8. INVESTMENT FUNCTION

Q:1 What do you mean by investment? Explain the determinants of investment?

(A) **Investment :-** Generally when a Person buys shares, debentures or bonds in a market, it is Considered as Investment. But in Economics —

" Investment means new addition in the Physical Stock of Country ".

(e.g) Land and Building, Plant and Machinery, Trucks, New Railways, New Airports, New Highways etc.

It will help to create more income and employment.

Investment is important because it has capacity to increase Capital Formation, Productivity & employment.

(B) **Determinants of Investment**

1. MEC
2. Rate of Interest (ROI)

1. **Marginal Efficiency of Capital (MEC) :-** MEC means expected rate of Profit.

when MEC > ROI, then investment is Profitable, it will Attract new investment.

when ROI > MEC, there will be no investment due to higher cost.

2. **Rate of Interest (ROI) :-** It means cost of borrowed capital.

Q:2 Explain Various types of Investment?

(A) Investment - Same from Q:1

(B) Types of Investments :-

1. Gross and Net Investment :-

" Gross investment is the total investment in the Capital stock of a country".

" Net investment is net addition to the total capital stock of a country"

Net Investment = Gross investment - Depreciation.

2. Financial and Real Investments:-

" Financial investment is investment in shares, debentures, bonds etc. which involve transfer of ownership of assets".

" Real Investment means addition to the stock of Physical capital goods such as machines, equipments, tools, buildings etc.".

3. Private and Public investments :-

" Private investments is the investment made by the Private entrepreneurs."

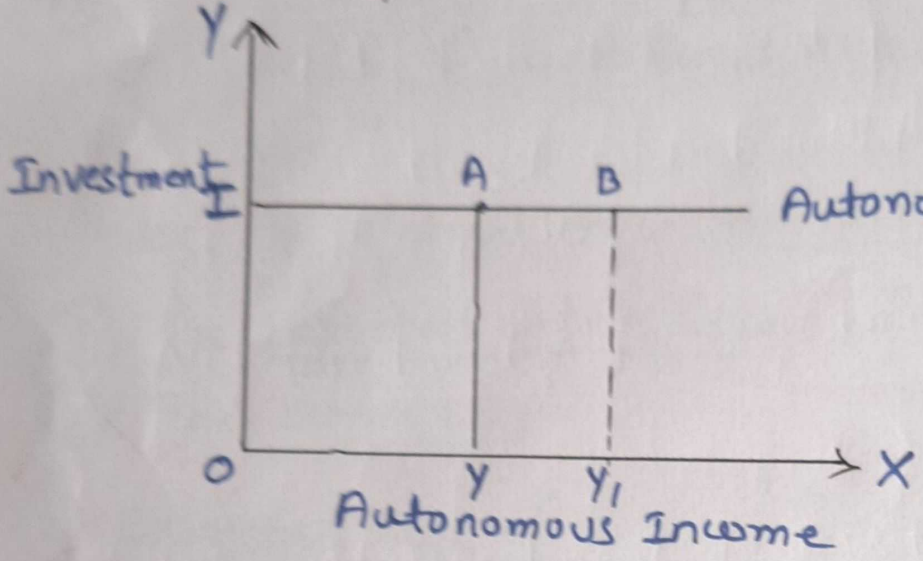
(e.g) Investment by Tata, Birla, Reliance etc.

" Public investment is made by government in roads, railways, irrigation, Power Projects etc. For Promoting Social welfare",

4. Autonomous and Induced Investment :-

" Autonomous investment is Compulsory investment for Promoting social welfare "

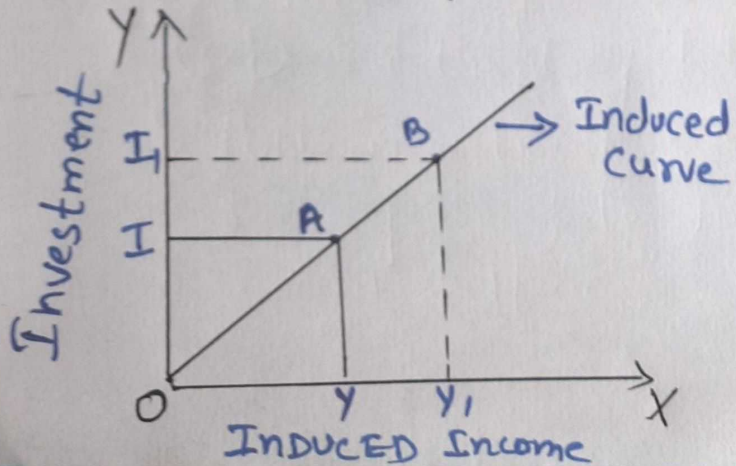
It is independent of Profit motive and income-inelastic. It does not change with change in income, demand and consumption.



As income increase from OY to OY$_1$, autonomous Investment remain Same - OI. Therefore Autonomous investment curve is Horizontal Straight line.

" Induced investment is Voluntary investment for economic growth and development of country "

It is dependent on Profit motive & income-elastic. It always change with change in income, demand & and consumption.



i) As income increase from OY to OY$_1$, investment also increase from OI to OI$_1$.

ii) Induced Investment Curve is Sloping Upward From Left to right.

Q:3 Explain the concept of Marginal Effeciency of Capital (MEC)?

(A) Marginal Efficiency of Capital (MEC) :-

"MEC means the expected rate of Profit from an investment in a new capital assets."

OR "MEC is the ratio between the Prospective yields of additional assets and their supply Price".

MEC is depend upon Two Factors —

1. The Expected rate of Return of a capital asset.
2. The supply price.

(1) Expected Rate of Return / Prospective Yields :-

"It means total net return expected from new capital assets during its life time."

(2) The supply Price / Replacement Cost of capital assets:

"It means the cost of new assets which is called replacement cost

According to Keynes — "MEC is a rate of Discount which make the Present Value of Prospective Yield is equal to supply Price".

Supply Price = Discounted Prospective Yields.

$$C = \frac{R_1}{(1+r)} + \frac{R_2}{(1+r)^2} + \frac{R_3}{(1+r)^3} \cdots\cdots \frac{R_n}{(1+r)^n}$$

Where C = Supply Price &

$R_1, R_2, R_3 \ldots\ldots R_n$ are Annual Prospective Yields

MEC is Varies directly to Prospective yields (incomes)

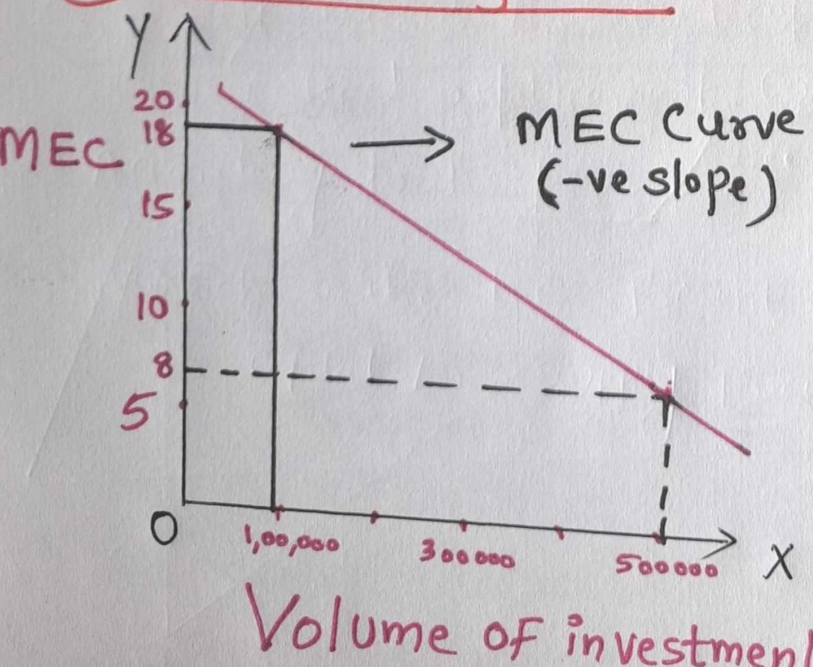
MEC is also directly related to supply Price of capital assets

(B) MEC Schedule :- "MEC Schedule shows an investment in Particular capital assets increases, MEC will Fall due to Prospective income".

Investment (₹)	MEC (%)
1,00,000	18%
2,00,000	15%
3,00,000	12%
4,00,000	10%
5,00,000	8%

In table we observe — As investment in Particular capital assests increases, MEC is goes on Falling shown in following diagram →

(C) MEC - Diagram :-



i) MEC curve is sloping downward from Left to right.

ii) It shows inverse relationship between MEC & investment.

iii) It has Negative Slope.

(D) Factors affecting MEC :-

(a) Factors in short-Run

(b) Factors in Long-Run.

(a) Factors in short-Run :-

1. **Expectation about Demand, Price and cost :-** The MEC will rise, if investor expect to rise in demand and Price and Vice Versa.
2. **Change in Propensity to Consume :-** An increase in Propensity to Consume will increase MEC and Vice Versa.
3. **Changes in Income :-** Sudden increase in income due to wind fall gains, subsidies, Tax-concessions etc. will increase MEC.
4. **Business Optimism and Pessimism :-** Business optimism will increase MEC and Business Pessimism will reduce MEC.

(b) Factors in Long-Run

In Long Period MEC will increase due to favourable effect of —

i) Increase in Population
ii) Development of New areas.
iii) Development of infrastructure
iv) Improvement in Technology etc.

All above factors will increase Investment activities in economy.

Q.4. "Investment is determined by MEC and ROI" Discuss.

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(e.g) Land and building, Plant and machinery, Trucks etc.

(B) **Determinants of Investment**

1. MEC
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1. Marginal Efficiency of Capital (MEC) :-

"MEC means the expected rate of Profit from an investment in a new capital assets".

when **MEC > ROI**, then investment is Profitable and it will attract new Investment

when **ROI > MEC**, there will be no investment due to higher cost

MEC is depend upon **Two factors**-

(1) Expected Rate of Return / Prospective yields

(2) The supply Price.

(1) Expected Rate of Return / Prospective Yields :-

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According to Keynes ⟶

" MEC is a rate of Discount which make the Present Value of Prospective yield is equall to supply Price "

Supply Price = Discounted Prospective Yields.

$$C = \frac{R_1}{(1+r)} + \frac{R_2}{(1+r)^2} + \frac{R_3}{(1+r)^3} \cdots\cdots \frac{R_n}{(1+r)^n}$$

Example Suppose the supply price or cost of capital assets is Rs. 3000 and Life of Asset is 2 years. Its expected yield income is Rs. 1100 in 1st year & Rs. 2420 in 2nd year.

Now $C = \frac{R_1}{(1+r)} + \frac{R_2}{(1+r)^2}$

$$3000 = \frac{1100}{(1+r)} + \frac{2420}{(1+r)^2}$$

So $r = 10\%$

The MEC is 10%. If we use the value of r in equation —

$$C = \frac{R_1}{(1+r)} + \frac{R_2}{(1+r)^2}$$

$$3000 = \frac{1100}{(1.10)} + \frac{2420}{(1.10)^2}$$

$$= 1000 + 2000$$

$$= 3000$$

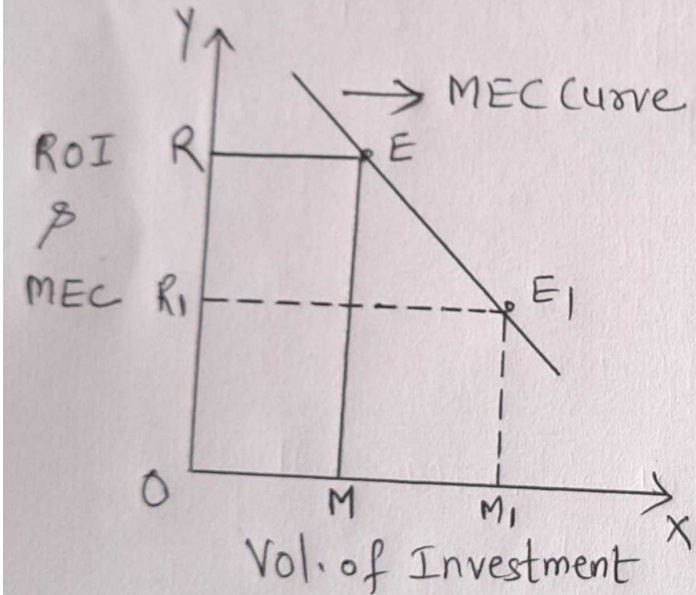
2. **Rate of Interest (ROI):-** " It means borrowing Cost of Capital " It is also known as supply price of capital.

i) when MEC > R·O·I
Demand Price > Supply Price
then investment is Profitable and it will attract new Investment Policies.

ii) when R·O·I > MEC
Supply Price > Demand Price
then It will Fall in investment due to higher cost

Thus when MEC = R·O·I, Volume of investment will be determined.

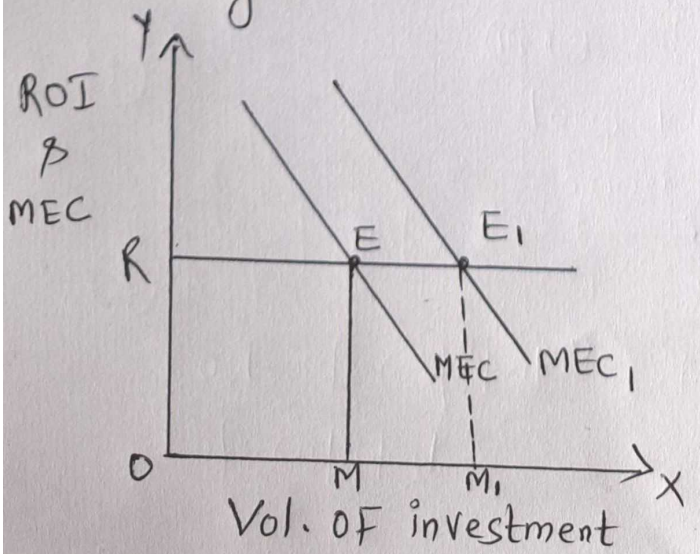
Diagram



i) when RoI is R, Volume of investment is OM.

ii) But when RoI in reduced to R_1, volume of investment increase to OM_1

Suppose due to profit expectations, MEC Curve will be shifted to Right side shown in Following figure :—



when MEC Curve is shifted to right side, It will increase volume of investment