Economics and Finance Compendium

MDI GURGAON

Management Development Institute

MONETRIX

THE ECONOMICS & FINANCE CLUB

Contents

Introduction

What is Finance?

Finance is a broad term that describes activities associated with banking, leverage or debt, credit, capital markets, money, and investments. Basically, finance represents money management and the process of acquiring needed funds. Finance also encompasses the oversight, creation, and study of money, banking, credit, investments, assets, and liabilities that make up financial systems.

What is Accounting?

Accounting is the process of recording financial transactions pertaining to a business. The accounting process includes summarizing, analyzing, and reporting these transactions to oversight agencies, regulators, and tax collection entities. The financial statements used in accounting are a concise summary of financial transactions over an accounting period, summarizing a company's operations, financial position, and cash flows.

Thus, Accounting is the process of creating and managing financial statements, which record the day-to-day transactions of the business. Finance has a broader scope and is responsible for initiating transactions to aid in cash, investment and other working capital management.

What is Economics?

Economics is a social science concerned with the production, distribution, and consumption of goods and services. It studies how individuals, businesses, governments, and nations make choices on allocating resources to satisfy their wants and needs, trying to determine how these groups should organize and coordinate efforts to achieve maximum output.

Economics can be classified in two ways:

1. **Macroeconomics:** It is a branch of economics that studies how an overall economy—the market systems that operate on a large scale—behaves. Macroeconomics studies economy-wide phenomena such as inflation, price levels, rate of economic growth, national income, gross domestic product (GDP), and changes in unemployment.

2. **Microeconomics:** It is a branch of economics that studies the behavior of individuals and firms in making decisions regarding the allocation of scarce

resources and the interactions among these individuals and firms. It describes the pricing of products and money, causes of different prices to different people, how can provide benefit to producers, consumers, and others, and how individuals best coordinate and cooperate.

Major Theories in Economics:

1. Classical Economics: It asserts that the power of the market system, if left alone, will ensure full employment of economic resources.

2. Keynesian Economics: It is an economic theory of total spending in the economy and its effects on output and inflation.

3. Marxist Economics: It is the study of the laws of motion of capitalist society, allowing us to understand why capitalism perpetually goes into crisis.

4. Neoclassical Economics: Neoclassical economics is attributed with integrating the original classical cost of production theory with utility in a bid to explain commodity and factor prices and the allocation of resources using marginal analysis.

5. Rational Expectation: It asserts that people collect relevant information about the economy and behave rationally—that is, they weigh costs and benefits of actions and decisions.

6. Monetarism: Like rational expectations theory, monetarism represents a modern form of classical theory that believes in laissez-faire and in the flexibility of wages and prices.

7. Institutionalism: Institutional economics focuses mainly on how institutions evolve and change and how these changes affect economic systems, economic performance, or outcomes.

Key Concepts

Concept 1: National Income Accounting and Measurement

National income means the value of goods and services produced by a country during a financial year. Thus, it is the net result of all economic activities of any country during a period of one year and is valued in terms of money.

Methods to calculate National Income:

1. Product Method: In this method, national income is measured as a flow of goods and services. We calculate money value of all final goods and services produced in an economy during a year.
Formula:
GVAMP = Value of Output – Intermediate Consumption
Taking the sum of GVAMP of all the industrial sectors of the economy will give NDPMP.

2. Income Method: Under this method, national income is measured as a flow of factor incomes. There are generally four factors of production labour, capital, land and entrepreneurship. Labour gets wages and salaries, capital gets interest, land gets rent and entrepreneurship gets profit as their remuneration.
Formula:
NDPFC = Compensation of Employees + Rent and Royalty + Interest + Profit + Mixed Income

3. Expenditure Method: This method is known as the final product method. In this method, national income is measured as a flow of expenditure incurred by the society in a particular year.
Formula:
GDPMP = PFCE + GFCE + GDCF + (X-M) where
GDPMP : Gross Domestic Product at Market Price
PFCE: Private Final Consumption Expenditure
GFCE: Government Final Consumption Expenditure
GDCF: Gross Domestic Capital Formation
X-M: Net Exports

Concepts of National Income:

Gross Domestic Product

It is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. GDP is commonly used as an indicator of the economic health of a country, as well as to gauge a country's standard of living. Critics of using GDP as an economic measure say the statistic does not take into account the underground economy - transactions that, for whatever reason, are not reported to the government. Others say that GDP is not intended to gauge material well-being, but serves as a measure of a nation's productivity, which is unrelated.

Gross National Product

It is an economic statistic that includes GDP, plus any income earned by residents from overseas investments, minus income earned within the domestic economy by overseas residents. GNP is a measure of a country's economic performance, or what its citizens produced (i.e. goods and services) and whether they produced these items within its borders. Gross National Product (GNP) is the market value of all products and services produced in one year by labor and property supplied by the residents of a country.

Net Domestic Product

Net domestic product (NDP) is an annual measure of the economic output of a nation that is adjusted to account for depreciation and is calculated by subtracting depreciation from the gross domestic product (GDP). It accounts for capital that has been consumed over the year in the form of housing, vehicle, or machinery deterioration. The depreciation accounted for is often referred to as capital consumption allowance and represents the amount needed to replace those depreciated assets.

Net National Product

Net national product (NNP) is the monetary value of finished goods and services produced by a country's citizens, overseas and domestically, in a given period. It is the equivalent of gross national product (GNP), the total value of nation's annual output, minus the amount of GNP required to purchase new goods to maintain existing stock, otherwise known as depreciation.

GDPFC = GDPMP – Net Indirect Taxes (Indirect Taxes – Subsidies)

NDPFC = GDPFC – Depreciation
NNPFC (National Income) = NDPFC + Net Factor Income from Abroad

Problem of Double Counting

According to output method (an alternative method to value added method) of calculating national income, value of only final goods and services produced by all the production units of a country during a year should be counted. But in actual practice, while taking value of final goods, value of intermediate goods also gets included because every producer treats the commodity he sells as final product irrespective of whether it is used as intermediate or final good. In this way certain items are counted more than once resulting in over-estimation of national product to the extent of the value of intermediate goods included. This is called the problem of double counting which means counting value of the same commodity more than once.
There are two alternative ways of avoiding double counting:
(i) Final Product approach
(ii) Value Added approach

Concept 2: Inflation

Inflation is a rise in the general level of prices of goods and services in an economy over a period of time. Consequently, inflation also reflects erosion in the purchasing power of money – a loss of real value in the internal medium of exchange and unit of account in the economy.
Inflation rate = (this year‘s price index – last year price index) / last year‘s price index The consumer price index (CPI) is the best know indicator of inflation. In India, Food Inflation is a significant indicator since food expense is the major expense for most of the people in India. RBI‘s desired level of inflation is 2 - 6 %, above which it becomes hawkish to check inflation. Severe form of inflation is called hyperinflation.

Concept 3: Deflation

Deflation is a decrease in the general price level of goods and services. Deflation occurs when the inflation rate falls below 0% (a negative inflation rate). Inflation reduces the real value of money over time; conversely, deflation increases the real value of money – the currency of a national or regional economy. This allows one to buy more goods with the same amount of money over time. Deflation is correlated with depressions. Deflation results in a lower level of demand in the economy due to lower production capability requirements of industry and this further leads to increased unemployment.

Concept 4: Disinflation

Disinflation is a temporary slowing of the pace of price inflation. It is used to describe instances when the inflation rate has reduced marginally over the short term. A healthy amount of disinflation is necessary, since it represents economic contraction and prevents the economy from overheating.

Concept 5: Stagflation

Stagflation is a situation in which the inflation rate is high and the economic growth rate is low.

Concept 6: Fiscal and monetary policy:

The government exerts its control over the nation‘s economy using two distinct set of policies. One is the monetary policy (the central bank manages this on behalf of the government) and secondly the fiscal policy. Fiscal policy is the use of government expenditure and revenue collection through taxation to influence the economic activity. With the help of monetary policy, the Reserve Bank of India (RBI) attempts to stabilize the economy by controlling interest rates and spending. Monetary policy consists of various policy rates and reserve ratios.

Fiscal policy: It is a set of tools at the Government's disposal to maintain growth, inflation and employment rate at desired levels. This is ensured through spending on the relevant sectors. Essentially, fiscal policy boils down to government expenditures and revenues that can be understood by the following terms:

Receipts: These are the sources of income for the government. These can be further classified as follows:

- Revenue receipts: The income which creates neither a liability nor reduces the assets of the government (disinvestment or sale). Taxes and interest on investments, transfer of interest by RBI are prime examples of this.

- Capital receipts: The income generated by raising debt or by depleting assets (disinvestment). Raising money through bonds and disinvestment are prime examples of this.

Expenditure: This is how the government spends/invests the money in order to meet the growth, inflation and employment rates.

- **Revenue expenditure:** The expenditure which does not create an asset but is incurred to run the operations. Salary payments, pensions and interest servicing on the previous debts are prime examples

- **Capital Expenditure:** The expenditure which results in creation of assets, be it through acquisition of assets or investments or payback of existing debts (principal payments). Land acquisition, investment in companies and paying off debt obligations are a few examples

Monetary policy: It is decided upon by the 6-member Monetary Policy Committee in its bimonthly meeting. It consists of 3 members from the RBI and 3 members nominated by the Government. This policy essentially decides the rate at which banks can borrow money, indirectly controlling money supply. The following are the quantitative tools available at the disposal of RBI:

Bank Rate

Bank Rate is the interest rate that is charged by a country ‘s central or federal bank on loans and advances to control money supply in the economy and the banking sector. In India, the bank rate is the rate at which the Reserve Bank of India lends to commercial banks and other financial institutions for meeting shortfalls in their reserve requirements, for long-term purposes. A change in bank rates affects customers as it influences interest rates for loans. The bank rate signals the central bank ‘s long-term outlook on interest rates. If the bank rate moves up, long- term interest rates also tend to move up, and vice-versa. The current bank rate is 4.25%.

Repo Rate

Repo rate is the rate at which the central bank of a country (Reserve Bank of India in case of India) lends money to commercial banks in the event of any shortfall of funds in the short term. Typically, this involves a repurchase agreement of approved Government securities at the repo rate. Repo rate is used by monetary authorities to control inflation. The current repo rate is 4.00%.

Reverse Repo Rate

The rate at which RBI borrows money from the banks (or banks lend money to the RBI) is termed the reverse repo rate. Reverse repo rate signifies the rate at which the central bank absorbs liquidity from the banks, while repo signifies the rate at which liquidity is injected. The RBI uses this tool when it feels there is too much money floating in the banking system. The current reverse repo rate is 3.35%.

Marginal Standing facility

This more of a last resort for banks through which the banks can borrow overnight funds from RBI by pledging government securities at a rate higher than repo rate. The current rate is 4.25%.

Cash Reserve Ratio

Cash Reserve Ratio is the amount of funds that banks have to maintain with the Reserve Bank of India (RBI) at all times. If the central bank decides to increase the CRR, the amount available with the banks for disbursal comes down. The RBI uses the CRR to drain out excessive money from the system. Commercial banks are required to maintain an average cash balance with the RBI, the amount of which shall not be less than 3% of the total of Net Demand and Time Liabilities (NDTL) on a fortnightly basis.

Statutory Liquidity Ratio

SLR indicates the minimum percentage of deposits that the bank has to maintain in the form of gold, cash or other approved securities like treasury bills. It helps the banks maintain the required liquidity. In India, the SLR is 18.00%.

Open market operations

RBI conducts open market operations with the objective of maintaining desired liquidity in the market. In order to increase the supply of rupee, RBI resorts to purchase of Government bonds from the open market where as to absorb liquidity, it resorts to selling of Government bonds.

Apart from the above-mentioned quantitative measures, RBI adopts qualitative measures as well to meet its objectives.

Moral Suasion

The bankers are vocally communicated to head the in the direction that RBI wants the scheduled banks to. This may be through press releases or direct meetings with the heads of the banks but not by issuing hard and fast rules.

Rationing of credit

Banks may be encouraged to lend credit to certain sectors and be discouraged to lending to certain sectors. Priority sector lending requirement is one such measure.

Margin requirements

Certain sectors and class of individuals may be required to put up higher margins for their loans as, thereby encouraging credit availability to certain sectors and discouraging it to others.

Direct Action

A few banks may be put under the direct control of RBI with restrictions on customer withdrawals, credit disbursement, branch expansion and hiring. PMC bank is a prime example of this.

Concept 7: FDI & FII

Foreign Direct Investment (FDI) refers to the investment by foreign investors in projects in the country. This type of investment is more involved with the management, technology transfer and other field expertise and knowhow in the project.

FII refers to Foreign Institutional Investors. These investors invest in the country indirectly by purchasing stocks of the companies listed on the stock exchanges. The FII money inflows or outflows are also called hot money flows.

Types of Market Structures

Monopoly

Characteristics associated with a monopoly market make the single seller the market controller as well as the price maker. He enjoys the power of setting the price for his goods. In a monopoly market, factors like government license, ownership of resources, copyright and patent and high starting cost make an entity a single seller of goods. All these factors restrict the entry of other sellers in the market. Monopolies also possess some information that is not known to other sellers.

Oligopoly

An oligopoly is a market form in which a market or industry is dominated by a small number of sellers. Only a few sellers characterize it, each offering a similar or identical product to the others. Because of the few sellers, the key feature of oligopoly is the issue between cooperation and self-interest. At least some firms have large market shares and thus can influence the price of the product.

Duopoly

Duopoly is a kind of oligopoly with two major players. In a duopoly, two companies control virtually the entirety of the market for the goods and services they produce and sell. While other companies may operate in the same space, the defining feature of a duopoly is the fact that only two companies are considered major players. These two firms – and their interactions with one another – shape the market they operate in.

Monopolistic competition

Monopolistic Competition is a market structure, that is characterized by having many firms that sell products that are differentiated, resulting in no perfect substitutes in the market. There are enough consumers and producers in the market such that no firm is a price setter, however, firms do have a degree of control over the price they set. Products in this type of market structure, are different enough that there are non-price differences between competing products. Barriers to entry and exit the market are generally small.

Perfect competition

It describes markets such that no participants are large enough to have the market power to set the price of a homogeneous product. A perfectly competitive market has the following characteristics like there are many buyers & sellers in the market, the goods offered by the various sellers are largely the same and firms can freely enter or exit the market. A competitive market has many buyers and sellers trading identical products so that each buyer and seller is a price taker. Buyers and sellers must accept the price determined by the market. Perfect competition serves as a benchmark against which to measure real-life and imperfectly competitive markets.

Monopsony

It is a market similar to a monopoly except that a large buyer not seller controls a large proportion of the market and drives the prices down. It is sometimes referred to as the buyer's monopoly.

Financial Markets

It is a broad term describing any marketplace where buyers and sellers participate in the trade of assets such as equities, bonds, currencies and derivatives. They are broadly of three types:

Capital Markets

They deal with longer maturity financial assets and claims. Capital market includes trading in the financial instruments such as shares (equity as well as preference), public sector bonds and units of mutual funds. In case of capital market even a small individual investor can deal by sale/purchase of shares, debentures or mutual fund units. The capital market includes the stock market (equity securities) and the bond market (debt). In primary markets, new stock or bond issues are sold to investors for the first time. In the secondary markets, existing securities are sold and bought among investors or traders, usually on a securities exchange, over-the-counter, or elsewhere.

Money Markets

Short-term instruments maturing within a period of one year are traded in money market such as certificate of deposits, treasury bonds, commercial papers. Money market
is a wholesale market and the participants in money market are large institutional investors, commercial banks, mutual funds, and corporate bodies.

- **Certificate of deposit**: These are instruments issued by scheduled commercial banks and financial institutions against funds deposited in a bank. These are issued at a discount to the face value
- **Treasury bonds:** These are debt instruments issued by the Government with a fixed maturity period. These are considered to be one of the safest instruments to invest in given the sovereign backing
- **Commercial papers**: These are debt instruments issued by a private corporation to raise funds from the market. The corporation is the sole guarantor for the instrument and have higher yields when compared to treasury bonds due to higher risk of default

Commodities Markets
A commodity market is a market that trades in primary rather than manufactured products. Soft commodities are agricultural products such as wheat, coffee, cocoa and sugar. Hard commodities are mined, such as (gold, rubber and oil). Investors access about 50 major commodity markets worldwide with purely financial transactions increasingly outnumbering physical trades in which goods are delivered.

Financial Statements

Balance Sheet

A balance sheet is prepared to find out the financial position or financial health of a business i.e. to know what the business owes and what it owns on a certain date. A Balance sheet is only a statement of assets and liabilities. The two sides of the Balance Sheet (i.e. Assets and Liabilities) must have the same totals. If it is not, then there is some error in the accounts. A Balance Sheet is prepared as on a particular date and not for a period.
Associated Terms:

Liability It is any source of money for the company. This represents the amount the company owes to external sources.

Shareholder's Equity It is the amount of money that the shareholders of the company have in the company. The shareholders could be the owners of the company (as in the case of a private company) or can be the general public who has shares of a company (as In the case of a public company). It constitutes the following:

- **Share capital** This is the money that has been invested in the company by the shareholders. In the case of a public company, there are 2 kinds of shares namely common shares and preference shares.
- **Reserves and Surplus** Every year the company makes some profit. But not all profit made is distributed to the shareholders and a part of it is retained by the company for future use.

Current Liabilities All the funds that the company has received which have to be repaid within 1 year are called current liabilities.

Short term loans Loans taken by the company from banks, which have to be repaid within a year.

Advances These are payments received by the company for which it has not given the service or product.

Long term liabilities All funds that the company has to repay after 1 year are called long-term liabilities.

Asset Any item (tangible or intangible) owned or acquired by the organization with the funds available at its disposal
Current Assets All assets of the company that will not remain with it for more than a year.

Fixed Assets Any asset in which the company puts its money for more than 1 year is fixed in nature.

Depreciation A method of allocating the cost of a tangible asset over its useful life. Businesses depreciate long-term assets for both tax and accounting purposes. For example, if a company buys a machine for Rs.100 and estimates that it would be useful for 10 years, then it keeps charging Rs.10 as depreciation every year signifying the useful life of machine that has been utilized (this is under the straight-line method of depreciation).

Cash flow statement - The statement of cash flows, or the cash flow statement, is a financial statement that summarizes the amount of cash and cash equivalents entering and leaving a company. The cash flow statement (CFS) measures how well a company manages its cash position, meaning how well the company generates cash to pay its debt obligations and fund its operating expenses. The cash flow statement complements the balance sheet and income statement. There are three sources of cash flow for an organization:

• **Cash flow from operations** These are the cash flows generated through the regular business operations of the organization

• **Cash flow from financing** These are the cash flows generated through financial activities, capturing the transactions between the firm, it's owners, investors, creditors and debtors

• **Cash flow from investing** These are the cash flows generated due to the sale, investment and purchase of assets such plant and equipment

Income Statement

An income statement is one of the three important financial statements used for reporting a company's financial performance over a specific accounting period, with the other two key statements being the balance sheet and the statement of cash flows. Also known as the profit and loss statement or the statement of revenue and expense, the income statement primarily focuses on the company's revenues and expenses during a particular period.

Associated Terms:
Gross Sales/Revenue is the company's revenue from sales or services, displayed at the very top of the statement. This value will be the gross of the costs associated with creating the goods sold or in providing services. Some companies have multiple revenue streams that add to a total revenue line.

Cost of Goods sold is a line-item that aggregates the direct costs associated with selling products to generate revenue. This line item can also be called **Cost of Sales** if the company is a service business. Direct costs can include labor, parts, materials, and an allocation of other expenses such as depreciation.

Gross Profit is calculated by subtracting Cost of Goods Sold (or Cost of Sales) from Sales Revenue.

General and Administrative (G&A) Expenses include the selling, general, and the administrative section that contains all other indirect costs associated with running the business. This includes salaries and wages, rent and office expenses, insurance, travel expenses, and sometimes depreciation and amortization, along with other operational expenses. Entities may, however, elect to separate out depreciation and amortization in its own section.

EBIDTA stands for Earnings before Interest, Tax, Depreciation, and Amortization. It is calculated by subtracting SG&A expenses (excluding amortization and depreciation) from gross profit.

EBIT stands for Earnings before interest and taxes. It's the profit before any non-operating income, non-operating expenses, interest, or taxes are subtracted from revenues.

EBT stands for earnings before taxes. Also known as pre-tax income, it is found by subtracting interest expense from Operating Income.

Net income is calculated by deducting income taxes from pre-tax income. This is the amount that flows into retained earnings on the balance sheet, after deductions for any dividends.