(b) Prepare the Balance sheet for the year 31st December, 2016 of ABC Ltd.

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ABC Company Ltd.
Income statement
For the year ended 31st December, 2016

Particulars	Amount	Amount
Revenues or Income:		
Service revenue	14,200	
Rent revenues	800	
Total revenues or incomes		
		15,000
Less: Expenses-		
Salaries and Wages Expense	9,400	
Rent Expense	1,500	
Advertisement Expense	1,500	
Supplies Expense	200	
Utilities Expense	510	
Interest Expense	50	
Depreciation expense	850	
		14,010
Net income		990

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ABC Company Ltd.
Statement of financial position/ Balance sheet
For the year 31st December, 2018

Particulars	Amount	Amount
Assets:		
Current assets:		
Cash	6,700	
Account receivables	600	
Prepaid rent	900	
Supplies	1000	
Total current assets		9,200
Non-current assets:		
Equipment	15,000	
Less: Accumulated depreciation	850	
Total Non-current assets		14,150
Total Assets		**23,350**

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Particular	Amount	Amount
Liabilities and Owners' equities:		
Liabilities:		
Current Liabilities:		
Accounts payable	1,510	
Salaries and wages payable	400	
Interest Payable	50	
Unearned Rent Revenue	500	
Total current Liabilities		2,460
Long term Liabilities:		
Notes payables		5,000
Total Liabilities		7,460
Owner's equities:		
Owner's Capital	15,500	
Less: Owner's Drawings	(600)	
Add: Net income	990	
Total Owner's equities		15,890
Total Liabilities and Owner's equities		**23,350**

Assignment:

The following information is available for the Harbour Ltd. for December 31, 2017.

Purchase	Tk.1,185,000
Purchase Returns & Allowances	4,800
Purchase Discounts	12,600
Sales	1,770,000
Sales Returns & Allowances	14,400
Sales Discounts	24,600
Cash	49,200
Accounts Receivable	79,500
Merchandise Inventory (January 1)	210,000
Insurance	10,800
Plant & Machinery	42,000
Accumulated Depreciation- Plant & Machinery	16,200
Delivery Equipment	105,000
Accumulated Depreciation- Delivery Equipment	36,600
Accounts Payable	104,100
Notes Payable (Long-term)	45,000
Common Stock	225,000

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Taxes	12,000
Transportation-in	52,200
Sales Salaries	162,000
Delivery Expenses	55,200
Advertising	39,300
Rent Expenses	45,000
Office Salaries	108,000
Utilities Expenses	12,900
Office Supplies	7,200

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Adjustment:

Rent and utilities expenses are administrative expenses. The following data are available at December 31:

a) Prepaid insurance Tk.3,600
b) Office supplies on hand Tk.2,700.
c) Depreciation expenses on plants and machinery for the year Tk.3,000.
d) Depreciation expense on delivery equipment for the year Tk.15,000
e) Salaries payable Tk.2,400 (office- Tk.900 and Sales Tk.1,500)
f) Merchandise Inventory - Tk.198,000

Required

1) Prepare a classified income statement for the year 2017
2) Prepare a classified balance sheet at December 31, 2017.

Cash Flow Statements

Week-11

Definitions

- ***Cash*** ***comprises cash on hand and demand deposits with banks.***
- ***Cash equivalents*** ***are short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.***
- ***Cash flows*** ***are inflows and outflows of cash and cash equivalents.***
- ***Operating activities*** ***are the principal revenue-producing activities of the enterprise and other activities that are not investing or financing activities.***
- ***Investing activities*** ***are the acquisition and disposal of long-term assets and other investments not included in cash equivalents.***
- ***Financing activities*** ***are activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company) and borrowings of the enterprise.***

Cash and Cash Equivalents

- Cash Equivalents
  - Held for meeting short term commitments
  - It is readily convertible into known amounts of cash
  - It has a very insignificant risk
  - Short maturity (say 3 months maximum)

Classification of Cash Flow Statement

- The cash flow statement should report cash flows during the period classified by
- Operating,
- Investing and
- Financing activities.

Operating Activities

- These are principal revenue producing activities of the enterprise.

- Examples:
- Cash receipts from sale of goods / rendering services;
- Cash receipts from royalties, fees, commissions and other revenue;
- Cash payments to suppliers of goods and service;
- Cash payments to and on behalf of employees.

Investment Activities

- The activities of acquisition and disposal of long term assets and other investments not included in cash equivalent are investing activities.
- It includes making and collecting loans, acquiring and disposal of debt and equity instruments, property and fixed assets etc.
- Examples of cash flows arising from investing activities are as follows:
  - Cash payments to acquire fixed assets
  - Cash receipts from disposal of fixed assets
  - Cash payments to acquire shares, warrants or debt instruments of other enterprises and interest in joint ventures
  - Cash receipt from disposal of above investments

Financing Activities

- Those activities that result in changes in size and composition of owners capital and borrowing of the organization.
- It includes receipts from issuing shares, debentures, bonds, borrowing and payment of borrowed amount, loan etc.
  - Sale of share
  - Buy back of shares
  - Redemption of preference shares
  - Issue / redemption of debentures
  - Long term loan / payment thereof
  - Dividend / interest paid

Cash flow from operating activities

- It can be derived either from direct method or indirect method

Direct method:

- In this method, gross receipts and gross payments of cash are disclosed

Indirect method:

- In this method, profit and loss account is adjusted for the effects of transaction of non-cash nature.

Interest

- **Interest Received**
  - Received from investment – it is in investment activities
  - Received from short term investment classified, as cash equivalents should be considered as cash inflows from operating activities.
  - Received on trade advances and operating receivables should be in operating activities
- **Interest Paid**
  - On loans / debts are in financing activities
  - On working capital loan and any other loan taken to finance operating activities are in operating activities
- Cash flow from interest should be separately disclosed.

Dividend

- Dividend Received
- For financial enterprises – in operating activities
- For other than financial enterprises – in investing activities
- Dividend Paid
- Always classified as financing activities
- Cash flow from dividend should be separately disclosed

Illustration 1. From the following information, prepare the Cash Flow Statement for the year ended March 31, 2014:

Particulars	**Rs.**	
Opening Cash Balance	10,000	
Closing Cash Balance	12,000	
Decrease in Debtors	5,000	
Increase in Creditors	7,000	
Sale of Fixed Assets		20,000
Redemption of Debentures	50,000	
Net Profit for the year	20,000	

Solution :

Cash Flow Statement

for the year ended 31st March, 2007

Particulars			Rs.
A. Cash Flow from Operating Activities			20,000
Net Profit for the year before tax			
Add : Increase in Creditors	7,000		
Decrease in Debtors	5,000		12,000
Net Cash provided by Operating Activities			32,000
B. Cash Flow from Investing Activities		20,000	
Proceeds from Sale of Fixed Assets			20,000
Net Cash from Investing Activities			
C. Cash Flow from Financing Activities			
Redemption of Debentures		(50,000)	
Net Cash used in Financing Activities			(50000)
D. Net Increase in Cash (A +B+C)			2,000
Add : Cash at the beginning of the period			- ~~10,000~~
Cash at the end of the period			12,000

Cash Flows Statement Exercise

Week-13

After studying this chapter, the students will be able to..

- **Define cash flows statement**
- **Classify the cash flows statement**
- **Exercise of cash flows statement**

Example-1: Unilever Company Ltd

Comparative Balance sheet

31st December, 2016

Assets	2016	2015
Cash	Tk. 33,000	Tk. 15,000
Accounts Receivable	30,000	16,000
Merchandise Inventory	25,000	35,000
Property, Plant, Equipment	60,000	78,000
Accumulated Depreciation	(22,000)	(24,000)
Total	Tk.1,22,000	Tk.1,16,000
Liabilities and Stockholder's Equity:		
Accounts Payable	Tk.28,000	Tk.24,000
Income taxes Payable	6,000	9,000
Bonds Payable	27,000	35,000
Common Stock	18,000	14,000
Retained Earnings	45,000	36,000
Total	Tk.122,000	Tk.116,000

Additional Information:

a) Dividend declared and paid were Tk.4,000.

b) During the year equipment was sold for Tk.8,500 in cash.

c) Depreciation expense is Tk. 7,500.

d) Net income is tk. 13,000

Prepare a Cash Flow Statement using indirect method.

Louis Zimmer Company, Cash flows statement , For the year end 31st Dec, 2007

Cash Flow from operating activates:		Tk.	Tk.
Net Income		13,000	
Add:			
	Depreciation	7,500	
	Decrease in Inventory	10,000	
	Increase in Accounts payable	4,000	
Less:	Increase in Accounts receivable	(14,000)	
	Decrease in Income tax payable	(3,000)	
Net Cash Inflow from operating activities			18,500
Cash Flow from Investing Activities:			
Sale of equipment			8,500
Cash Flow from financing activities:			
Repayment of Bonds		(8,000)	
Sale of Common Stock		4,000	
Dividend paid		(4,000)	
Net Cash Flow from financing activities			(9,000)
Net Increase in cash			18,000
Add:	Beginning Cash balance		13,000
Ending Cash Balance			31,000

Example-2: Earnest Company comparative Balance sheet, 31st Dec, 2007

Assets	2007	2006
Cash	Tk.23,000	Tk.13,000
Accounts Receivable	24,000	33,000
Merchandise Inventory	20,000	27,000
Prepaid Expenses	20,000	13,000
Land	40,000	40,000
Property, Plant & Equipment	2,00,000	2,25,000
Less: Accumulated Depreciation	(50,000)	(67,500)
Total	Tk.2,77,000	Tk.2,83,500
Liabilities and Stockholder's Equity		
Accounts Payable	Tk.9,000	Tk.18,500
Accured Expenses payable	9,500	7,500
Interest payable	1,000	1,500
Income taxes Payable	3,000	2,000
Bonds Payable	50,000	80,000
Common Stock	1,23,000	105,000
Retained Earnings	81,000	69,000
Total	Tk.2,77,000	Tk.2,83,000

Additional Information:

i. Plant assets were sold at a sales price of Tk.62,500.
ii. Additional equipment was purchased at a cost of Tk.60,000.
iii. Dividends of Tk. 8,500 were paid.
iv. Gain on sale of plant assets is Tk. 2,500
v. Net income is tk. 21,000
vi. Depreciation expense is tk. 7,500

Prepare a Statement of cash flow of the Earnest Company for the year 2007 using indirect method.

Solution: Earnest Company, Cash Flows Statement, 31st Dec, 2007

Cash Flow from operating activates:		Tk.	Tk.
Net Income		21,000	
Add	: Depreciaton Expense	7,500	
	Increase in Income Taxes	1,000	
	Decrease in Accounts Receivable	9,000	
	Accrued Expenses	2,000	
	Decrease in Inventory	7,000	
Less:			
Increase in Prepaid Expense		(7,000)	
Decrease in Accounts Payable		(9,000)	
Decrease in Interest Payable		(500)	
Gain on sale of plant		(2,500)	
Net Cash Inflow from operating activities			28,000
Cash Flow from investing activities:			
Sale of Plant assets		62,500	
Purchase of equipment		(60,000)	
Net Cash Flow from investing activities			2,500
Net Cash Flow from financing activity:			
Sale of Common shares		18,000	
Bonds redeemed		(30,000)	
Dividend paid		(8,500)	
Net Cash Flow from financing activity			(20,500)
Increase of Cash			10,000
Add: Beginning Balance of Cash			13,000
Ending Balance of Cash			23,000

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Financial Ratio Analysis

Week – 14 (Slide 1-12)
Week -15 (Slide 13-26)
Week -16 (Slide 27-37)

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After studying this chapter, the students will be able to..

- Define ratio analysis
- Explain the types of ratio analysis
- Describe horizontal, vertical & Industry average ratio analysis
- Exercise of ratio analysis

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Financial Ratio

Financial ratios are used by the owners and financial management of a firm in order to evaluate the financial strengths and weakness of the firm.

Financial analysis is the interpretation of the financial statements of a firm. Financial analysis offers a system of appraisal and evaluation of a firm's performance.

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Different types of financial ratios:

- Liquidity ratios
- Activity ratios
- Debt ratios (Leverage)
- Profitability ratios

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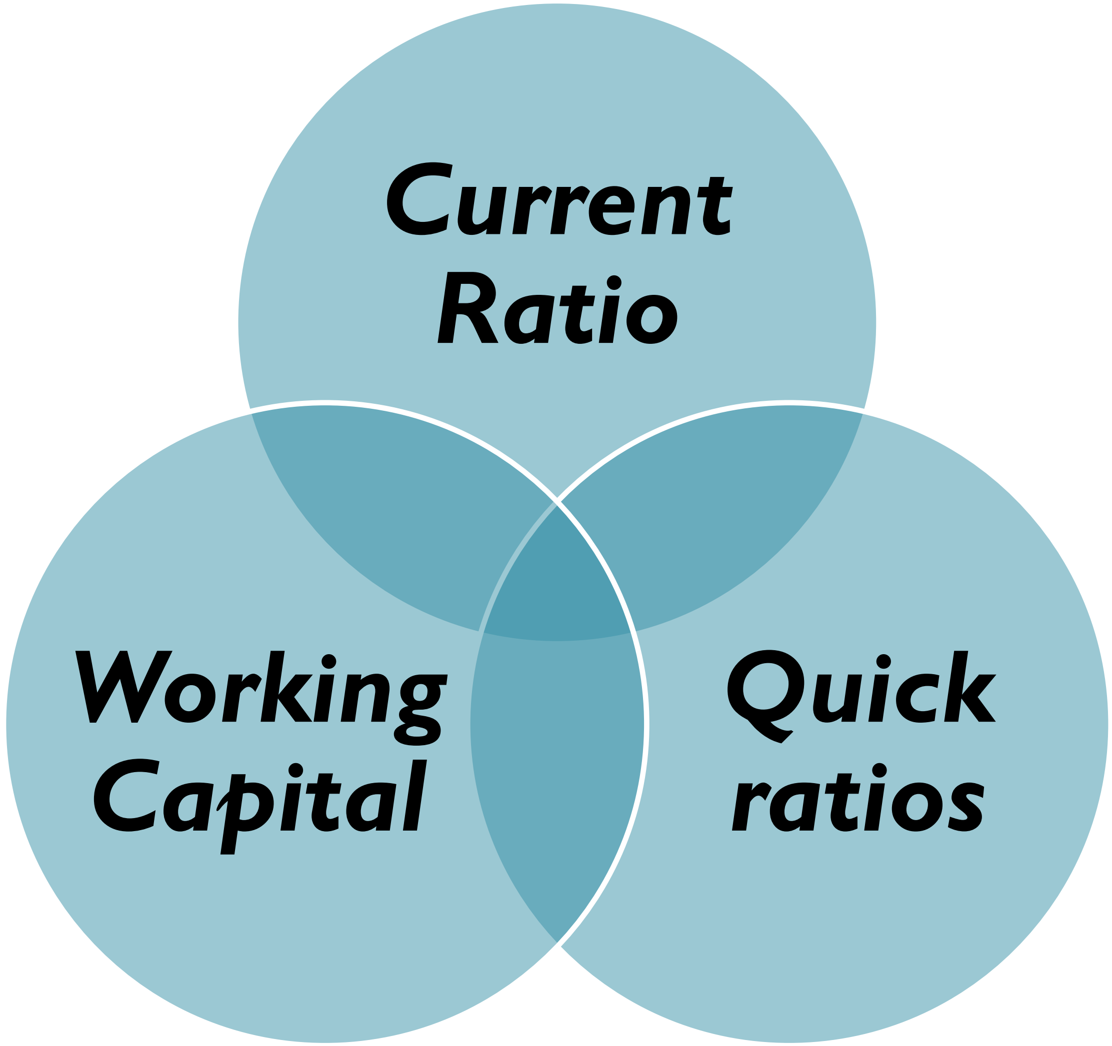
Liquidity ratios

The following ratios measure the ability of an organization to meet its short-term financial obligations. In other words, does the company have sufficient short- term assets (those that can normally be converted readily into cash) to make payments on its short-term liabilities?

The higher the result for both these ratios the better able a company is to meet its obligations

Types of Liquidity Ratio



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Current ratios

The current ratio is one of the best known measures of financial strength. It is figured as shown below:

$$\text{Current ratios} = \frac{\textit{Total Current assets}}{\textit{Total Current liabilities}}$$

The main question this ratio addresses is: “Does your business have enough current assets to meet the payment schedule of its current debts? A generally acceptable current ratio is 2:1

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Quick ratios/Acid-Test Ratio

The quick ratio is sometimes called the “acid-test” ratio and is one of the best measures of liquidity. It is figured as shown below:

$$\text{Quick/Acid test ratios} = \frac{Total\ Current\ assets - Inventory}{Total\ Current\ liabilities}$$

The quick ratio is a much more exacting measure than the current ratio. By excluding inventories, it concentrates on the really liquid assets, with value that is fairly certain. An acid-test of 1:1 is considered satisfactory.

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Working capital Ratio

Working capital is more a measure of cash flow than a ratio. The result of this calculation must be a positive number.

Working Capital = Total Current Assets - Total Current Liabilities

Bankers look at net working capital over time to determine a company's ability to weather financial crises. Loans are often tied to minimum working capital requirements.

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Activity Ratio/Efficiency Ratio

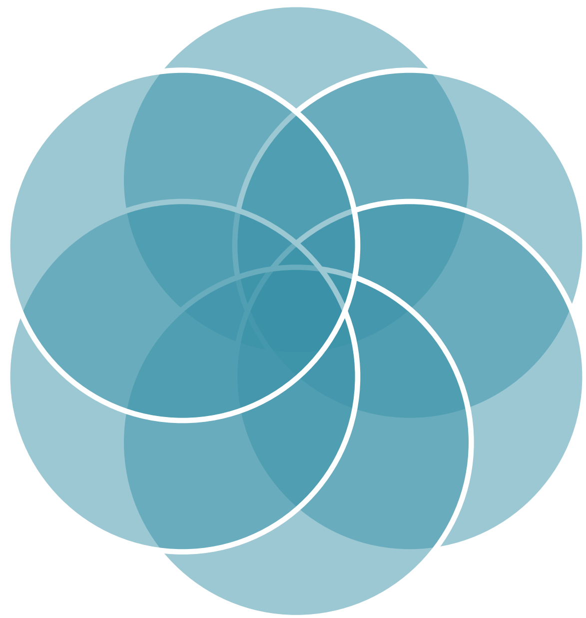
Activity ratios are used to determine the efficiency of the organization in utilizing its assets for generating cash and revenue. It is used to check the level of investment made on an asset and the revenue that it is generating.

Types of Activity Ratio

Inventory turnover ratio

Asset turnover Ratio

Day's sales of inventory – DSI



Accounts payable turnover ratio

Receivables turnover ratio

Average collection period

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Inventory turnover ratio

The inventory turnover ratio measures the number of times a year a company replaces its inventory.

$$\textbf{Inventory turnover} = \frac{\textit{Cost of goods sold}}{\textit{Average inventory}}$$

The higher the inventory turnover rate, the more efficiently a company is able to grow sales volume.

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Day's sales of inventory – DSI

It is a financial measure of a company's performance that gives investors an idea of how long it takes a company to turn its inventory into sales. Generally, the lower (shorter) the DSI is better.

$$\textit{Days sales of inventory} = \frac{\textit{Average inventory}}{\textit{Cost of goods sold}} * 365$$

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Receivables turnover ratio

An accounting measure used to quantify a firm's effectiveness in extending credit as well as collecting debts. The receivables turnover ratio is an activity ratio, measuring how efficiently a firm uses its assets.

$$\textit{Account Receivable turnover} = \frac{\textit{Net credit sales}}{\textit{Average account receivable}}$$

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Average collection period

It indicates the average time taken to collect trade debts. In other words, a reducing period of time is an indicator of increasing efficiency. It enables the enterprise to compare the real collection period with the granted/theoretical credit period.

Accounts receivable collection period

$$= \frac{Average\ accounts\ receivable}{Credit\ sales} * 365$$

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Accounts payable turnover ratio

It compares creditors with the total credit purchases. It signifies the credit period enjoyed by the firm in paying creditors. A high creditor's turnover ratio or a lower credit period ratio signifies that the creditors are being paid promptly.

$$\textbf{Accounts payable turnover} = \frac{\textit{Net credit purchases}}{\textit{Average account payables}}$$

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Asset turnover Ratio

This ratio is useful to determine the amount of sales generated from each dollar of assets. As noted above, companies with low profit margins tend to have high asset turnover, those with high profit margins have low asset turnover.

$$\textbf{Total Asset turnover} = \frac{Net\ Sales}{Average\ Total\ assets}$$

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Leverage (debt ratios)

By using a combination of assets, debt, equity, and interest payments, leverage ratios are used to understand a company's ability to meet its long term financial obligations.

The three most-widely used leverage ratios are the debt ratio, debt to equity ratio and interest coverage ratio.

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Types of Leverage (debt ratios)

- Debt ratio
- Debt-to-equity ratio
- Interest coverage ratio

Debt ratio

The debt ratio gives an indication of a company's total liabilities in relation to their total assets. The higher the ratio, the more leverage the company is using and the more risk it is assuming.

$$\textbf{Debt ratio} = \frac{\textit{Total Debts}}{\textit{Total assets}}$$

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Debt-to-equity ratio

The debt-to-equity ratio is the most popular leverage ratio and it provides detail around the amount of leverage (liabilities assumed) that a company has in relation to the money provided by shareholders.

As you can see through the formula below, the lower the number, the less leverage a company is using.

$$\textbf{Debt-to-equity ratio} = \frac{Total\ Debts}{Total\ Equity}$$

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Interest coverage ratio

The interest coverage ratio tells us how easily a company is able to pay interest expenses associated to the debt they currently have. The ratio is designed to understand the amount of interest due as a function of a company's earnings before interest and taxes (EBIT).

$$\textit{Interest coverage ratio} = \frac{\textit{Earnings before interest and tax}}{\textit{Interest expense}}$$

Profitability ratios

Profitability ratios are measures of performance showing how much the firm is earning compared to its sales, assets or equity. Profit margin measures how much a company earns relative to its sales. A company with a higher profit margin than its competitor is more efficient.

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Types of Profitability ratios

Gross profit margin

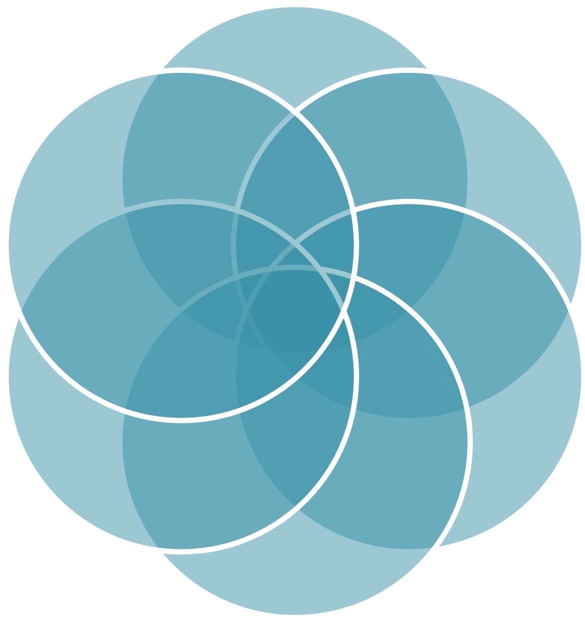
Operating profit margin

Net profit margin

Return on assets (ROA)

Earnings per share

Return on equity



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Gross profit margin

The gross margin represents the per cent of total sales revenue that the company retains after incurring the direct costs associated with producing the goods and services sold by a company.

The higher the percentage, the more the company retains on each dollar of sales to service its other costs and obligations.

- Gross profit margin = $\frac{Gross\ Profit}{Total\ sales} \times 100$

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Operating profit margin

Operating profit margin measures the earnings before interest and taxes, after incurring all the operating expenses.

Operating profit margin

$$= \frac{Earnings\ before\ interest\ and\ tax}{Total\ sales} \times 100$$

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Net profit margin

Net Profit Margin is a financial ratio used to calculate the percentage of profit a company produces from its total revenue. It measures the amount of net profit a company obtains per dollar of revenue gained.

$$\textbf{Net profit margin} = \frac{Net\ Profit}{Total\ sales} \times 100$$

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Return on assets (ROA)

Return on assets (ROA) tells how well management is performing on all the firm's resources. However, it does not tell how well they are performing for the stockholders.

$$\text{Return on assets} = \frac{Net\ profit}{Total\ Assets} \times 100$$

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Earnings per share

The portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serve as an indicator of a company's profitability.

$$\textit{Earnings per share} = \frac{Net\ income - Dividend\ on\ preferred\ stock}{Weighted\ average\ share\ outstanding}$$

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Return on equity

Return on equity (ROE) measures how well management is doing for you, the investor, because it tells how much earnings they are getting for each of your invested dollars.

$$\text{Return on equity} = \frac{Net\ profit}{Total\ Assets} \times 100$$

Horizontal Ratio Analysis

Definition:

Horizontal analysis involves comparing financial data over multiple periods (typically year-on-year or quarter-on-quarter) to identify trends, growth patterns, and changes in financial performance.

Purpose:

Helps in evaluating how a company's financial position has changed over time.

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Horizontal Ratio Analysis

Method:

The analysis is done by calculating the percentage change in financial statements (like income statement or balance sheet) from one period to another.

Formula:

Percentage Change

$$= \frac{\text{Current Period Value} - \text{Previous Period Value}}{\textit{Previous Period Value}} \times 100$$

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Vertical Ratio Analysis

Definition:

Vertical analysis involves evaluating each line item in a financial statement as a percentage of a base figure (e.g., total revenue for the income statement or total assets for the balance sheet) within the same period.

Purpose:

Helps in understanding the relative size of various financial components in relation to a key figure, aiding in comparison with industry norms or historical data

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Method:

Each item is expressed as a percentage of the base item (e.g., net income as a percentage of total sales in the income statement).

Formula:

$$\text{Percentage of Base Figure} = \frac{\textit{Item Value}}{\textit{Base Figure}} \times 100$$

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Industry Average Ratio Analysis

Definition: Industry average ratio analysis compares a company's financial ratios (such as profitability, liquidity, or solvency ratios) with the average ratios of other companies in the same industry. This helps assess the company's performance relative to its peers and the industry standards.

Purpose:

- To benchmark a company's performance against industry norms.
- To identify strengths, weaknesses, and areas for improvement.
- To understand how a company is performing relative to competitors.

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Exercise:

The under mentioned financial information has been taken from the book of accounts of Exxon Mobil Ltd. on December 31, 2013.

Particulars	Amount (Tk.)
Beginning Inventory	8,00,000
Ending Inventory	2,00,000
Accounts receivable	16,00,000
Cash	80,000
Furniture	5,00,000
Accounts payable	2,00,000
Bank overdraft	80,000
Gross profit	40,000
Net profit	32,000
Net sales	8,00,000
Purchase	10,00,000
Equity capital	8,00,000

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Requirement:

a) Determine the Cost of Goods sold.

b) Calculate the Current ratio, Working capital, Acid-test or quick ratio, Inventory turnover ratio, Accounts receivable turnover ratio, Average collection period, Accounts payable turnover ratio, Assets turnover ratio.

c) Calculate the Debt ratio, Debt to equity ratio, Gross profit margin, Net profit margin, Return on assets, Return on equity.