



## Maiden Lane Division: Case Study Glossary

### The Federal Reserve System

Interactive Fed history and information: <http://www.frbsf.org/education/teacher-resources/what-is-the-fed>

A History of Central Banking in the U.S.: <https://www.minneapolisfed.org/community/student-resources/central-bank-history/history-of-central-banking>

The American Currency Exhibit: <http://www.frbsf.org/education/teacher-resources/american-currency-exhibit>

### Gross Domestic Product (GDP)

Gross Domestic Product is the market value of all goods and services produced within a country in a given time period. GDP measures the value of what the economy is making, and it also is a way of thinking about the income that the economy is created, because every purchase becomes income for the person selling the good.

GDP is important for many reasons, but the basic one is that it gives a measure of how the overall economy is doing, and thus how people in the economy are doing.

When you look at variables like GDP, it is usually best to consider *real* values, not *nominal* values. Nominal values are the current market value of things. Real values hold prices constant. For example, suppose that the economy produces cars, and each car costs \$20,000 this year, and next year, the price rises to \$30,000. Suppose that actual production of cars does not change. Nominal GDP would go up because prices are higher, but nothing *real* would have changed. Real GDP, which is measured using constant prices, would stay the same, which accurately represents what happened to output.

For more information:

GDP data: <http://www.bea.gov/national/index.htm#gdp>

How to calculate real and nominal values, and more about GDP:

<http://useconomy.about.com/od/grossdomesticproduct/p/Real-GDP.htm>

Real and Potential GDP (Video): <https://www.frbatlanta.org/about/fed-explained/2012/gdp.aspx>

### The Components of GDP (C+I+G+NX)

**Consumption** is everything that consumers buy *except* houses, because houses are more like investment (see below). There are three parts to consumption: **durable goods** (things that will last some time, like household appliances and cars); **nondurable goods** (things that are consumed in one use or quickly, like food), and **services**. Economists tend to be more interested in what is happening to durable goods than the other parts, because they are a better measure of how consumers are doing. If times are hard, you have to eat, but you don't have to buy a new car.

In the United States, consumption accounts for about 2/3 of GDP, so it is very important.

**Investment** is purchases of capital goods by businesses and consumers. It is important not to confuse investment the way that economists use it with *financial investment*, which is purchases of stocks and bonds. The way in which economists use the term investment is to refer to the purchases of assets that

provide value over time, like a house or a machine used in the production of cars, or a factory. Investment is important because it determines the **capital stock** of a country, that is, the assets that a country has to produce things with. Thus it is important both in terms of GDP now and what the country's ability is to produce things in the future, long-run growth.

There are three parts to investment: **residential investment** (consumer purchases of houses), **nonresidential investment** (business purchases of factories and equipment and technology), and **inventories**. Inventories are the good produced by firms that are not sold in the period that we're counting. Inventories are not really investment in the same sense as the other parts of this category, but it is necessary to count the production of those unsold goods in some part of GDP.

**Government spending** is spending by federal, state, and local governments.

**Net exports** is exports of goods and services minus imports of goods and services. For the U.S., net exports is usually a negative number, because we usually buy more goods and services from other countries than they buy from us.

## Inflation

Inflation is the rate of increase (percentage change) in overall prices in the economy. If the annual rate of inflation is 5%, then on average, all prices will rise by 5% over the year.

**Disinflation** is a lower but still positive rate of inflation.

**Deflation** is the rate of decrease (percentage change) in overall prices in the economy.

For more information:

Types, causes, and measuring inflation: <http://useconomy.about.com/od/pricing/f/Inflation.htm>

A fun inflation calculator: <http://www.usinflationcalculator.com/>

The Fed Explains Inflation (Video): <https://www.frbatlanta.org/about/fed-explained/2012/inflation.aspx>

**Inflationary Expectations** are what consumers and businesses think that inflation is going to be in the future. This is very important, because if you are a worker, and you think that inflation is going to be higher, then you will ask for more wage increases. In turn, firms will raise prices more. And so what people expect about inflation gets "built in" to what the inflation rate is, and it is often hard to change expectations.

The Fed likes inflation expectations to be stable. When they are, the Fed often calls them "well-anchored", like a boat that is safely in a harbor. Thus when they talk about expectations changing significantly, they often use another nautical term and say that expectations have come "unmoored", not anchored.

It is hard to measure inflationary expectations. Can you say exactly what you think that the inflation rate will be next year? We measure consumer expectations through things like the University of Michigan **Consumer Sentiment** survey. There are other ways to measure business expectations.

For more information:

The Fed's survey of consumer expectations: <http://www.newyorkfed.org/microeconomics/sce/>

Another way of measuring expectations, the TIPS spread:

<http://bonds.about.com/od/governmentandagencybonds/a/How-To-Use-Tips-To-Calculate-Inflation-Expectations.htm>

## Consumer Confidence

Some of the same surveys that tell us about inflationary expectations also tell us about consumer confidence, how consumers are feeling about the future, particularly about the labor market, their own spending plans, and the economy in general. Since we know that consumption is about 2/3 of economic activity in the U.S., what consumers choose to do is very important. For example, consumers who are pessimistic about the future are not likely to choose to buy new cars!

For more information:

Some reasons why consumer confidence is important:

<http://stocks.about.com/od/marketnews/a/ConsumIn122804.htm>

## Consumer Price Index (CPI)

The Consumer Price Index is one way of measuring overall prices in the economy. Changes in the CPI are used to calculate the rate of inflation.

The Consumer Price Index is based on a “market basket” of goods that a typical family buys. The cost of that basket is calculated in the original, or “base” year, and then the things in the basket stay the same while prices change. For example, if the basket of goods cost \$50 in the base year and \$75 the next year, the CPI in the second year would be  $75/50$ , which is 1.50. This number is usually multiplied by 100 for convenience, so you would say that the CPI in the second year was 150. The rate of inflation is the percentage change in prices between years,  $(150-100)/100 = .50$ , or 50%... a very high rate of inflation!

One problem with measuring prices is that some prices, especially the price of food and of energy products like oil and natural gas, usually move around a lot more than other prices. If we use those prices to calculate inflation, it may look like it is changing a lot more than it really is. Thus it is usual to look at two measures, **topline** or **headline** inflation, which includes food and energy (and everything else), and **core** inflation, which takes out those things.

For more information:

CPI data: <http://www.bls.gov/cpi/>

CPI inflation calculator: <http://data.bls.gov/cgi-bin/cpicalc.pl>

More about the CPI: <http://useconomy.about.com/od/economicindicators/p/CPI.htm>

## Unemployment Rate

The unemployment rate is the number of people who are in the labor force (that is, they are over 16, not in the military, and not in prison or a hospital) who are *actively seeking work* but are not employed right now, divided by the total number of people in the labor force.

The unemployment rate is never zero, because there will always be some unemployment. In particular, there is always **frictional** unemployment and **structural** unemployment. Frictional unemployment is when people have quit their jobs voluntarily or who have just entered the labor force. They will have jobs soon, but they are between jobs right now. Structural unemployment occurs when the skills that workers have do not match the skills that employers need. This happens because some industries are always declining and some industries are always expanding, and the expanding industries may not be in the right place or need the same skills as the declining industries. The sum of frictional and structural unemployment is called **the natural rate of unemployment**.

The Fed is concerned when the rate of unemployment is not close to the natural rate. If unemployment is greater than the natural rate, there is **cyclical** unemployment, usually because the economy is in a **recession**, a period of negative economic growth.

The Fed would also be concerned if the rate of unemployment was below the natural rate. This means that workers are scarce, and that will tend to mean that wages rise. While that is good for the workers in the short run, it can lead to inflation, because increases in wages usually mean that the prices of all goods will rise eventually.

There are many ways of defining the unemployment rate. The usual definition, in the first paragraph above, is technically called the U-3 rate. However, that rate may not give a complete picture of the actual number of people who would like a job, or a better job, and can't find one. Some workers with jobs may be working part time because they cannot find a full time job. They are not unemployed, but we would say that they are **underemployed**. Also, there may be workers who would like a job but have given up searching because they think that they cannot find a job. These are **discouraged workers**. The U-6 rate of unemployment includes these types of workers, too, and gives a different picture of the amount of unemployment.

For more information:

Unemployment and other labor market data: <http://www.bls.gov/>

The Fed Explains the Unemployment Rate (Video): <https://www.fratlanta.org/about/fed-explained/2012/unemployment.aspx>

## Payroll Employment

Another way of looking at the labor market is to see how many jobs are created each month. This data is called Payroll Employment. Every month, the labor force expands by about 150,000 workers. That is, every month some workers leave the labor force to retire or for other reasons, and some workers enter the labor force, either new workers or workers returning. That nets out to about 150,000, so for the unemployment rate to go down, the economy must create more than 150,000 jobs per month.

For more information:

Why does the Fed think that Payroll Employment is Important?

<http://www.frbsf.org/education/publications/doctor-econ/2004/june/nonfarm-jobs-payroll-employment>

## Monetary Policy and the Economy

The ways in which monetary policy affects the economy are called the monetary transmission mechanism. The primary channel is called the interest rate channel.

The interest rate channel works like this: when interest rates fall, businesses and consumers are more willing to take out loans (or to spend money that they already have), because money is "cheaper." That is, the amount that you have to pay to borrow money (the interest rate) is lower. When businesses and consumers take out more loans, they then spend money on goods and services, increasing demand, which in turn increases output.

The Fed influences interest rates by setting a target for the federal funds rate, which is the rate that banks charge each other for very short-term loans. If the actual fed funds rate is equal to the target, the Fed doesn't have to do anything. But suppose that the market rate is too high. Then the Fed must increase the money supply. When there is more money, its "price", the interest rate, falls.

The way that the Fed increases the money supply in this case is called open market operations (OMO). This is purchases and sales of government bills, notes, and bonds on the open market (that is, to or from banks or other economic agents, rather than directly from the government). If, for example, the Fed buys bonds from banks, an **expansionary open market operation**, banks have more money, and thus are willing to lend it at a lower rate. By adjusting the money supply, the Fed can adjust the interest rate until it is the desired level, which in turn helps GDP reach the desired level.

For more information:

The Fed Chairman Game: <http://sffed-education.org/chairman/>

About the FOMC: <http://www.philadelphiafed.org/education/teachers/resources/day-in-life-of-fomc/>