Macroeconomics: The Big Picture

EC 201

Umesh Ghimire
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Context

1. So far we learned about fundamental economic ideas from microeconomic point of view.
2. But we are here to learn about how the economy operates as a unit.
3. Our next adventure is to study about the macroeconomic concepts such as GDP, inflation, unemployment, monetary policy, fiscal policy and so on.
4. Because the microeconomic principles are the foundations of modern macroeconomics, what we learned so far will help us learn macroeconomics.
5. Before jumping into the macroeconomic ideas/concepts in detail, let's first think about what macroeconomics is and how its approach differs from microeconomic approach.

What is Macroeconomics ?

A study of the aggregate behavior of large collections of economic agents, the overall level of economic activity in individual countries, the interactions among the nations, and the effect of monetary and fiscal policy.

Questions we are interested in

- What are business cycles and why do policy makers try to diminish their severity?
- How does long-run economic growth determine a country's standard of living?
- What are inflation and deflation, and why is price stability preferred?

Two main ideas

- Short run: short-run ups and downs, or booms and busts, in aggregate economic activity (aka business cycles)
- Long run: Increase in a nation's living standards (growth theory)

Microeconomics vs.Macroeconomics

Microeconomics studies how one car affects traffic, Macroeconomics studies how the interaction between all cars affect traffic.

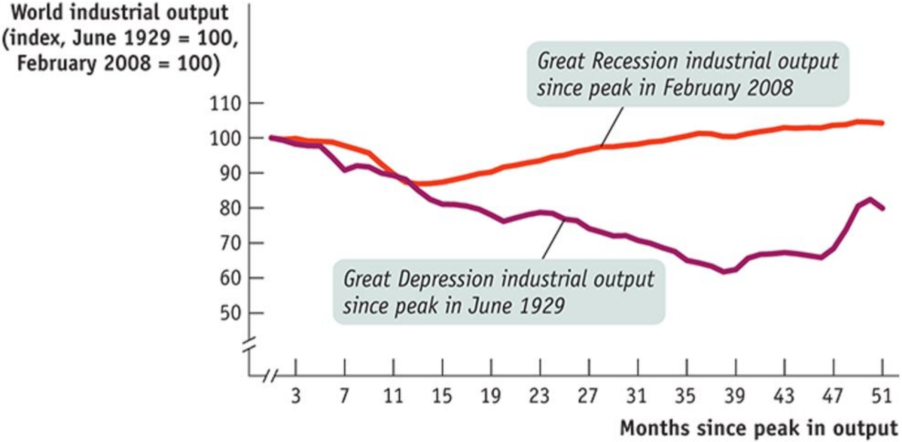
Microeconomics vs.Macroeconomics

Microeconomic Questions	Macroeconomic Questions
Should I go to business school or take a job right now?	How many people are employed in the economy as a whole this year?
What determines the salary Google offers to Cherie Camajo, a new MBA?	What determines the overall salary levels paid to workers in a given year?
What determines the cost to a university or college of offering a new course?	What determines the overall level of prices in the economy as a whole?
What government policies should be adopted to make it easier for low-income students to attend college?	What government policies should be adopted to promote employment and growth in the economy as a whole?
What determines whether Citibank opens a new office in Shanghai?	What determines the overall trade in goods, services, and financial assets between the United States and the rest of the world?

Origin of macroeconomics

- Before the great depression (1930s) there was no such thing as Macroeconomics. Microeconomics was well developed.
  - Economists such as Adam Smith and David Ricardo developed ideas of demand, supply, comparative advantage etc.
  - Classical economics: economy self corrects via the invisible hand.
- Economy did not self-correct during the Great depression of 1930s.
  - Need for government intervention was felt
- John Maynard Keynes argued in his book, The General Theory of Employment, Interest, and Money (1936) that government needed to use policy to prevent/minimize the severity of recessions.
- So the need to understand economic slumps and find ways to prevent them was the major trigger behind the origin of macroeconomics.

Fast forward to 2008: did we get better at handling economic downturns?



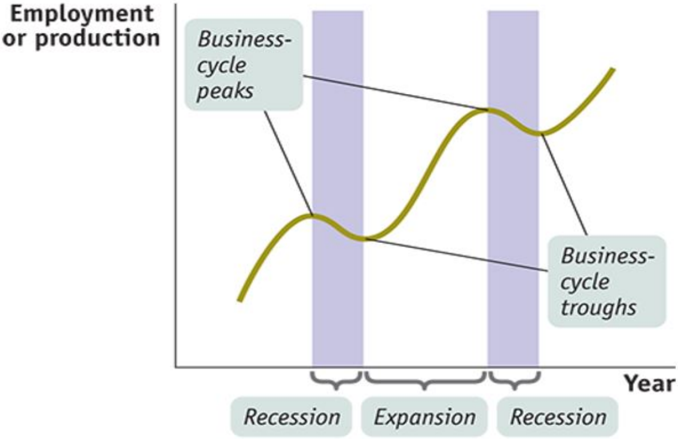
Monetary and fiscal policy

- Monetary policy
  - uses changes in the quantity of money to alter interest rates and affect overall spending. The Federal reserve handles monetary policy in the US.
- Fiscal Policy
  - uses changes in government spending and taxes to affect overall spending. The government handles fiscal policy.

Business cycles

- **Recessions (contractions)**: periods of economic downturn, when output and employment are falling
- **Expansions (recoveries)**: periods of economic upturn, when output and employment are rising
- **Business cycle**: the short-run alternation between recessions and expansions

Business cycles



Business cycles

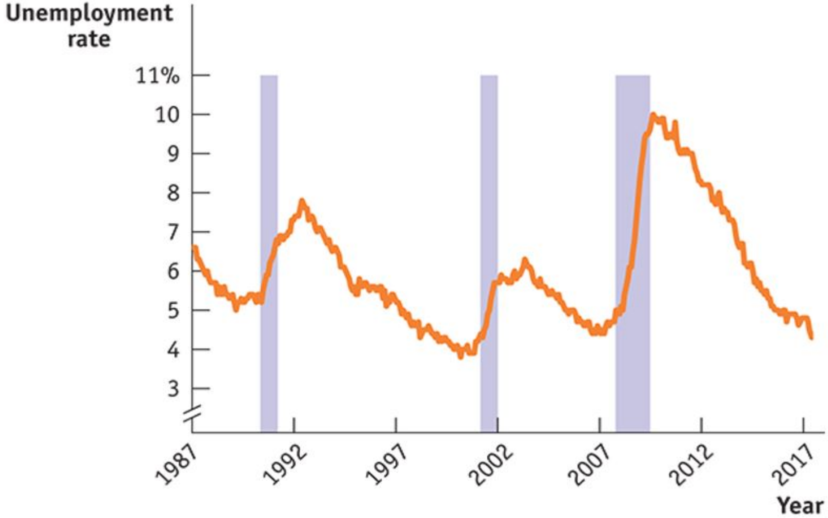
- The point at which the economy turns from expansion to recession is a business-cycle peak.
- The point at which the economy turns from recession to expansion is a business-cycle trough.

Why are recessions so bad ?

They have influence on the ability of workers to find and hold jobs which hurts the standards of living of many families.

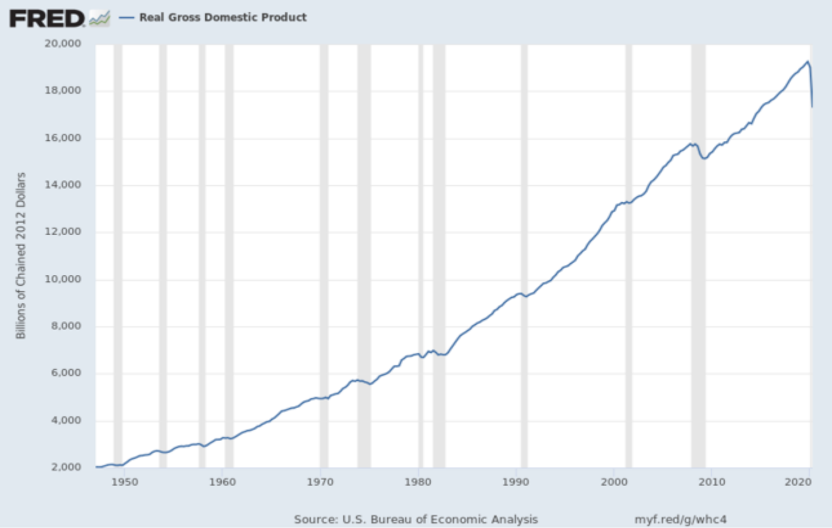
Taming the business cycle

The business cycle is a main concern of modern policy makers: they try to smooth out the business cycle. They haven't been completely successful.



Taming the business cycle: Impact of Coronavirus

The COVID-19 pandemic caused a sharp reduction in the US GDP.



Source: Federal Reserve Bank of St. Louis Database

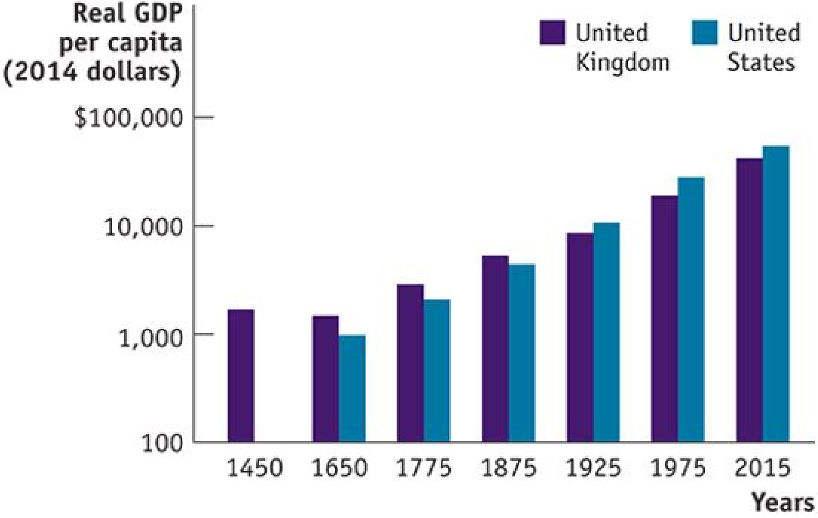
Taming the business cycle: Impact of Coronavirus

The COVID-19 pandemic caused a sharp increase in unemployment rate.

Source: Federal Reserve Bank of St. Louis Database

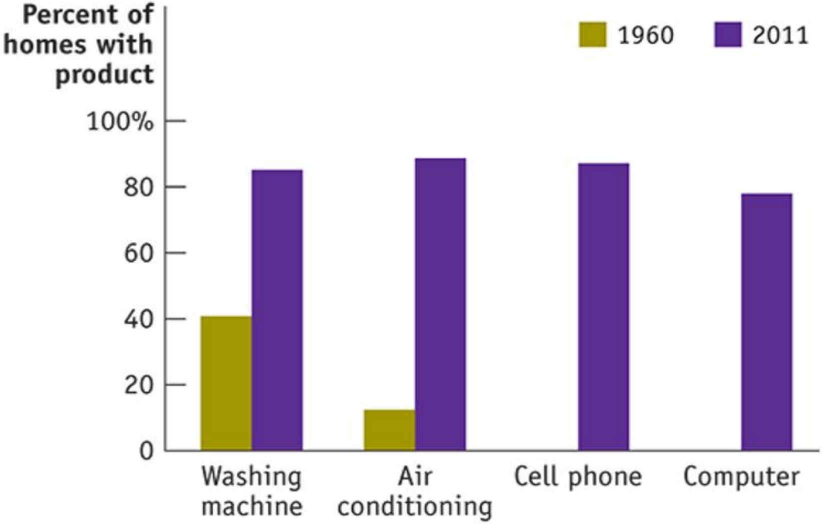
Long run economic growth

Long-run economic growth is the sustained upward trend in the economy's output over time.



Long run economic growth

Americans have become able to afford many more material goods over time thanks to long-run economic growth.



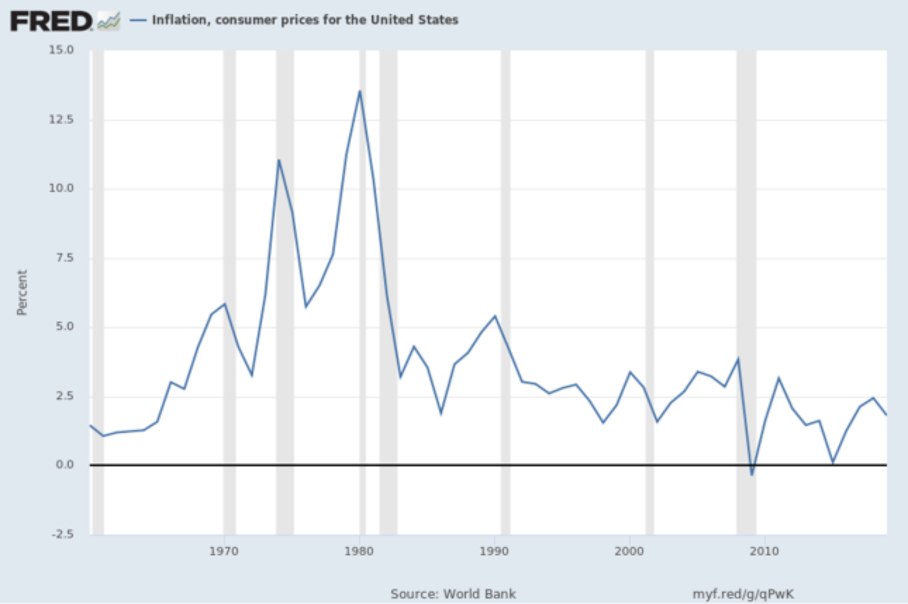
Inflation and Deflation

- A rising overall level of prices is inflation.
- A falling overall level of prices is deflation.
- The economy has price stability when the overall level of prices changes slowly or not at all.

What is disinflation?

- It is the declining inflation. During disinflation, overall price levels are rising but every successive period, the rise in price level is getting smaller.

Inflation in the U.S.



Source: Federal Reserve Bank of St. Louis Database

Comparing inflation across countries: The Big Mac Index

- The index is based on the price of Big Mac across countries.
- *The Economist* developed this index in 1986.
- Published every year, used to compare inflation and exchange rates across countries

Country	Price of Big Mac (in local currency) in 2007	Price of Big Mac (in U.S. dollars) in 2007	Price of Big Mac (in local currency) in 2016	Price of Big Mac (in U.S. dollars) in 2016
Argentina	peso8.25	$2.65	peso33.0	$2.39
Canada	C$3.63	$3.08	C$5.84	$4.14
Euro area	€ 2.94	$3.82	€ 3.72	$4.00
Japan	¥280	$2.31	¥370	$3.12
United States	$3.22	$3.22	$4.93	$4.93

Take a look!

Causes of inflation and deflation

- In the short run, movements in inflation are closely related to the business cycle (as we just saw).
  - When the economy is depressed and jobs are hard to find, inflation tends to fall; when the economy is booming, inflation tends to rise.
- In the long run, the overall level of prices is mainly determined by changes in the money supply.

Why are inflation and deflation painful?

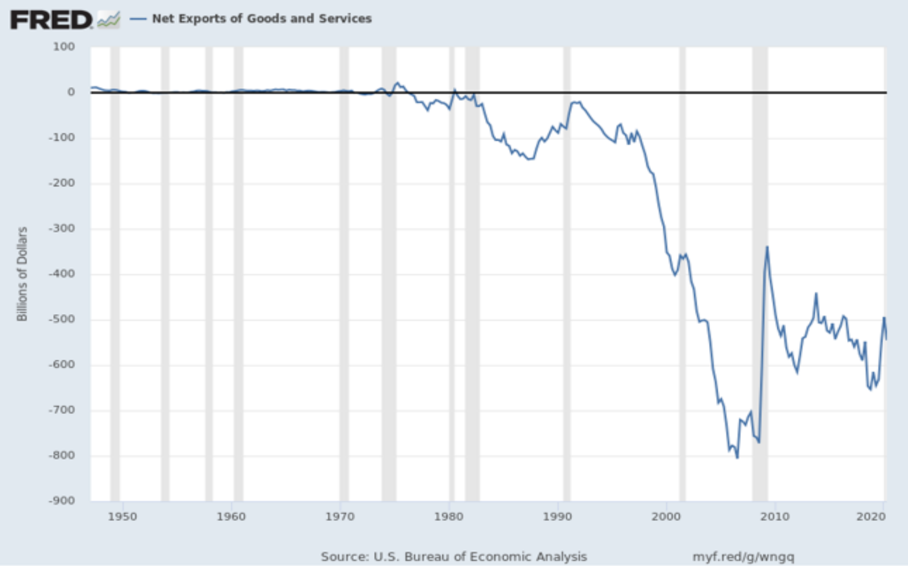
- Inflation discourages people from holding onto cash(because cash loses value if prices are rising). In extreme cases, people could stop using cash altogether.
- Deflation can cause the reverse problem. Since cash gains value if the price level is falling, holding on to it is more attractive than investing in new factories and other productive assets. This can deepen a recession.

International imbalances

- The United States is an open economy: it trades goods and services with other countries.
- Since the 1990s, the United States runs big trade deficits.
- **Trade deficit** occurs if the value of goods and services bought from foreigners is more than the value of goods and services sold to them.
- **Trade surplus** occurs if the value of goods and services bought from foreigners is less than the value of the goods and services sold to them.

Net Exports = Value of Exports − Value of Imports

U.S. net exports (*Exports* − *Imports*)

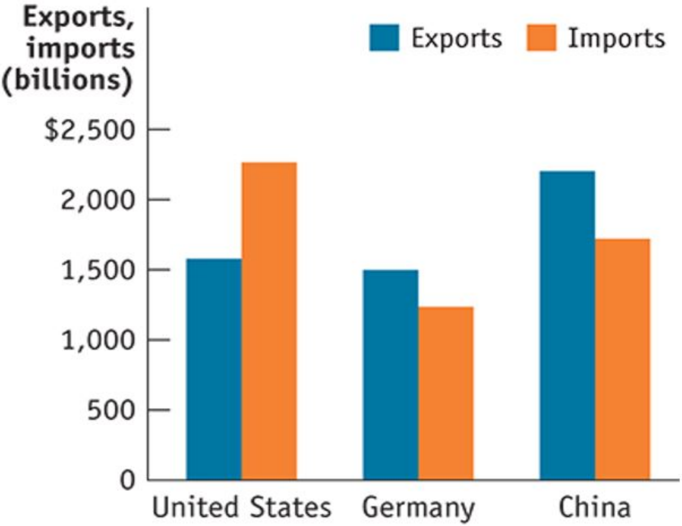


Source: Federal Reserve Bank of St. Louis Database

What causes trade imbalances?

- In later chapters we will find that it is actually the decisions about savings and investment spending that determine levels of imports/exports and trade balances.
- Countries with high investment spending relative to savings run trade deficits; countries with low investment spending relative to savings run trade surpluses.

Who are the big investors and savers?



Quick Review- Business Cycles

- Why do we talk about business cycles for the economy as a whole and not talk about ups and downs in particular industries?
- Why is recession so bad? Who does it hurt and how?

Quick Review- Economic Growth

- Many poor countries have high rates of population growth. What does this imply about the long run growth rates of overall output they must achieve in order to generate a higher living standard per person?
- Argentina used to be as rich as Canada. Now it's much poorer. Does this mean that Argentina is poorer than it was before?

Quick Review- Inflation and Deflation

Which of these sound like inflation or deflation?

- Gasoline prices are up 10 percent and food prices are down 20 percent and prices of most services are up 1-2 percent
- Gas prices have doubled, food prices are up 50 percent and most services seem to beup 5-10 percent
- Gas prices haven't changed, food prices are way down, and services have gotten cheaper too.

A Greek Story of Costly Surplus

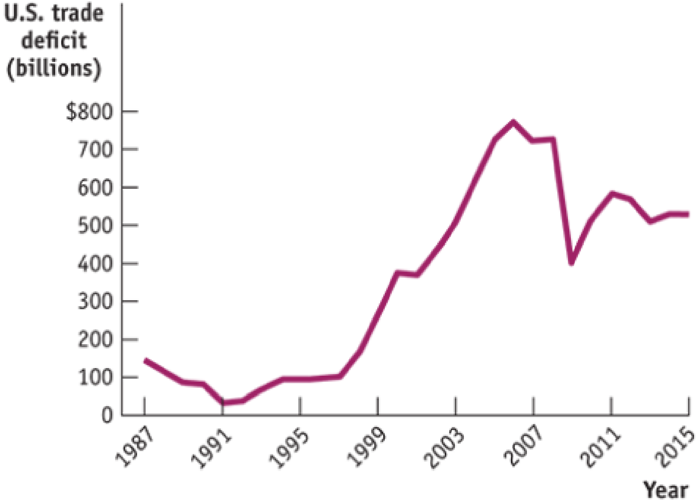
Figure: Greece's Current Account Balance, 1999–2016

A Greek Story of Costly Surplus

In 1999 Greece took a momentous step: it gave up its national currency, the drachma, in order to adopt the euro, a shared currency intended to promote closer economic and political union among the nations of Europe. How did this affect Greece's international trade? Figure in the last slide shows Greece's current account balance—a broad definition of its trade balance—from 1999 to 2016. A negative current account balance, as shown in the figure, means the country is running a trade deficit. As you can see, after Greece switched to the euro it began running large trade deficits, which at their peak equaled almost 16% of the total value of goods and services Greece produced. After 2008, however, the trade deficit began shrinking rapidly, and by 2013 Greece was running a small surplus.Did this mean that Greece's economy was doing badly in the mid-2000s, and better thereafter? Just the opposite. When Greece adopted the euro, foreign investors became highly optimistic about its prospects, and money poured into the country, fueling rapid economic expansion. Unfortunately, this optimism eventually evaporated, and the inflows of foreign capital dried up. One consequence was that Greece could no longer run large trade deficits, and by 2013 was forced into running a surplus. Another consequence was a severe recession, leading to very high unemployment—including the unemployment of the recent graduates.

An American Story of Trade Deficits

Figure: U.S. Trade Deficit with China



An American Story of Trade Deficits

The accompanying figure illustrates the trade deficit of the United States since 1987. The United States has been consistently and, on the whole, increasingly importing more goods than it has been exporting. One of the countries it runs a trade deficit with is China. Which of the following statements are valid possible explanations of this fact? Explain.

1. Many products, such as televisions, that were formerly manufactured in the United States are now manufactured in China.
2. The wages of the average Chinese worker are far lower than the wages of the average American worker.
3. Investment spending in the United States is high relative to its level of savings.

A Story about Increasing College Tuition

College tuition has risen significantly in the last few decades. For the sake of this problem, let's assume that over the last 20 years the cost of college, including total tuition, room, and board paid by full-time undergraduate students went from \$2,871 to \$16,789 at public institutions, a 485% price increase, and from \$6,330 to \$33,716 at private institutions, a 433% increase. Over the same time, average personal income after taxes rose from \$9,785 to \$39,409 per year, an increase of 302%. Have these tuition increases made it more difficult for the average student to afford college tuition?