

Open Market Operations

by Sophia Tutorial



WHAT'S COVERED

This tutorial is on open market operations, which is one of the tools used by the Federal Reserve to control the money supply.

Our discussion breaks down as follows:

1. Money and Liquidity
2. FOMC
3. Open Market Operations
 - a. Money into Circulation
 - b. Use as a Fed Tool
4. Expansionary Policy: Buying Securities
5. Contractionary Policy: Selling Securities

1. Money and Liquidity

In review, money serves three functions:

- Medium of exchange
- Store of value
- Unit of account

When most people think of money, they think of bills or coins. However, if it is anything that allows us to get what we want, wouldn't checks and debit cards also be considered money? What else could it potentially be?

Depending on how easy or difficult it is to go out and spend a certain type of money immediately, we classify it accordingly. Some forms of money, like cash, are the easiest form of money to go out and spend right now, while other forms of money, like money in a savings account, involve a few more steps in order to be able to spend it.

This concept is known as liquidity. Cash is extremely liquid; it is the most liquid form of money because it can be spent right now. Money in a savings account is less liquid.

Forms of money can be classified into the following categories according to their liquidity:

Category	Definition	Liquidity
M0	Narrowest definition of money; includes only the stock of physical currency	Most liquid, immediately available
M1	Includes demand deposits (checking account balances) + M0 (stock of physical currency)	Still liquid, accessible via checks and debit cards
M2	Broadest definition of money; includes time deposits such as savings accounts, money market mutual funds, etc. + M1 (demand deposits + M0, stock of physical currency)	Least liquid, accessibility requires a couple steps



TERMS TO KNOW

M0

The narrowest definition of money; includes only the stock of physical currency

M1

Includes demand deposits (checking account balances) + M0 (stock of physical currency)

M2

Time deposits + M1 (demand deposits + stock of physical currency)

2. FOMC

The FOMC, or the Federal Open Market Committee, is part of the Fed. They meet eight times a year to manage our nation's money supply.

The FOMC has various tools that they use to control these various parts of our money supply, M0, M1, and M2:

- The reserve requirement
- Open market operations
- Fed funds market
- Discount rate

This tutorial will focus on the second bullet, open market operations.

3. Open Market Operations

Now, **open market operations** are defined as one of the mechanisms available to the Fed to regulate interest rates and the money supply. These open market operations refer to the purchase and sale of U.S. Treasury securities.



HINT

Think of these securities like bonds. So, when we talk about open market operations, the Fed is either buying these bonds or selling them.



TERM TO KNOW

Open Market Operations

One of the mechanisms available to the Fed to regulate interest rates and the money supply; open market operations refer to the purchase and sale of U.S. Treasury securities

3a. Money into Circulation

Let's briefly detour to take a look at how the Fed gets money into and out of circulation because the Fed is the one who has the authority to print money in our country. Actually, they pay the Bureau of Engraving and Printing, part of the U.S. Treasury, to print the money.



However, how does the money end up in our hands? This is a complicated process that many people do not fully understand.

The process of actually getting that money that has been printed into and out of circulation happens through these open market operations, the buying and selling of U.S. Treasuries, which are bonds, bills, and notes.

When the Fed wants to get the money that they have printed into M0, meaning into that actual physical stock of cash in circulation, they buy treasuries.



HINT

Think about it this way. When someone buys something off of you, what do you walk away with after that transaction? You walk away with cash, right? Therefore, when the Fed buys treasuries, they pay cash to bondholders, which means they are now putting cash into circulation, or into people's hands.

Now, if the Fed wants to actually take money out of circulation, they simply do the opposite. They sell securities. Again, when someone sells something to you, you have to give up cash. Similarly, buyers--these bondholders--give up cash in exchange for the securities. This takes money out of circulation. The Fed, then,

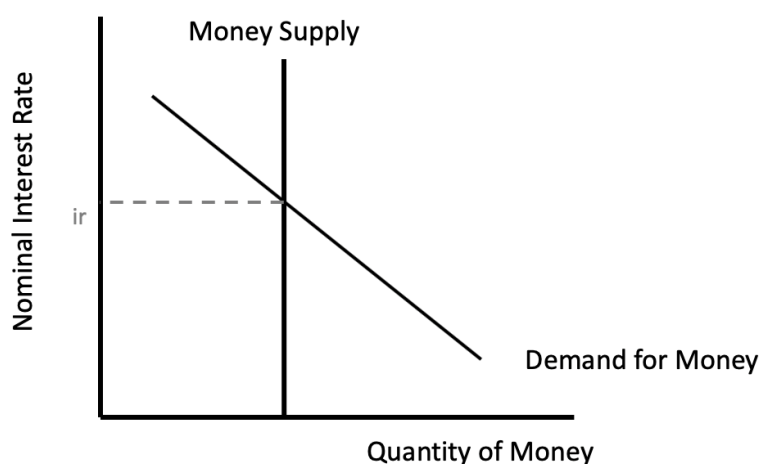
shreds this cash, taking it out of M0.

3b. Use as a Fed Tool

Now, how does the Fed use open market operations as a tool to manage our money supply? Well, the big idea is that the greater the supply of loanable funds--meaning money in the banks that is available to loan out--the greater the ability they have to increase our money supply or get money circulating in our economy. So, if the Fed wants to increase the amount of loanable funds and the amount of money in M0 in circulation, they buy bonds, because this puts money into people's hands. When they buy from us, basically, they are giving us cash.

If the Fed wants to take money out of circulation and decrease or contract the money supply, they sell bonds.

Let's look at the impact this has on the money market. Here is a demand and supply graph for money.



- The x-axis is the quantity of money.
- The y-axis is the interest rate because the interest rate is the price of money.

We assume that the Fed controls the supply of money right now, so it is fixed, which is why it is represented by a straight vertical line.

However, the demand for money does, in fact, vary with interest rates.



THINK ABOUT IT

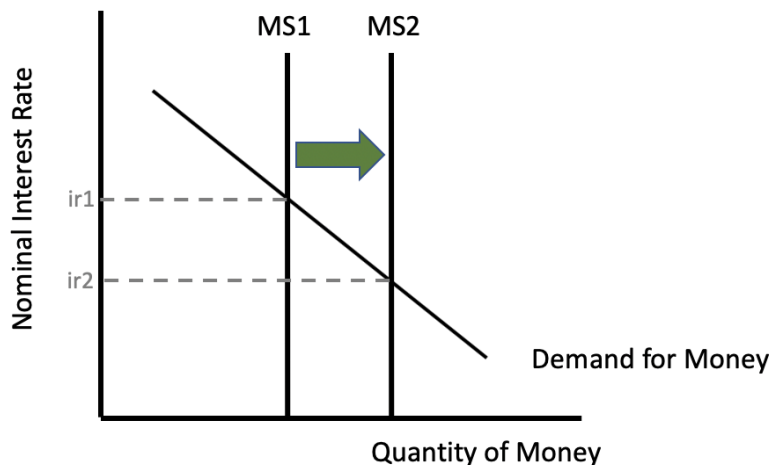
Consider this. At high-interest rates, where would you rather keep your money? Well, you might want to keep it in the bank because interest rates are higher and you can earn more interest on it. At lower rates, it might not be worth it to keep your money in your checking account or savings account, if it is only earning 0.01% in interest. In addition, at low interest rates, it is more attractive to take out a loan, because you can get a better interest rate.

This is why the demand for money varies with interest rates.

4. Expansionary Policy: Buying Securities

Now, with expansionary monetary policy, when the Fed is buying bonds and putting money into circulation,

they are increasing the money supply, illustrated by a shift to the right in our demand and supply graph for money.



So, when they buy treasuries, they are putting money into bondholders' hands, increasing the amount of money in circulation.

Notice the overall impact on the economy. It lowers interest rates in the economy. At lower rates, people and firms will tend to take money out of the banks and take advantage of lower rates by taking out loans, thereby getting more money into circulation.

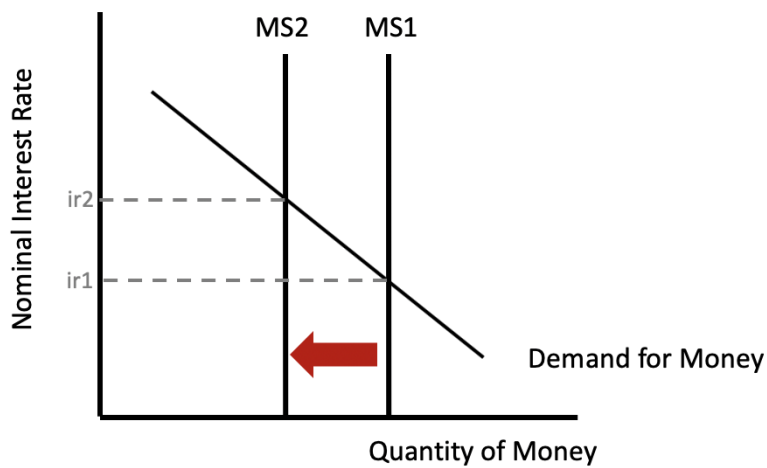


It is important to keep in mind that this is very different from fiscal policy. This does not involve people going out and buying more groceries or taking more vacation because interest rates fell. This involves different kinds of purchases. However, it does increase people's willingness to purchase interest-sensitive items, like homes and cars. It has an expansionary effect on the economy.

5. Contractionary Policy: Selling Securities

The opposite occurs when the Fed is selling bonds. This is known as a contractionary, or tight money policy. If the Fed is contracting the money supply, they will engage in selling U.S. Treasury securities, because they are taking money from bondholders and decreasing the amount of money in circulation.

That represents a shift of the money supply to the left, and it raises interest rates in the economy.



You may recall that at higher rates, people and firms tend to keep money in the banks, and they take out fewer loans for homes and cars. They tend to wait until rates fall again, which has a contractionary effect. The more money that is tied up in the banks, the less spending and circulating of money is going on outside of the banks.



SUMMARY

In today's lesson, we briefly reviewed the functions of **money** and its classification according to **liquidity** into categories of M0, M1, and M2. In review, the **FOMC**, or the Federal Open Market Committee, is part of the Fed and is the organization who manages and makes decisions about interest rates and the supply of money. We learned about **open market operations**, the sale and the purchase of U.S. Treasuries, and how it impacts **money in circulation**. We also learned about the use of open market operations as a **tool of the Fed** to control how much money is in circulation, through **expansionary policy**, when the Fed is **buying securities**, and **contractionary policy**, when the Fed is **selling securities**.

Source: Adapted from Sophia instructor Kate Eskra.



TERMS TO KNOW

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