



# What is National Income?

- National income measures the total value of goods and services produced within the economy over a period of time.
- National Income can be calculated in different ways
- 1. The **sum of factor incomes** earned in production
- 2. **Aggregate demand** for goods and services
- 3. The **sum of value added** from each productive sector of the economy



## Why is national income important?

- Measuring the level and rate of growth of national income ( $Y$ ) is important to economists when they are considering:
  - Economic growth and where a country is in the business cycle.
  - Changes to average living standards of the population.
  - Distribution of national income (i.e. measuring income and wealth inequalities).



## Gross Domestic Product (GDP)

- GDP measures the value of output produced within the domestic boundaries of the UK.
- GDP includes the output of the foreign owned firms with production plants located in the UK.
- There are three ways of calculating GDP - all of which should sum to the same amount since by identity:
- **National Output = National Expenditure = National Income**
- Under the new definitions introduced in 1998, GDP is now known as Gross Valued Added.

# Aggregate Demand (AD)

- AD is the sum of the final expenditure on UK produced goods and services measured at current market prices
- The full equation for GDP using this approach is
- $GDP = C + I + G + (X - M)$
- C: Household spending (consumption)
- I: Capital Investment spending
- G: General Government spending
- X: Exports of Goods and Services
- M: Imports of Goods and Services



# GDP by Factor Income

- GDP is the sum of the final incomes earned through the production of goods and services
- The main factor incomes are as follows:
  - Income from employment and self-employment
  - Profits of commercial companies
  - Rental income from the ownership of property
- = Gross Domestic product (by Income Approach)



## GDP by Factor Income

- Only factor incomes generated through the output of goods and services are included in the calculation of GDP by the income
- We exclude from the accounts:
  - **Transfer payments** (e.g. the state pension, income support and the Jobseekers' Allowance).
  - Private transfers of money from one individual to another.
  - Income that is not registered with the Inland Revenue.
  - There is a sizeable shadow economy in which income and spending is generated but no tax is declared.
  - The shadow economy may be as high as 10% of the UK's annual GDP.



## Welfare benefits

- Welfare benefits are excluded from the income approach to calculating national income
- This is because welfare benefits are simply transfers rather than a reward for factors of production





## **GDP by Value Added from each Sector**

- This measures the value of output produced by each industry using the concept of value added
- Value added is the difference between the value of goods as they leave a stage of production and the cost of the goods as they entered that stage
- We use this approach to avoid the problems of double-counting the value of intermediate inputs
- We try to calculate the value added at each stage of the supply chain
- This is difficult when production is complex





# GDP and GNP

- Gross National Product (GNP) measures the final value of output or expenditure by UK owned factors of production whether they are located in the UK or overseas
- Output produced by Nissan in the UK counts towards our GDP but some of the profits made by Nissan here are sent back to Japan – adding to their GNP
- $GNP = GDP + \text{Net Factor Income from Abroad (NFIA)}$
- NFIA is the net balance of interest, profits and dividends coming into the UK from UK assets owned overseas matched against the flow of profits and other income from foreign owned assets located within the UK



# GDP and GNP

- GDP is the value of output produced by factors of production located within a country
- Output produced by a country's citizens, regardless of where the output is produced, is measured by gross national product (GNP)
- For the UK, GNP is higher than GDP



## Limitations of national income data

- Each method of estimating GDP is imprecise leading to inaccuracies in the published figures.
- Non-marketed output e.g. the value of housework and voluntary activities are not yet part of official NI figures.
- Undeclared economic activity e.g. shadow or informal economy is excluded from official NI figures.
- Transfer payments are excluded i.e. benefit payments received with no corresponding output e.g. unemployment and child benefits.
- Double counting. In the output method of calculating GDP we ignore intermediate output and count only value added – but this is done by using a sample of firms from each industry and calculating value added can be difficult.



# GDP and the standard of living

- **Once GNP has been calculated it is**
  - **Converted into US dollars at the official exchange rate**
  - **Divided by the country population**
- **This gives an average figure for GNP per head**
- The standard of living refers to the amount of goods and services consumed by households in one year and is found by applying the equation:  
$$\text{Standard of living} = \text{Real national income} / \text{Population}$$
- A high standard of living means households consume a large number of goods and services.