The macroeconomic perspective

EC 103–02

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Motivation

Housekeeping

Required readings:

- `CORE, ch. 13`

    - Sections `13.3` & `13.4`

- `OpenStax, ch. 6`.

Last time

After a brief overview of what defines the **capitalist** social system, we will focus on how this system works as a **whole**.

In case one is interested in the economic functioning of the entire system, it requires studying **Macroeconomics**.

- Macroeconomics focuses on the **determinants** of total *national* output (i.e., its *goods* and *services*).

Thus we **do not** focus on *household* income, but *national* income; not individual prices, but the *whole economy*'s price level, and so on.

The size of the economy

The size of the economy

What is the size of the US economy?

The size of the economy

Economists use **aggregate statistics** to describe macroeconomic phenomena.

- Here, *aggregate* simply means **sum**.

Among these, the **Gross Domestic Product** (GDP) is the leading measure of a country's overall economic *performance* and *size.*

- It is the sum (in money value) of all **final** goods and services produced in an economy in a given year. As described by the economist Diane Coyle:

  > *"Everything from nails to toothbrushes, tractors, shoes, haircuts, management consultancy, street cleaning, yoga teaching, plates, bandages, books, and the millions of other services and products in the economy."*

The size of the economy

Notice that GDP only accounts for **final goods and services**.

- *What does this mean?*

Many goods are produced by one firm and further used in production as an **input** by another firm.

Also, the same idea can be applied to **used goods**.

This is done to avoid **double counting**.

This `short document by the BEA` may help you in getting a better idea on final/intermediate goods.

Key macroeconomic problems

Key macroeconomic problems

Macroeconomic problems and concerns are diverse, but may be summmarized by **three** major issues:

1. **Output growth**;
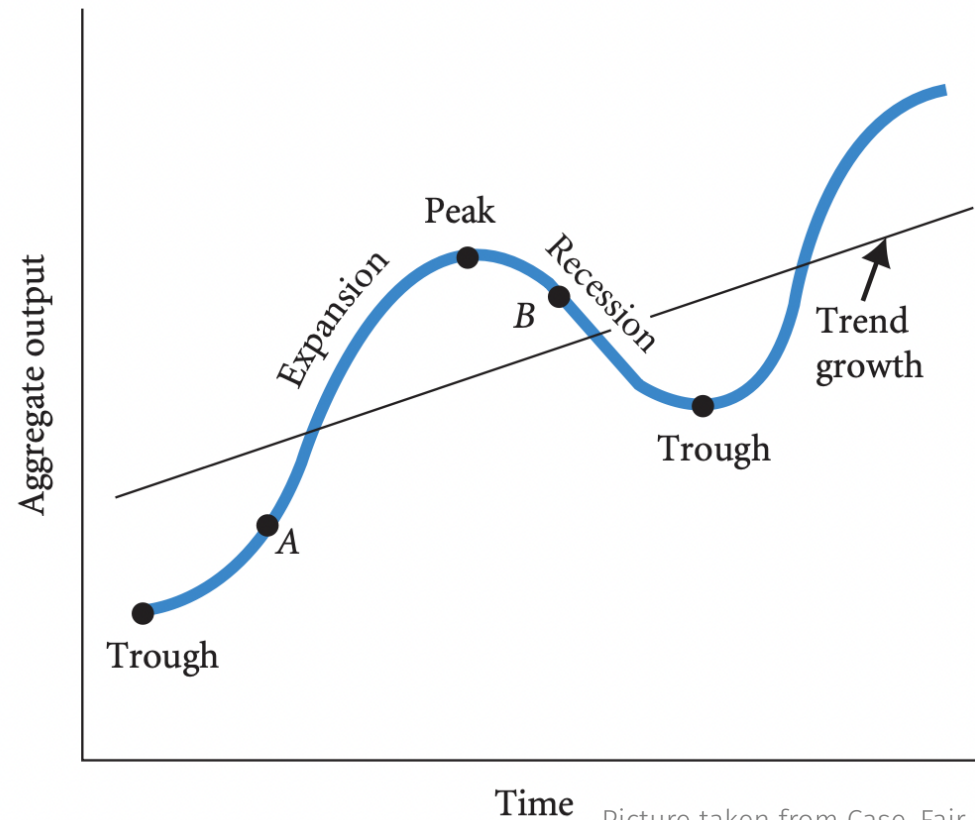
2. **Unemployment**;

3. **Inflation**.

Every economic policy maker will state that their goals are **high output growth**, **low unemployment**, and **low inflation** (or stable prices).

...But are these *feasible* altogether?
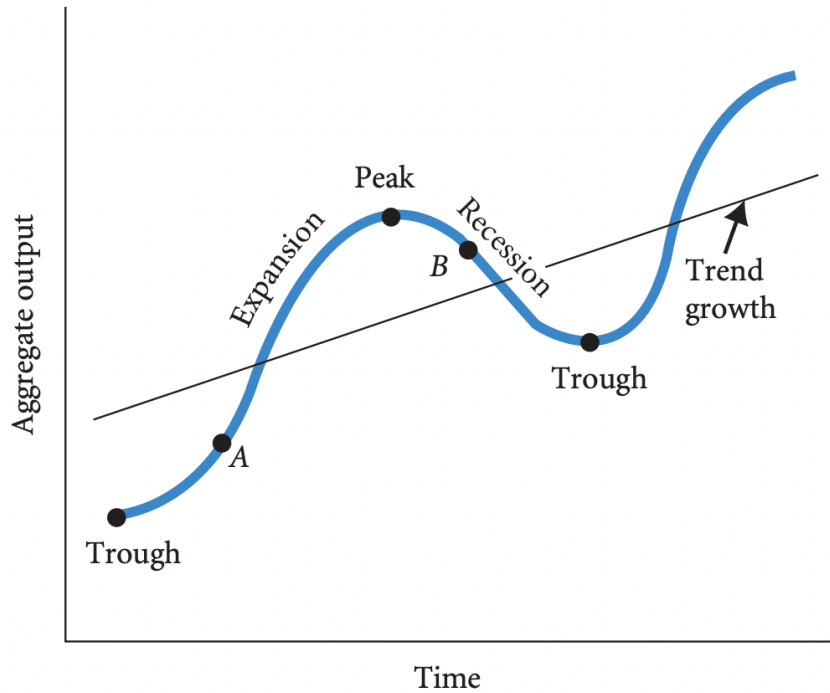
Key macroeconomic problems

On average, economies tend to **rise** over time.

However, this process has its short-run *ups* and *downs*.

Picture taken from Case, Fair, and Oster (2012).

Key macroeconomic problems

- These periods of *ups* and *downs* experienced by a national economy are known as **business cycles.**

- The highest point of the business cycle is known as the **peak**.

- The lowest, the **trough**.

- An economic **expansion** is the period from a *trough* to a *peak*.

- And from *peak* to *trough* we have economic **recessions**.

- Most business cycles are not **symmetrical**.

Key macroeconomic problems

US National Bureau of Economic Research (NBER) business cycle information

Key macroeconomic problems

Over the long-run trajectory of economic growth, business cycles produce different **unemployment** and **inflationary** contexts.

All of these issues will be further investigated in the *following weeks*.

The components of the macroeconomy
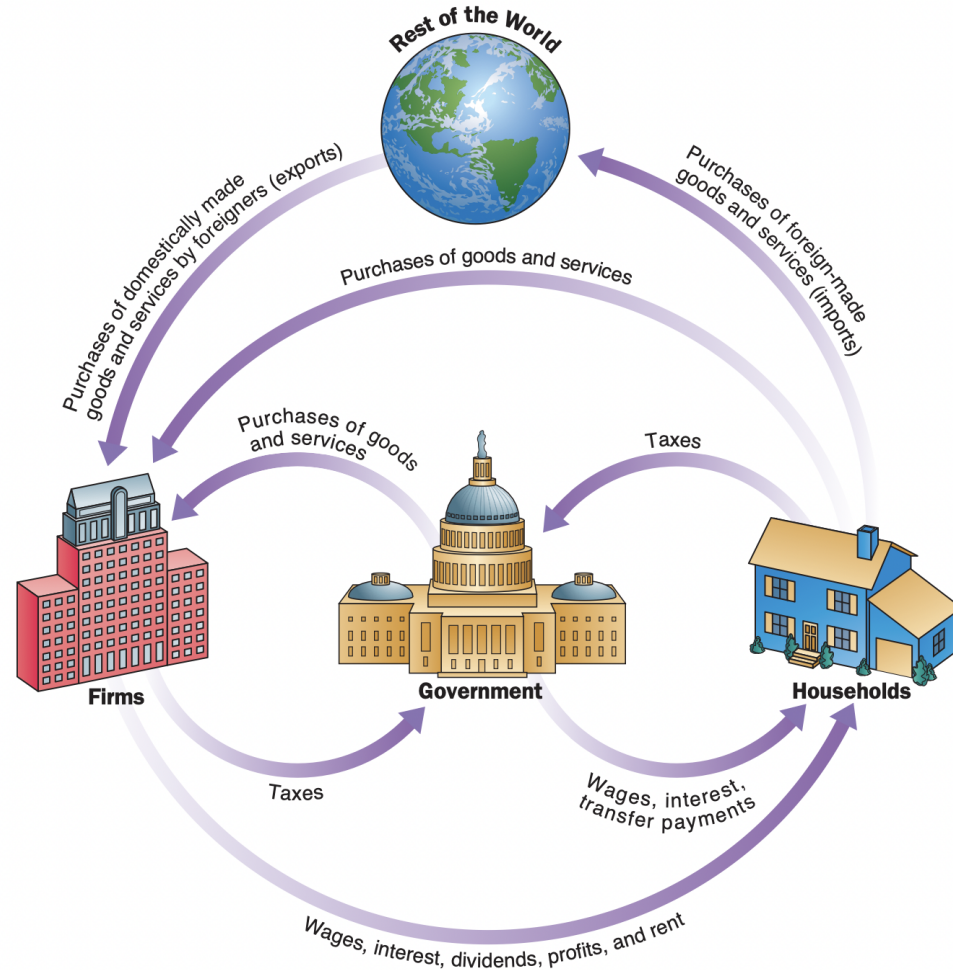
The components of the macroeconomy

From an aggregate perspective, the **participants** of an economy can be grouped in 4:

1. *Households*;
2. *Firms*;
3. The *government*;
4. The *rest of the world*.

Households and firms form the **private sector**, while the government is the **public sector**, and the rest of the world is the **foreign sector**.

The economic interactions involving these 4 groups can be summarized through the **circular flow diagram**:

Picture taken from Case, Fair, and Oster (2012).

The components of the macroeconomy

If we analyze GDP from the perspective of **spending**, it can be broken down into the following components:

- ***Consumption*** of goods and services;

- Private ***investment***;

- ***Government*** expenditures;

- ***Net exports*** (*Exports - Imports*).

The components of the macroeconomy

Consumption accounts for all household consumption expenditures on final goods and services.

- Household appliances, haircuts, concert tickets, groceries,...

It usually accounts for about 2/3 of total GDP.

`US aggregate consumption data`

The components of the macroeconomy

Aggregate **investment** accounts for businesses purchasing new machinery, new software, new plants, as well as household residential investment.

- It also includes changes in *inventories*, which is unsold output produced in the reference year.

`US aggregate private investment data`

The components of the macroeconomy

Government expenditures account for federal, state, and local instances consumption and investment decisions.

- Building highways, new schools, military spending, health & education,...

- Unemployment and veteran benefits, social security payments are **not** included. These are transfers that will likely be spent on *consumption.*

`US aggregate government expenditures data`

The components of the macroeconomy

Net exports is the difference between **exports**—domestically produced goods that a country sells abroad—and **imports**—goods and services produced in other countries that residents of another country purchase.

- We call the gap between exports and imports the **trade balance**. If a country's exports are larger than its imports, then a country has a **trade surplus**; if imports exceed exports, we have a **trade deficit**.

US net exports data

The components of the macroeconomy

We can now write down the GDP measurement as:

$$\text{GDP} = \text{Consumption} + \text{Investment} + \text{Government Spending} + \text{Net exports}$$

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

The components of the macroeconomy

Reality check...

> NIPA tables by the Bureau of Economic Analysis (BEA)

An application

Suppose you are given the following data (in US$ billions):

- *Sales of durable goods*: $ 1,035
- *Nonresidential investment expenditures*: $ 1,388.80
- *Federal Government expenditures*: $ 1,144.80
- *Changes in business inventories*: $ -120.90
- *Exports*: $ 1,564.20
- *Services*: $ 6,833.90
- *Sales of nondurable goods*: $ 2,220.20
- *State and local government spending*: $ 1,786.90
- *Imports*: $ 1,956.60
- *Residential investment*: $ 361.00

Compute *(a)* each GDP **component** and *(b)* its **total value**.

Next time: GDP shapes and forms