Aggregate supply and demand

Classical vs Keynesian

Aggregate demand:

•Graphically illustrates the inverse relationship between the price level and the quantity of goods demanded throughout the economy

•AD = C + I + G + (X-M)

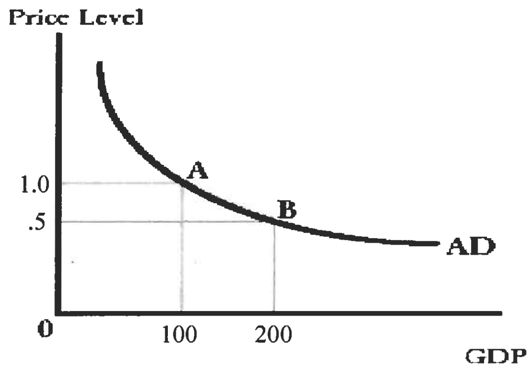
Reasons for a downward sloping aggregate demand curve:

•Wealth effect- decreasing the price level increases the purchasing power of money

•Interest rate effect- decreasing the price level increases the real money supply which lowers interest rates and increases investments

•Intertemporal price level effect- price level falls and is expected to rise in the future

•International effect- decreasing the price level makes domestic goods cheaper relative to foreign goods

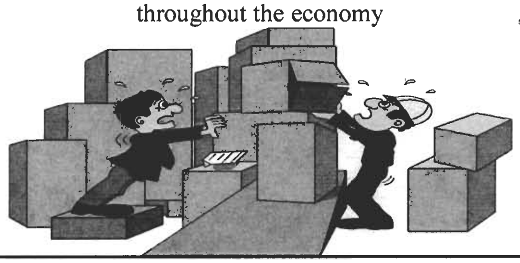


Aggregate demand shift factors:

- Income- increasing income will increase consumption
- Expectations- higher expected future prices will increase current consumption
- Interest rates- lower interest rates will increase consumption and investment
- distribution of income

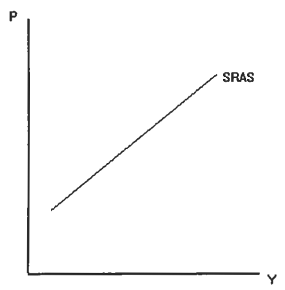
Aggregate supply:

- Graphically illustrates the relationship between the price level and the quantity of goods supplied throughout the economy



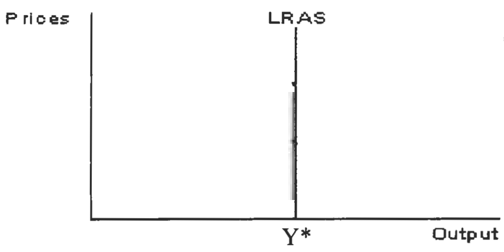
Reasons for a upward sloping short run aggregate supply curve:

•Constant input prices- if the price level rises firms receive more money for their goods and if input price are constant firms will have higher profits



Reasons for a vertical long run aggregate supply curve:

•In the long run input prices have time to adjust

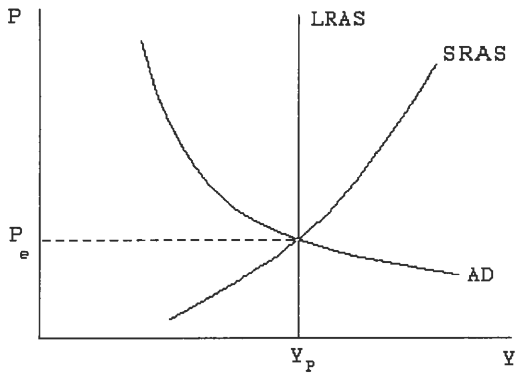


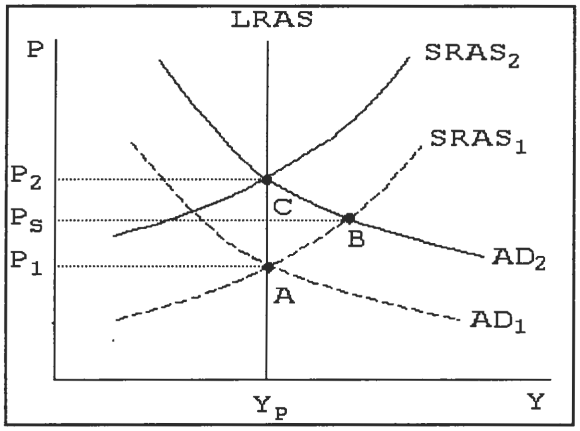
SRAS shift factors:

- Expectations- if suppliers expect aggregate demand to be low they will reduce supply
- wage price ratio- when wages are low relative to prices firms have a desire to produce a lot

LRAS shift factors:

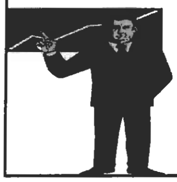
- Available inputs- ↑ # of inputs ↑LRAS
- Institutional environment- ↓regulation ↑LRAS
- Technology- improve technology ↑LRAS





Keynes vs Classical

- Activist- believe the government can impact the economy
- Laissez-faire(leave the market alone) economist- believe that most government policies would make things worst



Classical economics

- The market is self adjusting; wages prices and interest rates are flexible
- in the short-run there may be problems
- focus is on the long-run
- Unemployment results when the real wage is too high
- solution to unemployment- eliminate labor unions and government policies that hold wages too high

Classical economics

•Equation of exchange:

•$MV = PQ$

•M = money supply

•V = velocity

•P = price level

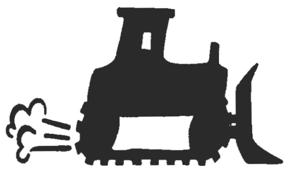
•Q = real output

•PQ = nominal output

Say's Law:

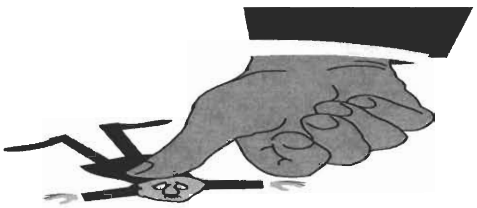
•Say's Law- supply creates its own demand

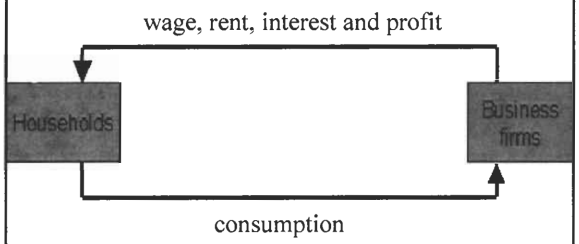
•the act of producing requires resources to be hired and paid, which in turn leads to resource owner's income being spent on other goods.



Say's Law:

•Surpluses in specific markets are remedied because surpluses drive down prices in the long run. (Flexible wages prices and interest rates)

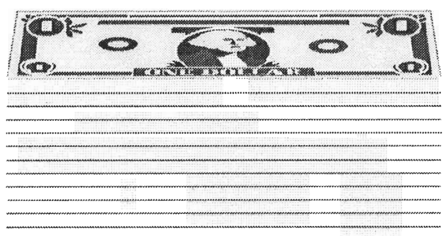




Challenge to Say's Law:

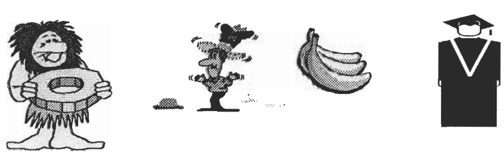
- Critics of Say's Law point out that people seldom spend all they earn
- so savings might result in inadequate Aggregate Demand
- classical rebuttal- all saving is invested

MONEY AND BANKING



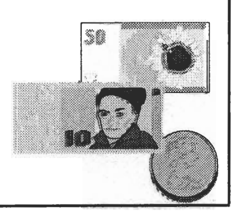
Functions of money:

•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

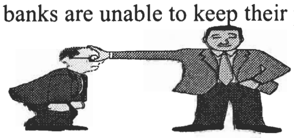
•c=the ratio of money people hold in currency to the money they hold as deposits

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



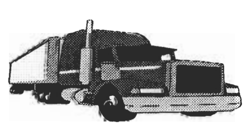
•FDIC(Federal Deposit Insurance Corporation)

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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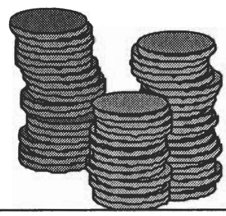
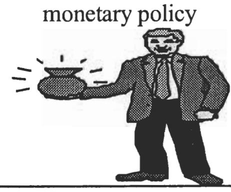


The fed is a central bank:

•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

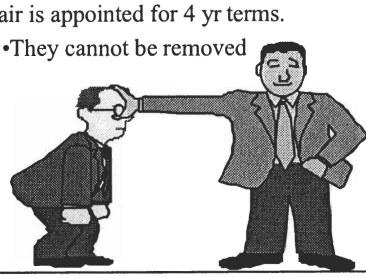


Independence of the fed:

•Fed governors are appointed for 14 yr terms.

•Chair is appointed for 4 yr terms.

•They cannot be removed



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:

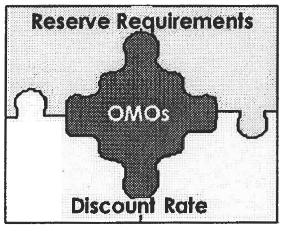
•Monetary policy in the keynesian model

•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

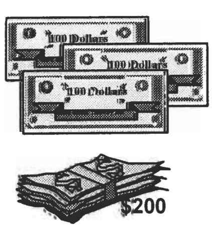
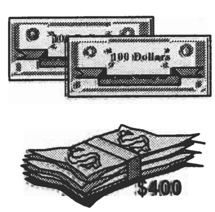
Open Market Operations (OMO)

- 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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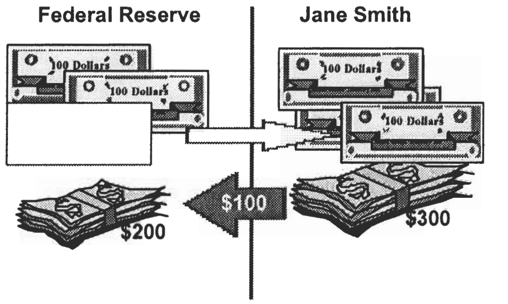
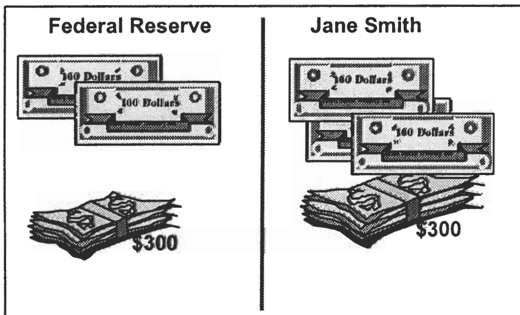


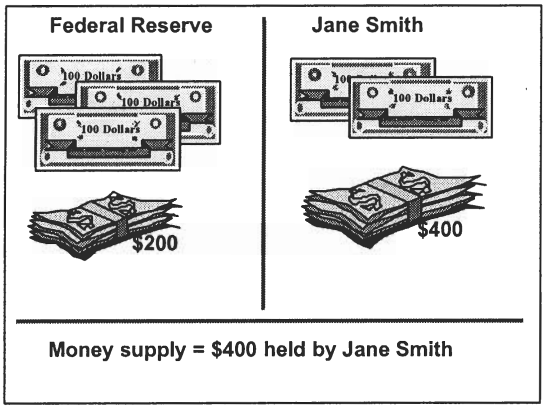
Fed sells a $100 bond to Jane Smith

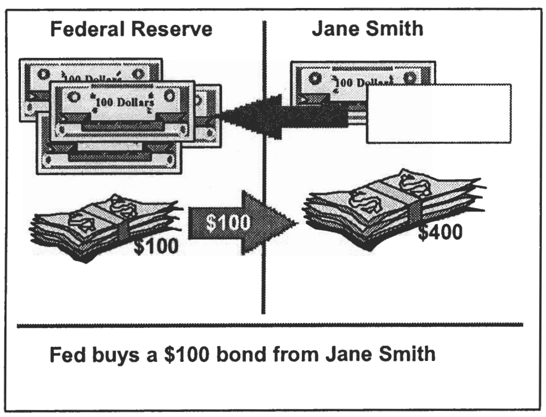


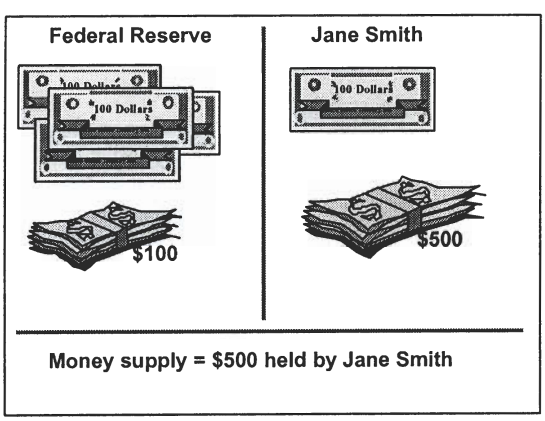
Money supply = $300 held by Jane Smith

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

7

Increase in Money Supply

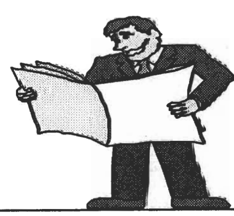
- Decrease in reserve requirement
- Decrease in the discount rate
- Open market purchase of government bonds

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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