

Marginal Efficiency Of Capital

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Introduction

- The decision to invest in a new capital asset depends on whether the expected rate of return on the new investment is equal to or greater or less than the rate of interest.
- When expected rate of return is higher than the interest rate, then investment will be made in acquiring new capital assets.

Three factors that are taken into consideration while making any investment decision:



- ***The cost of the capital asset***



- ***The expected rate of return from it during its lifetime***



- ***The market rate of interest***



MEC

- The term “marginal efficiency of capital” was introduced by **John Maynard Keynes** in his General Theory.
- The MEC is the highest rate of return expected from an additional unit of a capital asset over its cost.



According to Kuniyama...

- “It is the ratio between the **prospective yield** of additional capital goods and their **supply price**.”
- prospective yield – aggregate net return from an asset during its life time
- supply price – cost of producing the asset.

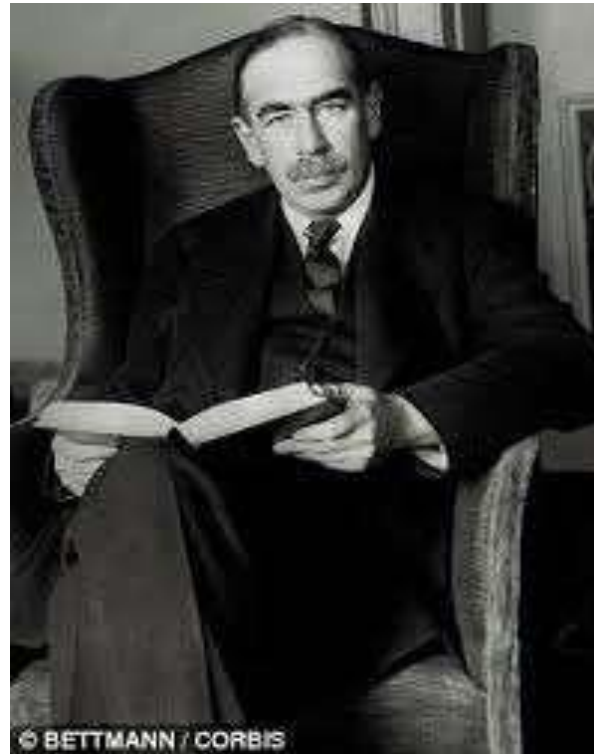
Example...

- Supply price of a capital asset = Rs. 20,000
- Annual yield = Rs. 2000
- $MEC = \frac{2000 * 100}{20,000}$
= 10 per cent.

MEC is the percentage of profit expected from a given investment on a capital asset.

According to Keynes...

MEC is “equal to the rate of discount which would make the present value of the series of annuities given by the returns expected from the capital asset during its life just equal to its supply price.”



Representation of MEC

$$S_p = Q_1/(1+e) + Q_2/(1+e)^2 + \dots + Q_n/(1+e)^n$$

S_p = supply price

$Q_1, Q_2 \dots Q_n$ = prospective yields or the series of anticipated annual returns from the capital assets in the years 1,2,3,.. n, respectively

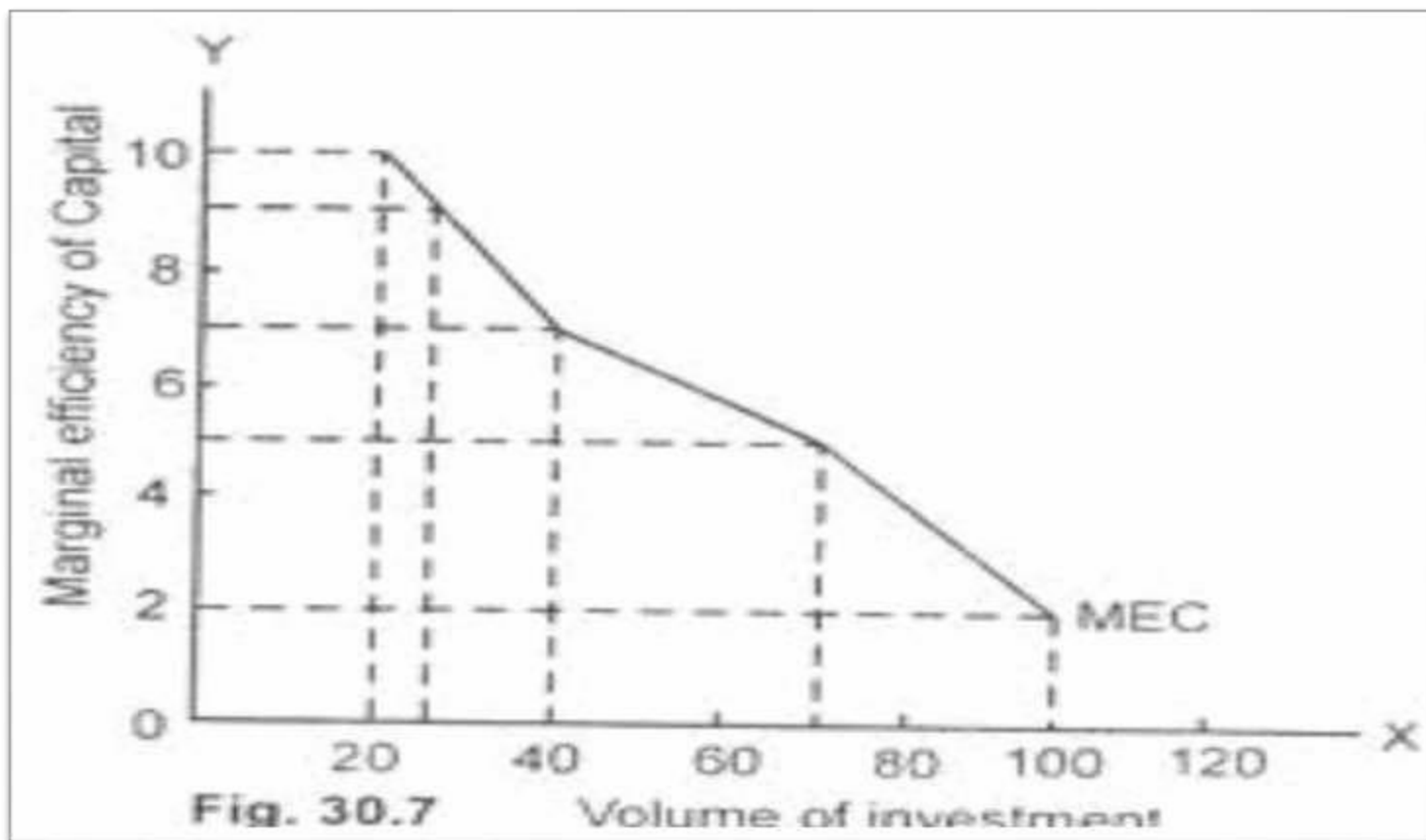
e = rate of discount or the marginal efficiency of capital.

Schedule Of Marginal Efficiency Of Capital

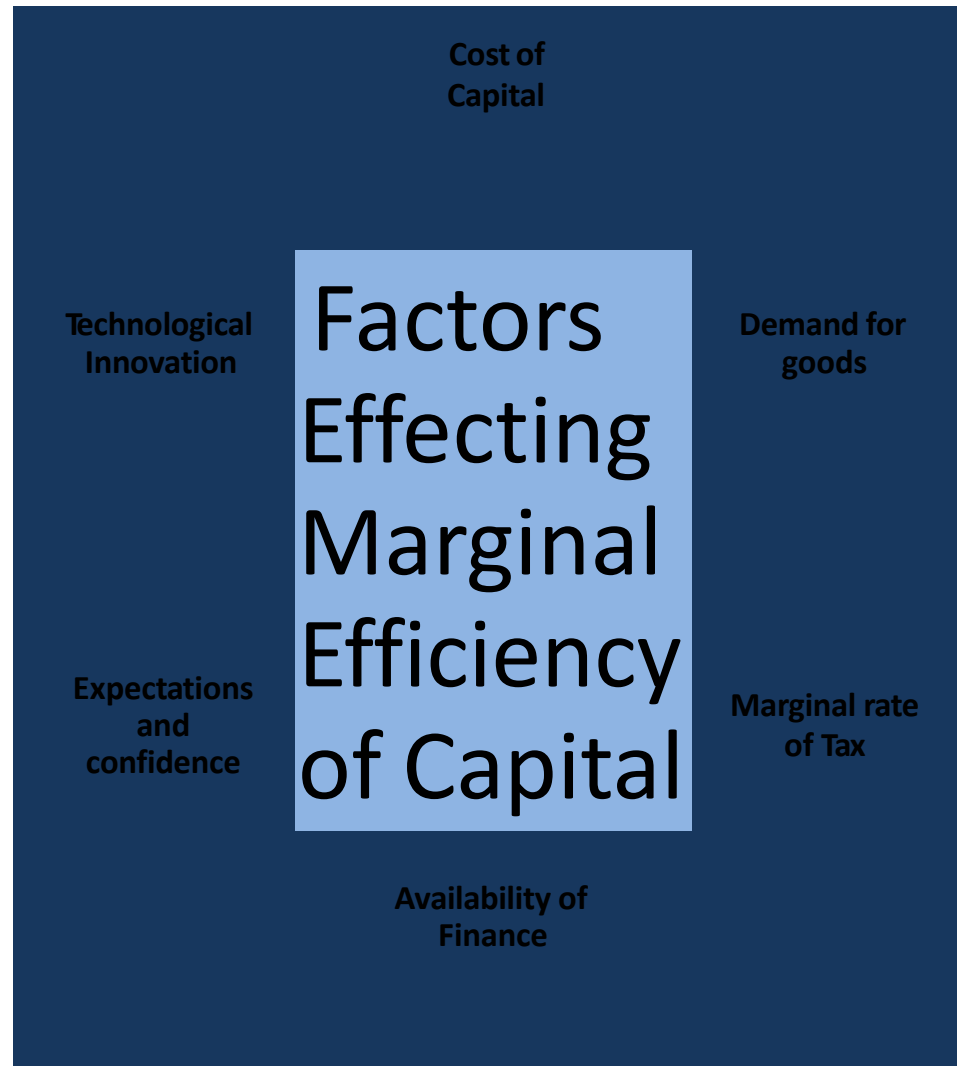
- *According to J.M. Keynes, the behaviour of investors in respect of new investment depends upon the various stocks of capital available in the economy at a particular period of time.*
- *As the stock of capital increases in the economy, the marginal efficiency of capital goes on diminishing.*
- *The MEC curve is negatively sloped.*

INVESTMENT (Rs. crore)	Marginal efficiency of capital
20	10%
25	9%
40	7%
70	5%
100	2%

MEC Curve



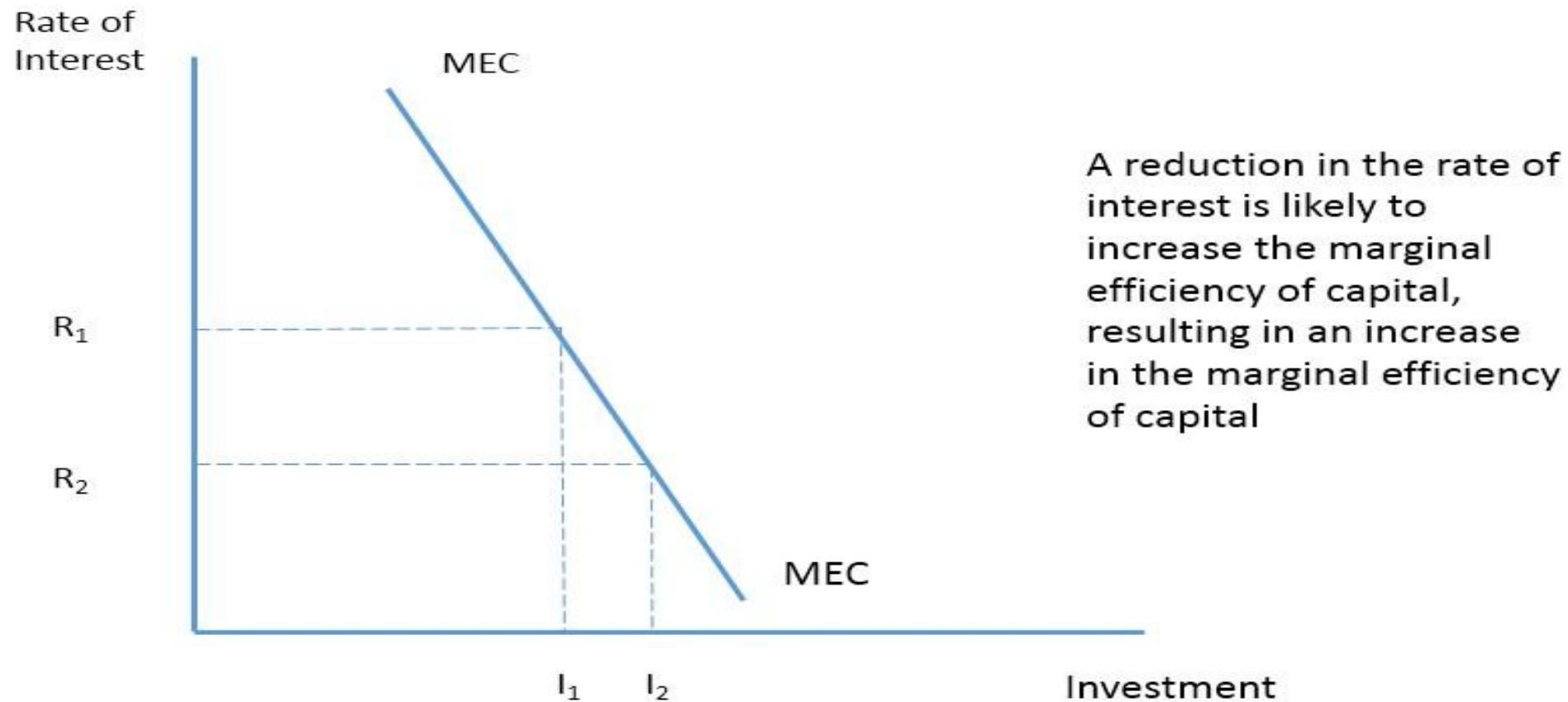
Factors Affecting MEC



Factors Affecting the Marginal Efficiency of Capital

1. The cost of capital:

If cheap capital is available for investment, then investment opportunities become more attractive .



Factors Affecting the Marginal Efficiency of Capital

2. Demand for goods and services

If tastes and preferences change and demand for a good increases, then the increased demand is likely to increase profitability.

3. The marginal rate of tax

If the marginal rate of tax is increased then the net return on an investment will fall, reducing the marginal efficiency of capital.

4. The availability of finance

Restrictions on lending will limit investment. A relaxation of credit controls will make investment easier.

Factors Affecting the Marginal Efficiency of Capital

5. Expectations and confidence

If people believe that growth in economy is slowing and unemployment may rise in the foreseeable future, then demand in the economy may contrast.

6. Technological change

Innovation in products or processes may increase the potential size of the market or help to drive down costs.

HOW COMPANIES MAINTAIN CAPITAL USING MEC

EXAMPLE:

- *Suppose the price of machine is 30000. Duration of life of machine is 10 years, expected income during this period is 60000.*

NOW

Total Profit of machine is $60000 - 30000 = 30000$

Average profit per year - $30000 / 10 = 3000$ MEC =

*$3000 / 30000 * 100 = 10\%$*

Thank you