

ECON 101: Principles of Economics I

Lecture Note 14

University of Michigan at Ann Arbor

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Lecture 14: Monopoly

Wednesday, November 16, 2022 9:35 PM

Types of Market Structure

		Are Products Differentiated?	
		No	Yes
How Many Producers Are There?	One	Monopoly	Not applicable
	Few	Oligopoly	
	Many	Perfect competition	Monopolistic competition

The meaning of monopoly

Monopolist - a firm that is the only producer of a good that has no close substitutes

- **Monopsonist** - a firm that is the sole buyer in the market

Monopoly - an industry controlled by a monopolist

- **Monopsony** - a market where there is only one buyer of a good

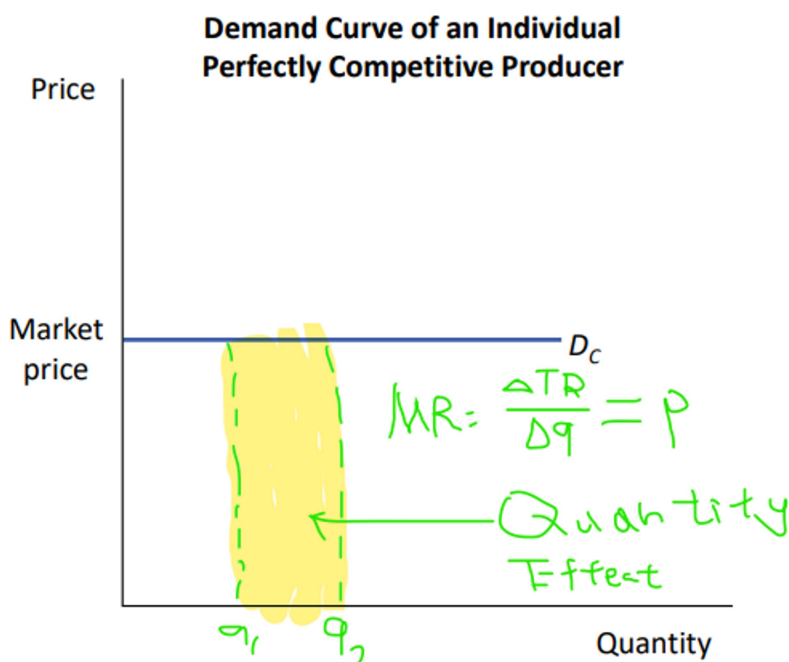
Market power - the ability of an individual to change the price in the market

- The monopolist will raise the price relative to the competitive level

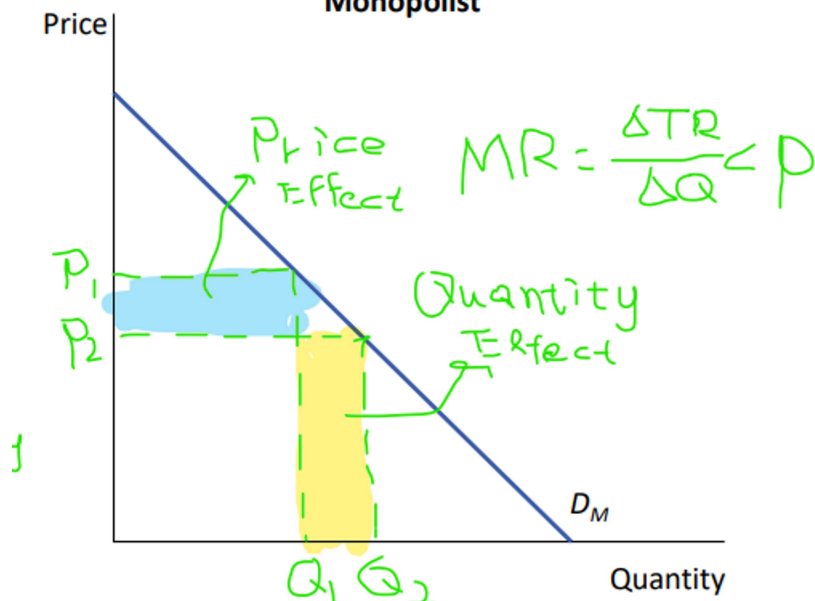
Comparing Demand (Monopolist vs Perfectly Competitive Firm)

While the monopolist has complete control over price in the market, they must respect the demand.

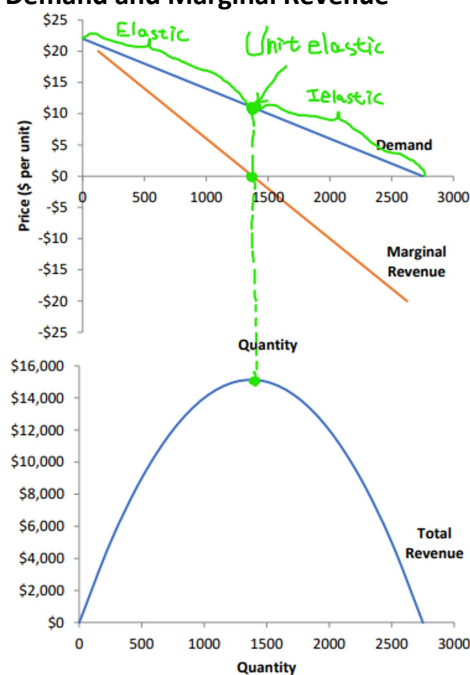
Recall that as a price taker, the perfectly competitive firm's marginal revenue is price.



Demand Curve of a Monopolist



Demand and Marginal Revenue



Price	Quantity Demanded	Total Revenue	Marginal Revenue
\$22	0	\$0	\$20
\$20	250	\$5,000	\$16
\$18	500	\$9,000	\$12
\$16	750	\$12,000	\$8
\$14	1000	\$14,000	\$4
\$12	1250	\$15,000	\$0
\$10	1500	\$15,000	-\$4
\$8	1750	\$14,000	-\$8
\$6	2000	\$12,000	-\$12
\$4	2250	\$9,000	-\$16
\$2	2500	\$5,000	-\$20
\$0	2750	\$0	-\$20

The Monopolist's Profit- Maximizing Output and Price

The profit maximizing quantity of output is always found where:

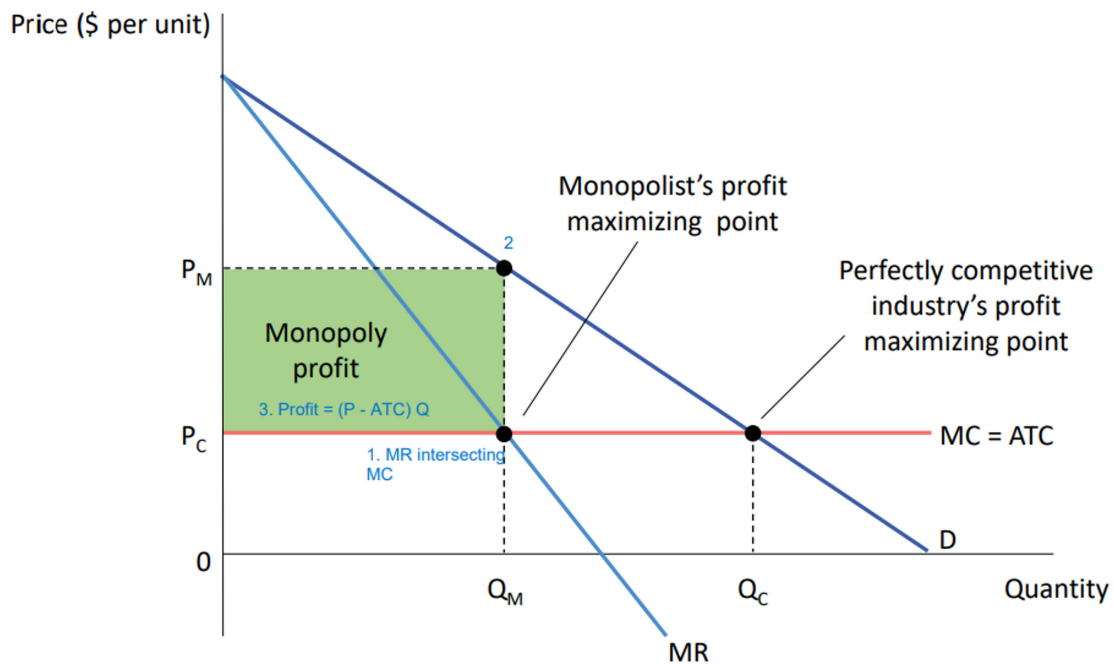
- Marginal Revenue intersects Marginal cost

* Recall, for the perfectly competition firm marginal revenue is price, so this occurs where Price = MR = MC

For the monopolist, the profit maximizing quantity of output is found where:

- MR = MC
- but
- Price > MR

The Simplified Monopolist (Assume fixed cost is zero and marginal cost is constant, MC = ATC)

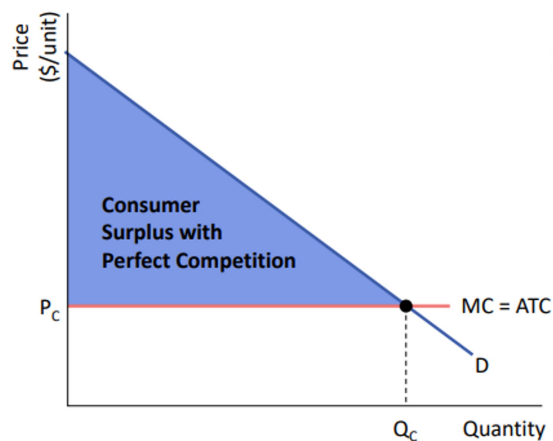


The simplified Monopolist (Assume MC is constant and fixed cost is 0)

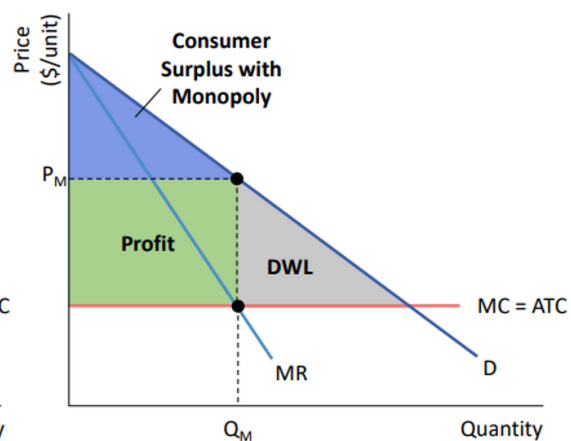
Profit $\neq$ Producer surplus typically

Producer surplus = $TR - VC = \pi + FC$

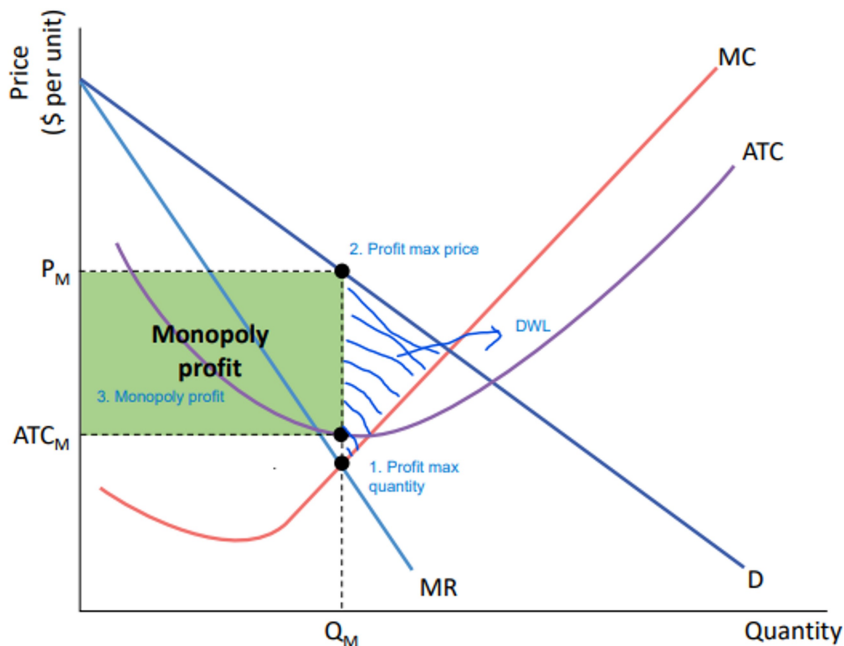
Total Surplus with **Perfect Competition**



Total Surplus with **Monopoly**



The Typical Monopolist



Key Takeaways

Monopolies change market outcomes

- ❖ **Monopolists** are the only producer of a good with *no close substitutes* giving them market power or the ability to change the price in the market.
- ❖ A **monopoly** is an industry *controlled* by a monopolist.
- ❖ **Monopsonists** are sole buyers in a market and a **monopsony** is a market in which there is only one buyer of a good.
- ❖ Monopolies vs. Perfect Competition: monopolies **reduce** total surplus
 - An individual firm in *perfect competition* faces a constant demand curve, while a monopoly's demand curve is also that of the market (downward sloping).
 - Price = MC = MR in perfect competition, but in a monopoly the profit maximizing quantity is where **MC = MR** and **Price > MR**

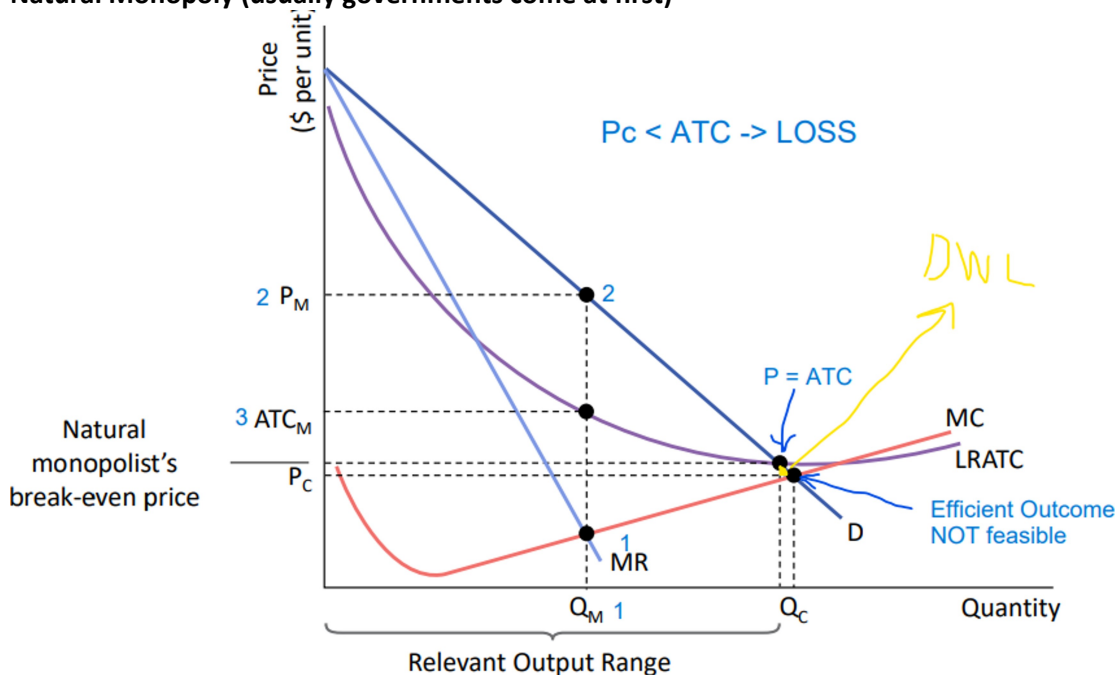
Why Do Monopolies Exist?

Profits will not persist in the long run unless there is a **barrier to entry**.

This can take the form of:

- Control of natural resources or inputs (cannot produce unless you have access to the resource - American Aluminum Company)
- Technological superiority (this can be maintained if a company is always on the frontier of technology - Google search)
- A **network externality** - the value of a good or service is greater when many other people use the good or service as well (A person has a different externality based on the consumption of other people around that person - Meta, Facebook)
- Legal restrictions imposed by governments (Patents and copyrights)
- Economies of scale
 - Natural Monopoly (one commonality, cost of creating infrastructure to producing good is expensive, no one else wants to do it - Electric company, power)

Natural Monopoly (usually governments come at first)



Price Discrimination

Single-price monopolist - one who charges all consumers the same price

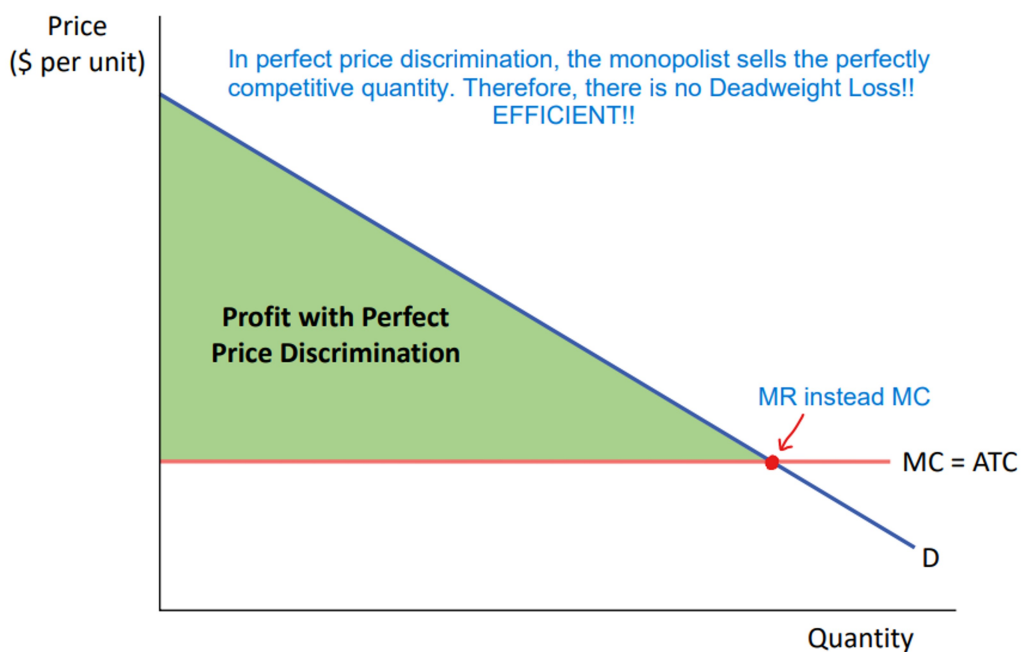
Price discrimination - charging different customers different prices for the **same good** in order to increase profits (students price, normal price, same movie)

Example: People enjoy flying



If it is a single-price monopolist, only sell to business travelers.

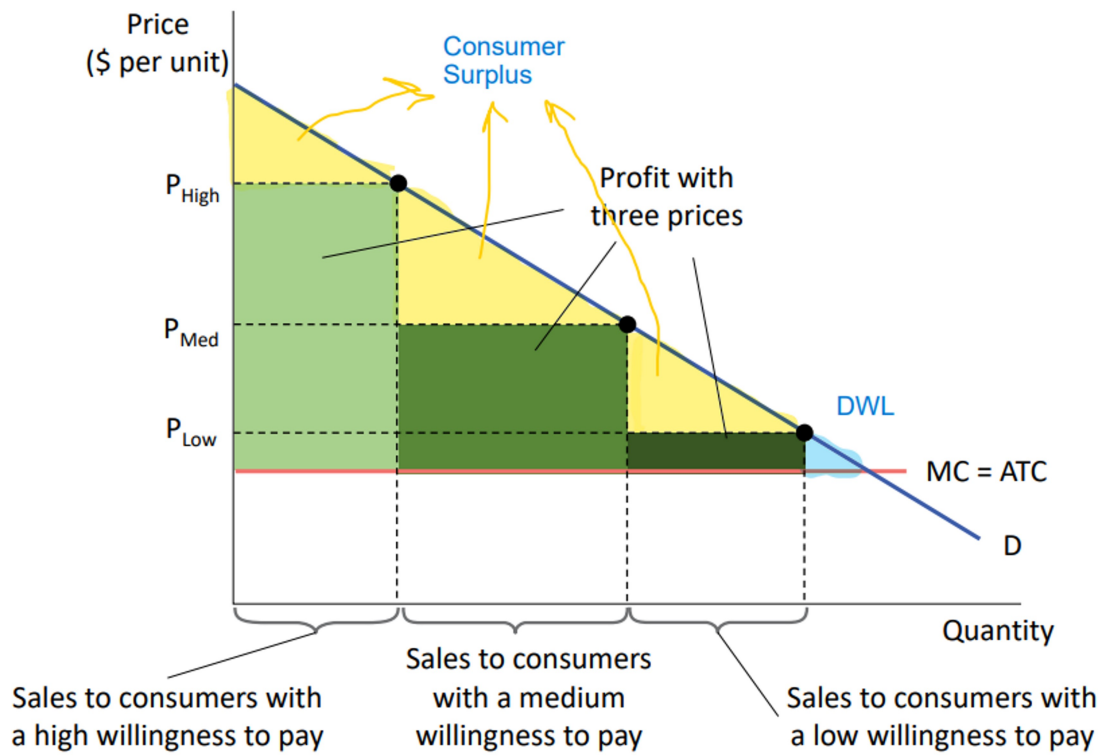
Perfect Price Discrimination



Everyone has different willingness to pay (every person is unique)

Selling to every consumer at their exact willingness to pay => every unit is sold at a unique price found on the demand curve

This means marginal revenue is found on demand



Common Forms of Price Discrimination

- Advance purchase restrictions
- Student, Senior, Military, and other discounts
- Volume or quantity discounts
- Two-part tariffs