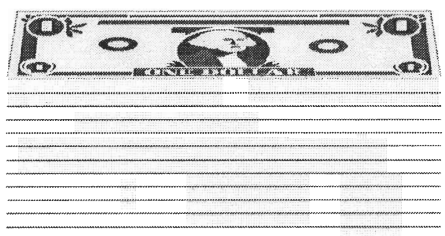
MONEY AND BANKING



Functions of money:

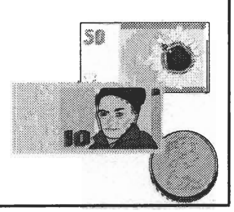
•Medium of exchange

•A measure of value

•A store of value

Forms of Money

- Definition of money is not very exclusive
- Money is culture specific
  - commodity money
  - fiat money



- money is a liquid financial asset .

Liquid Asset: an asset which can be easily converted into a means of payment at a predictable price

Components of M1

- Currency (held outside of banks)
- Demand Deposits(checking accounts)
- Traveler's checks
- Other checkable deposits

Components of M2

- M1
- Time deposits(savings accounts)
- Money market mutual fund shares

History of money:

•Barter

↓

•Gold

↓

•Gold certificates

Reserves and the reserve ratio:

•Reserves- part of deposits not lent out

•enough to manage normal cash inflows and outflows

•Reserve ratio- the ratio of reserves to total deposits

Money creation:

Reserve ratio is .2

1. Bill deposits $1000
2. Bank lends 800 to Sue
3. Sue deposits 800
4. Bank lends 640 to Bob

Multipliers:

•Potential money multiplier- 1/r

•Actual real word money multiplier- 1/(r+c)

•r=reserve ratio

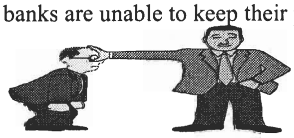
•c=the ratio of money people hold in currency to the money they hold as deposits

Anatomy of a financial panic

•The banking system is based on trust

•banks have only a small percentage of deposits to give depositors

•If a lot of depositors lose faith in the banking system, banks are unable to keep their promise



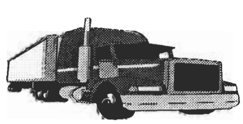
•FDIC(Federal Deposit Insurance Corporation)

Securities Markets:

•Securities- include paper assets such as stocks and bonds

•bond- IOU issued by a corporation or government agency

•stock- a claim to partial ownership of a corporation.



Monetary Theory and Policy:

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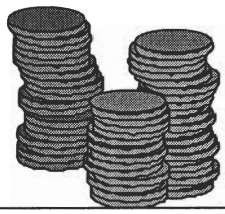
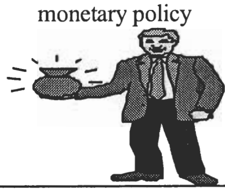


The fed is a central bank:

•Central bank- if there is a financial panic and a run on banks the central bank is there to make loans(lender of the last resort) ; a central bank serves as a financial advisor to the government and the fed conducts monetary policy

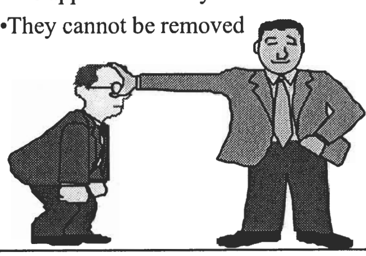


Independence of the fed:

•Fed governors are appointed for 14 yr terms.

•Chair is appointed for 4 yr terms.

•They cannot be removed



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Fed structure:

•Board of governors- 7 members appointed by the president and confirmed by the senate

•Federal open market committee- all 7 members of the board of governors together with the president of the New York fed and a rotating group of four of the presidents of the other regional banks sit on the FOMC

•Discount rate- interest rate the fed chargers banks to borrow from the fed

•Federal funds rate- interest rate banks charge each other to borrow

Tools of monetary policy:

•Changing the reserve requirements

$\downarrow$ r $\rightarrow$ $\uparrow$ money supply

•Changing the discount rate

$\downarrow$ discount rate $\rightarrow$ $\uparrow$ money supply

•Open market operations

buy bonds $\rightarrow$ $\uparrow$ money supply

Problems with monetary policy:

•Knowing what policy to use- must know y* otherwise you whether to use expansionary or contractionary monetary policy

•Political pressure- political business cycle

•Conflicting international goals- Increasing income increases the trade deficit

Monetary Policy

- An attempt to alter the economy by changing the money supply
- Controlled by the Fed
  - FOMC: Federal Open Market Committee

Notebook:

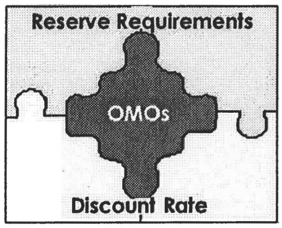
•Monetary policy in the keynesian model

•contractionary monetary policy

•expansionary monetary policy

•Monetary policy in the classical model

Tools of Monetary Policy



Reserve Requirements

- Required reserves: the percentage of deposits banks must hold in cash or on deposit with the Fed
- Decreasing the reserve ratio increases the money supply
- Increasing the reserve ratio decreases the money supply

Discount Rate

- The interest rate at which the Fed lends reserves to member banks
- Increase in the discount rate decreases the supply of money
- Decrease in the discount rate increases the supply of money

Open Market Operations (OMO)

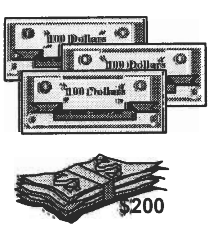
- The buying and selling of government bonds in order to change the supply of money

Government Bonds: The debt of the federal government. Sold in various maturities.

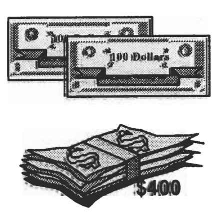
Sales of Bonds

- If the Fed sells a bond, the money supply decreases by the price of the bond.

Federal Reserve



Jane Smith



Money supply = $400 held by Jane Smith

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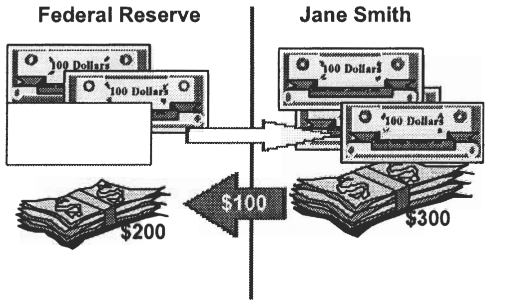
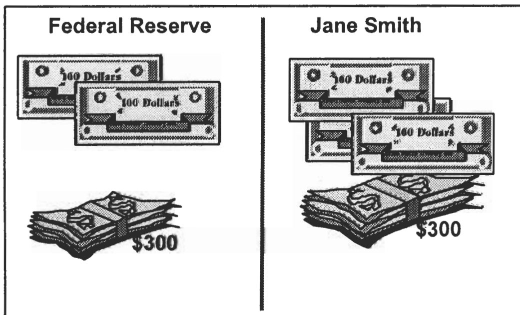


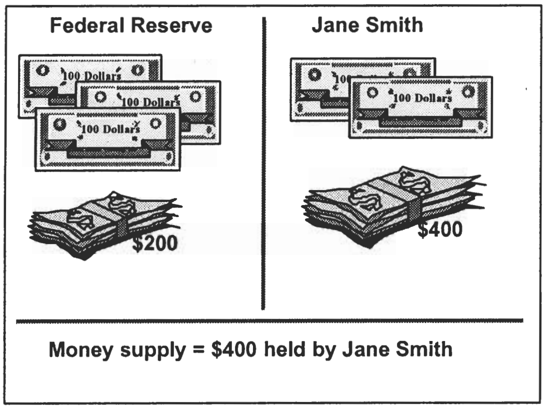
Fed sells a $100 bond to Jane Smith

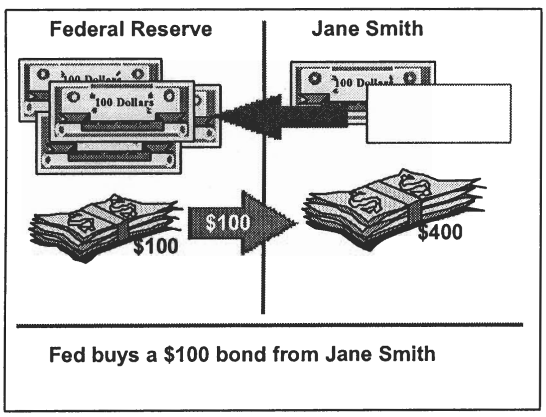


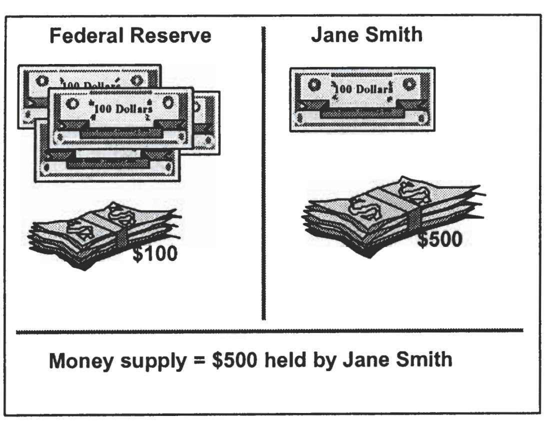
Money supply = $300 held by Jane Smith

Purchases of Bonds

- A purchase of bonds by the Fed increases the money supply by the price of the bonds.


Federal Reserve
Jane Smith
100 Dollars
$200
$400
Money supply = $400 held by Jane Smith


Federal Reserve
Jane Smith
100 Dollars
$100
$100
$400
Fed buys a $100 bond from Jane Smith


Federal Reserve
Jane Smith
100 Dollars
$100
$500
Money supply = $500 held by Jane Smith

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Increase in Money Supply

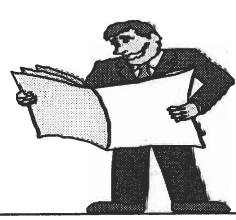
- Decrease in reserve requirement
- Decrease in the discount rate
- Open market purchase of government bonds

Decrease in Money Supply

- Increase in reserve requirement
- Increase in the discount rate
- Open market sale of government bonds

Real interest rate:

Real interest rate = nominal interest rate - the expected rate of inflation



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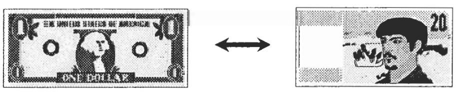
International dimensions of monetary and fiscal policies

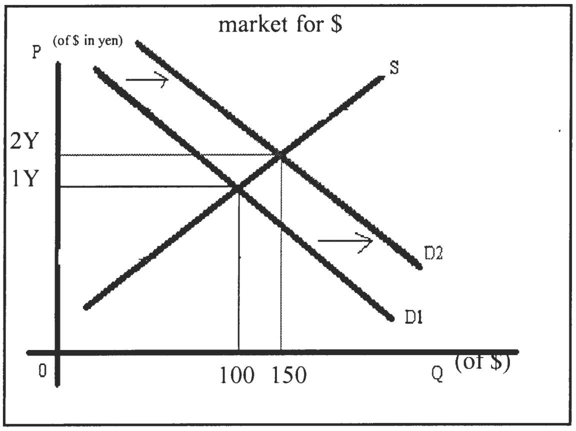
Exchange Rate

- The price of one country's currency in terms of another country's currency



$1.00 = 125 pesetas

- United States
- Coffee = $10.00 / pound = 1250 pesetas
  - Cloth = $1.00 / yard = 125 pesetas
- Mexico
  - Coffee = 500 pesetas / pound = $4.00
  - Cloth = 800 pesetas / yard = $6.40



Fixed vs Flexible

•Fixed exchange rate- set by the government; the government is committed to buying and selling at the fixed rate

•Flexible exchange rate- set by market forces(supply and demand)

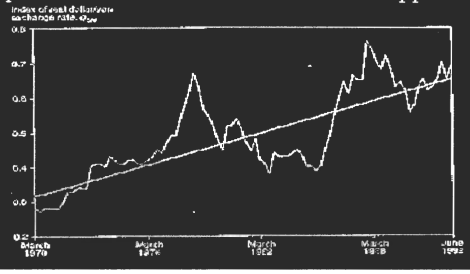
Do countries want a high or low exchange rate?

A high exchange rate for the dollar will

- decrease the price of imports(low inflation),
- discourage exports(increase the trade deficit)
- and decrease AD

How Are Exchange Rates Determined?

- Countries with high productivity growth - like Japan - also tend to see their currencies appreciate.



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How are exchange rates determined?

•If U.S. productivity in manufactured goods rises, the price of manufactured goods(ex: cars) will fall compared to other goods(ex:land) or services.

•U.S. tradable goods- mostly manufactures - prices will rise more slowly than overall U.S. inflation

•purchasing power parity determines the exchange rate through the prices of tradable goods only

Exchange rates and trade

•When the dollar price of foreign currency rises(the dollar depreciates), American goods look less expensive compared to foreign goods.

•Conversely, when the dollar appreciates, American goods look more expensive to consumers abroad

•Therefore, the conventional view is that a dollar depreciation is good for U.S. firms and bad for U.S. consumers.

Exchange rates and trade

•A depreciation of the dollar will tend to improve the U.S. trade balance as we export more and import less.

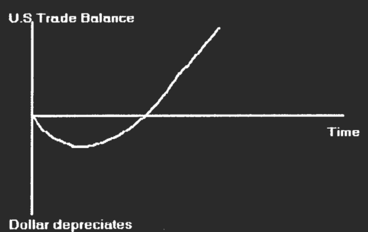
•This effect may not happen right away though there may be a delay in consumers and firms switching to cheaper American goods

Monetary policy and the exchange rate

↓Ms → ↑i → ↑capital inflows → ↑D$ → ↑E

Exchange Rates and Trade

✦ This delay in the improvement in the trade balance is called the "J-curve" effect.



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Expansionary monetary policy

•Increase money supply
•decrease interest rate
•decrease capital inflows
•decrease demand for the dollar
•decrease exchange rate
also
•increase price level
•increase income
•decrease net exports

Contractionary monetary policy

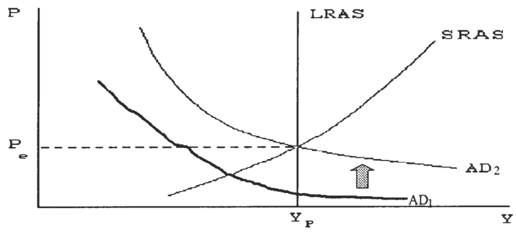
•Decrease money supply
•increase interest rate
•increase capital inflows
•increase demand for the dollar
•increase the exchange rate
also
•decrease price level
•decrease income
•increase net exports

Expansionary fiscal policy:

•Increase gov't spending or decrease taxes
•increase income
•increase price level
•decrease net exports

The international effect on expansionary fiscal policy

$\downarrow$Taxes $\rightarrow \uparrow$C $\rightarrow \uparrow$AD $\rightarrow \uparrow$Y $\rightarrow \uparrow$ M $\rightarrow \uparrow$ trade deficit



Contractionary fiscal policy:

- Decrease gov't spending or increase taxes
- decrease income
- decrease price level
- increase net exports