

Costs: Types, SR and LR, the relationship between AC and MC

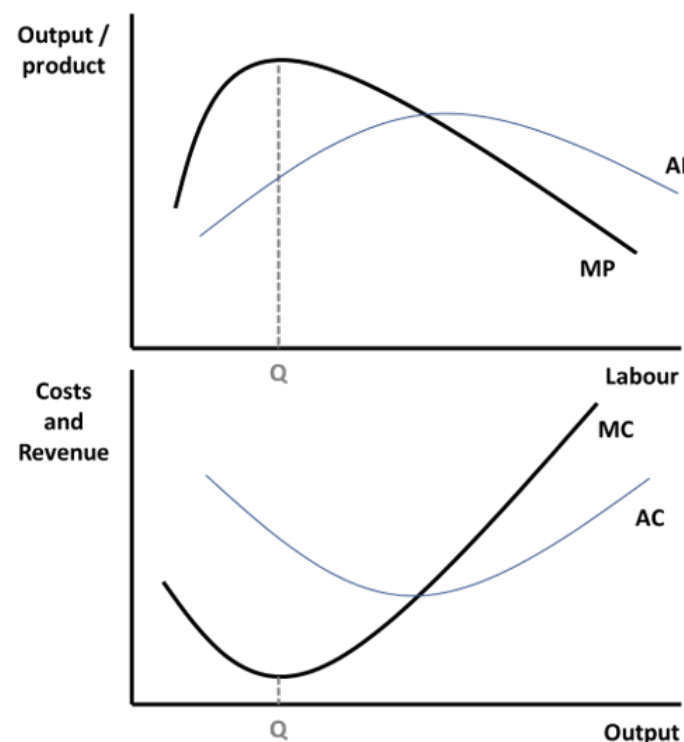
Fixed costs: Costs that do not vary with output; the total costs incurred when output is zero.

Variable costs: Costs that vary directly with output.

Short-run: The period of time in which at least one factor of production is fixed.

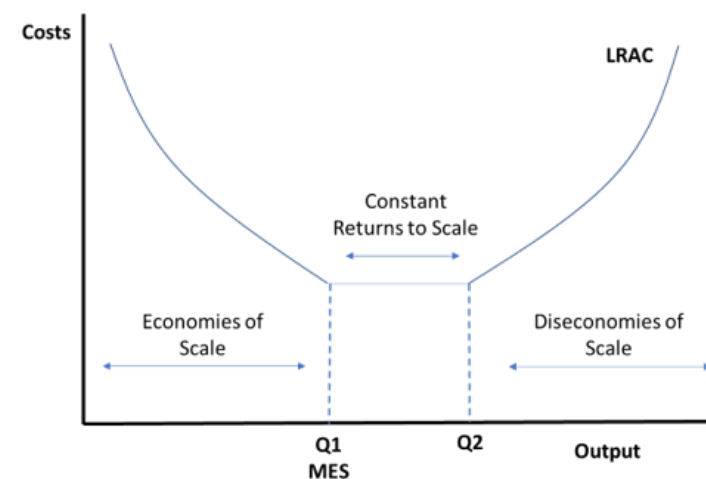
Long-run: The period of time in which all factors of production are variable.

SHORT RUN



Short-run explanation: LAW OF DIMINISHING RETURNS as extra variable factors are added to fixed factors, the fixed factors e.g. capital become increasingly scarce and marginal product falls (from Q), causing marginal cost to rise.

LONG RUN



Long-run explanation: ECONOMIES OF SCALE as the scale of the business gets larger, LRAC falls up to Q1 (e.g. *financial economies, technical economies, managerial economies, purchasing economies*). Beyond output Q2, diseconomies of scale occur (poor communication, low morale etc.). The Minimum Efficient Scale (MES) is the lowest level of output at which average costs are lowest.

Revenue: AR, MR and TR, for price-makers and price-takers

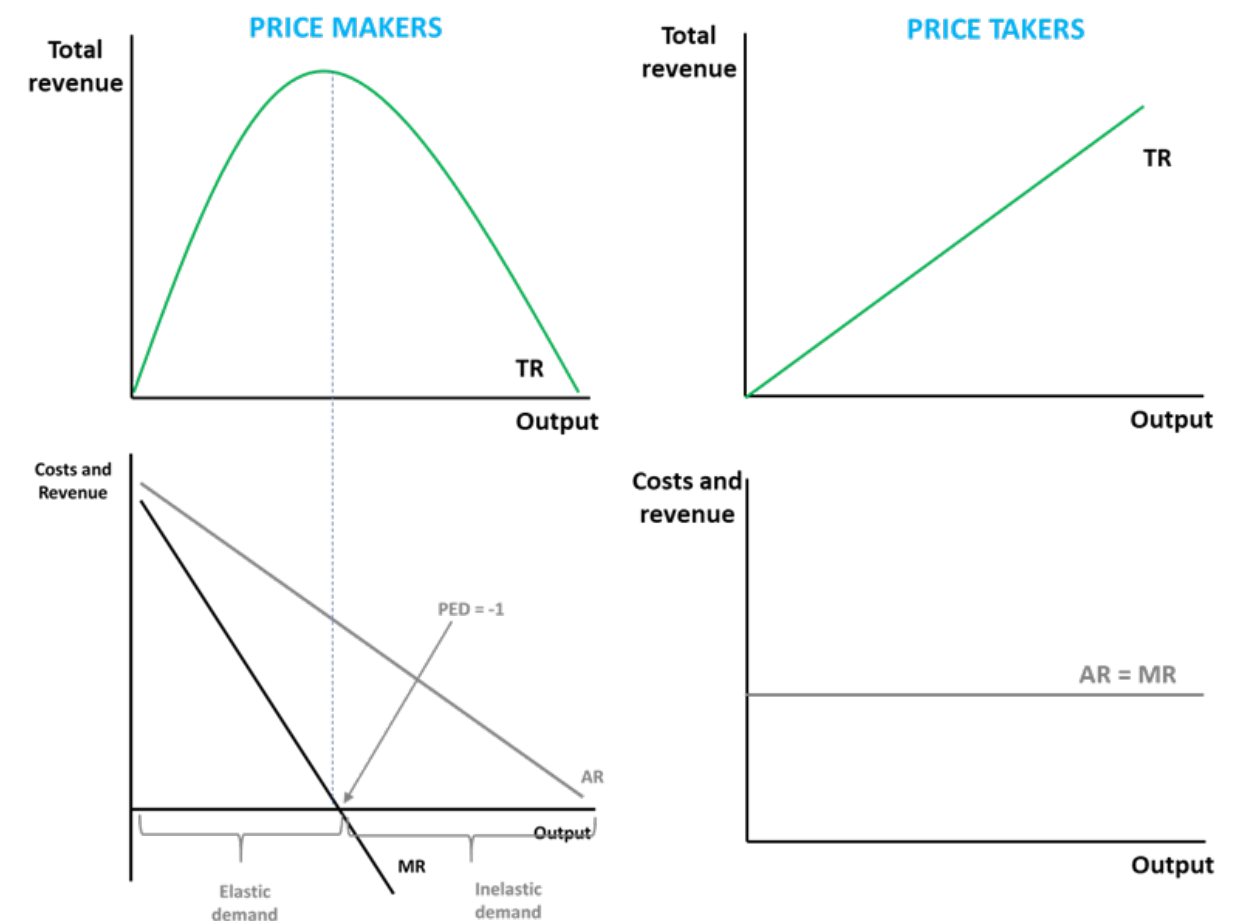
Total revenue: Price x quantity sold.

Average revenue: The same as price; total revenue ÷ quantity.

Marginal revenue: Additional revenue earned from selling an extra unit.

Price-maker: A firm with some market power that can alter prices.

Price-taker: A firm with no market power, selling at the market price only.



For **price makers**: Marginal Revenue (MR) is less than Average Revenue (AR), because to sell additional units, the price of **all** units needs to be lowered. TR is max when MR = 0.

For **price takers**: Marginal Revenue (MR) is equal to Average Revenue (AR), because every unit is sold at exactly the same price. TR is upwards sloping with constant gradient.