Chapter 19
Introduction to macroeconomics

David Begg, Stanley Fischer and Rudiger Dornbusch, *Economics*,
8th Edition, McGraw-Hill, 2005
PowerPoint presentation by Alex Tackie and Damian Ward

Macroeconomics is …

- the study of the economy as a whole
- it deals with broad aggregates

Some key issues in macroeconomics

- Inflation
  - the rise in the general price level of the country is called inflation
- Unemployment
  - a measure of the number of people looking for work, but who are without jobs
- Output
  - real gross national product (GNP) measures total income of an economy
    - it is closely related to the economy's total output

More key issues in macroeconomics

- Economic growth
  - increases in real GNP is an indication of the expansion of the economy’s total output thus increase in economic growth
- Macroeconomic policy
  - a variety of policy measures used by the government to affect the overall performance of the economy

National income

- **National income**

The sum of earnings of all factors of production is known as national income

- **Personal income**

The income received by a person from all sources

Net National product

It is equal to GNP minus Depreciation

Depreciation

It is the amount of capital stock that wears out each year

Real vs. Nominal GDP

- ***Real GDP*** : inflation adjusted GDP is real GDP

or

it is the total value of the final goods and services produced in the economy during a given year, calculated using the prices of a selected base year.

- ***Nominal GDP***
- It is the value of all final goods and services produced in the economy during a given year evaluated in current US $.

or

It is the value of all final goods and services produced in the economy during a given year, calculated using the current year prices in which the output is produced.

- ***Real GDP*** : inflation adjusted GDP is real GDP **or**

it is the total value of the final goods and services produced in the economy during a given year, calculated using the prices of a selected base year.

For example, assume the base year is 2009. 2009 Real GDP uses 2009 prices and 2009 quantities. 2015 real GDP uses 2009 prices and 2015 quantities.

- ***Nominal GDP***

It is GDP measured in current dollars **or**

It is the value of all final goods and services produced in the economy during a given year, calculated using the current year prices in which the output is produced.

- **Nominal GDP:**
  - Measured at current prices.
  - Reflects both price changes and output changes.
  - May give a misleading picture of economic growth.
- **Real GDP:**
  - Measured at constant prices (adjusted for inflation).
  - Reflects only changes in output.
  - Provides a more accurate measure of economic growth

Three measures of national output

- **Expenditure approach**
  - the sum of expenditures in the economy
  - $Y = C + I + G + X – Z$

  Where c = consumption, I = investment, G= govt expenditures, X = exports and Z = imports
- **Income approach**
  - the sum of incomes paid for getting factor services
  - wages, profits, rents etc.
- **Output approach**
  - the sum of output (value added) produced in the economy

THE INCOME (Factor Payment) APPROACH

This approach adds together all the income earned in the production of goods & services

Wages (income from labor)

+ Rents (income from natural resources)

+ Interest (income from capital investments)

+ Owner's Income (profit earned by sole proprietorship and partnerships)

+ Corporate Profits

= TOTAL INCOME EARNED

Measuring inflation

- **Price index**

A price index that measures how much prices have changed over time

Price index measures the aggregate price level relative to the chosen base year

Consumer Price Index (CPI). CPI measures the retail prices of fixed market basket of several thousands goods and services purchased by households

producer price index (PPI) measures the wholesale prices of approximately 3,000 items

Measuring inflation: GDP Deflator

- An accurate view of the economy requires adjusting nominal to real GDP by using the GDP deflator.
- The GDP deflator measures the current level of prices relative to the level of prices in the base year.
- It tells us the rise in nominal GDP that is attributable to a rise in prices rather than a rise in the quantities produced.

GDP Deflator

The GDP deflator is calculated as follows:

$$\textbf{GDP deflator} = \frac{\textbf{Nominal GDP}}{\textbf{Real GDP}} \times \textbf{100}$$

Converting Nominal GDP to Real GDP

Nominal GDP is converted to real GDP as follows:

$$\textbf{Real GDP}_{20xx} = \frac{(\textbf{Nominal GDP}_{20xx})}{(\textbf{GDP deflator}_{20xx})} \times 100$$

Assignment

- **Practical Application**
- **Country Example:** Use a specific country's GDP, CPI, GNP data for 20 years to demonstrate the trend of these macroeconomic indicators.
- Walk through the calculation of the GDP deflator using specific nominal and real GDP values.