

**Lecture Notes on**

**MONEY, BANKING,  
AND FINANCIAL MARKETS**

**Peter N. Ireland**  
**Department of Economics**  
**Boston College**

**irelandp@bc.edu**

**<http://www2.bc.edu/~irelandp/ec261.html>**

# Chapter 18: Conduct of Monetary Policy: Goals and Targets

## 1. Goals of Monetary Policy

Three Principal Goals of Monetary Policy

Challenges for the Fed

## 2. Targets for Monetary Policy

Money Supply Targets

Interest Rate Targets

The Effects of Shifts in the Demand for Money

Targeting in Practice

Now that we've considered the choice between the various tools of monetary policy—that is, the various ways in which the Fed can manage the money supply—we can move on and ask about the principles that guide the Fed's monetary policy decisions in the first place.

That is, we can consider the goals of monetary policy.

In practice, the Fed appears to have at least three goals that it tries to achieve in conducting monetary policy.

But the Fed faces two challenges in trying to achieve those goals.

The first challenge is the most serious: namely, it may not be possible for the Fed to simultaneously achieve all of its goals. And so, at times, the best the Fed can do is to choose between two or more conflicting goals.

But a second challenge is easier to solve. That problem arises because the Fed doesn't directly control the variables that it cares about the most. So to achieve its goals, it adopts a strategy through which it sets targets for variables that it can directly control, in an effort to influence the variables that it cannot directly control.

Thus, after identifying the principal goals of monetary policy, we'll go on to consider two types of targets for monetary policy: money supply targets and interest rate targets.

We'll see how the choice between money supply and interest rate targets is affected by shifts in the demand for money.

And we'll conclude by identifying the reasons why, in practice, the Fed has chosen to target interest rates instead of the money supply.

# 1 Goals of Monetary Policy

## 1.1 Three Principal Goals of Monetary Policy

The Employment Act of 1946 and the Full Employment and Balanced Growth Act of 1978 instruct the Federal Reserve to promote:

1. High employment and economic growth.
2. Stable prices or low inflation.

And in addition to trying to achieve these two goals, the Federal Reserve also tries to promote:

3. Stable financial markets and interest rates.

## 1.2 Two Challenges for the Fed

In trying to achieve its three goals, the Fed faces at least two challenges:

1. The three goals might not always be consistent.

Example: Mishkin's Chapter 5, Figure 8 (p.102) shows that interest rates tend to rise during business cycle expansions.

Thus, a higher rate of economic growth might not be possible without rising interest rates.

In this case, the goal of high employment and economic growth conflicts with the goal of stable financial markets and interest rates.

2. Although the Fed can influence employment, economic growth, and inflation, it does not control these variables directly.

It may not be possible for the Fed to solve the first problem: sometimes, it simply must choose between conflicting goals.

But the second problem can be solved through a process of setting targets for monetary policy: that is, setting targets for variables that the Fed can directly control, in order to achieve its goals for variables that it cannot directly control.

## 2 Targets for Monetary Policy

Since the Fed cannot control employment, economic growth, and inflation directly, it must choose settings, or targets, for variables that it can control in order to best achieve its goals.

In practice, the Fed has a choice between two types of targets:

Money supply targets.

Interest rate targets.

Mishkin's Figure 1 (p.416) illustrates the role of target variables within the Fed's overall monetary policy strategy.

### 2.1 Money Supply Targets

Our model of the money supply process implies that

$$M = m \times MB,$$

where

$$m = \frac{1 + c}{r + e + c}.$$

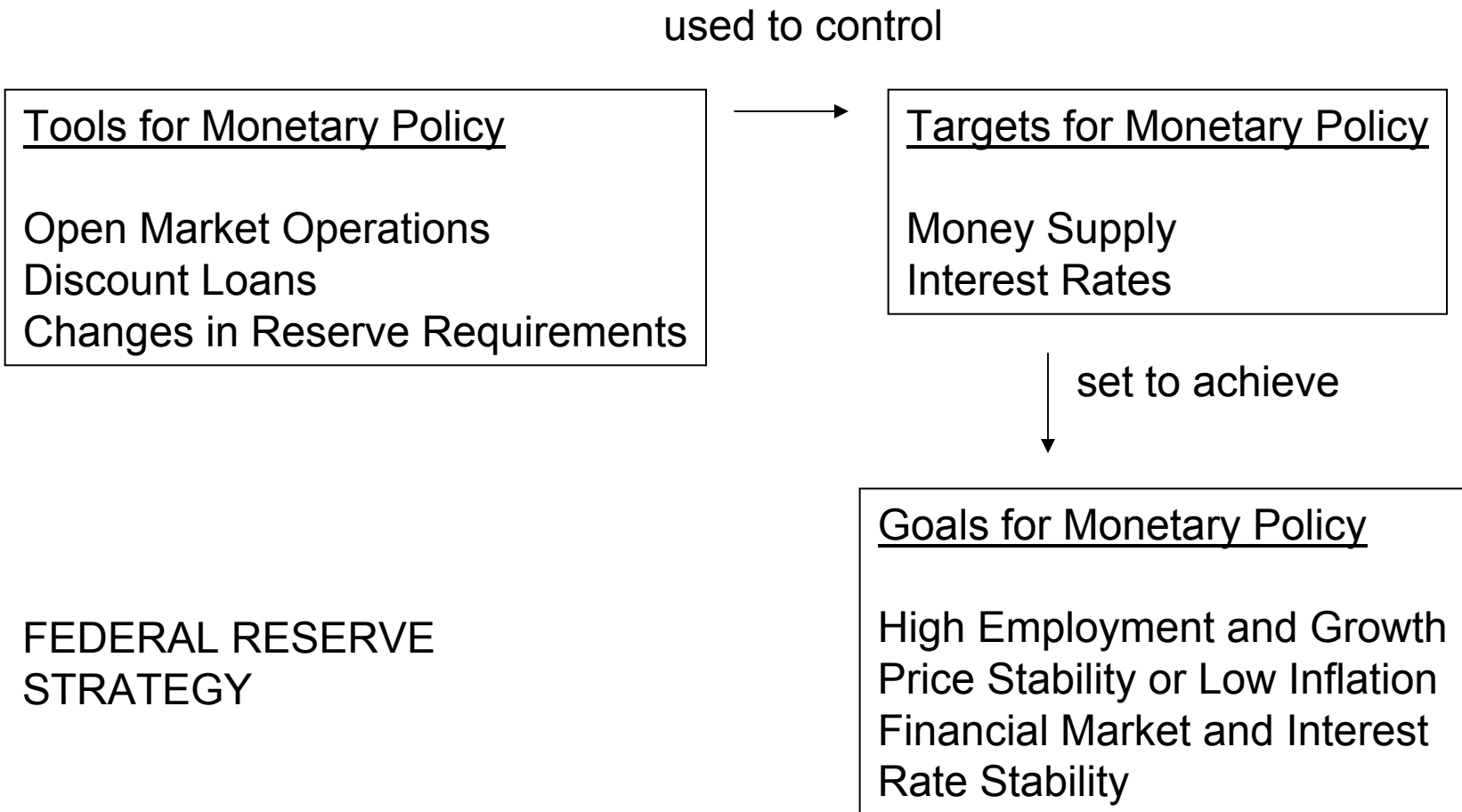
Thus, the Fed can decide what level of the money supply  $M^*$  is consistent with achieving its goals for employment, growth, inflation, and financial market and interest rate stability, and set  $M^*$  as its target.

It can then use open market operations to control  $MB$  and thereby hit its money supply target  $M^*$ .

### 2.2 Interest Rate Targets

To see how the Fed can set targets for interest rates, we will need to consider money demand as well as money supply.

Mishkin, Figure 1, p.416



In our model of the money supply process, the money supply  $M$  corresponds most closely to the Federal Reserve's M1 monetary aggregate:

$$M1 = \text{currency} + \text{traveler's checks} + \text{demand deposits} + \text{other checkable deposits}.$$

Currency, traveler's checks, and demand deposits do not pay interest.

Other checkable deposits (NOW accounts) pay interest, but at a lower rate than other assets, such as government or corporate bonds, since they offer check-writing privileges.

Thus, when interest rates on bonds rise, individuals and non-bank corporations transfer funds out of M1 into other assets.

And when interest rates on bonds fall, individuals and non-bank corporations transfer funds into M1 and out of other assets.

We can illustrate this graphically with a downward-sloping money demand curve.

The money demand curve slopes downward, since money demand falls when interest rates rise.

Now suppose that the Fed wants to set a target  $i^*$  for the interest rate.

It can hit this target by choosing the appropriate value  $M^*$  for the money supply.

The money supply curve is vertical because the Fed fixes the money supply at  $M^*$ .

Equilibrium occurs where the demand and supply curves intersect: the equilibrium interest rate is  $i^*$ .

Hence, the Fed can decide what level of the interest rate  $i^*$  is consistent with achieving its goals for employment, growth, inflation, and financial market and interest rate stability, and set  $i^*$  as its target.

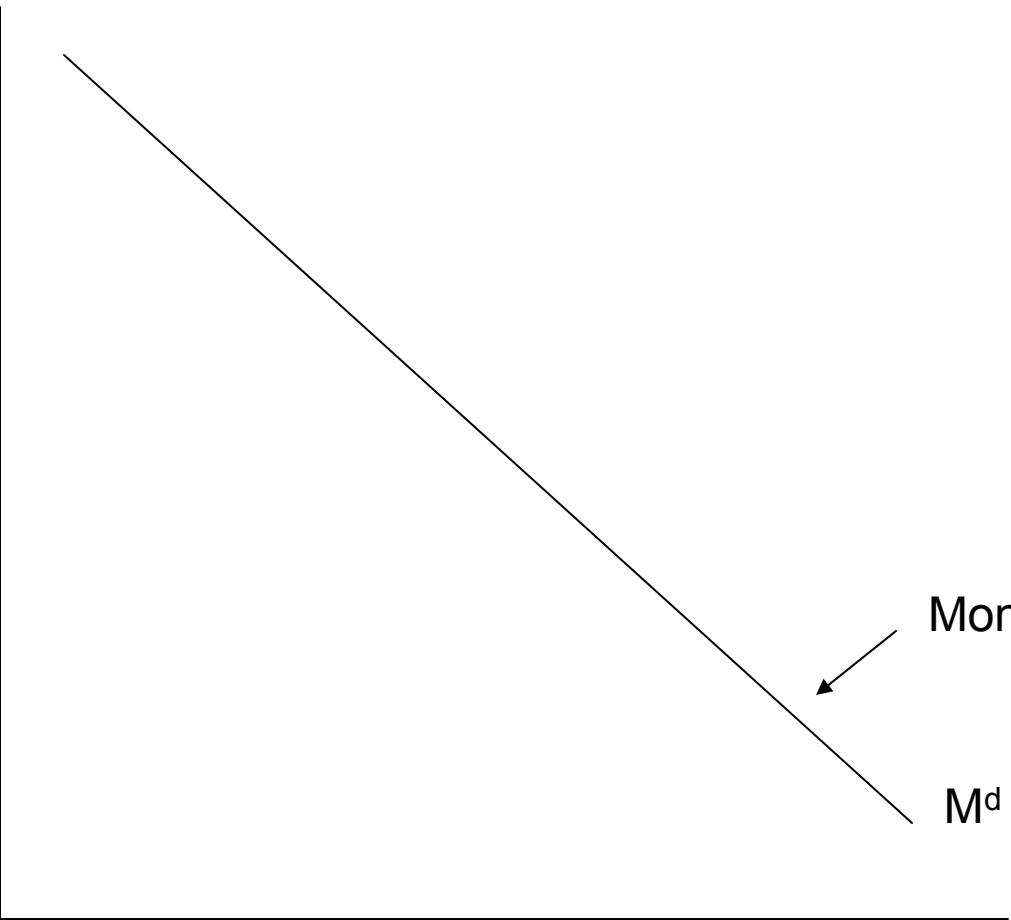
It can then use open market operations to control  $MB$  and thereby supply the amount of money  $M^*$  that makes the equilibrium interest rate equal to its target  $i^*$ .

## 2.3 The Effects of Shifts in the Demand for Money

So far, it appears that targeting the money supply is not much different from targeting the interest rate.

Either the Fed chooses a target  $M^*$  for the money supply, or it chooses a target  $i^*$  for the interest rate and then finds the value  $M^*$  of the money supply that makes the equilibrium interest rate equal to  $i^*$ .

Interest Rate  $i$

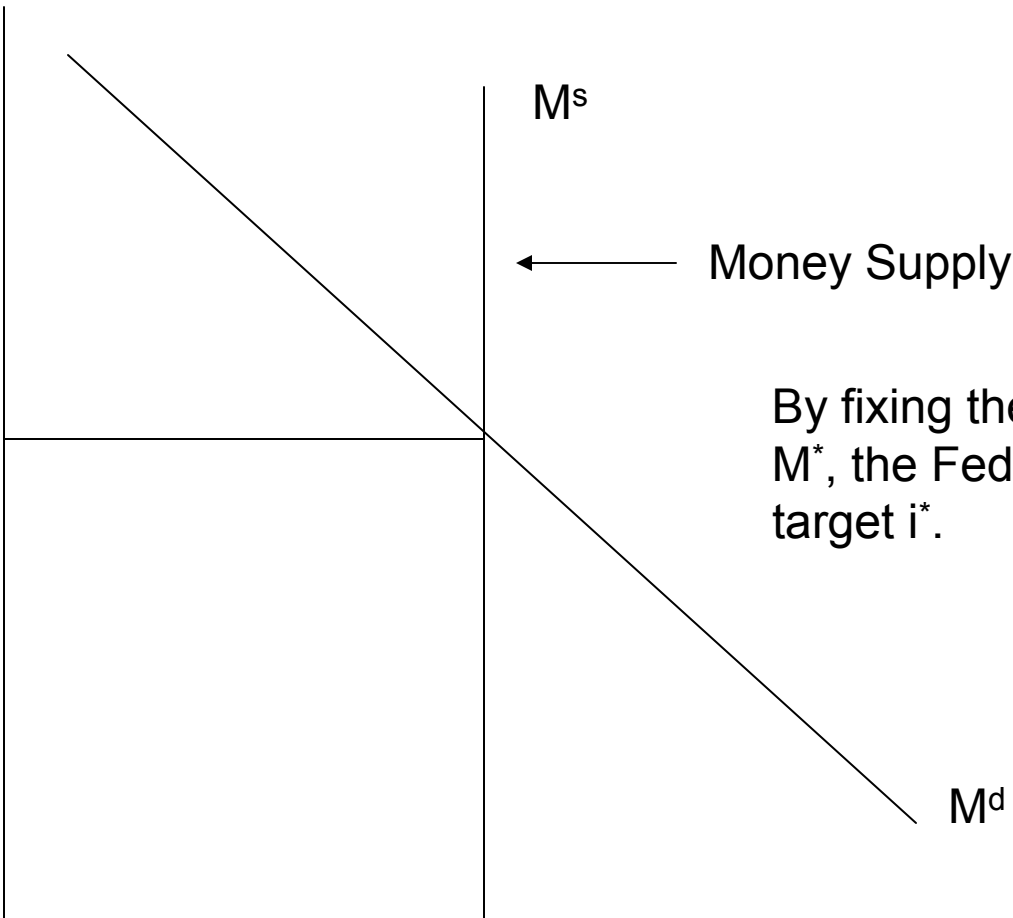


Money Demand

$M^d$

Quantity of Money  $M$

Interest Rate  $i$



$M^s$

← Money Supply

By fixing the money supply at  $M^*$ , the Fed hits its interest rate target  $i^*$ .

$M^d$

$M^*$

Quantity of Money  $M$

But if the demand curve for money shifts over time, then the Fed must choose between a target for the money supply and a target for the interest rate.

To see why, consider two examples.

#### Example 1: Money Supply Targeting

Suppose that the Fed chooses a money supply target  $M^*$ .

The target  $M^*$  implies that the equilibrium interest rate is  $i^*$ .

But when the money demand curve shifts, the interest rate rises from  $i^*$  to  $i^{**}$ .

This example shows that if the Fed chooses a money supply target and the money demand curve shifts, the interest rate will change.

The Fed cannot target both the money supply and the interest rate.

#### Example 2: Interest Rate Targeting

Suppose instead that the Fed chooses an interest rate target  $i^*$ .

Initially, the target  $i^*$  requires the money supply to equal  $M^*$ .

But when the money demand curve shifts, the money supply must increase to  $M^{**}$  to prevent the interest rate from rising.

This example shows that if the Fed chooses an interest rate target and the money demand curve shifts, the Fed must act to change the money supply.

Again, the Fed cannot target both the money supply and the interest rate.

## 2.4 Targeting in Practice

At various times in the past, the Fed has announced targets for the money supply.

In practice, however, the Fed has rarely taken those targets seriously.

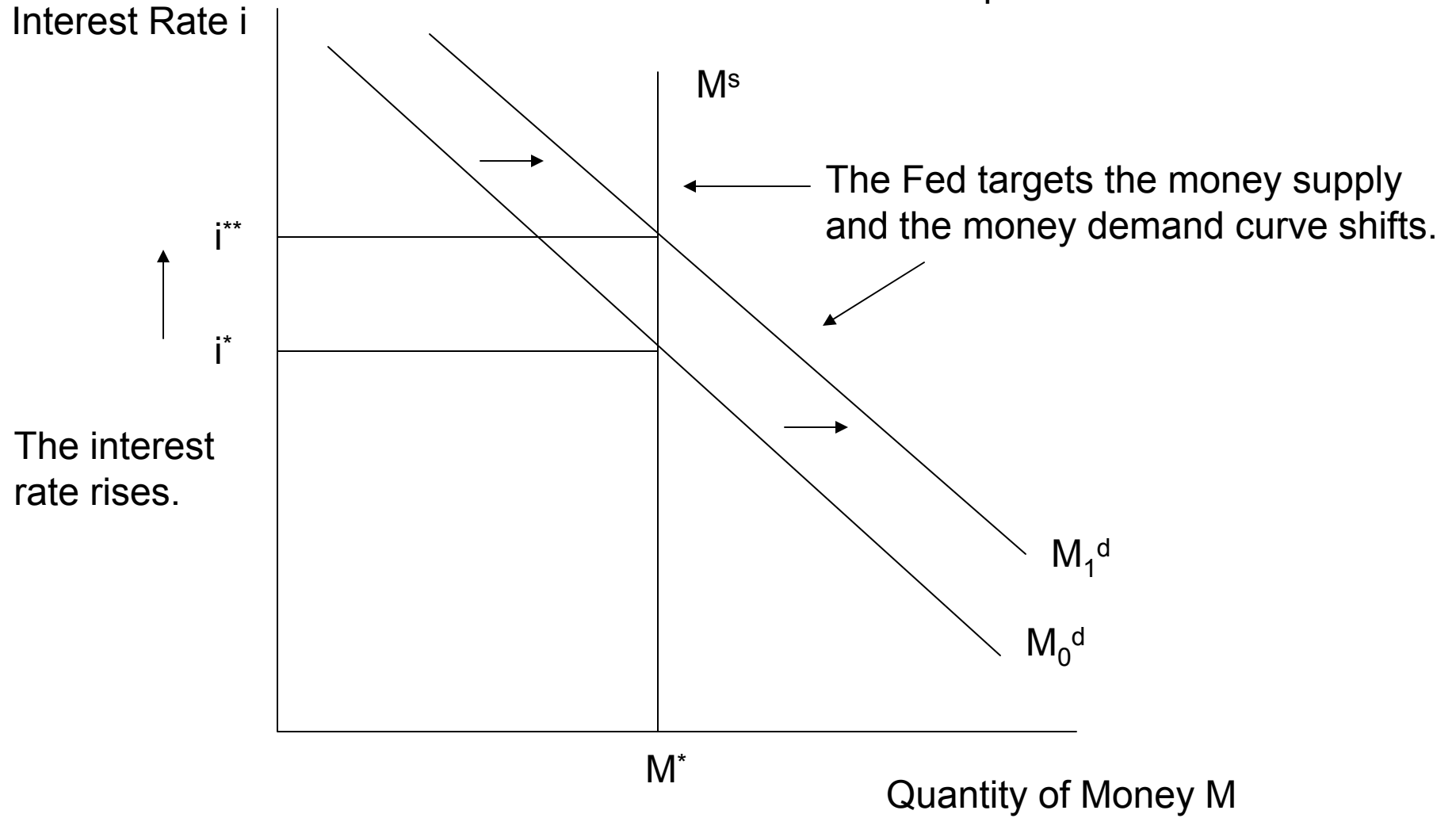
Instead, the Fed has been much more concerned with targeting interest rates.

And today, monetary policy decisions are made in order to target interest rates.

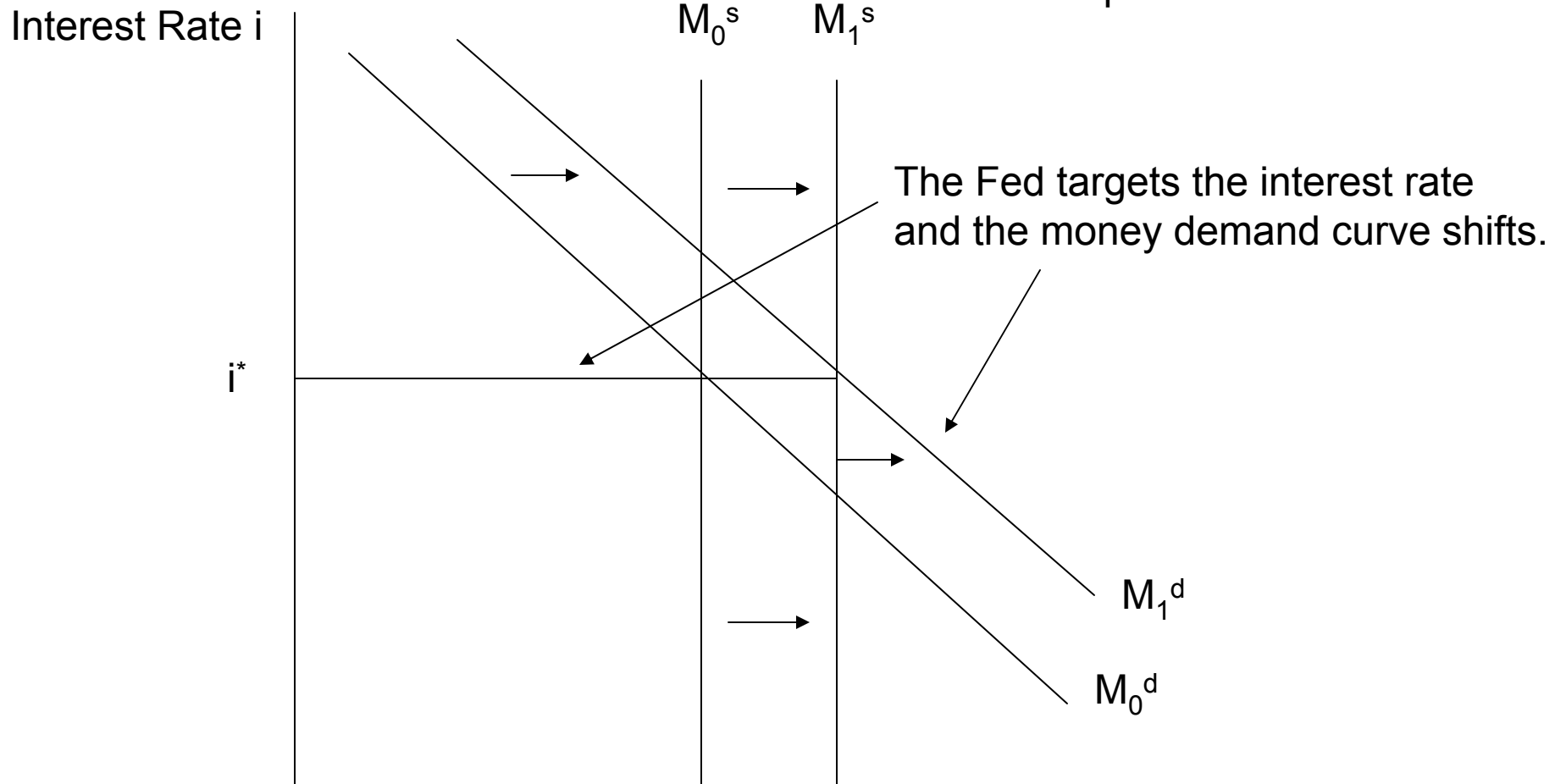
Thus, Federal Reserve policy decisions are always described based on their effects on interest rates.

Why has the Fed chosen interest rate targeting over money supply targeting?

# Example 1



Example 2



The Fed must increase the money supply to keep the Interest rate from rising.

1. Federal Reserve officials believe that the link between interest rates and employment, economic growth, and inflation is stronger than the link between the money supply and those same variables. Thus, Fed officials believe that they can best achieve their goals for employment, economic growth, and inflation by setting targets for interest rates.
2. Federal Reserve officials also believe that the demand for money is highly unstable and hence, that money supply targeting would lead to large swings in interest rates. Thus, Fed officials believe that they can best achieve their goal of promoting financial market and interest rate stability by setting targets for interest rates.

But even though the Federal Reserve has chosen to target interest rates, it is important to remember that the Fed hits its target for the interest rate  $i^*$  by first determining the level of the money supply  $M^*$  that is consistent with its interest rate target and then conducting open market operations to adjust the monetary base so that the money supply equals  $M^*$ .

And so, open market operations and the Fed's control over the monetary base underlie the Fed's policy actions, even when those actions are taken to target the interest rate.