Econ 1115: Principles of Macroeconomics

Lecture 19: Monetary Policy

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- Important to cite your sources

Resources

1. https://virtualspeech.com/blog/guide-for-giving-group-presentation
2. http://www.umsl.edu/ lac-itym/AdviceforOralGroupPresentations.pdf
3. https://www.aeaweb.org/content/file?id=651
4. http://www.presentationxpert.com/6-tips-for-presenting-with-a-team-as-a-team

Tips for the presentation

- Include a brief introduction, real world examples, summary data, economic theory and potential solutions.

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- Know what you are presenting, and **do not** read from your slides

If the reserve ratio is 12 percent, then the money multiplier is

a. 9.3.
b. 8.3.
c. 7.3.
d. 12.

$mm = 1/.12 = 8.33$

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a. 9.3.
b. 8.3.
c. 7.3.
d. 12.

Answer: b

Outline

1. Money demand and supply
2. Federal Reserve
3. Monetary Policy
    - Monetary Policy Tools

Money Supply

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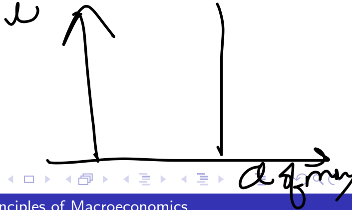
In the real world, the money supply is determined by the Federal Reserve policies, consumer preferences, and banks' lending practices.



Money Demand

The money demand is how much wealth people want to hold in the form of money (liquid assets).

Depends on price levels. An increase in price reduces the purchasing power of money, so more money is required to buy goods and services.

Money demand is also inversely related to interest rates. The higher the interest rate, the greater is the opportunity cost of holding money.

Thus the demand curve for money is downward sloping.

Money Demand

Why do people hold money?

1. Transactive motive

Money Demand

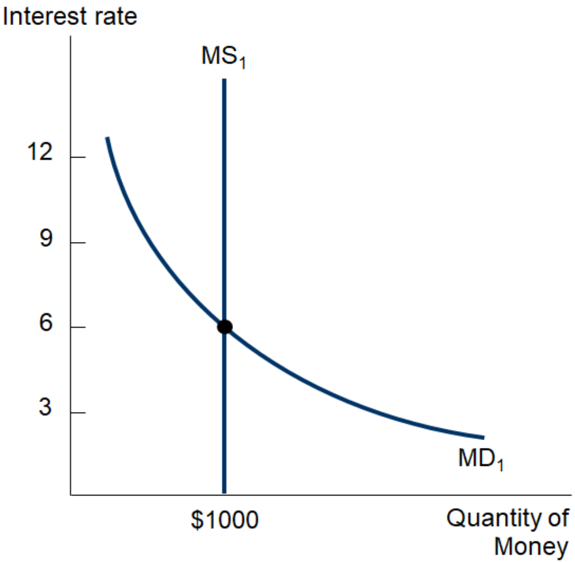
Why do people hold money?

1. Transactive motive
2. Precautionary motive

Money Demand

Why do people hold money?

1. Transactive motive
2. Precautionary motive
3. Speculative motive


Interest rate
MS1
12
9
6
3
MD1
$1000
Quantity of Money

Money neutrality

- Money neutrality

Money neutrality

- Money neutrality
- Classical dichotomy, monetarists and Milton Friedman

Money neutrality

- Money neutrality
- Classical dichotomy, monetarists and Milton Friedman
- Real wage and relative prices

Outline

The structure of the Fed

The Fed is an independent institution.

- Board of Governors - 7 members
- 12 regional Fed banks
- Federal Open Market Committee (FOMC): 7 + 5, Meet 8 times a year to decide monetary policy

Dual Mandate

"promote effectively the goals of maximum employment, stable prices, and moderate long term interest rates."

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Recall Phillips Curve, often these two are conflicting objectives.

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The tools of the Fed

Money supply is created by the banks and is basically a product of the money multiplier and the bank's reserves and influences these two to change money supply.

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The Fed has several tools with which it can control money supply:

- Open market operations (traditional)

1-year treasury bonds
(buy or sell)

(320) ← 64 → ER → 31 (170)

($30 bonds)

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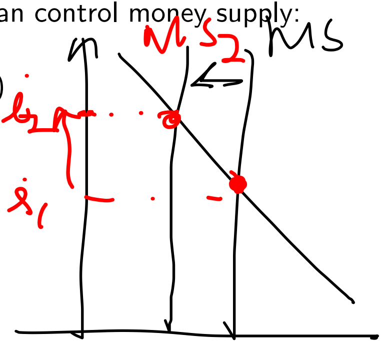
The Fed has several tools with which it can control money supply:

Fed sold bonds to banks

- Open market operations (traditional)
- ~~Required reserve ratio (traditional)~~

reduces ER,
reduces MS ↓
increases i ↑



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The Fed has several tools with which it can control money supply:

- Open market operations (traditional)
- Required reserve ratio (traditional)
- Discount rate (traditional)

(overnight loan)

rr 10 → 15%

mm 10 → 6.6

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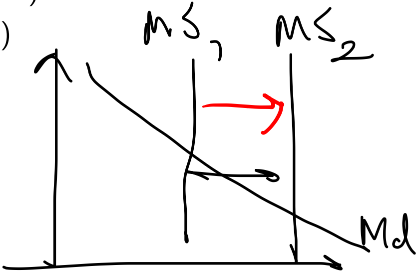
The Fed has several tools with which it can control money supply:

expansionary

- Open market operations (traditional)
- Required reserve ratio (traditional)
- Discount rate (traditional)
- Term auctions (new)



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- Required reserve ratio (traditional)
- Discount rate (traditional)
- Term auctions (new)
- Paying interest on reserves (new)
- Quantitative easing (new)
- Forward guidance

When the Fed makes open-market purchases bank

a. withdrawals and lending increase.
b. withdrawals increase and lending decreases.
c. deposits and lending increase.
d. deposits increase and lending decreases.

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a. withdrawals and lending increase.
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Answer: c

If the Federal Reserve increases the interest rate on reserves held at the Fed, banks will want to hold

a. fewer reserves, so the reserve ratio will fall.
b. fewer reserves, so the reserve ratio will rise.
c. more reserves, so the reserve ratio will fall.
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Answer: d

Other interesting things

- Bank runs

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- FDIC and deposit insurance

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- Bank runs
- FDIC and deposit insurance
- Do we even need a reserve requirement?

Monetary Policy

The Federal Reserve does not control how much banks lend and how much households save and spend.

But it can influence both. How?

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But it can influence both. How?

Interest rates!

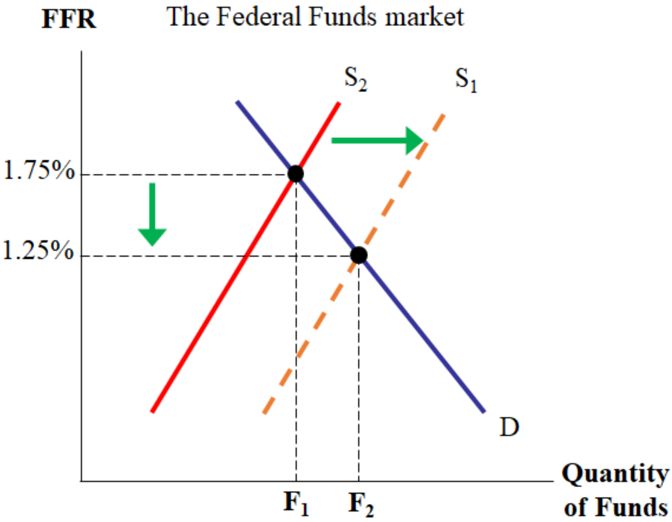
Federal Funds Rate

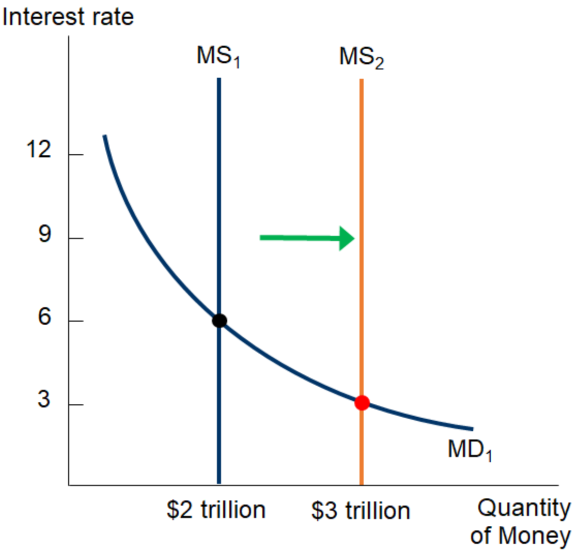
The Federal Funds Rate (FFR) is the

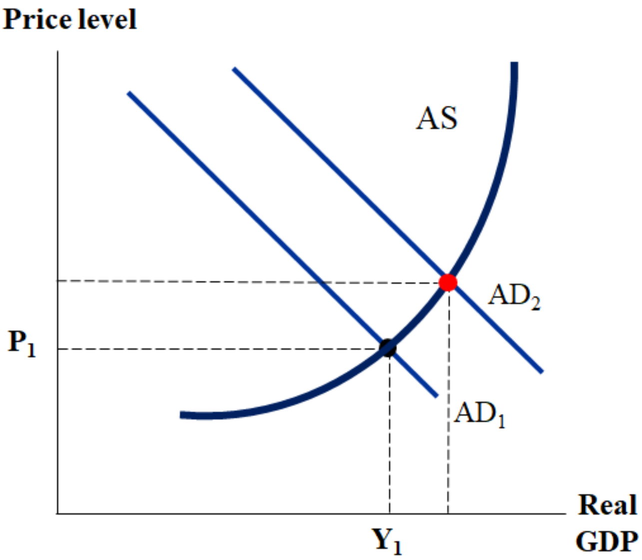
- The weighted-average
- Overnight, inter-bank lending rate (interest rate) of
- Over a million dollars.

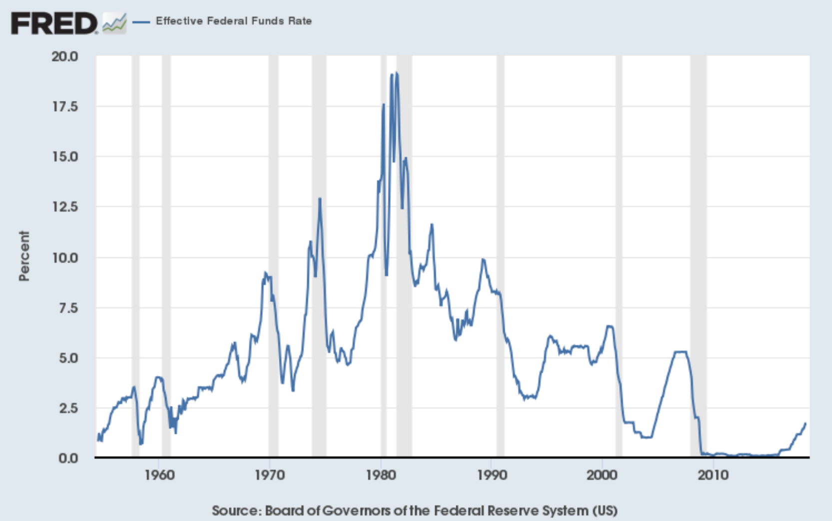
Determined in the market for overnight loans among banks and other depository institutions. Banks that have excess reserves can lend to banks that have fallen short.

The Fed does not control the FFR, but sets a target FFR and uses its monetary policy tools to achieve this target FFR. This is how it controls money supply.


FFR
The Federal Funds market
S_2
S_1
1.75%
1.25%
D
Quantity of Funds
F_1
F_2


Interest rate
MS1
MS2
12
9
6
3
MD1
$2 trillion
$3 trillion
Quantity
of Money


Price level
AS
AD_2
P_1
AD_1
Y_1
Real
GDP


FRED
Effective Federal Funds Rate
Percent
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
1960
1970
1980
1990
2000
2010
Source: Board of Governors of the Federal Reserve System (US)

According to liquidity preference theory, the slope of the money demand curve is explained as follows:

a. Interest rates rise as the Fed reduces the quantity of money demanded.
b. Interest rates fall as the Fed reduces the supply of money.
c. People will want to hold less money as the cost of holding it falls.
d. People will want to hold more money as the cost of holding it falls.

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Answer: d

The federal funds rate is the interest rate

a. the Federal Reserve charges for loans it makes to the federal government.
b. the Federal Reserve charges banks for short-term loans.
c. banks charge each other for short-term loans of reserves.
d. on newly issued one-year Treasury bonds.

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Answer: c

Interest rates

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- How many interest rates are there? Three, five, seven or 16?
- Millions!
- What is the prime rate?