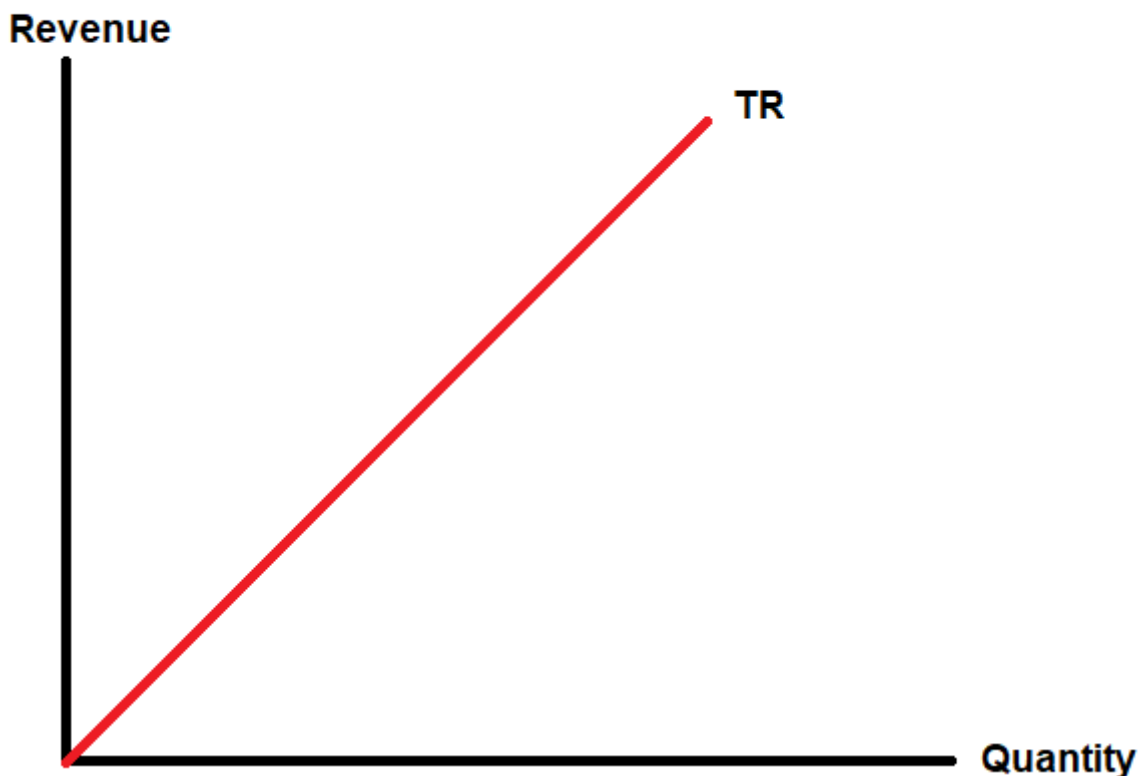


3.3.1 Revenue

Total Revenue (TR)

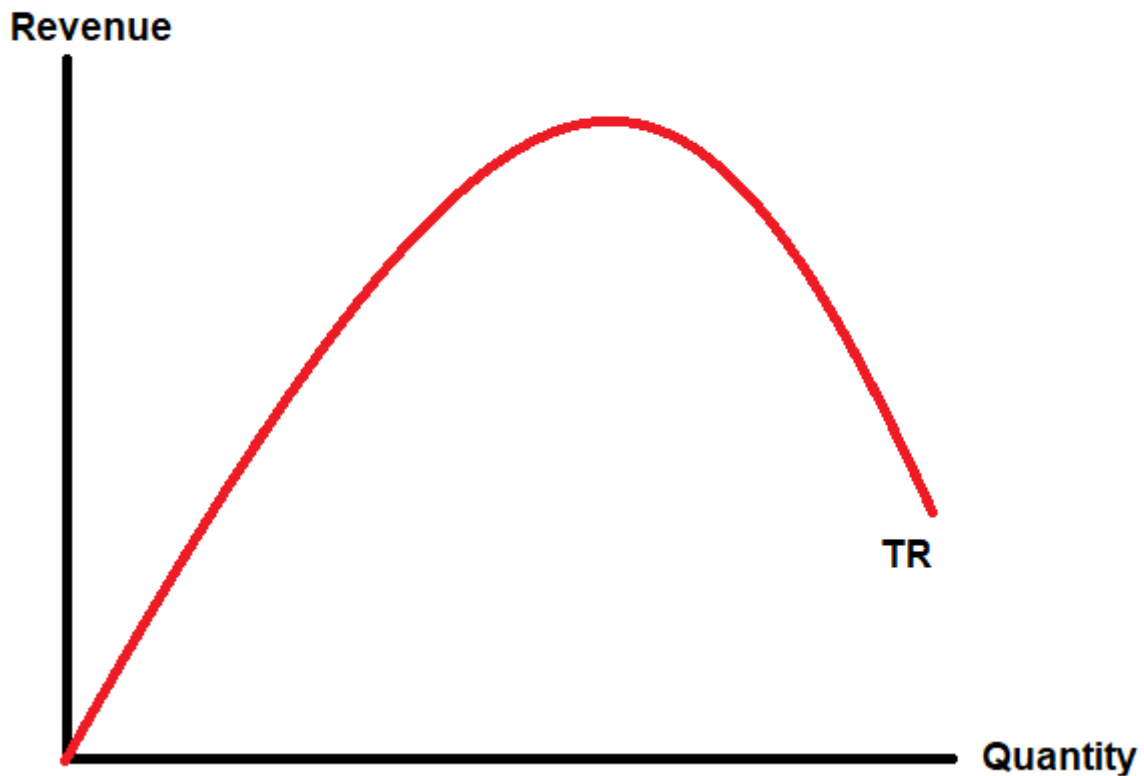
- TR is the amount of money a firm receives
- If everyone pays same price it is price multiplied by quantity sold
- When we plot TR curve we look whether firm is price taker or price maker
- A price maker has enough market power to influence price and faces a downwards sloping demand curve (e.g. a monopoly)
- A price taker has to offer its product at the same price as anyone else
- If firm is price taker, it is operating in perfect competition and must accept the market price whatever its output is. Therefore its graph is a straight line through the origin.

Price Taker (Perfect Competition)



- If firm is price maker, the TR is a parabola. As price falls revenue rises but by smaller amounts each time price is cut to maximum revenue. After this point, TR will fall.

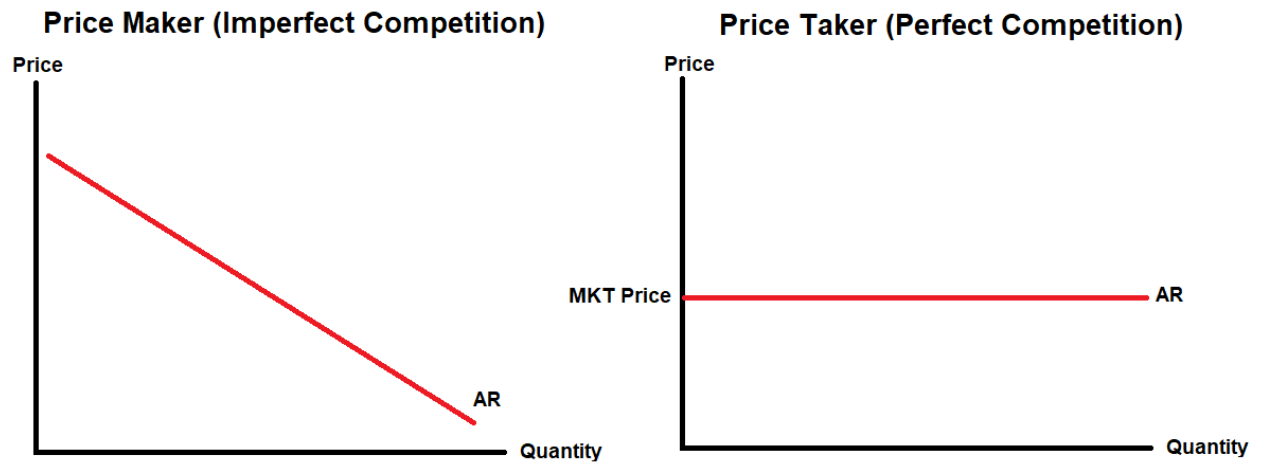
Price Maker (Imperfect Competition)



Average Revenue (AR)

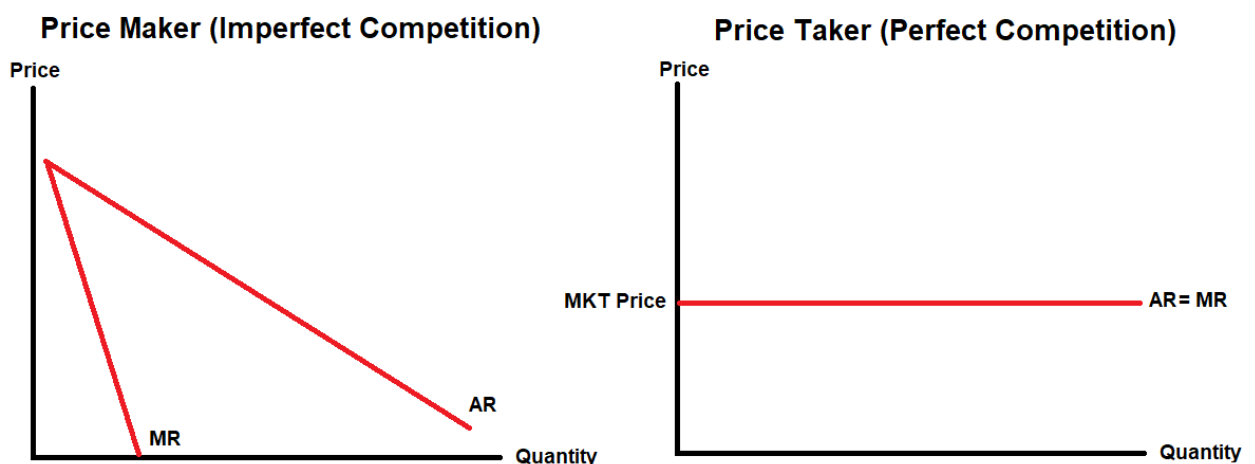
- The price the firm receives per unit sold
- An AR curve is a demand curve
- $AR = \frac{TR}{Q}$
- AR is the same as price
- AR curve depends on whether firm is price maker or price taker
- A price taker faces a perfectly elastic, horizontal demand curve as they have to take the price at any level of output, price per unit will always be the same. An example is a fishing boat captain. The price he gets for fish depends entirely on the supply and demand at a particular port at a particular time. Fisherman has to accept price offered
- Price maker faces downwards sloping demand curve
- Demand is also known as average revenue which is the same as price
- Price taking only exists under perfect competition. Realistically, most firms have a degree of monopoly power which they use to control prices or determine quantity of

production



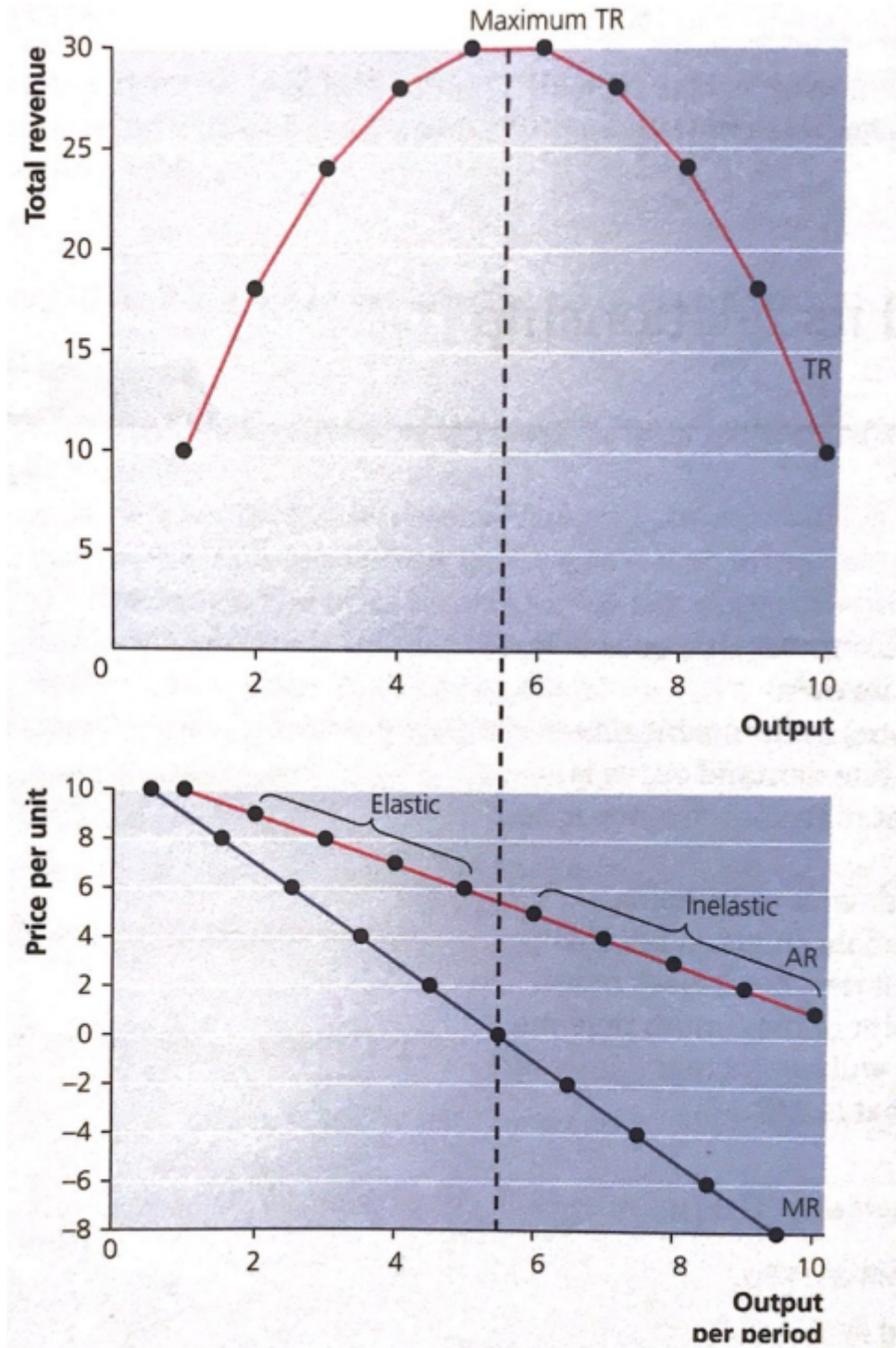
Marginal Revenue

- The change in total revenue from selling one more unit of output
- $MR = \frac{\Delta TR}{\Delta Q}$
- For price taker, MR curve is equal to AR curve, which is equal to demand curve
- For a price maker, MR is downwards sloping. It's gradient is twice as steep as the AR curve and it cuts the bottom axis
- It is less than AR because cutting prices means losing money on item already sold. When the price is reduced, the firm loses money on all the items it is already selling
- For an example we shall look at a price making ice cream firm. It has the power to set a price at £2 per ice cream. It can only sell 20, which isn't many. $TR = £40$. It cuts the price to £1 to increase sales and sells an extra 20 ice creams. The MR is £20 from selling 20 extra ice creams but it loses money on the ice creams it could have sold at £2 each. So it loses £20. TR is still £40 and MR is 0. It now has to sell more, which costs more, so it is actually making less profit



Relationship to PED

- Mid-point on straight-line demand curve is unitary elastic. at this point $MR=0$



- Note here that the Price descends into the negatives