

- Macroeconomics, Basic Concepts and Circular Flow of Income
- National Income Accounting
- GDP and Welfare

Macroeconomics, Basic Concepts and Circular Flow of Income

Concept Explanation: Macroeconomics studies the economy as a whole, focusing on aggregates like national income and general price levels. It analyses total production, income, and expenditure in an economy.

Key Definitions / Features:

- **Consumption Goods:** Goods used directly to satisfy human wants.
- **Capital Goods:** Goods used to produce other goods, either as fixed assets or inventory.
- **Final Goods:** Goods purchased for final consumption or investment.
- **Intermediate Goods:** Goods used as raw materials for further production within the same year.
- **Stock:** Quantity measured at a point in time (e.g., wealth, assets).
- **Flow:** Quantity measured over a period of time (e.g., national income).
- **Gross Investment:** Total addition to physical capital stock including depreciation.
- **Net Investment:** Net addition to capital stock after depreciation.
- **Depreciation:** Reduction in value of fixed capital due to wear and tear.
- **Circular Flow of Income:** Continuous flow of production, income, and expenditure between sectors.

Two-Sector Model Assumptions:

- Economy consists of producers and households only.
- Households spend entire income; no savings.
- Closed economy: no exports or imports.
- No government sector.

In this model, households provide factors of production to firms, firms pay factor incomes, households spend income on goods produced by firms, creating a continuous circular flow.

Illustrative Example:

Households supply labor and capital to firms; firms pay wages and profits; households use income to buy goods; firms receive revenue; cycle repeats.

Practice Set:

- *Level 1:* Define consumption goods and capital goods with examples.
- *Level 2:* Explain the assumptions of the two-sector circular flow model.
- *Level 3:* Analyze the impact of introducing savings in the two-sector model.

Answer Key:

- Consumption goods satisfy direct wants, e.g., food, clothes.
- Capital goods used to produce other goods, e.g., machinery.
- Two-sector model assumes no savings, closed economy, no government.
- Introducing savings breaks circular flow, reducing income and output.

Quick Reference: Circular flow links production, income, and expenditure in an economy.

Glossary:

- **Aggregate:** Total amount in economy.
- **Depreciation:** Wear and tear of capital.
- **Flow Variable:** Measured over time.
- **Stock Variable:** Measured at a point in time.

National Income Accounting

Concept Explanation: National income accounting measures the total income earned by residents of a country, using various methods to estimate economic activity.

Key Definitions / Features:

- **National Income (NI):** Sum of factor incomes earned by normal residents.
- **Methods of Calculation:** Value Added (Product) Method, Income Method, Expenditure Method.
- **Value Added Method:** Sum of gross value added by all sectors minus depreciation and net indirect taxes.
- **Income Method:** Sum of wages, rent, interest, and profits paid to factors of production.
- **Expenditure Method:** Sum of expenditures on final goods and services: consumption, investment, government spending, and net exports.
- **Precautions:** Avoid double counting, exclude second-hand goods, illegal activities, transfer payments.

Illustrative Example:

Calculation of Net Domestic Product at Market Price (NDP_{mp}):

Gross Value Added (Primary + Secondary + Tertiary) – Depreciation

Calculation of National Income (NNP_{fc}):

NDPmp – Net Indirect Taxes + Net Factor Income from Abroad

Practice Set:

- *Level 1:* Define National Income and list its components.
- *Level 2:* Calculate GDP using expenditure method given data on consumption, investment, government spending, exports, and imports.
- *Level 3:* Identify errors in a given national income calculation involving double counting and transfer payments.

Answer Key:

- National Income is total factor income earned by residents.
- $GDP = C + I + G + (X - M)$
- Exclude transfer payments and second-hand goods to avoid errors.

Quick Reference: National Income = NDP at factor cost + Net Factor Income from Abroad.

Glossary:

- **Gross Domestic Product (GDP):** Total value of final goods/services produced domestically.
- **Net Domestic Product (NDP):** GDP minus depreciation.
- **Net Factor Income from Abroad (NFIA):** Income earned by residents from abroad minus income paid to foreigners.
- **Transfer Payments:** Payments without value addition, e.g., pensions.

GDP and Welfare

Concept Explanation: GDP measures economic output but does not fully capture welfare or well-being of people. Welfare depends on economic and non-economic factors.

Key Definitions / Features:

- **GDP Deflator:** Measures price level changes by comparing nominal GDP to real GDP.
- **Formula:**

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

- **Welfare:** Material well-being influenced by income, consumption, environment, law and order.
- **Economic Welfare:** Welfare from economic factors like income and consumption.
- **Non-Economic Welfare:** Welfare from social, environmental factors.
- **Social Welfare:** Sum of economic and non-economic welfare.

Limitations of GDP as Welfare Indicator:

- **Externalities:** Negative effects like pollution not deducted.
- **Composition:** GDP growth from harmful goods (e.g., weapons) does not improve welfare.
- **Distribution:** Unequal income distribution limits welfare gains.
- **Non-monetary activities:** Unpaid work not included.

Illustrative Example:

Increase in GDP due to industrial pollution may harm welfare despite economic growth.

Practice Set:

- *Level 1:* Define GDP deflator and its purpose.
- *Level 2:* Explain why GDP growth may not increase welfare.
- *Level 3:* Analyze a scenario where GDP rises but social welfare declines.

Answer Key:

- GDP deflator measures inflation by comparing nominal and real GDP.
- GDP growth may ignore negative externalities and inequality.
- Example: Increased production causing pollution reduces social welfare.

Quick Reference: Welfare depends on both economic output and quality of life factors.

Glossary:

- **Externality:** Uncompensated effect of production/consumption on others.
- **Nominal GDP:** GDP at current prices.
- **Real GDP:** GDP adjusted for inflation.
- **GDP Deflator:** Price index measuring inflation.