

CLASS NOTES

Class:	XI	Topic:	REVENUE
Subject:	ECONOMICS		

Concept of Revenue

The money income which a producer gets from the sale of his product is known as revenue of the firm.

The concept of revenue should not be confused with the concept of profit. Profit of a firm is estimated

as the difference between revenue and cost related to the production of a commodity ($\text{Profit} = \text{Revenue} - \text{Cost}$).

Total Revenue, Average Revenue and Marginal Revenue

Revenue has three aspects:

- Total Revenue
- Average Revenue
- Marginal Revenue

Total Revenue (TR)

Total revenue refers to money receipts of a firm from the sale of its total output. It is estimated as the multiple of price and quantity of output.

$\text{TR} = P \times Q$, (Here, TR = Total revenue, P = Price per unit of output, and Q = Quantity (or units) of output.)

Total revenue is the sum of money receipts of a producer corresponding to a given level of output.

Average Revenue (AR)

Average revenue is the revenue per unit of output. It is equal to total revenue divided by total output.

$\text{AR} = \text{TR}/\text{Q}$, (Here, AR = Average Revenue, TR = Total Revenue, and Q = Total Output)

Average revenue is the per unit revenue corresponding to a given level of output of a firm.

Average Revenue is the same as Price of the Commodity.

Let us see how:

$$\text{AR} = \text{TR}/\text{Q}$$

$$\text{AR} = (\text{P} \times \text{Q})/\text{Q} \quad [\text{Since } \text{TR} = \text{P} \times \text{Q}]$$

$$\text{AR} = \text{P}$$

Implying that average revenue is nothing but price of the commodity.

Marginal Revenue (MR)

Marginal revenue is the additional revenue that a producer expects from the sale of one more unit of a commodity. In other words, it is the change in total revenue which results from the sale of one more (or one less) unit of a commodity. It is expressed as:

$$MR = \Delta TR / \Delta Q = TR_n - TR_{n-1}$$

(Here, MR = Marginal revenue, ΔTR = Change in total revenue, ΔQ = Change in output, TR_n = Total revenue from 'n' units of the output and TR_{n-1} = Total revenue from 'n - 1' units of the output.)

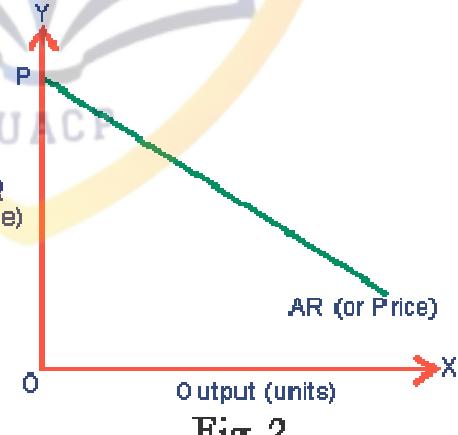
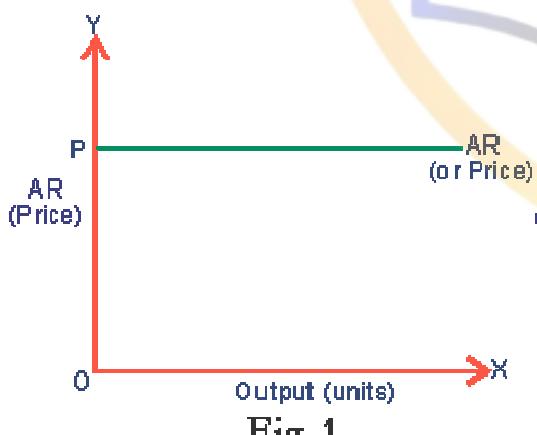
Marginal revenue is the addition to total revenue on account of sale of one more unit of output.

Relation between TR, AR and MR

Relation between TR, AR and MR is discussed with reference to different market situations. Broadly, a producer may encounter either of the two situations:

- (a) There is a large number of firms selling a product at a constant price. An individual firm is so small in the market that it cannot change price of the product. Or, it has no control over price of the product. Accordingly, to a firm, price is given of course, it can sell any amount of the product at a given price.
 - (b) A firm enjoys partial control over price through product differentiation or it has full control over price because it is a monopoly firm. Accordingly, a firm can plan to increase its sale by lowering its price.
- The basic difference between the two situations is the following:

- (a) When a firm has no control over price, it can sell any amount at a given price. Accordingly, firm's demand curve (or AR curve) is a horizontal straight line as in **Fig. 1**.
- b) When a firm has partial or full control over price, it can sell more of a product only by lowering its price. Accordingly, its demand curve (or AR curve) slopes downward, showing a negative relationship between price and output as in **Fig. 2**.

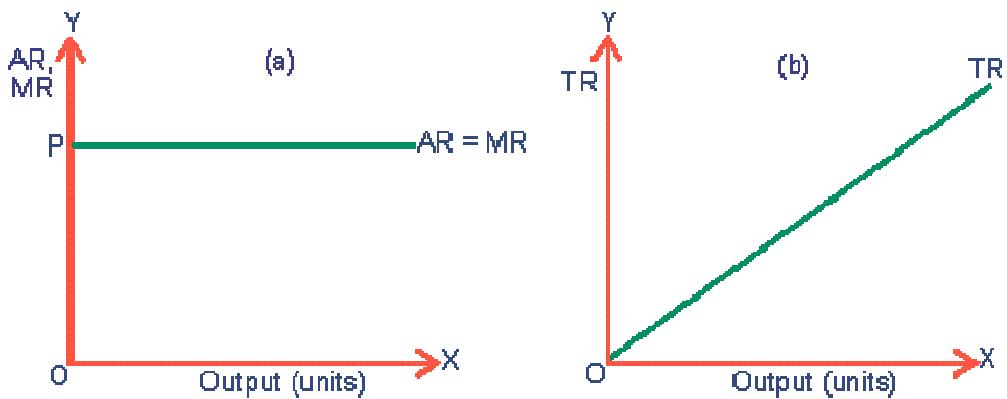


Situation-1

Relationship between TR, AR and MR when firm's AR curve (or firm's demand curve) is a horizontal straight line.

When AR is given to a firm, it implies that AR is constant for a firm. Constant AR implies that MR should also be constant, and equal to AR. When AR and MR are constant and are equal to each other, corresponding to every additional unit of output, a firm should be adding a constant amount to its TR (total revenue). Thus, firm's TR should increase at a constant rate.

TR, AR and MR in such a situation.



Constant price ($= OP$) implies a situation when $AR = MR$, as represented by a horizontal straight line.

Constant MR implies a situation when TR increases at a constant rate. TR curve shoots from the origin, obviously because $TR = 0$ when output is zero.

Situation-2

Relationship between TR, AR and MR when firm's demand curve slopes downward.

When AR tends to decline corresponding to every next level of output, MR should be declining even faster. **Reason:** average value of a series (AR) will decline only when additional value (MR) declines faster than the average value.

the relationship between TR, AR and MR when firm's demand curve (AR curve) slopes downward.

