

# Microeconomics summary chap 6

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## 1. How is the economy doing? How can we tell?

- During the great depression, **Simon Kuznets** won the Nobel prize for coming up with a way of measuring how bad the situation was, his invention was GDP.

## 2. Introduction to the macroeconomics perspective

- Macroeconomics involves adding up the economic activity of all households and all businesses in all markets to obtain the overall demand and supply in the economy.
- What seems sensible from a microeconomic point of view can have unexpected or counterproductive results at the macroeconomic level.
- Three different perspectives of macroeconomics as a subject of study:
  1. **Goals** (what are the goals): Economic growth, low unemployment, low inflation.
  2. **Framework** (in order to analyze the economy): Aggregate demand / aggregate supply, Keynesian model, Neoclassical model.
  3. **Policy Tools** (policy tools for governments to use): Monetary policy, Fiscal policy.

### 2.1. Goals: economic growth

- Determines the prevailing standard of living in a country.
- Economists measure growth by the percentage change in real (inflation-adjusted) gross domestic product.
- Growth rate of more than 3 % is considered good.

Economic growth:

- Frameworks are usually theories and models.
- In microeconomics we had supply and demand, in macroeconomics we have aggregate supply and aggregate demand.
- AS and AD have two perspectives: the Keynesian and the neoclassical.

Unemployment:

- Measured by the unemployment rate.
- Unemployment is unlikely to be zero.
- Economists consider a measured unemployment rate of 5 % or less low (good).

Inflation:

- Measured by the consumer price index.
- If prices are rising much faster than the wages workers receive for their labor, there will be widespread unhappiness as their standard of living declines
- Low inflation—an inflation rate of 1–2 %—is a major goal.

## 2.2. Frameworks

- The principal tool are theories that interpret aggregate supply and aggregate demand, two interpretations in this book are the Neoclassical and the Keynesian.

## 2.3. Policy tools

- Monetary policy: managing the money supply and interest rates.
- Fiscal policy: changes in government spending/purchases and taxes.

# 3. Measuring the size of the economy: gross domestic product

- GDP is the way to measure the size of the economy.
- GDP: the value of all final goods and services produced within a country in a given year.
- GDP can be measured by: total dollar value of what consumers purchase in the economy; or; total dollar value of what the country produces. And adding all the income from all the businesses.

### 3.0.1. GDP measured by components of demand

Who buys all of the production is divided into four groups:

1. Consumer spending (consumption): about 2/3 of GDP, it doesn't fluctuate a lot, it changes gradually over time.
2. Business spending (investment): about 15 % to 18 % of GDP, it fluctuates more noticeably than consumption, this is because the unpredictable changes in technology and/or consumer confidence.
3. Government spending on goods and services: slightly under 20 %, it includes spending on all levels (federal, state and local), government also gives benefits for social security and other things, this is not accounted for inside GDP because it doesn't produce a good or service, what's included in GDP are things like a new public school construction, a new fighter jet for the Air Force.
4. Spending on net exports: net exports are all exports minus the imports.
  - We call the difference or gap between the imports and the exports the **trade balance**.
  - if (**exports > imports**) then a **trade surplus** exists.
  - if (**exports < imports**) then a **trade deficit** exists.
  - If exports and imports are equal, foreign trade has no effect on total GDP. (Since exports and imports would be zero). However foreign trade can have an influence on the country even if the country is balanced.

Based on the four components of demand:

$$\text{GDP} = \text{Consumption} + \text{Investment} + \text{Government Spending} + \text{Trade balance}$$

$$\text{GDP} = C + I + G + (X - M)$$

### 3.0.2. What does the word “investment” mean?

- It refers to purchasing new capital goods, new commercial real estate, for example: buildings, factories, stores, equipment, residential housing, construction, and inventories.
- Inventories are included even if they haven't yet been sold.
- Investment does **not** mean: purchasing stocks and bonds or trading financial assets.

### 3.1. GDP Measured by what is produced

What countries produce are divided into five categories:

- Durable goods: this category has been increasing.
- Nondurable goods: this category has been dropping.
- Services: this category has been increasing.
- Structures: span everything from buildings, shopping malls and factories.
- Change in inventories: this is the smallest category, it includes all the inventory which has not yet been sold. Inventories rise if businesses are

GDP measured according to what is produced is exactly equal the same as the GDP measured by looking at the five components of demand. This is because every transaction must have a **buyer** and a **seller**.

#### 3.1.1. Another way to measure GDP: National income approach

- Add all the income produced in a year provides a second way of measuring GDP.
- This is why the terms GDP and national income are sometimes used interchangeably.

### 3.2. The problem of double counting

- To avoid this problem, which would overstate the size of the economy considerably, government statisticians count just the value of final goods and services in the chain of production that are sold for consumption, investment, government, and trade purposes.
- Statisticians exclude intermediate goods, which are goods that go into producing other goods, from GDP calculations.

### 3.3. Other ways to measure the economy

Gross National Product (GNP):

- GNP: based more on what a country's citizens and firms produce, wherever they are located.
- GDP vs. GNP: GDP is strictly what a country produces inside the borders, GNP is what is produced inside and outside of the borders.

Net National Product (NNP):

- NNP: is the value of the GNP minus the depreciation.

## 4. Adjusting Nominal values to Real Values

- Nominal value: measure the statistic in terms of actual prices that exist at the time.
- Real value: the same statistic after it has been adjusted for inflation.
- GDP Deflator: is a price index measuring the average prices of all goods and services included in the economy.

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}}$$

Round to two decimal places or multiply times 100.

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\left( \frac{\text{Price Index}}{100} \right)}$$

### 4.0.1. Find the real GDP growth rate

Computing change or real GDP growth between 1960 to 2010:

$$\frac{2010 \text{ real GDP} - 1960 \text{ real GDP}}{1960 \text{ real GDP}} \times 100 = \% \text{ change}$$

Nominal:

$$\text{Nominal} = \text{Price} \times \text{Quantity}$$

$$\% \text{ change in Nominal} = \% \text{ change in price} + \% \text{ change in quantity}$$

or

$$\% \text{ change in quantity} = \% \text{ change in nominal} - \% \text{ change in Price}$$

## 5. Tracking Real GDP over time

- GDP is reported annually, however a GDP number is reported every quarter, as a quarter GDP number is compiled it's multiplied by four to report it as annual.
- We call a significant decline in real GDP a recession. A lengthy and deep recession a depression.
- Peak: the highest point in the economy before the recession begins.
- Trough: lowest point of the recession before recovery.
- Business cycle: the economy's movement from peak to trough and trough to peak.

## 6. Comparing GDP among countries

- Problems: Different populations and different currencies.
- Exchange rate: value of a currency in terms of another. There are two types, market exchange rate and purchasing power parity (PPP).

$$\text{Brazil's GDP in \$ U.S} = \frac{\text{Brazil's GDP in reals}}{\text{Exchange rate (reals / \$U.S)}}$$

## 7. GDP per capita

GDP per capita:

$$\text{GDP per capita} = \frac{\text{GDP}}{\text{Population}}$$

## 8. How well GDP Measures the well-being of society

- Standard of living: includes all elements that affect people's well-being, whether they are bought and sold in the market or not.

GDP does not measure:

- Leisure time
- Levels of environmental cleanliness, health and learning
- Life expectancy, infant mortality, literacy rates
- Production that isn't exchanged in the market, autoproduction
- Inequality in a society
- Variety available
- Technology and products available

It is possible for GDP to rise and standard of living decrease.

## 9. Does a rise in GDP overstate or understate the rise in the standard of living?

- GDP doesn't measure a lot of things, thus it isn't a good indicator for measuring standards of living, it is helpful for measuring production, measuring if we are materially better off on terms of jobs and incoms.
- No single number can capture all the elements of a term as broad as "standard of living." Nonetheless, GDP per capita is a reasonable, rough-and-ready measure of the standard of living.