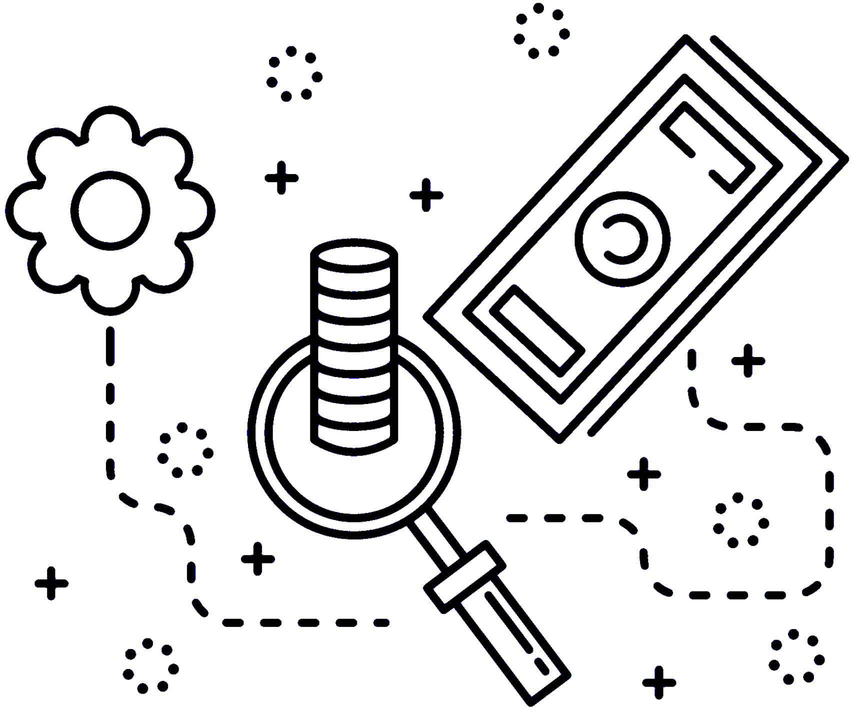
Introduction to Monetary Policy



2021

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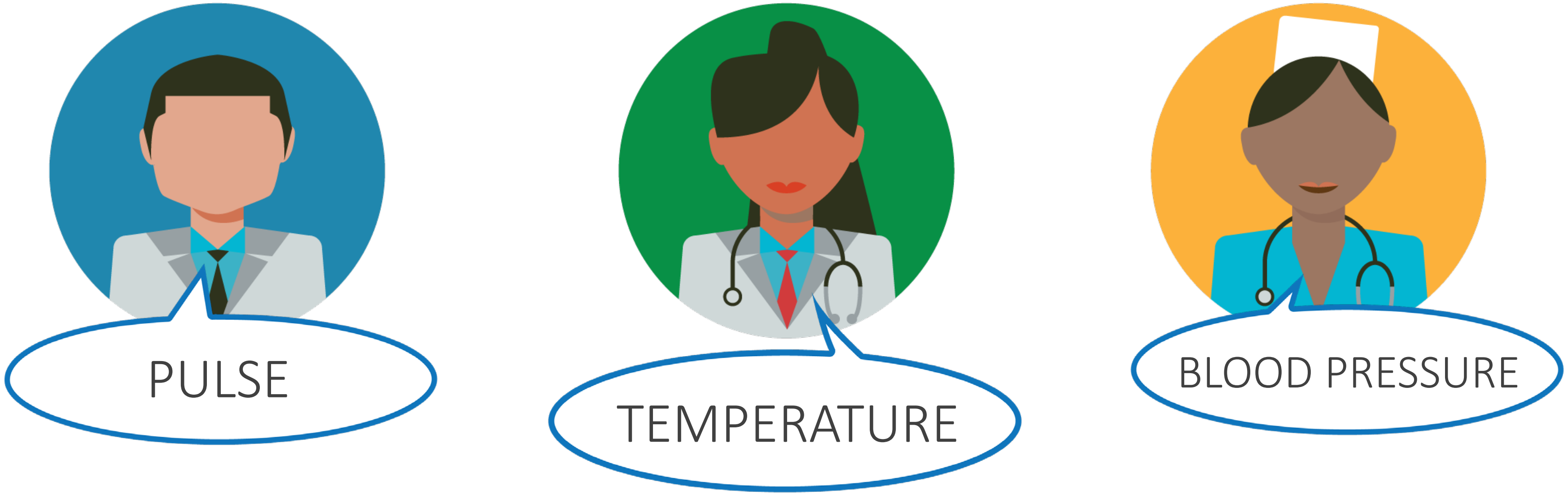
Agenda

How do we know when the economy is healthy?

How does the Fed promote a healthy economy?

How do we know when the economy is healthy?

When you visit the doctor what are the first things they check?



Your pulse, temperature, and blood pressure all give an indication of your health.

These indicators help:

- Diagnose an illness
- Prescribe medicine

When economists want to see if the economy is healthy, they also use indicators.

There are many, many indicators used to study the economy.

Gross Domestic Product (GDP)

GDP is an indicator that economists use to measure the economy.

GDP is a way to measure the total value of all goods and services produced in an economy.

GDP Measures Economic Growth

Economic growth is the increase in the country's overall ability to produce goods and services over time.

GDP Growth

When the headlines announce the economy grew 2%, they are talking about the growth of GDP for that year.

In other words, the economy produced 2% more goods and services than the year before.

EXPANSION

Period of
economic growth

RECESSION

Period of
economic decline

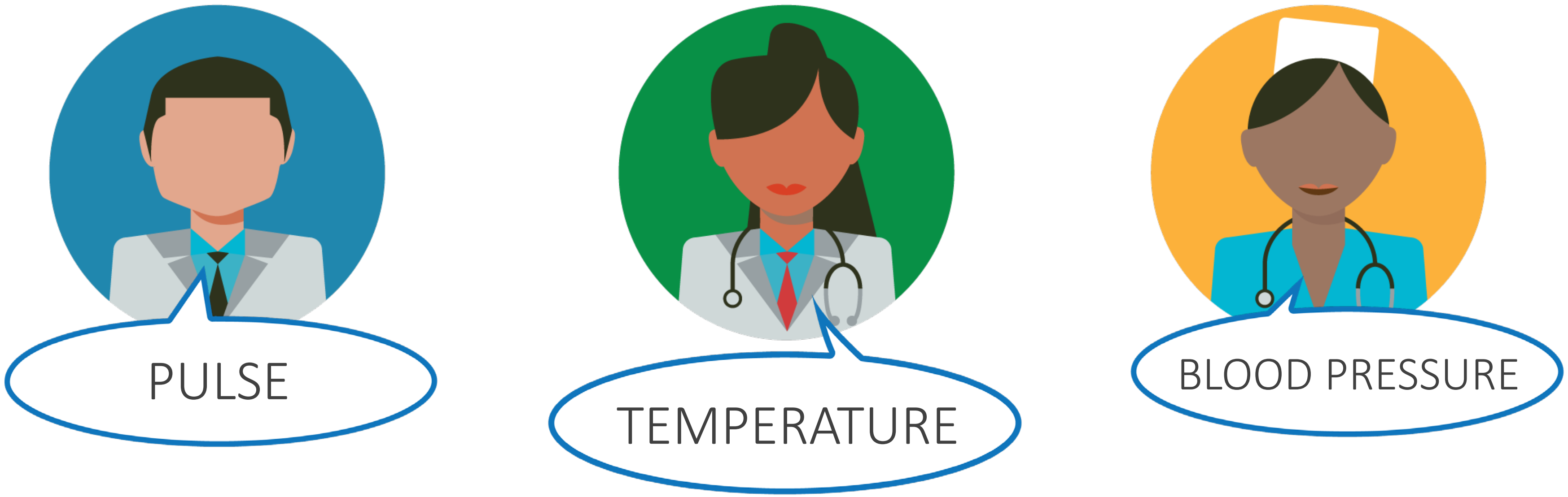
GDP Components

C + **I** + **G** + **NX** = **GDP**

C	I	G	NX	GDP
Consumption	Investment	Government Spending	Net Exports (Exports minus imports)	Gross Domestic Product

If one of these components goes up or down, GDP goes up or down.

Now that we have checked the pulse of the economy, let's take its temperature.



The temperature of a healthy adult is around 98.6 degrees.

A higher temperature means your body is overheating (like an economy could be overheating)

A lower temperature means your body needs an immediate boost (like an economy could need a boost)

Inflation

Inflation measures the economy’s price level.

Inflation means that average prices in an economy are going up.

Deflation means that average prices in an economy are going down.

Inflation Measures the Economy's Price Level

Not only the price of one or two products but the overall prices in the economy are rising.

Inflation impacts the overall prices in an economy, not just one or two products.

Is inflation good or bad?

(A favorite answer of economists)

Inflation can indicate that people are consuming more goods and services.

A low & stable rate of inflation is generally good.

Many economists say that 2% annual inflation means the economy is healthy.

Too much inflation makes it difficult for people and businesses to plan ahead.

If inflation increases too fast, people can’t keep up with the new prices because their salaries don’t increase at the same rate.

Inflation is expressed as a rate of change over a specific period, usually 12 months.

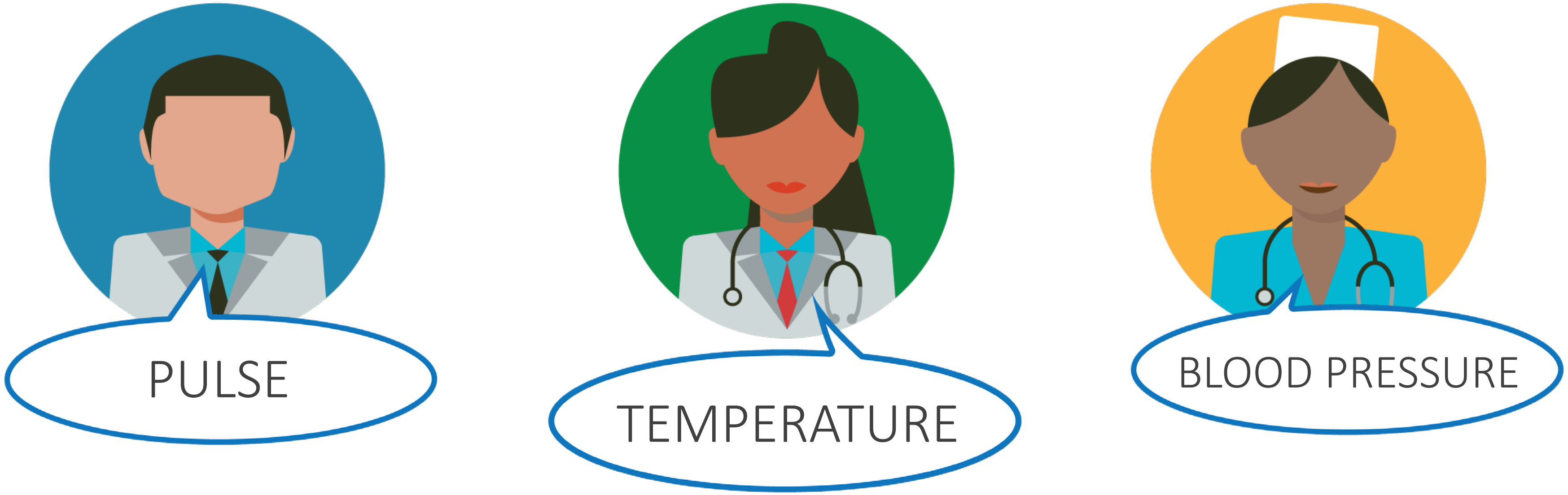
Consumer Price Index (CPI)

Measures the price changes of a fixed basket of goods purchased by households over time based on a survey of what households are buying

Personal Consumption Expenditure (PCE)

Measures the price changes of goods purchased by households over time based on surveys of what businesses are selling

Now that we have checked the pulse of the economy, let's take its temperature.



Unemployment

The unemployment rate is the fraction of workers in an economy who would like to work, but can’t find a job.

Not everybody in the economy is included in this definition, just those in the *labor force.*

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Not everybody in the economy is included in this definition, just those in the *labor force.*

Some people are not in the labor force (under 16, in the military, retired).

Can there be zero unemployment?

Unemployment can't be zero because there will always be workers who are "between jobs." Jobs are constantly changing and an economy does not always have the right workers for the available jobs:

- **Skills mismatch**
- **Geographical mismatch**

Measuring the unemployment rate is not easy but economists have some tools.

Unemployment Rate Survey

Asks people if they are actively looking for a job and can't find one

Payroll Employment Survey

Asks businesses and government agencies if the are creating new jobs

Doctors can also use more indicators to make a diagnosis.

Other Important Indicators That Help Assess Economic Health

Consumer Confidence:

how consumers feel about the future.

Inflation Expectations:

what consumers and businesses think that inflation is going to be in the future.

And there are many, many more!

Recap

1. We need economic indicators to assess the health of an economy.

2. GDP is a measurement of all goods produced in an economy.

Recap

3. Inflation is when overall prices are rising.
   • We want low & stable inflation.

4. Unemployment is when people who want to work can't find jobs.
   • We want to be close to maximum sustainable employment.

Questions?

How does the Fed promote a healthy economy?

How do doctors promote healthy lifestyles in their patients?

The central bank can use different strategies to manage the supply of money in the economy.

Like sleep, diet, and exercise an economy

needs just the right amount of money.

- Too much money causes the economy to overheat.
- Not enough money prevents the economy from growing.

Different Tools That the Fed Has Used to Conduct Monetary Policy

- **Open Market Operations (OMO)**
- **The Discount Rate**
- **The Reserve Ratio**

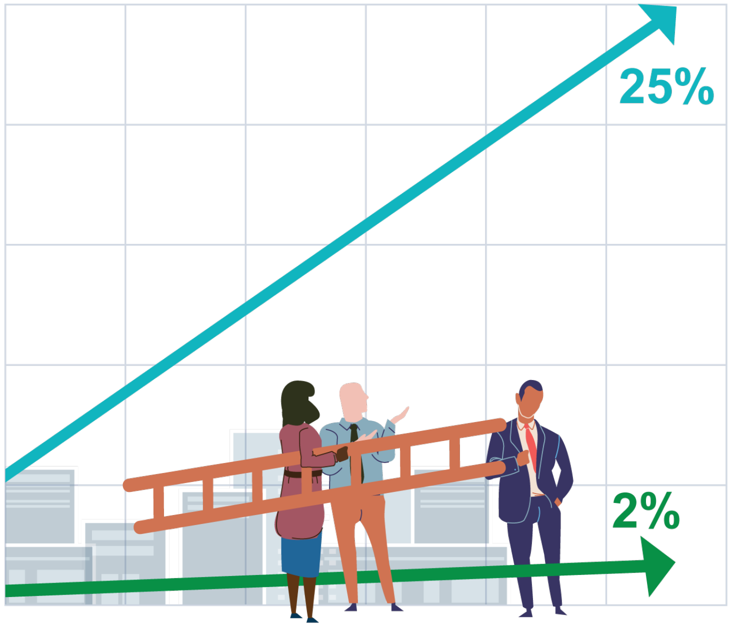
All of these tools can influence *interest rates* in the economy. Why are they important? What is an interest rate?

The rate paid by borrowers for the use of money that they borrow from lenders

How do interest rates affect the economy?

• If the interest rate is **25%**, do you prefer to borrow more money or save more money?

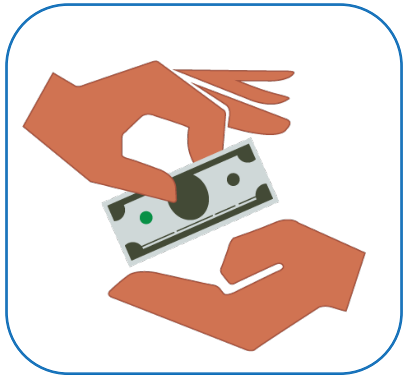
• If the interest rate is **2%**, do you prefer to borrow more money or save more money?



When interest rates go **UP,** consumers and businesses are LESS willing to borrow money.

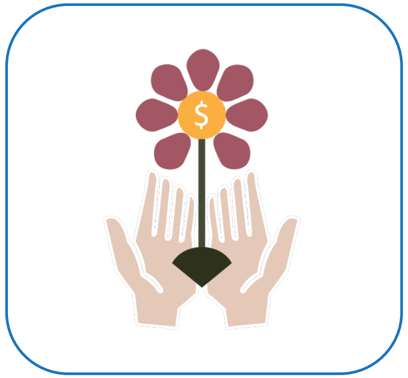
When interest rates go **DOWN**, consumers and businesses are MORE willing to borrow money.

If interest rates go DOWN



Borrowing
goes UP

Consumption
goes UP



Investment
goes UP

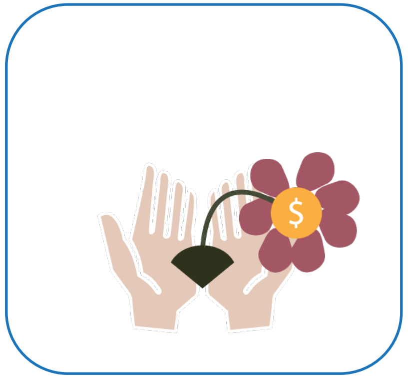
Unemployment
goes DOWN

Expansionary Policy

If interest rates go UP

Borrowing
goes DOWN

Consumption
goes DOWN



Investment
goes DOWN

Unemployment
goes UP

Contractionary Policy

If the economy needs a boost economists prescribe:

EXPANSIONARY POLICY

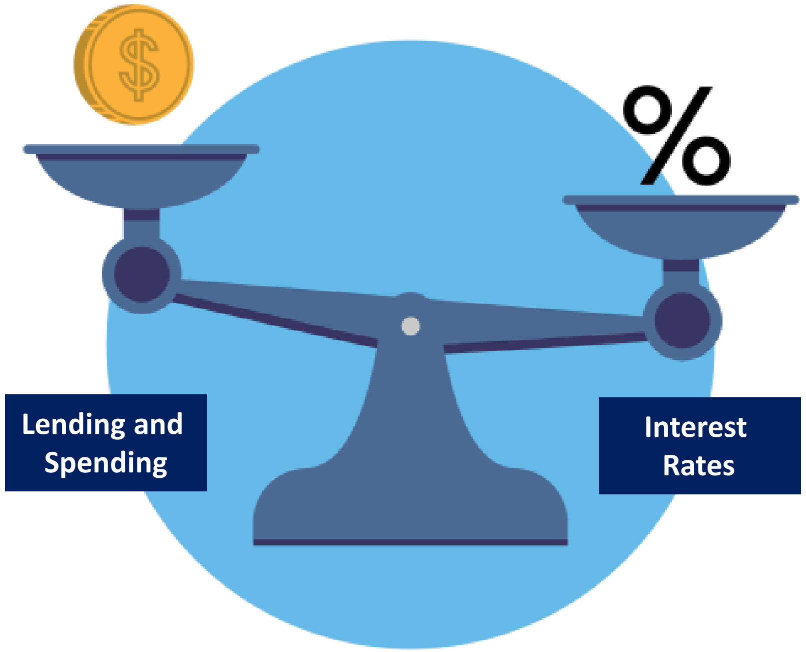
If the economy is overheating economists prescribe:

CONTRACTIONARY POLICY

How can the Fed influence interest rates?

The process is indirect because commercial banks can’t be forced by the Fed to raise or lower their interest rates.

The Federal Reserve can influence interest rates by affecting the supply of money.



Influencing Interest Rates Open Market Operations

Contractionary

The Fed sells securities on the open market to reduce the supply of money in circulation.

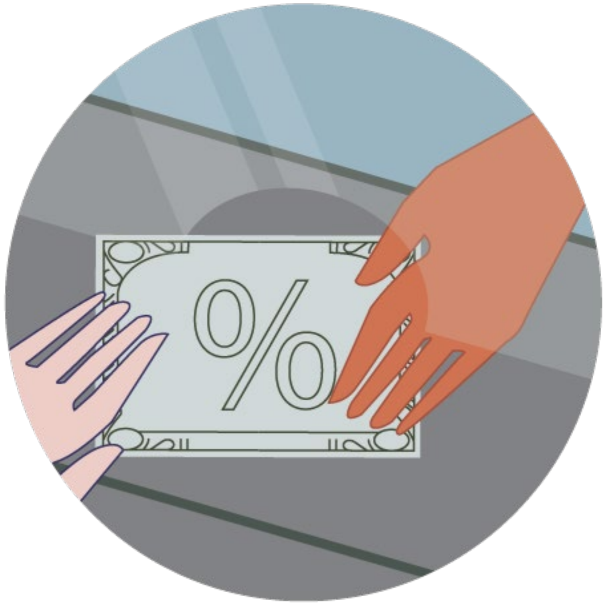
Expansionary

The Fed purchases securities and to increase in money supply.

Influencing Interest Rates Discount Rate

The discount rate is the interest rate the Federal Reserve charges banks to borrow from the Federal Reserve System.

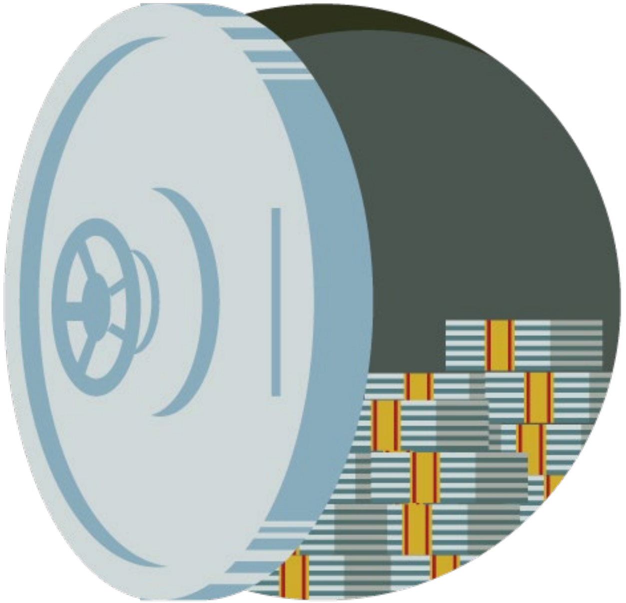
It is higher than the federal funds rate because the Fed wants to discourage banks from borrowing from it.



Influencing Interest Rates Reserve Ratio

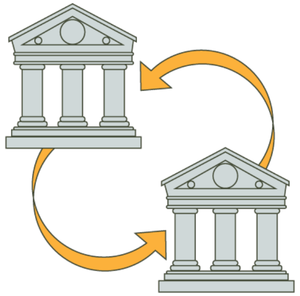
The reserve requirement, or Reserve Ratio, is the amount of funds that a bank must hold in reserve to serve its customers.

These reserves must be held in the form of vault cash or deposits with Federal Reserve Banks.



How does the Fed influence interest rates?

Federal Funds Rate



1.00 – 1.25

Discount Rate

1.75

Car Loan (you)

3.50

Recap

1. The Fed uses monetary policy tools to promote the health of the economy.

2. These tools can affect the money supply by influencing interest rates.

3. Open Market Operations is the selling or purchasing of securities by the Federal Reserve to directly impact the supply of money in the economy.

Recap

4. The Federal Funds rate is the interest rate credit worthy banks charge each other for overnight loans to meet their reserve ratio.

5. The Reserve Ratio is the amount of funds a bank must hold in reserve.

6. The Discount Rate is the interest rate the Federal Reserve charges banks to borrow from the Federal Reserve System.

Questions?

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