DISCLAIMER

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Before relying on the material in any important matter, users should carefully evaluate its accuracy, completeness and relevance for their purposes, and should obtain any appropriate professional advice relevant to their particular circumstances.

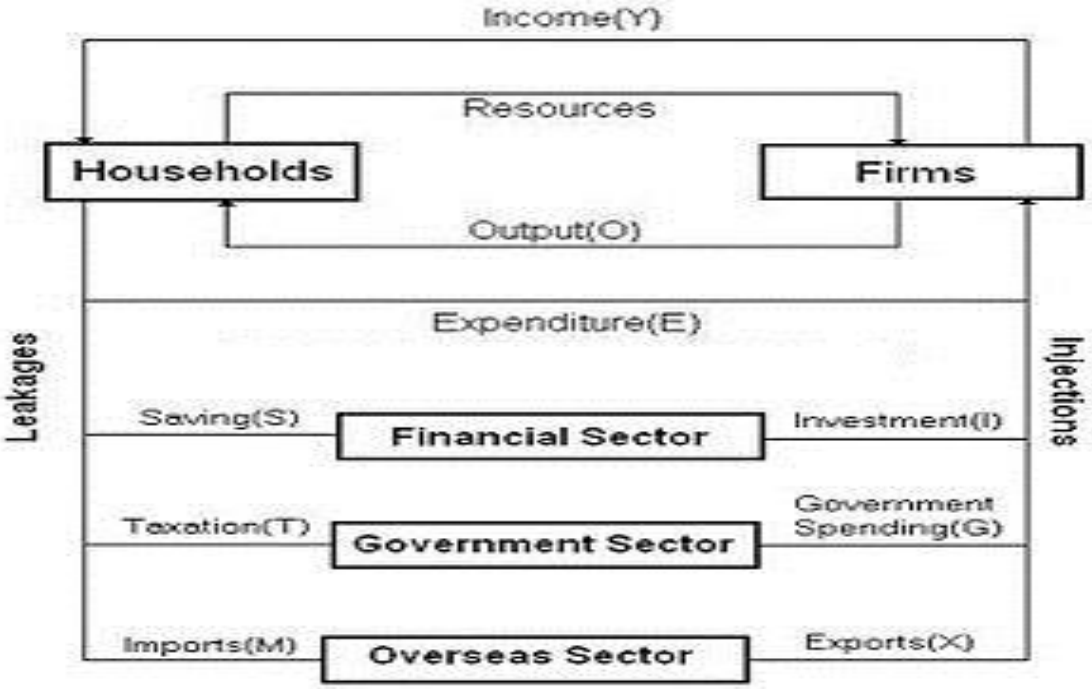
If you still have any doubts kindly contact these gentlemen . They will explain you everything in details.

MACRO-ECONOMICS

Topics of Discussion

- Circular Flow of Income
- National Income Accounting
- Aggregate Supply
- Aggregate Demand

Circular Flow of Income



In terms of the *five sector circular flow of income model* the state of equilibrium occurs when the total leakages are equal to the total injections that occur in the economy.

Savings + Taxes + Imports = Investment + Government Spending + Exports

Production, consumption expenditure and generation of income are the three basic economic activities of an economy that go on endlessly and are titled as circular flow of income. Production gives rise to income, income gives rise to demand for goods and services . Such a demand gives rise to expenditure and expenditure induces for further production.

National Income Accounting

Simon Kuznets and Richard Stone played pioneering roles in the development of National Income Accounting (NIA).

CONCEPTS

- **GDP** : It measures the current production of final goods and services
- **Real GDP** : It is the GDP calculated at constant prices from a base year.
- **Nominal GDP** : It is the GDP calculated at current prices.
- **GDP_{MP}** = Domestic Product
- **NNP_{FC}** = National Income
- **NDP_{FC}** = Domestic Income
- **NFIA** = Net Factor Income from Abroad
- **Depreciation** = Consumption of fixed capital
- Net Indirect Taxes (NIT) = Indirect Taxes - Subsidies

National Income Accounting

- National product (-) NFIA ----------> Domestic Product
  <---------- (+) NFIA
- Value of Output (-) Intermediate consumption ----------> Value Added
  <---------- (+) Intermediate consumption
- Gross product (-) Depreciation ----------> Net product
  <---------- (+) Depreciation
- Market price (-) Net Indirect Taxes ----------> Factor cost
  <---------- (+) Net Indirect Taxes

- **Value of output** = Sales + Change in stock
- **Change in stock** = Closing stock – Opening stock

National Income Calculation

Product Method/Output Method/Value Added Method

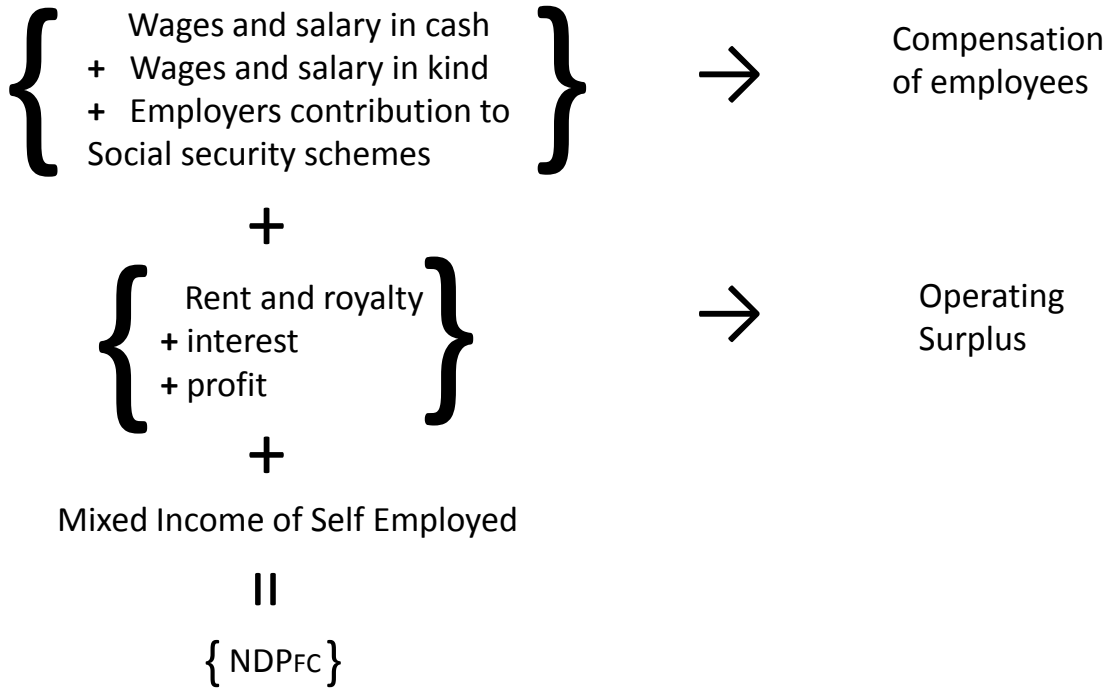
- GDP_{MP} = GVA_{MP} (Primary Sector)
  + GVA_{MP} (Secondary Sector)
  + GVA_{MP} (Tertiary Sector)

- From the previous slide we know that :
- Value added = Value of output – Intermediate consumption

- **Hence, GDP_{MP} = Value of Output** [Primary sector / Secondary sector / Tertiary sector] **–** **Intermediate Consumption** [Primary sector / Secondary sector / Tertiary sector]

- NNP_{FC} = GDP_{MP} - Depreciation - NIT + NFIA

INCOME METHOD



NDP_{FC} = Compensation of employees + Operating Surplus + Mixed Income of self employed

(National Income)$NNP_{FC} = NDP_{FC} + NFIA$

ECONOMIC THEORIES

We cannot understand economics in isolation. Every theory that is developed has some important event taking place in the backdrop, it might be political, social or religious.

MERCANTILISM :

Time period : 16th and 17th century

Scenario : Rise of the nation states

CLASSICAL THEORY:

Time period : 18th AND 19th century

Scenario : Industrial revolution and the rise of the capitalist class

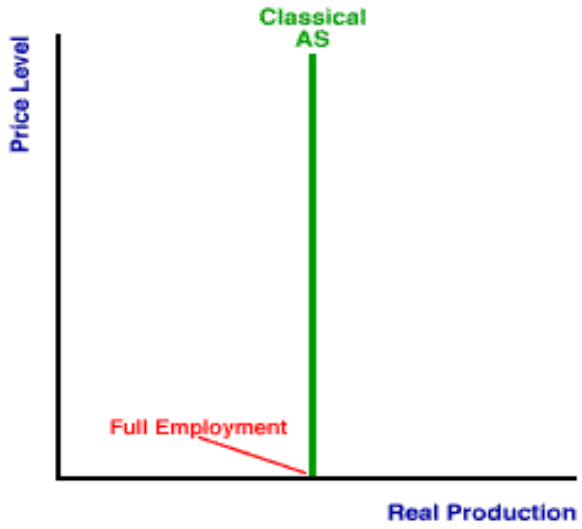
KEYNESIAN THEORY :

Time period : 20th century

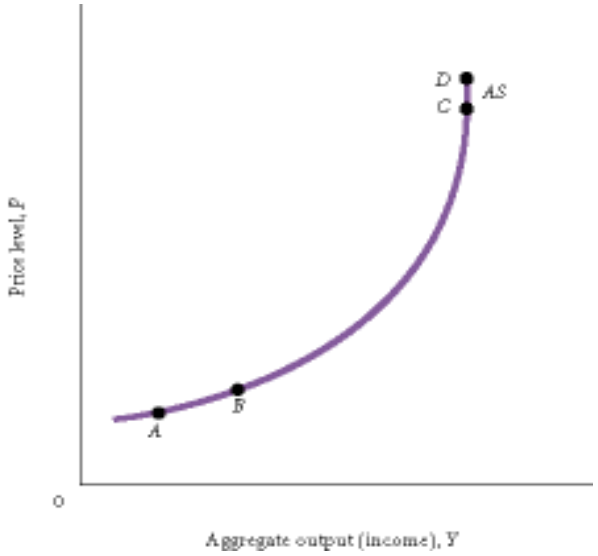
Scenario : Great depression

AGGREGATE SUPPLY

Classical Aggregate Supply



Keynesian Aggregate Supply



ASSUMPTIONS

CLASSICAL ASSUMPTIONS

- Perfect wage-price flexibility
- Perfect information
- Non-interventionist policy
- Classical dichotomy
- Auction – type labour market
- Supply determined output

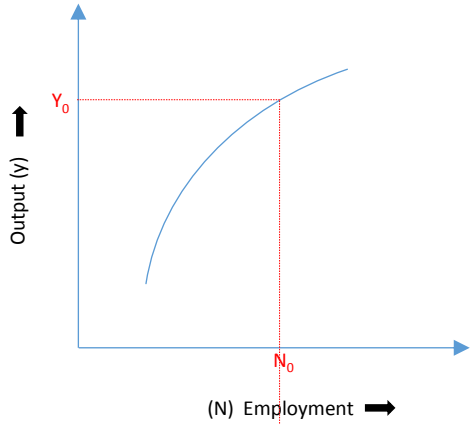
KEYNESIAN ASSUMPTIONS

- Wage – price rigidity
- Imperfect information
- Interventionist policy
- Nominal variables effect real variables
- Contractual – type labour market
- Demand determined output

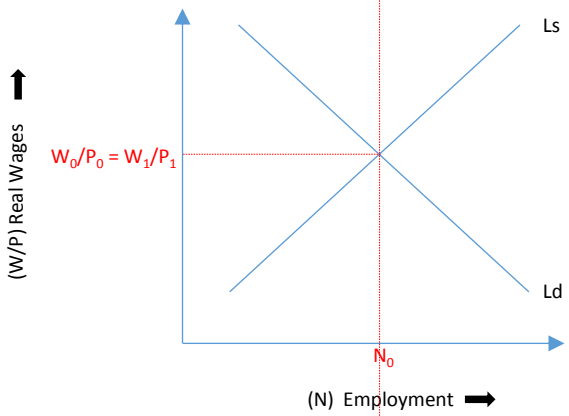
CLASSICAL CASE

Labour demand (L_d) = f (W/P)
Labour supply (L_s) = g(W/P)
Production function (Y) = h(K,N)

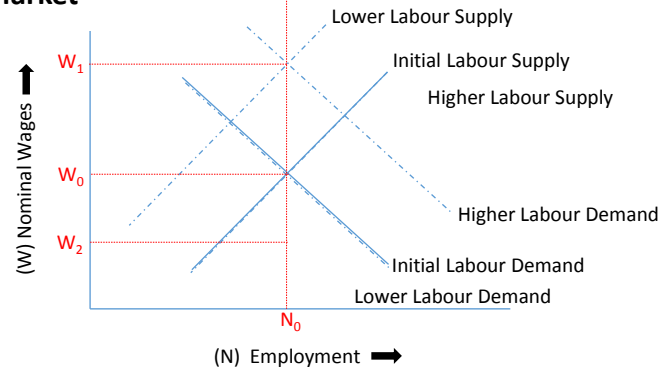
III. Production Function



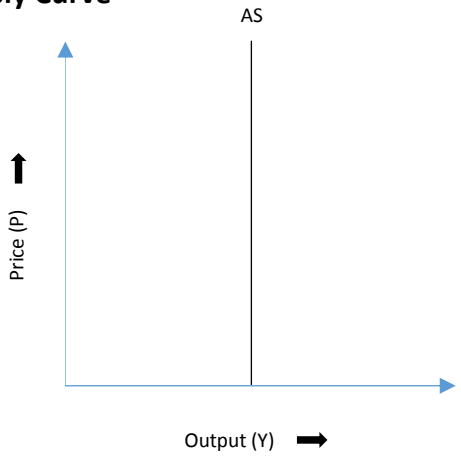
II. Labour Market



I. Labour Market



IV. Aggregate Supply Curve



P (Price)↑ → Production ↑
→ L_d ↑ and L_s ↓ → W ↑
(By the same proportion as prices)
Hence, real wage remains same

Legend

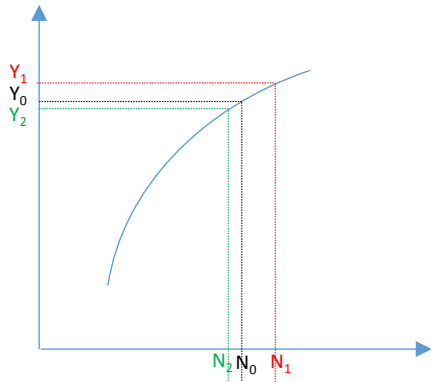
- W/P = Real wage
- W = Nominal wage
- P = Actual price level
- P_e = Expected price level
- Y = output
- K = capital stock
- N = Labour employed

KEYNESIAN CASE

P↑ → Production ↑ → L_d ↑ L_s ↓ → W ↑ *(Not by the same proportion as prices ,as their price expectations are not accurate)*

Hence the **real wage changes**, therefore causing change in the employment and output levels

II. Production Function



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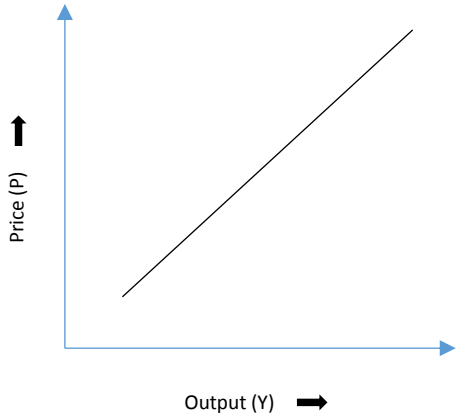

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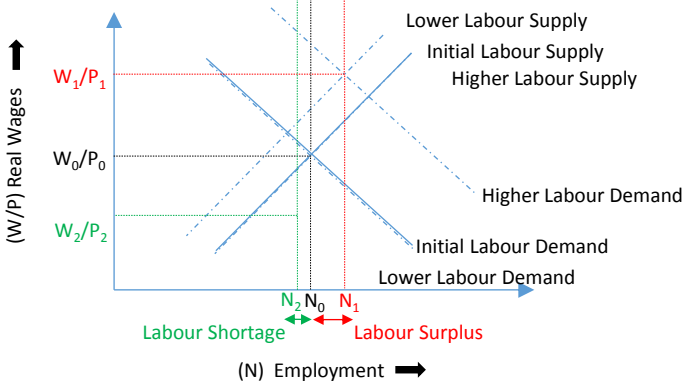


Labour demand (L_d) = f (W/P)
Labour supply(L_s) = g(W/P_e)
Production function (Y) = h(K,N)

AGGREGATE DEMAND

- Classical AD: Quantity theory of money as explained by the Cambridge Approach given by Alfred Marshall and A.C Pigou is an implicit theory of AD.

$$M_d = kP\,\bar{y}$$

M_d → Money demand

k → Optimal money holding

P → Price level

$\bar{y}$ → Real output

In equilibrium: $\mathbf{M = M_d = kP\,\bar{y} \rightarrow M\frac{1}{k} = P\,\bar{y}}$

M → Stock of money

- Keynes AD: Equilibrium of both the assets and goods market

Asset market equilibrium condition:

Money supply = Money demand

Goods market equilibrium condition:

Total Income = Total demand

ASSET MARKET

- Real Money Supply : M/P
- Real Money Demand : kY – hr

Asset Market Equilibrium : M/P = kY – hr ……. (1)

where :

(k: Income sensitivity of money supply , h: Interest sensitivity of money supply)

GOODS MARKET

- Total Income or Real output = Y
- Total Demand = C + I + G

Goods market equilibrium : Y = C + I + G …… (2)

where: $C = \check{C} + cY$

($\check{C}$ – Autonomous consumption , c – Marginal Propensity to consume)

$I = \bar{I} - br$

($\bar{I}$: Autonomous investment, b: Investment sensitivity to interest rate, r: roi)

$G = \bar{G}$

(Autonomous government spending)

So, $Y = \check{C} + cY + \bar{I} - br + \bar{G}$ ……. (3)

Solving (1) & (3) to get the Aggregate Demand (AD) equation :

$Y = \mu.(\bar{A}) + ß.(M/P)$ …… AD Equation

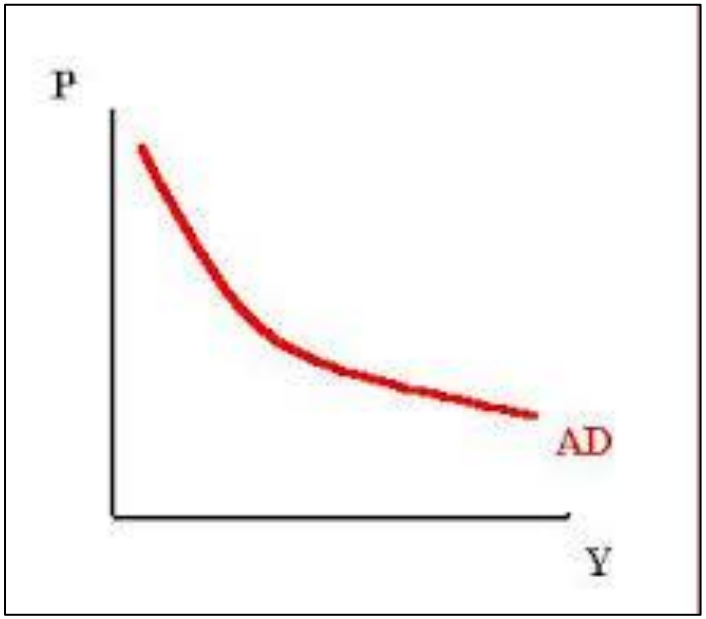
(Negative relation between Y and P)

where : μ – Fiscal policy multiplier

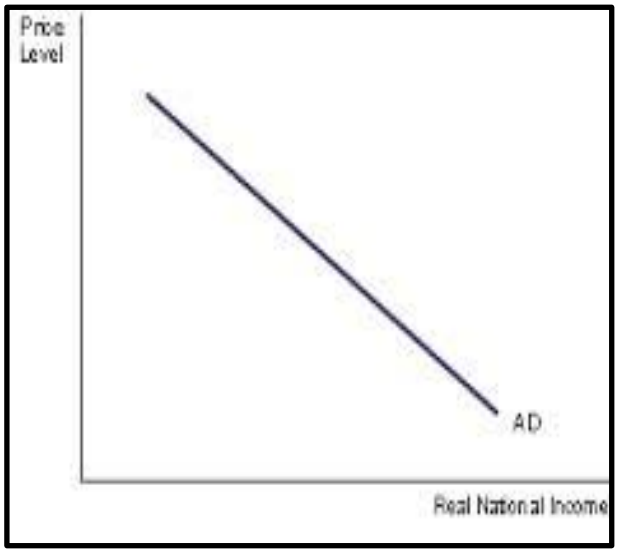
ß – Monetary policy multiplier

$\bar{A} = \check{C} + \bar{I} + \bar{G}$

Classical AD



Keynesian AD



THANK YOU