Monopoly

A Single-Price Monopolist

Monopoly – A Market containing a single firm

Monopolist – A firm that is the only seller in a market

A monopolist faces a negatively sloped demand

A monopolist faces a trade-off between the price it charges and the quantity it can sell at that price.

- A monopolist faces the (downward-sloping) market demand curve.

Total Revenue

$$TR = p \times Q$$

Avenue and Marginal Revenue

Average revenue (***AR***) is total revenue divided by quantity:

$$AR = TR/Q = (p \times Q)/Q = p$$

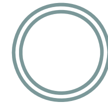
Marginal revenue (***MR***) is the revenue resulting from the sale of an additional unit of production:

$$MR = \Delta TR/\Delta Q$$

The monopolist must reduce the price to increase sales – therefore the ***MR*** curve is below the demand curve.

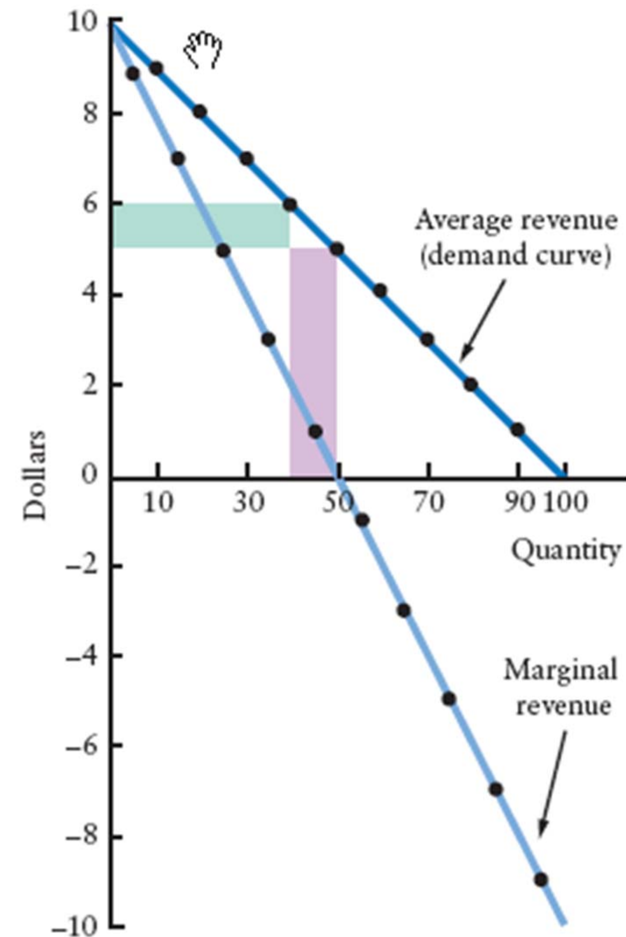
- The monopolist's marginal revenue is less than the price at which it sells its output. Thus the monopolist's MR curve is below its demand curve

A Monopolist's Average and Marginal Revenue



Computing Average and Marginal Revenue

(1) Price (average revenue)	(2) Quantity Sold Q	(3) Total Revenue $(p \times Q)$	(4) Change in Total Revenue (ΔTR)	(5) Marginal Revenue $(\Delta TR/\Delta Q)$
10	0	0		
9	10	90	90	9
8	20	160	70	7
7	30	210	50	5
6	40	240	30	3
5	50	250	10	1
4	60	240	–10	–1
3	70	210	–30	–3
2	80	160	–50	–5
1	90	90	–70	–7
0	100	0	–90	–9

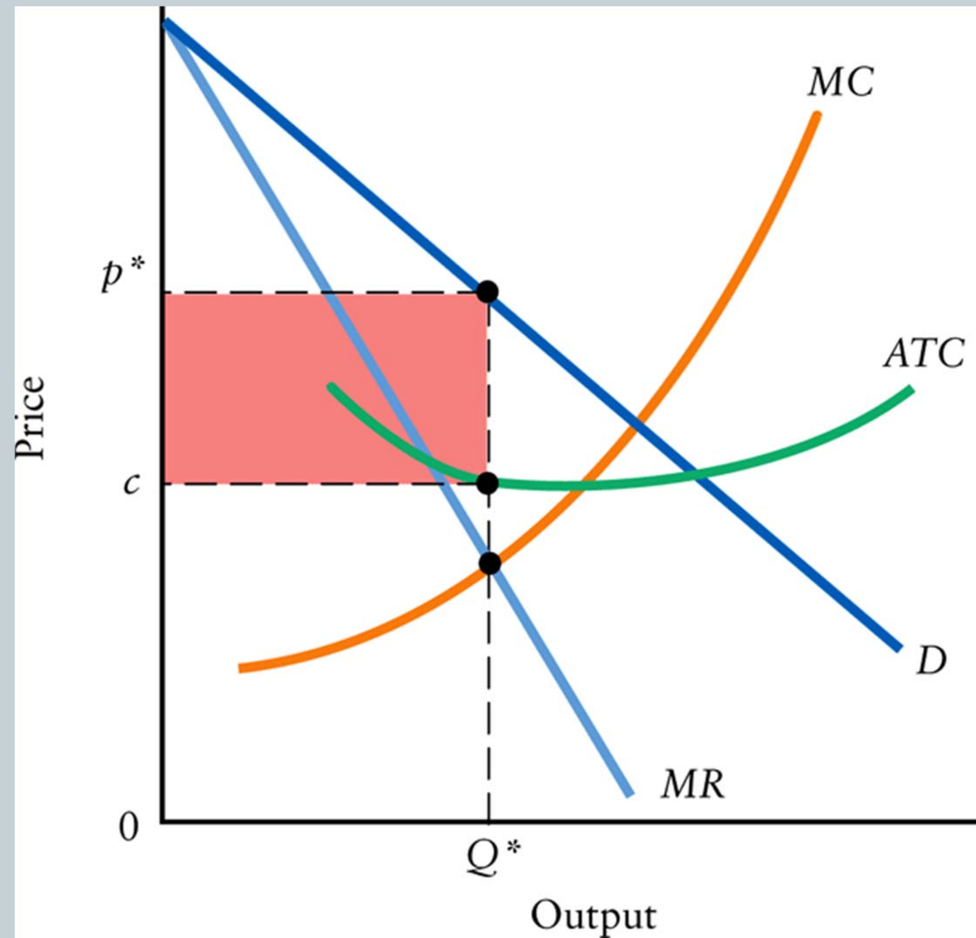


Short-Run Profit Maximization

Two general rules about profit maximization

1. The firm should not produce at all unless its revenues exceed its variable costs.
2. If the firm does produce, it should produce a level of output such that its marginal revenue equals its marginal cost.

Short-Run Profit Maximization for a Monopolist



No supply curve for a Monopolist

For a monopolist, there is no unique relationship between market price and the quantity of output supplied. Therefore, a monopolist does not have a supply curve

The price set by a monopolist depends on the shape of the demand curve, and therefore the monopolist's profit maximizing quantity is not necessarily higher when it sets its price higher

Monopolist's Profit-Maximizing Behavior

There is no unique relationship between market price and the quantity of output supplied.

➔ A monopolist does not have a supply curve

The monopolist is the only producer in an industry.

➔ A monopolist is the industry.

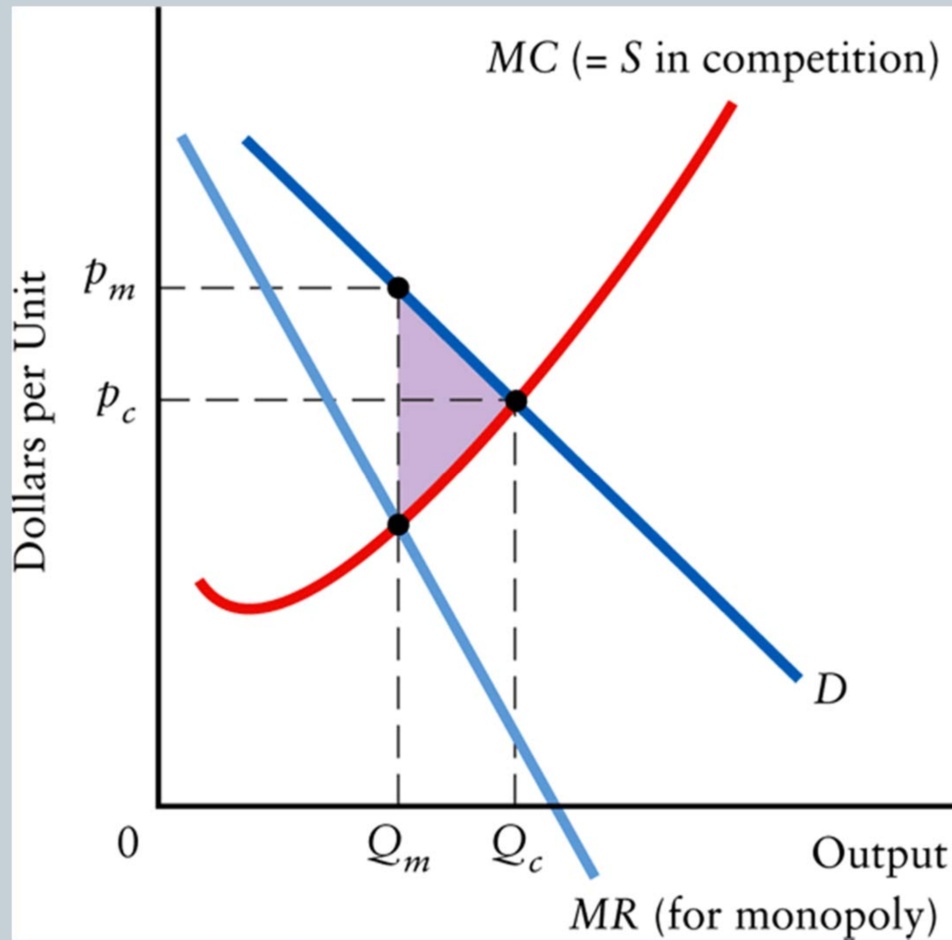
Competition and Monopoly Compared

Unlike a competitive firm, the monopolist does not have a supply curve because it chooses its price.

The monopolist is the industry, so that its profit-maximizing conditions is the equilibrium of the industry.

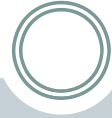
In a perfectly competitive industry price equals MC. But a monopolist produces at a lower level of output, with price exceeding MC.

The Inefficiency of Monopoly



A monopolist restricts output below the competitive level and thus reduces the amount of economic surplus generated in the market. Therefore, the monopolist creates an inefficient market outcome.

Entry Barriers and Long-Run Equilibrium



Despite incentives to enter, effective entry barriers allow monopoly profits to persist in the long run.

Entry barriers are of two types:

- “natural” – such as economies of scale
- “created” – by advertising campaigns or
  – by government regulation

Exercise

- Lipsey, Ragan, and Storer (2008)

Question: 1-4

Source:

- Lipsey, Ragan, and Storer (2008)