

Ch 14. Monopoly

Types of Market Structure

	<u>Prod. Differentiation</u>	
	<u>No</u>	<u>Yes</u>
<u>One</u>	<u>Monopoly</u>	<u>NA</u>
<u>Few</u>		<u>Oligopoly</u>
<u>Many</u>	<u>Perfect Competition</u>	<u>Monopolistic Competition</u>

Monopolist : sole supplier
of the good

It has market power :
ability to raise the
price

For profitable monopoly to
persist, they need
barriers to entry

4 barriers to entry

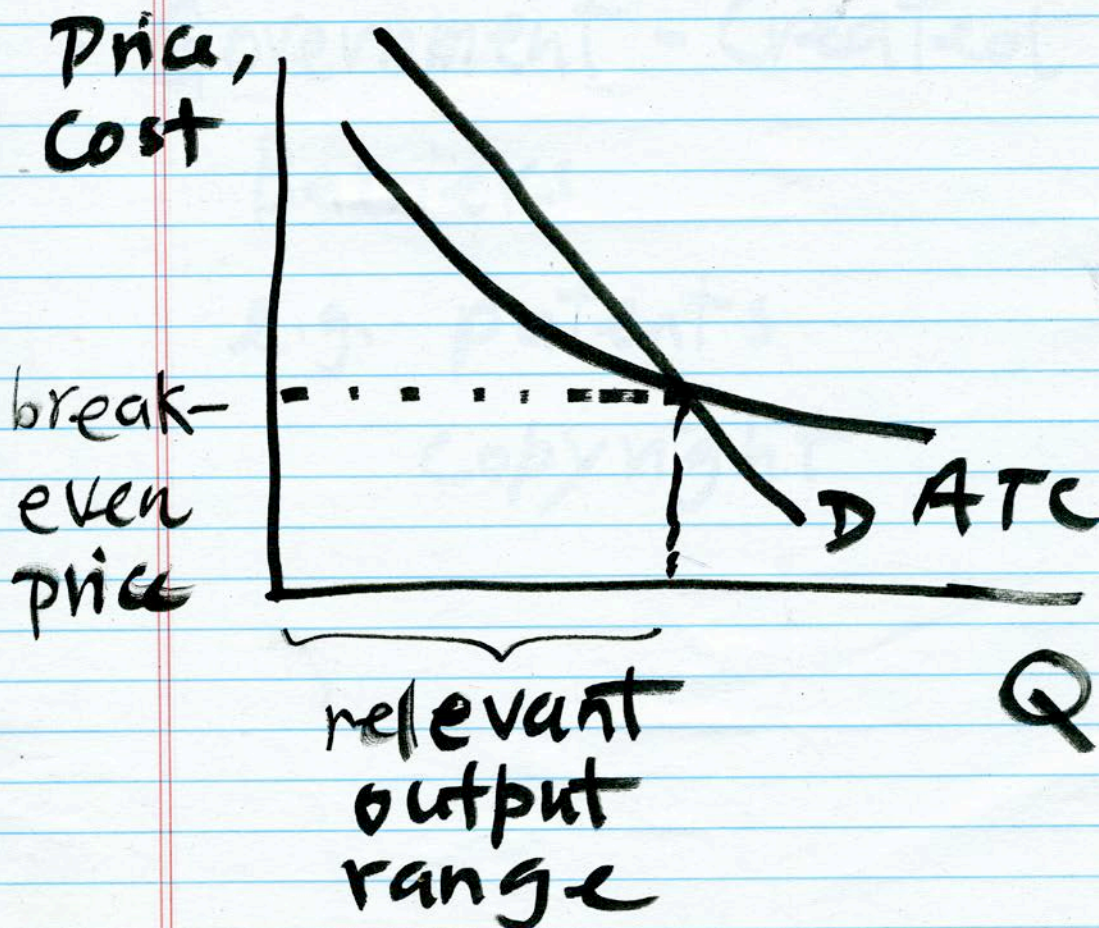
- Control of a Scarce Resource or Input

- Increasing returns to scale

⇒ generate "natural monopoly"

e.g. local utilities –
water, gas, electricity,
land-line phone service

Natural monopoly:
average total cost
is falling over the
relevant output range



• Technological Superiority

(but "network externalities")

• Government - Created
Barriers

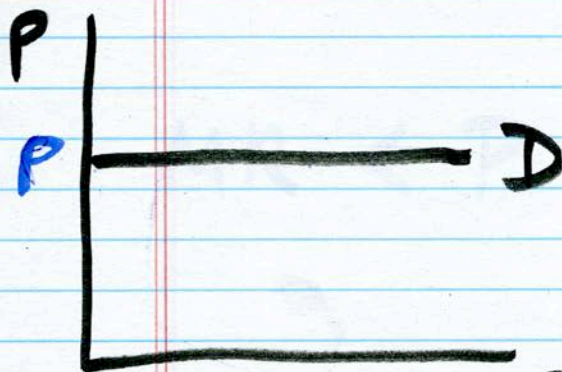
e.g. patents

copyright

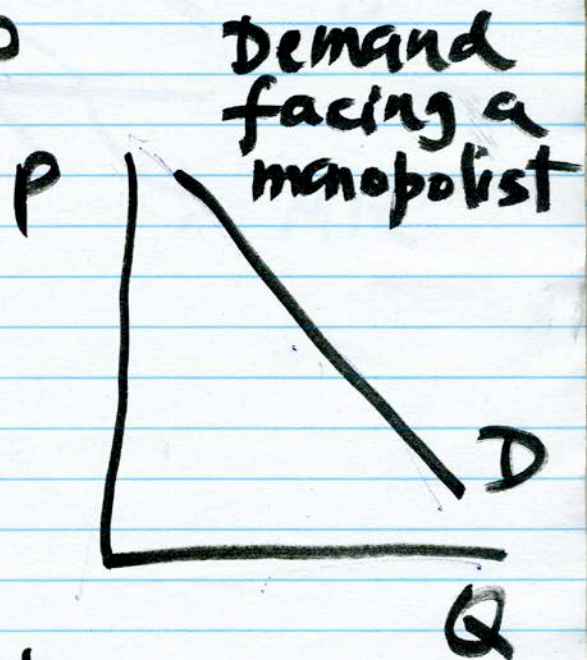
Profit Maximization by a Monopolist

produce until $MR = MC$
but with a Monopolist,

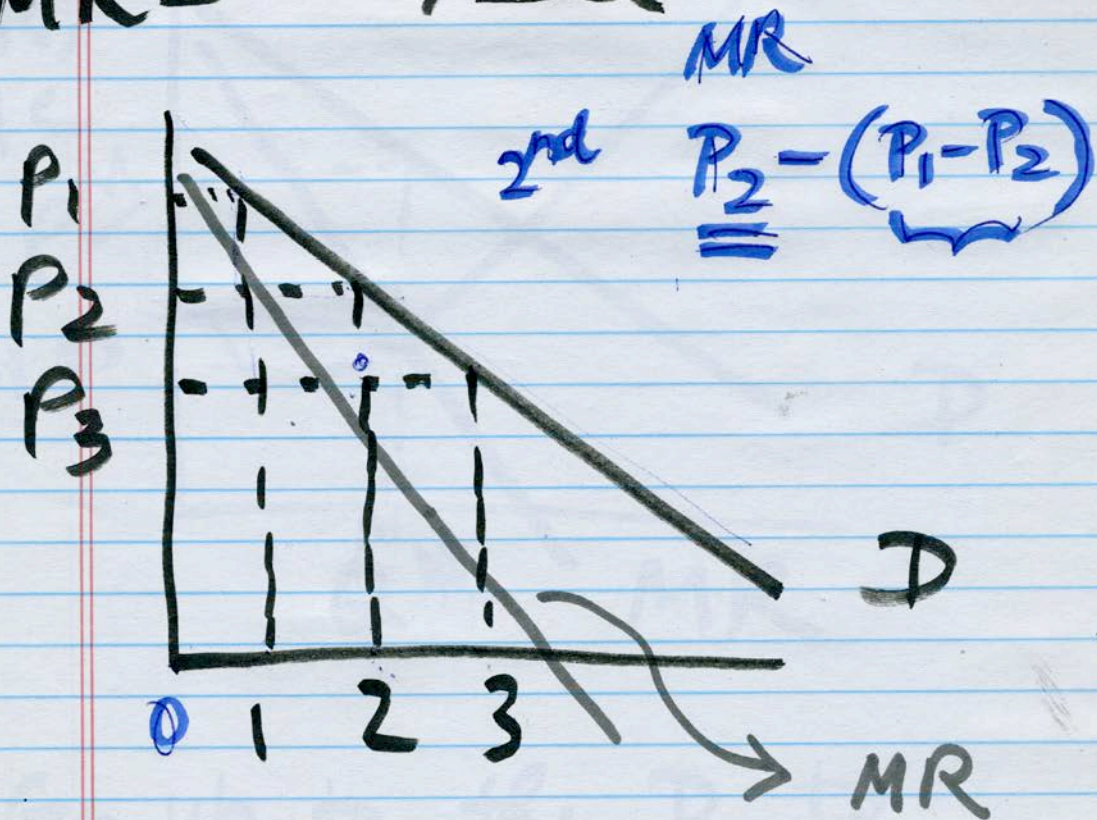
$$MR \neq P$$



Demand
facing a perfectly competitive firm



$$MR = \frac{\Delta TR}{\Delta Q}$$



$$MR < P$$

Monopoly

Profit maximization

special case in Krugman:

constant (horizontal)
marginal cost, no fixed
cost

Each additional unit
costs say \$5

No fixed cost, so

$ATC = AVC$ since

$ATC = AVC + AFC$ and $AFC = 0$

Since MC is constant,

$$AVC = MC$$

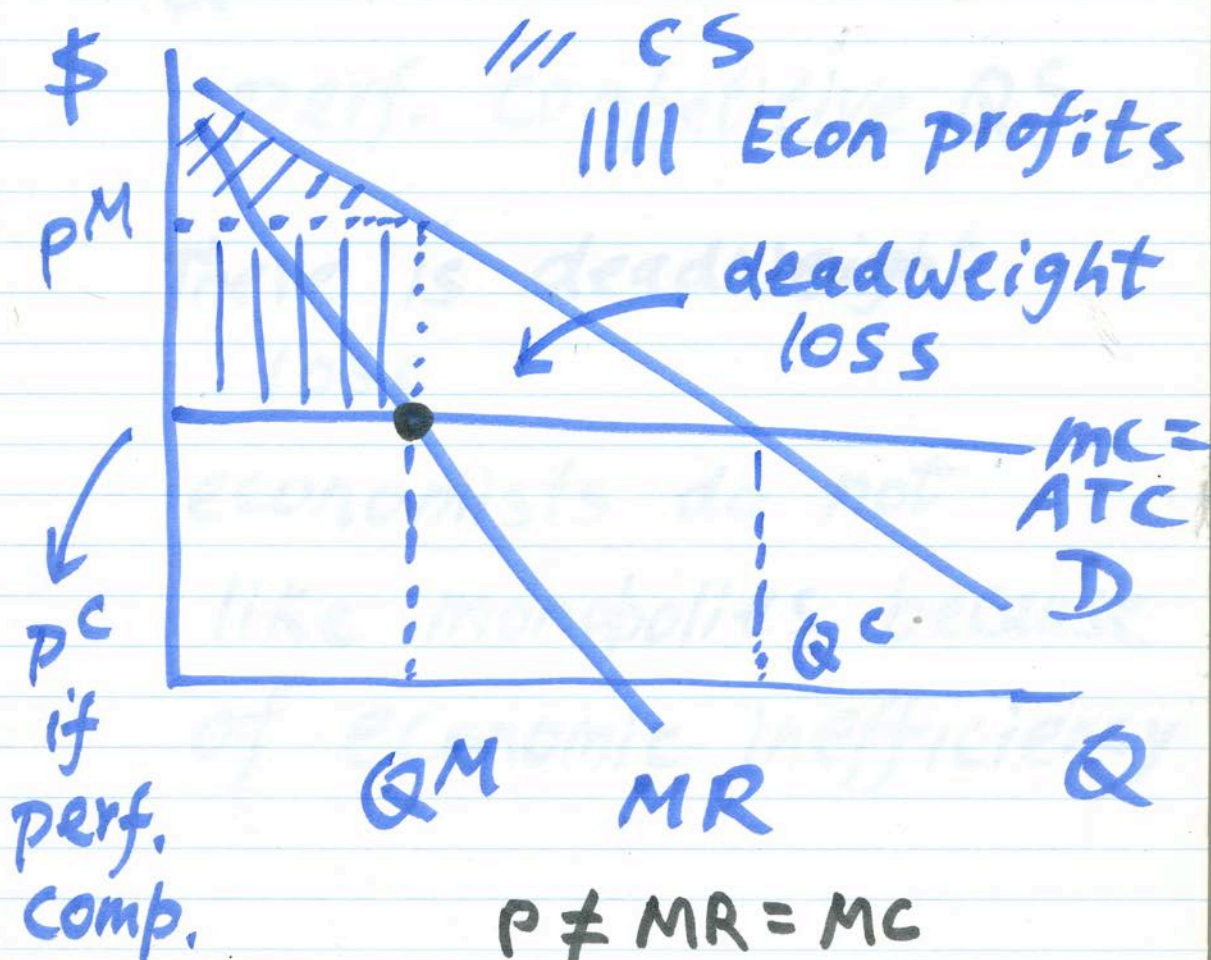
but $AFC = 0$

$$\text{so } ATC = MC$$

$$\begin{aligned} & 0 \\ & || \\ ATC &= AFC + \\ & AVC \\ & || \\ & MC \end{aligned}$$



Profit Maximization of
 a Monopoly with the
 special case of constant
 MC and no fixed cost



P^M is higher than
perf. competitive price
 P^C

Q^M is smaller than
perf. competitive Q^C

There is deadweight
loss

economists do not
like monopolies because
of economic inefficiency

With a monopolist,

$$P^M > MC$$

to maximize profits,
a monopolist chooses

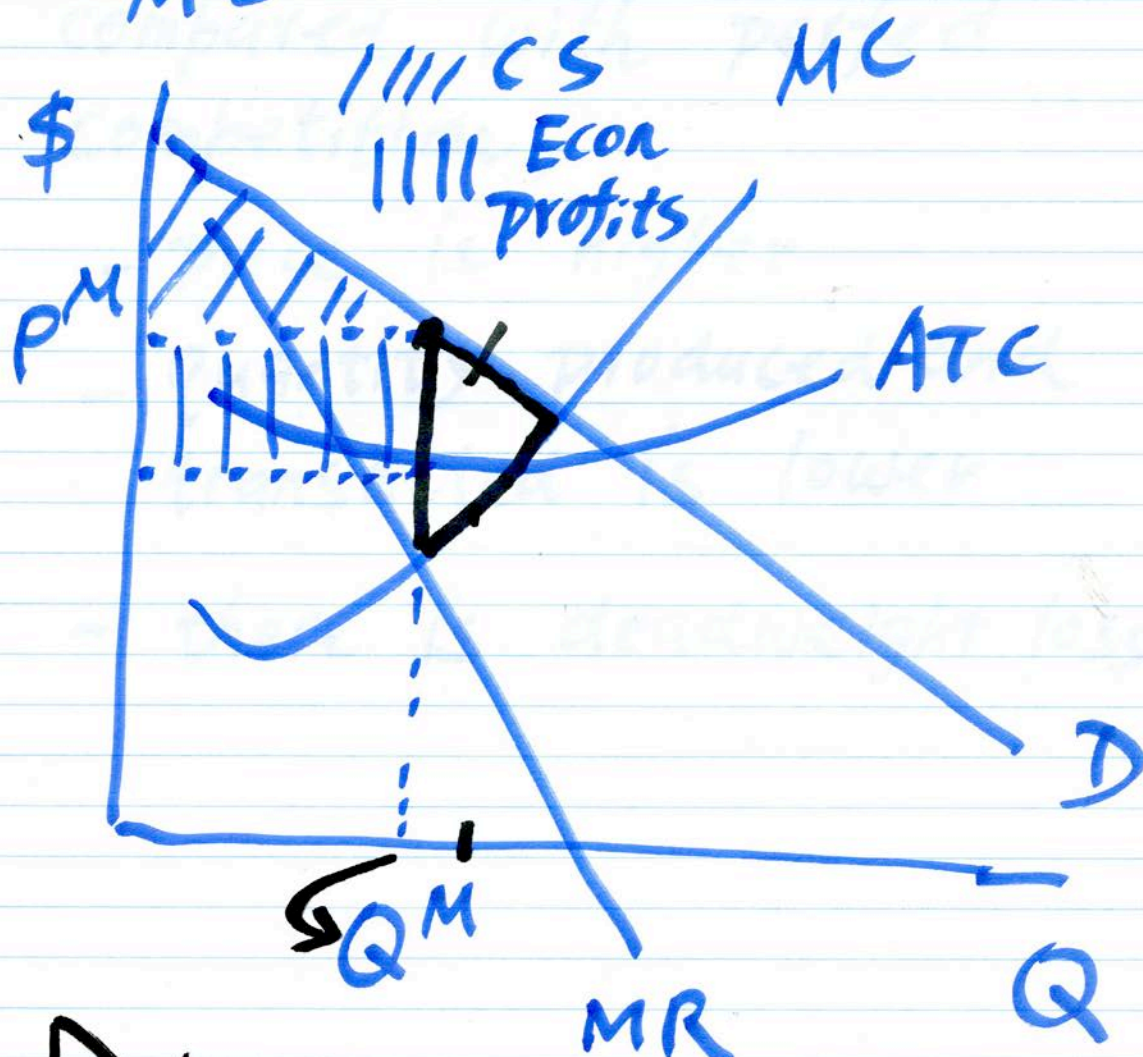
$$Q^M \text{ such that } MR = MC$$

$$P^M > MC = MR$$

Consumer surplus is
smaller with a monopolist

Deadweight loss

The general or standard case with standard MC



▷ deadweight loss

Same results as before,

Under a monopoly, as compared with perfect competition,

- price is higher
- quantity produced and transacted is lower
- there is deadweight loss