Dr.Surendra Kumar Class-B.A.Part-I

Isoquants

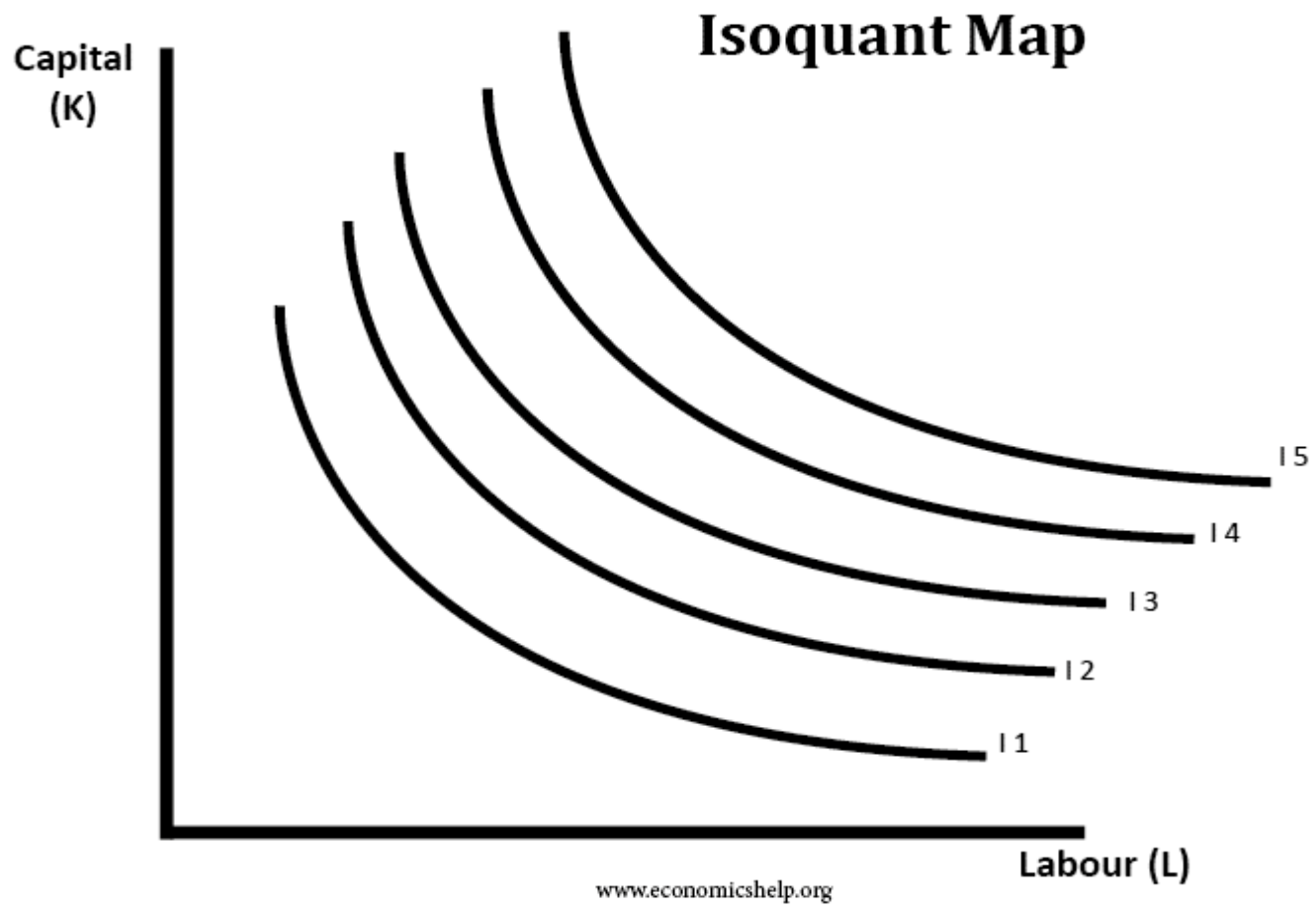
However, at a combination of 9 Labour, employing an extra worker enables a saving of only 2 capital. Therefore, the more that workers are employed, there is a diminishing rate at which you can substitute the other factor. There comes a point, where employing more workers barely saves any capital at all. This is when diminishing returns of labour is very high – workers effectively get in each other's way.

As one moves down the isoquant, output remains the same. Therefore the output gained from employing more labour must equal the output lost from employing more capital.

MPP (L) x ΔL = MPP (K) x ΔK
This equation gives us

$$\frac{MPP(L)}{MPP(K)} = \frac{\Delta K}{\Delta L} = MRS$$

Isoquant map



An isoquant map shows different levels of output. For example

- I1 may show the combinations of capital and labour that can produce 4,000 TPP.
- I2 may show the combinations of capital and labour that can produce 5,000 TPP.
- I5 is a higher output than I4

In the short-term, a firm faces a trade-off along one particular isoquant. But, in the long-term, a firm can

invest in increasing capital stock and produce at a higher output for the same quantity of labour.