MICROECONOMICS II
UNIT 2
Theories of Distribution

Neo-Classical Approach

- The **Neo-Classical Approach** to distribution is a framework that explains how income is distributed among the factors of production—**land, labor, and capital**—based on their **marginal productivity**. This approach emphasizes market mechanisms and assumes competitive markets where factors are rewarded according to their contribution to the production process.

Key Features of the Neo-Classical Approach

- **Marginal Productivity Theory**:
- Each factor of production is rewarded according to its **marginal productivity**—the additional output produced by one more unit of the factor, holding other factors constant.
- Factor prices (wages for labor, rent for land, and interest for capital) are determined by the demand and supply of the factors.
- **Demand and Supply Framework**:
- Factor prices are determined at the equilibrium point where the demand for a factor (based on its productivity) equals its supply.
- **Perfect Competition Assumption**:
- Assumes that markets are perfectly competitive, meaning:
  - Firms are price takers.
  - Factors are mobile and can freely move between industries.
  - No single buyer or seller can influence factor prices.

- **Productivity and Efficiency:**

Distribution under the Neo-Classical approach is considered efficient because each factor is paid according to its productivity.

It ties closely to the concept of **Pareto efficiency**, where no reallocation of resources can improve one party's welfare without reducing another's.

- **Income as a Residual:**

Profits are treated as a residual, left after paying all other factors of production.

- **Criticisms of the Neo-Classical Approach**

Unrealistic Assumptions

Ignores Power and Institutions

Income Inequality

Focus on Marginal Productivity

Technology and Automation

- **Marginal Productivity Theory**

Marginal Productivity:

- Marginal productivity refers to the **additional output** generated by employing one more unit of a factor of production while keeping other factors constant.
- For example:
  - Marginal productivity of labor is the extra output from hiring an additional worker.

- **Reward Based on Contribution:**

- Factors are paid according to their marginal revenue product (MRP), which is the value of the additional output produced by the factor. Wages, rents, and interest are determined by the MRP of labor, land, and capital, respectively.

- **Equilibrium in Factor Markets:**

- Firms hire or utilize factors up to the point where the **Marginal Revenue Product** equals the **factor's price**.

- **Perfect Competition**:
- Assumes that markets for goods and factors are perfectly competitive:
    - Firms are price takers.
    - Factors are perfectly mobile.
    - Firms seek to maximize profits.
- **Efficient Allocation**:
- Ensures that resources are allocated efficiently across the economy because each factor is employed up to the point where it contributes most to production.

Criticisms of Marginal Productivity Theory

1. **Unrealistic Assumptions:**

   Perfect competition and constant returns to scale are rarely observed in real-world markets.

2. **Bargaining Power:**

   Wages and factor prices are often influenced by bargaining power, unions, and institutions rather than strict marginal productivity.

3. **Measurement Issues:**

   It is difficult to measure the marginal productivity of individual factors, especially in complex production processes.

4. **Factor Interdependence:**

   The theory assumes factors are independent, but in reality, their productivity is often interdependent (e.g., better tools enhance labor productivity).

5. **Inequality:**

   Critics argue that the theory justifies income inequality by attributing it to differences in productivity without considering social or structural factors.

6. **Limited Applicability to Monopolies:**

   The theory does not apply well in non-competitive markets, where firms have price-setting power.

- **Modern Theory of Distribution**
- **Features of the Modern Theory of Distribution**

Income Distribution Based on Productivity and Bargaining Power:

1. Modern theory acknowledges that factor incomes (wages, rents, interest, and profits) are not solely determined by **marginal productivity**.
2. **Bargaining power**, **institutional frameworks** (e.g., trade unions, minimum wage laws), and **social norms** significantly influence distribution.

Role of Demand and Supply:

1. The interaction of **demand and supply** for factors in imperfectly competitive markets determines factor prices.
2. Factor incomes are influenced by broader macroeconomic conditions, such as unemployment levels, inflation, and economic growth.

Macroeconomic Focus:

- Unlike classical theories, which emphasize individual markets, modern distribution theories consider the impact of macroeconomic factors:
  - **Aggregate demand and supply**.
  - **Savings and investment behavior** of workers and capitalists.
  - Role of government policies (taxation, subsidies, welfare programs).

Dynamic and Institutional Factors:

•The modern approach incorporates changes in technology, globalization, and institutional arrangements that affect income distribution.

•Institutional frameworks (e.g., labor laws, corporate regulations) influence how income is shared between labor and capital.

Functional vs. Personal Distribution:

•**Functional distribution** focuses on how income is distributed among factors of production (e.g., wages, rents, profits).

•**Personal distribution** examines how income is distributed across individuals or households, emphasizing inequality.

Demand and Supply Theory

Demand:

- Demand refers to the quantity of a good or service that consumers are willing and able to purchase at various prices during a given period.

Law of Demand:

- **Inverse Relationship**: As the price of a good increases, the quantity demanded decreases, and vice versa, ceteris paribus (all else being equal).
- Demand Curve: A downward-sloping curve showing the relationship between price and quantity demanded.

Determinants of Demand: Factors influencing demand include:

- **Price of the good**: Higher prices reduce demand; lower prices increase it.
- **Income**: Higher income increases demand for normal goods but may decrease demand for inferior goods.

Prices of related goods: Substitutes: An increase in the price of one good increases demand for its substitute.

- Complements: An increase in the price of one good decreases demand for its complement.

Tastes and preferences: Changing consumer preferences can shift demand.

Expectations: Future price or income expectations influence current demand.

Population size and composition: A larger or younger population may increase demand for specific goods.

- **Supply:**

Supply refers to the quantity of a good or service that producers are willing and able to sell at various prices during a given period.

- **Law of Supply**:
  - **Direct Relationship**: As the price of a good increases, the quantity supplied increases, and vice versa, ceteris paribus.
  - Supply Curve: An upward-sloping curve showing the relationship between price and quantity supplied.

Determinants of Supply: Factors influencing supply include:

- **Price of the good**: Higher prices incentivize greater production.
- **Production costs**: Higher costs (e.g., labor, materials) reduce supply.
- **Technology**: Advances in technology increase productivity and supply.
- **Prices of related goods**: A rise in the price of a substitute in production may reduce the supply of the original good.
- **Government policies**: Taxes, subsidies, and regulations can increase or decrease supply.
- **Expectations**: If producers expect higher future prices, they may reduce current supply.
- **Number of sellers**: More sellers in the market increase overall supply.

Theory of Distribution in Imperfect Product and Factor Markets

- **Theory of Distribution in Imperfect Product and Factor Markets** addresses how income is distributed when markets deviate from perfect competition. Imperfections in markets—such as monopolies, monopsonies, oligopolies, or monopolistic competition—affect the pricing of goods and factors (wages, rents, interest, and profits), leading to outcomes that differ from those predicted under perfect competition.

Characteristics of Imperfect Markets

1. **Imperfect Product Markets:**
   1. Firms have **market power**, allowing them to set prices above marginal cost.
   2. Examples: Monopolies, oligopolies, monopolistic competition.
2. **Imperfect Factor Markets:**
   1. Buyers or sellers of factors (e.g., labor, land) have bargaining power.
   2. Examples:
      1. **Monopsony:** A single buyer of labor (e.g., a dominant employer in a small town).
      2. **Bilateral Monopoly:** Both a single seller (union) and a single buyer (employer) exist in the market.
3. **Barriers to Entry:**

   High entry barriers prevent new firms from entering the market, sustaining market power for existing players.
4. **Asymmetric Information:**

   Participants lack complete information, leading to inefficient outcomes.

The determination of rent, wages, interest, and profit

- **Determination of Rent**

Rent is the payment made for the use of land or other natural resources.

Theories of Rent:

Ricardian Theory of Rent:

1. Proposed by David Ricardo, rent arises due to the scarcity of land and its differential productivity.
2. **Economic Rent** is the surplus earned by land over and above its opportunity cost.

Modern Theory of Rent:

- Rent arises due to the demand and supply of land.
- Land is a perfectly inelastic factor of production (fixed in supply), so its price (rent) depends solely on demand.

Quasi-Rent:

- Alfred Marshall extended the concept of rent to include temporary surpluses earned by capital goods, such as machines, in the short run.

- **Determination of Wages**

Wages are payments to labor for their contribution to the production process.

Theories of Wages:

Subsistence Theory of Wages:

Proposed by economists like David Ricardo, wages tend to gravitate toward the subsistence level, i.e., the minimum necessary for workers' survival.

Wage Fund Theory:

Wages are determined by a pre-existing fund of capital allocated for paying labor, divided by the number of workers.

Marginal Productivity Theory:

- Wages are determined by the **marginal revenue product (MRP)** of labor, i.e., the additional output generated by employing one more worker.

Bargaining Theory of Wages:

- Wages depend on the bargaining power of labor unions and employers.

Modern Theory of Wages:

- Wages are determined by the interaction of **demand and supply of labor** in the labor market, considering non-wage factors like skills, education, and bargaining power.

- **Determination of Interest**

Interest is the payment made for the use of capital (borrowed money or physical assets).

- **Theories of Interest:**

Classical Theory of Interest:

1. Interest is determined by the interaction of **savings (supply of capital)** and **investment (demand for capital)**.
2. Higher interest rates incentivize savings and reduce investments, and vice versa.

Loanable Funds Theory:

1. Interest is determined by the supply and demand for loanable funds, which include savings, dis-savings, and bank credit.

Keynesian Liquidity Preference Theory:

- Interest is determined by the demand for and supply of money.
- Individuals demand money for **transaction**, **precautionary**, and **speculative purposes**.

Modern Theory of Interest:

- Combines elements of loanable funds and liquidity preference theories.
- Interest is influenced by factors such as inflation, risk, monetary policy, and expectations about future economic conditions.

- **Determination of Profit**

Profit is the reward for entrepreneurship and risk-taking in production.

- **Theories of Profit:**

Dynamic Theory of Profit:

1. Proposed by J.B. Clark, profit arises in dynamic economies where entrepreneurs introduce innovations and undertake risks.

Innovation Theory of Profit:

1. Proposed by Joseph Schumpeter, profit is the reward for introducing innovations like new products, processes, or markets.

Risk-Bearing Theory of Profit:

- Proposed by F.B. Hawley, profit compensates entrepreneurs for taking risks in uncertain business environments.

Uncertainty-Bearing Theory of Profit:

- Frank Knight distinguished between **measurable risk** (covered by insurance) and **uncertainty**. Profits are the reward for dealing with uncertainty.

Modern Theory of Profit:

- Profit is determined by factors like market structure (competition, monopoly), firm efficiency, and macroeconomic factors (inflation, government policies).

Macro Theories of Distribution

- **Ricardian Theory of Distribution**

Proponent: David Ricardo (Classical Economist)
Focus: The distribution of income among landlords (rent), workers (wages), and capitalists (profits).

Main Tenets:

- Ricardo emphasized that **land** is a scarce and fixed resource, leading to the emergence of **rent.**
- National income is distributed among rent, wages, and profits based on the productivity of each factor of production.

1. **Wages:**
   1. Determined at the **subsistence level**, which is the minimum needed for workers' survival.
   2. If wages rise above the subsistence level, population growth increases the labor supply, pushing wages back down.

1. **Rent**:
    1. Rent arises because of differences in the fertility and productivity of land.
    2. More fertile lands generate **economic rent**, a surplus above the cost of cultivation.
    3. **Ricardo's Law of Rent**: Rent depends on the difference between the productivity of a particular land and the least productive (marginal) land in use.
2. **Profits**:
    1. Profits are the residual income after paying wages and rent.
    2. As wages rise due to population growth, profits decline, leading to Ricardo's prediction of a **"stationary state"** where economic growth halts due to diminishing profits.

- **Criticism:**

- Overemphasis on the subsistence wage theory, ignoring technological advancements.
- Neglects the dynamic role of capital and innovation in economic growth.

- **Marxian Theory of Distribution**

Proponent: Karl Marx
Focus: Class struggle between labor and capital as the driving force of income distribution.

Main Tenets:

1. **Labor Theory of Value**:
   1. All value is created by labor. The value of a product is proportional to the amount of socially necessary labor required to produce it.
2. **Surplus Value**:
   1. Capitalists exploit labor by paying workers less than the value they produce. The difference, called **surplus value**, is appropriated by capitalists as profits.
3. system would eventually collapse due to the growing disparity between the working class and capitalists, leading to a socialist revolution.

Wages:

1. Determined at the subsistence level, as competition among workers keeps wages low.

Profits:

1. Profit is derived from the exploitation of labor and represents the unpaid portion of workers' labor.
2. The accumulation of capital increases inequality, leading to economic crises.

Crisis and Revolution:

Marx predicted that the capitalist

Criticism:

- Overemphasis on exploitation and class struggle.
- Inapplicable to modern economies with labor rights, welfare policies, and democratic institutions.

- **Kalecki's Theory of Distribution**
- **Proponent**: Michal Kalecki (Post-Keynesian Economist)
  Focus: Functional distribution of income between wages and profits in a monopolistic economy.

Main Tenets:

Monopoly Power:

1. Firms with monopoly power set prices above marginal cost, leading to a higher profit share.
2. The degree of monopoly determines the share of profits in total income.

Determinants of Income Distribution:

- **Wages**: Depend on employment levels and aggregate demand.
- **Profits**: Depend on the level of investment, as profits are equal to the sum of capitalists' consumption and investment:

Income Inequality:

In monopolistic markets, income distribution becomes skewed in favor of profits due to higher mark-ups.

Policy Implications:

- Policies to reduce monopoly power can lead to a more equitable distribution of income.
- Stimulating aggregate demand is crucial for maintaining employment and improving labor's share of income.

Criticism:

- Simplifies the role of wages and profits by focusing solely on monopoly power.
- Neglects the dynamic effects of technological changes and globalization.

- **Kaldor's Theory of Distribution**

Proponent: Nicholas Kaldor (Post-Keynesian Economist)
Focus: The relationship between income distribution, savings, and economic growth.

Main Tenets:

Propensity to Save:

1. Income distribution between wages and profits depends on the savings behavior of workers and capitalists.
2. Workers save a smaller proportion of their income compared to capitalists.

Savings-Investment Equilibrium:

1. Economic growth requires a balance between savings and investment.
2. Profits adjust to ensure that total savings equal investment.

Income Distribution and Growth:

- A higher profit share in national income leads to higher savings, which finances investment and promotes growth.

Stability of Distribution:

- Kaldor argued that income distribution between profits and wages is relatively stable over time in advanced economies.

Policy Implications:

- Redistribution of income (e.g., through taxation or welfare policies) affects savings, investment, and long-term economic growth.

Criticism:

- Overemphasis on savings and investment as determinants of distribution.
- Does not account for structural changes like technological progress and globalization.