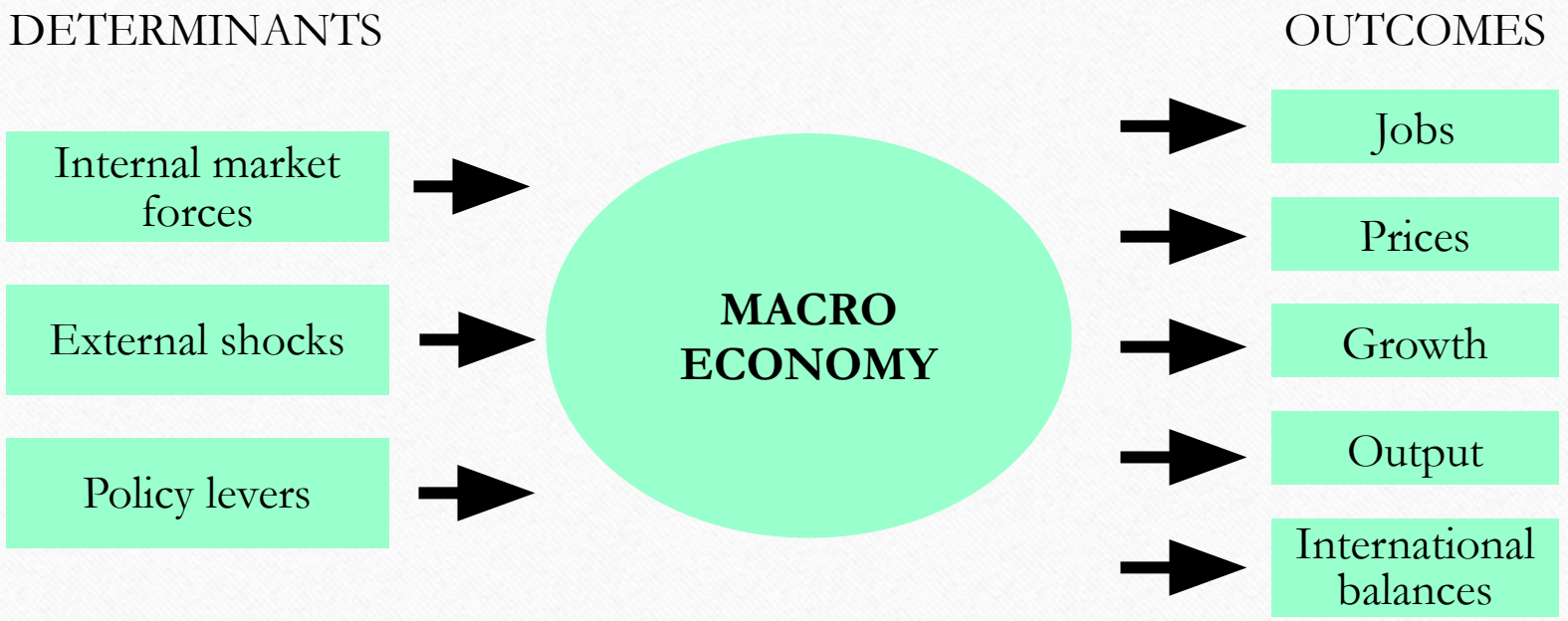
Chapter 23

Measuring a Nation's Income

Introduction

- Microeconomics
  - Study of how individual households and firms make decisions and how they interact with one another in markets
- Macroeconomics
  - Study of the economy as a whole
  - Its goal is to explain the economic changes that affect many households, firms, and markets at once

The macro economy



Goals

- Macroeconomics answers questions like the following:
  - Why is average income high in some countries and low in others?
  - Why do prices rise rapidly in some time periods while they are more stable in others?
  - Why do production and employment expand in some years and contract in others?

Economy's income and expenditure

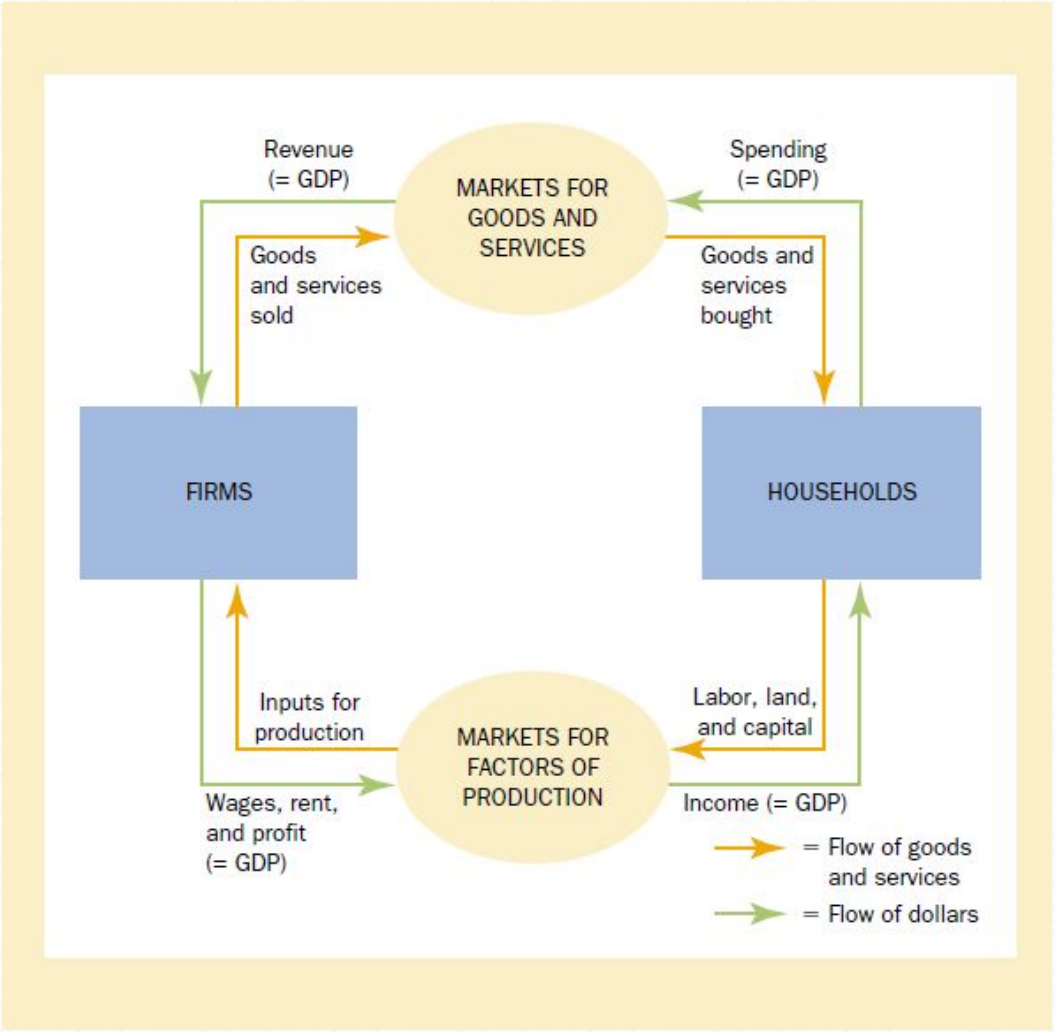
- When judging whether the economy is doing well or poorly, it is natural to look at the total income that everyone in the economy is earning
- For an economy as a whole, **income must equal expenditure** because:
  - Every transaction has a buyer and a seller.
  - Every dollar of spending by some buyer is a dollar of income for some seller.

The measurement of gross domestic product

- **Gross domestic product (GDP)** is a measure of the income and expenditures of an economy
- It is the total market value of all final goods and services produced within a country in a given period of time

Circular flow diagram

- Flow of money between firms and households



GDP

- GDP is the market value of all final goods and services produced within a country in a given period of time
- GDP includes all items produced in the economy and sold **legally** in markets.

What's not included?

- What Is Not Counted in GDP?
  - GDP excludes most items that are produced and consumed at home and that never enter the marketplace.
  - It excludes items produced and sold illicitly, such as illegal drugs.

Components of GDP

- GDP (*Y*) is the sum of the following:
  - Consumption (C)
  - Investment (I)
  - Government Purchases (G)
  - Net Exports (NX)

$$Y = C + I + G + NX$$

Real versus nominal GDP

- **Nominal GDP** values the production of goods and services at **current prices**
- **Real GDP** values the production of goods and services at **constant prices**

Example

Prices and Quantities				
Year	Price of Hot Dogs	Quantity of Hot Dogs	Price of Hamburgers	Quantity of Hamburgers
2001	$1	100	$2	50
2002	2	150	3	100
2003	3	200	4	150

Cont…

Year	Calculating Nominal GDP
2001	($1 per hot dog × 100 hot dogs) + ($2 per hamburger × 50 hamburgers) = $200
2002	($2 per hot dog × 150 hot dogs) + ($3 per hamburger × 100 hamburgers) = $600
2003	($3 per hot dog × 200 hot dogs) + ($4 per hamburger × 150 hamburgers) = $1,200

Cont…

Year	Calculating Real GDP (base year 2001)
2001	($1 per hot dog × 100 hot dogs) + ($2 per hamburger × 50 hamburgers) = $200
2002	($1 per hot dog × 150 hot dogs) + ($2 per hamburger × 100 hamburgers) = $350
2003	($1 per hot dog × 200 hot dogs) + ($2 per hamburger × 150 hamburgers) = $500

GDP deflator

- The **GDP deflator** is a measure of the price level calculated as the ratio of nominal GDP to real GDP times 100.
- 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=(Nominal GDP/Real GDP)*100

GDP deflator

Year	Calculating the GDP Deflator
2001	($200/$200) × 100 = 100
2002	($600/$350) × 100 = 171
2003	($1,200/$500) × 100 = 240

GDP and well-being

- GDP is the best single measure of the economic well-being of a society
- GDP per person tells us the income and expenditure of the average person in the economy
- Higher GDP per person indicates a higher standard of living
- GDP is not a perfect measure of the happiness or quality of life, however