Key Lagging Indicators

by Sophia Tutorial

WHAT'S COVERED

This tutorial will cover key lagging indicators, focusing on how economist use data to study the economy.

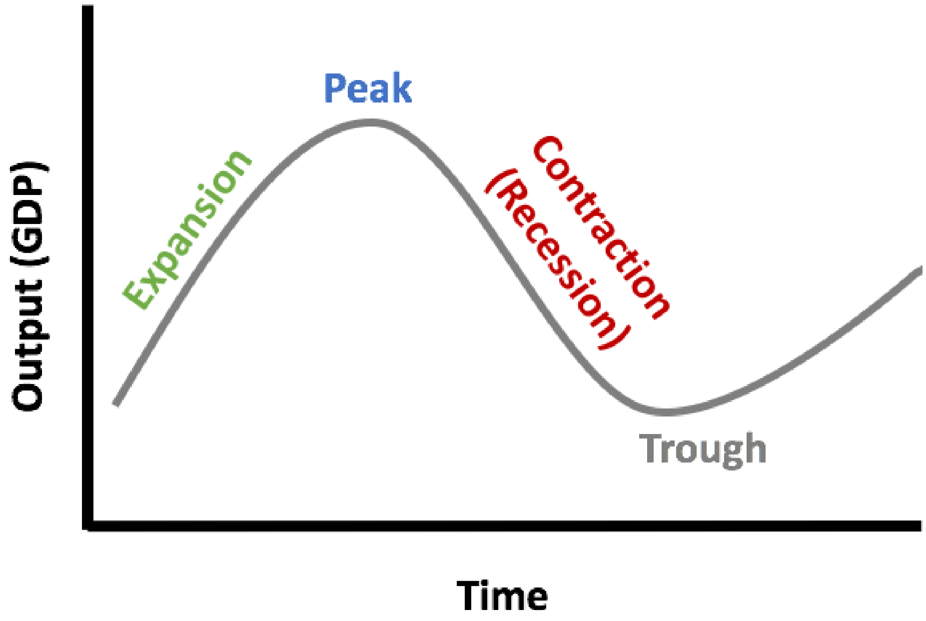
Our discussion breaks down as follows:

1. Business Cycle
2. Lagging Indicators
3. Unemployment Rate
4. The Consumer Price Index
5. Consumer Credit

1. Business Cycle

Here is a business cycle. The rate of growth in the economy, which is measured by GDP or output, is on the y-axis, and time is on the x-axis.

You can see that it is normal for the economy to go through periods of growth and contraction.



Notice the period of expansion leading into a peak, followed by a contraction, where GDP or output falls. After the period of contraction, we hit a trough, and the whole cycle starts over again.

If the contraction lasts six months or longer, most economists agree that we are in a recession.

Most people are concerned about things like the unemployment rate and inflation in the economy.

Economists use many different kinds of data to help them do the following:

- Predict where the economy is headed
- Explain what has just occurred in the economy
- Look at what is currently happening in the economy

For the purposes of this tutorial, we will focus on what has just occurred in the economy.

---

2. Lagging Indicators

Economists study economic indicators, which give them an overall view of the economy at any given point in time.

The three different categories of indicators are:

- Leading
- Lagging
- Coincident

Today we are discussing **lagging indicators**, which are trends, patterns, or situations that provide a clear indication of where the economy has been.

We are taking a look back at where we've been.

EXAMPLE Examples of lagging indicators are the unemployment rate, the CPI, or Consumer Price Index, and consumer credit, which we will discuss in further detail.

TERM TO KNOW

Lagging Indicators
Trends, patterns or situations that provide a clear indication of where the economy has bee

3. Unemployment Rate

The unemployment rate is measured by the Bureau of Labor Statistics, or BLS.

Now, because it it impossible for the BLS to know every single person in this situation--because not everyone files for unemployment--the government conducts a monthly sample survey.

It is a sample survey because if we wanted to try to interview every single person in our country, as we do every 10 years with the census, it would take too many resources and time.

The Current Population Survey, or CPS, is what the BLS conducts.

This survey includes about 60,000 households, which is approximately 110,000 individuals, and it is supposed to be representative of the entire U.S. population.

This means that they will be sampling households all over the country-- covering various cities, rural populations, more urban settings, and different demographics, for instance.

The interviewers ask questions about the household members' labor force activities in that month and people are classified in one of three ways:

- *Employed*. This refers to people who have jobs.
- *Unemployed*. This includes people who do not have jobs, are currently looking for work, and who are available for work.

HINT

Not only do people have to meet the condition of not having a job, they must also meet the other two conditions. They need to have demonstrated that they are actively seeking employment, such as filling out some applications, going on a job interview, etc.

- *Not in the labor force*. We have a large segment of the population that will never be in the labor force, such as people who are neither employed nor unemployed, such as anyone who is under 16, anyone who is retired, or stay-at-home parents.

3a. Cyclical Unemployment

So, why is unemployment is a lagging indicator?

To understand this, let's talk about how it can be related to cyclical unemployment.

HINT

Remember, cyclical unemployment is the type of unemployment that results during recessions when the economy is in a downturn.

Whenever there is an increase in demand for their good or service, which suggests that we are in an expansionary period, businesses respond to that upturn in the economy.

They will notice the increase in demand for their good or service, and will hire more workers and produce more.

This is when our unemployment rate will fall.

However, the opposite situation occurs when firms notice a decrease in demand for their good or service, when the economy enters a period of contraction.

Then, they respond to the downturn in the economy by laying off workers and producing less--and the unemployment rate will rise.

3b. Structural Unemployment

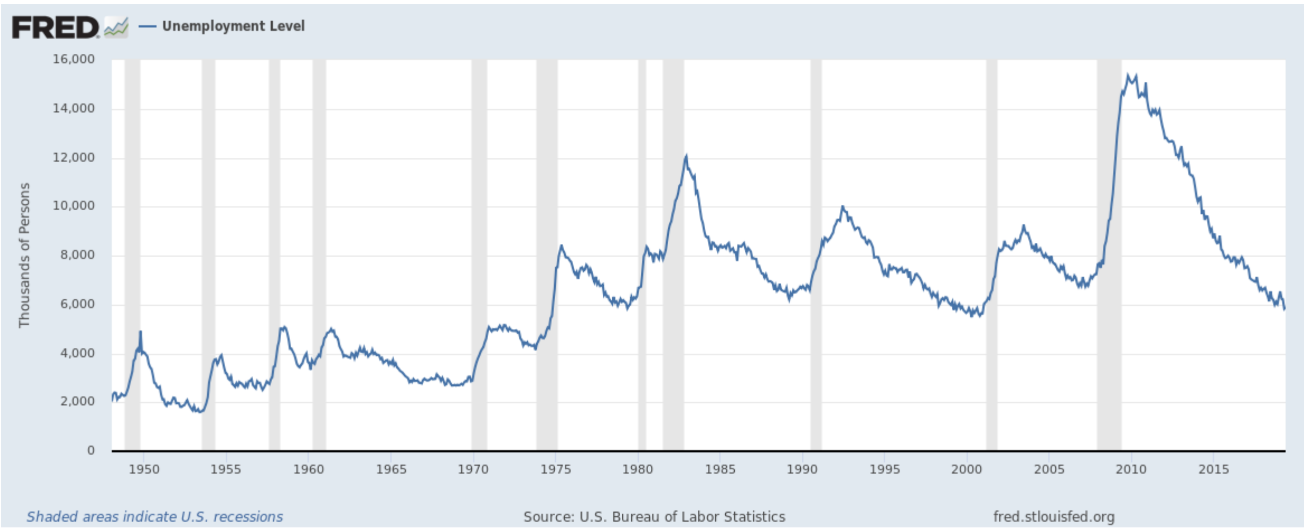
Structural unemployment, you may recall, is due to the changing structure of our economy.

Businesses respond to new production techniques available in their industry, new technologies, and they adopt more efficient methods of production.

Sometimes this involves laying off workers, as their skills no longer match the ones required for the new methods, or technology is simply replacing some of the workers.

This chart shows the unemployment rate over the last several decades.

Notice that the areas in gray are recessions.



You can see that during those recessions, the unemployment rate is on the rise.

Although the unemployment rate is studied in macroeconomics, because it describes what is going on in the overall economy, microeconomics might also study its impact.

A microeconomist might be interested in how it is impacting certain industries--again, because of that structural unemployment--or how it will impact specific groups of individuals.

4. The Consumer Price Index

The Bureau of Labor Statistics also measures the rate of inflation in our economy.

Inflation is, quite simply, an increase in the *overall* price level. This happens not just when the price of one thing goes up, but when many prices increase simultaneously.

Economists use price indexes, which are measurements that show how the average price of a standard group of goods changes over time.

The most common is the CPI, or Consumer Price Index.

Again, it would not be feasible to quickly measure the price of every single good and service in our economy. Therefore, economists use a market basket, which is a bundle of goods meant to represent the "market basket" purchased monthly by the typical urban consumer.

Here is an example of some of the categories in this market basket.

Category	Examples
Food and drinks	Cereals, coffee, chicken, milk, restaurant meals
Housing	Rent, homeowners' costs, fuel oil
Apparel and upkeep	Men's shirts, women's dresses, jewelry
Transportation	Airfares, new and used cars, gasoline, auto insurance
Medical care	Prescription medicines, eye care, physicians' services
Entertainment	Newspapers, toys, musical instruments
Education and communication	Tuition, postage, telephone services, computers
Other goods and services	Haircuts, cosmetics, bank fees

As you can see, this includes a list of the categories and examples of common items that most people would need to pay for in a given month, which are all things that would be measured in the index.

So, why is this a lagging indicator?

Well, it takes some time for prices to adjust to economic conditions.

As businesses see a drop-off in demand for their products, they will eventually lower their prices in order to try to sell more.

As businesses see an increase in demand, they will raise prices, because they realize that they can and people will still buy their products.

Again, even though the CPI measures price changes overall in the economy--which is very much macroeconomics--microeconomics might study:

- The impact in certain industries

EXAMPLE For example, did the automobile industry experience the same inflation rate as other goods this year?

- The impact for certain types of consumers

EXAMPLE Did the price of luxury goods, for example, change more or less than other goods?

---

5. Consumer Credit

The Federal Reserve publishes a monthly report on consumer credit.

They survey banks, finance companies, credit unions, etc.--anyone who is issuing consumer credit.

This estimates changes in the amount of loans that consumers have. I

It also looks at interest rates for different types of loans, such as car loans, credit cards and bank loans, or any kind of consumer loan.

Once again, why would this be lagging?

Well, people borrow money to make big purchases

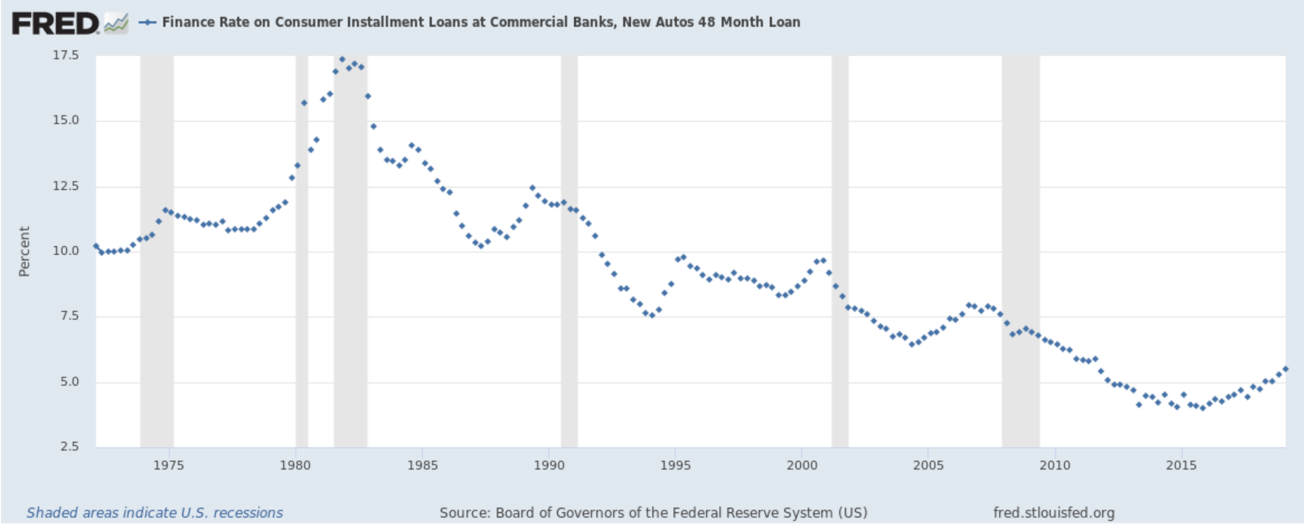
It takes some time to impact people's behaviors with these big purchases; you don't go out and buy a house overnight simply because the economy improved--it takes some time.

The borrowing may show the largest increases when the economy is already coming out of a recession, rather than during the worst of it.

Microeconomics might be interested in studying consumer credit in specific industries, such as:

- Automobile loans
- Home equity loans
- Furniture purchases
- Other personal debt

This graph shows, for example, the different interest rates over time in the car industry, so you can see the relationship with periods of recession in the economy.



SUMMARY

We began today's lesson by reviewing the **business cycle** and discussing how economists use data to study the economy overall and individual markets. We learned that **lagging indicators** show us where the economy has been and include the **unemployment rate**, **the consumer price index** (CPI), and **consumer credit**.

Source: Adapted from Sophia instructor Kate Eskra.

TERMS TO KNOW

Lagging Indicators
Trends, patterns or situations that provide a clear indication of where the economy has been.