

Competition vs. Monopoly

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Outline

- Perfect Competition.
 - Does it exist?
 - Critical assumptions.
 - The $P=MC$ rule.
 - Consumer surplus and welfare.
 - Competitive equilibrium analysis.
- Monopoly.
 - Why does it exist?
 - Price vs. marginal revenue.
 - The $MR=MC$ rule.
- Welfare comparison.
 - How much do we lose for not having a competitive economy?

Perfect Competition

The perfectly competitive model is an IDEAL extreme case for most industries, and will be used to illustrate the importance of the loss of efficiency in particular markets.

Critical Assumptions

- Homogeneous products.
- Absence of market power.
- Easy entry and exit.
- Perfect information.

Breaking the Assumptions (I)

- **Heterogeneous Products.**
 - Vertical Differentiation.
 - Horizontal Differentiation.
- **Market power.**
 - Seller (monopoly): Patents.
 - Buyer (monopsony): Government contracting; trade unions.

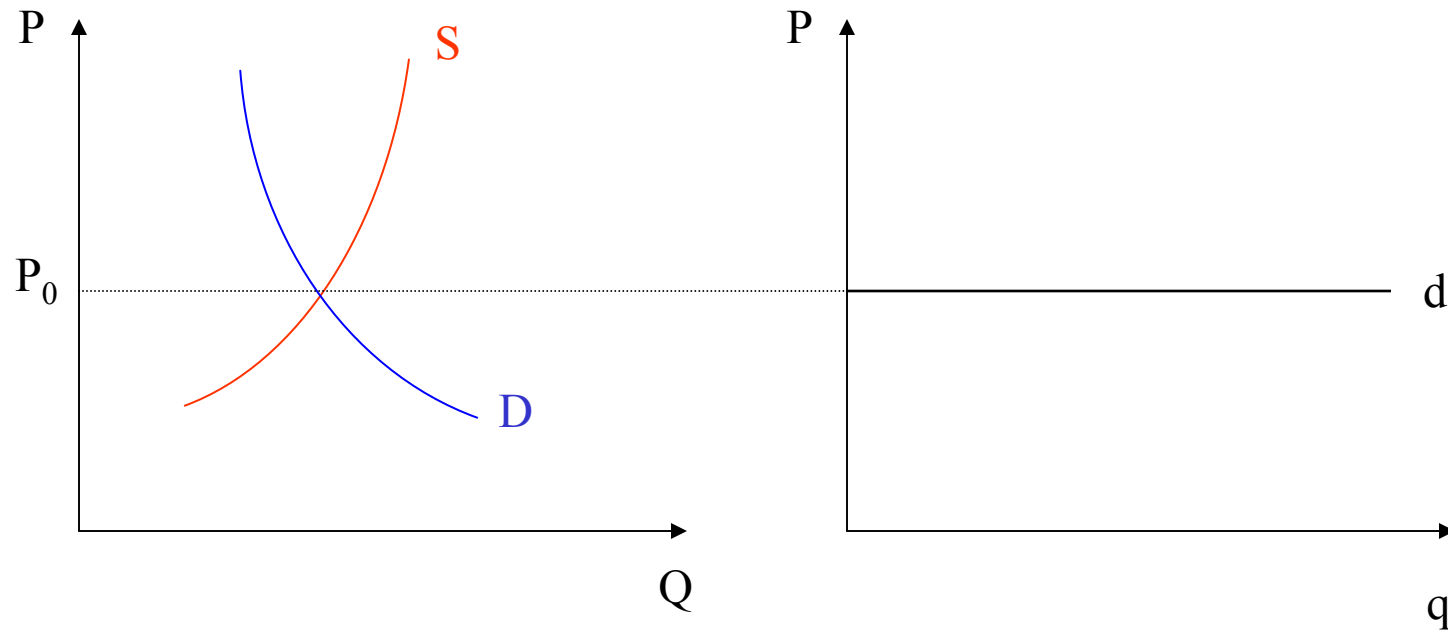
Breaking the Assumptions (II)

- **Entry-Exit barriers.**
 - Legal restrictions (local telephony, cable, state monopolies).
 - Scale economies (Boeing).
 - Scope economies (regulated industries, telecommunications).
 - Installed base (Microsoft, AOL).
- **Asymmetric Information.**
 - Adverse selection ("lemons").
 - Moral hazard (insurance).

Does competition requires a large number of firms?

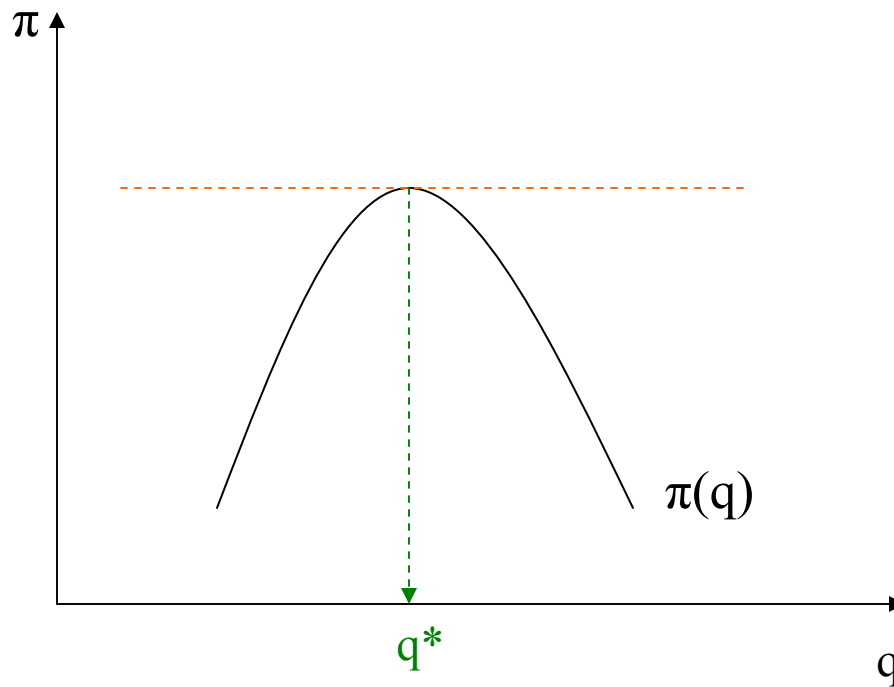
Not necessarily. In the case of **contestable markets**, the mere existence of potential competition ensures the competitive outcome even when there are few firms in the industry. What matters is not the number of firms but their price-taking behavior.

What is price-taking behavior?



How to find the profit maximizing output?

- Profit function: $\pi(q) = R(q, P_1, \dots, P_n, A, \dots) - C(q, w)$
- Maximizing profits: $d\pi(q)/dq = 0 \quad \longleftrightarrow \quad \mathbf{MR = MC}$

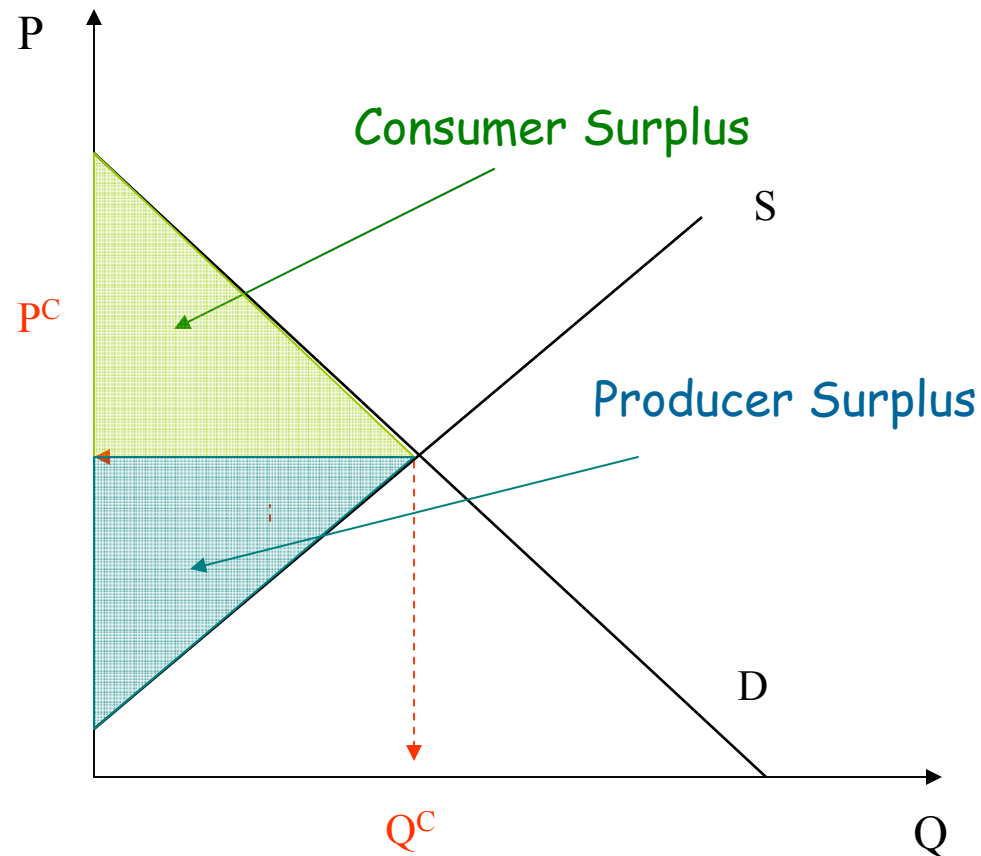


Competitive Equilibrium

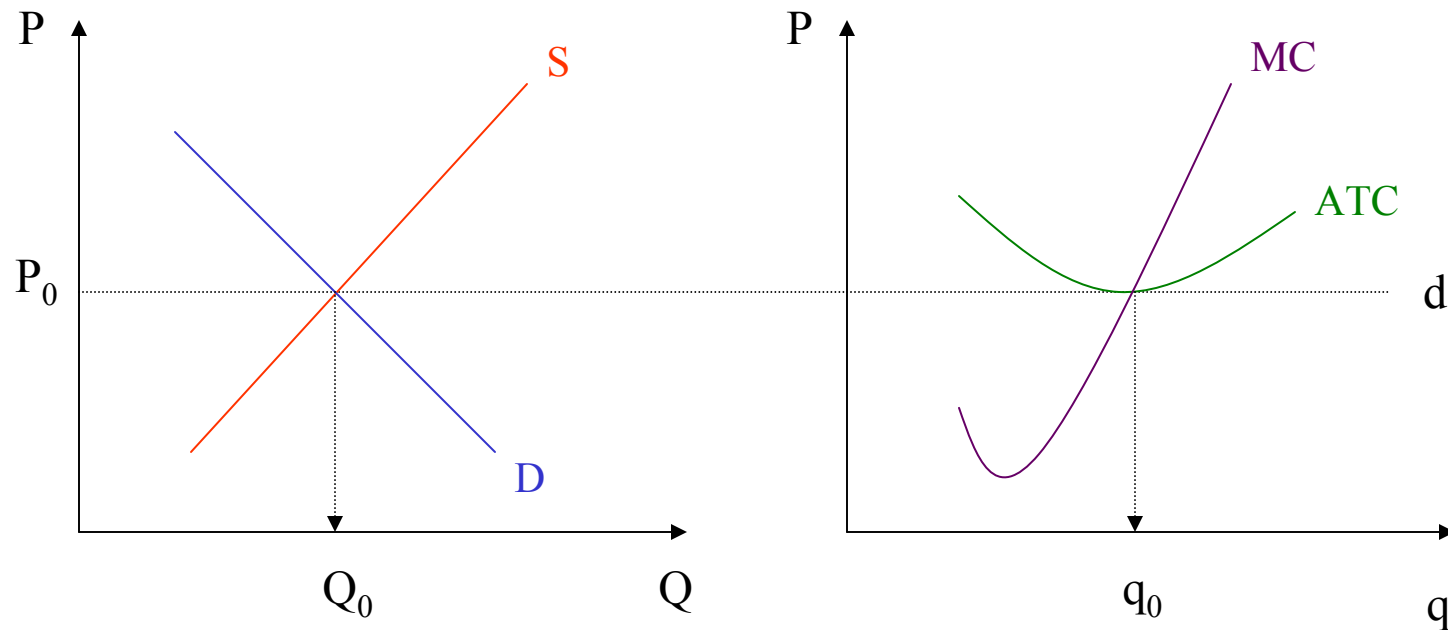
- Price taking behavior: $MR = P$.
- Therefore $P = MC$ in equilibrium.
- What does the zero-profit condition mean?
- Short-run: $P = MC \geq \text{Min } AVC$
- Long-run: $P = MC \geq \text{Min } ATC$
- What is the market supply of a firm? And for the industry?

How does competition maximizes welfare?

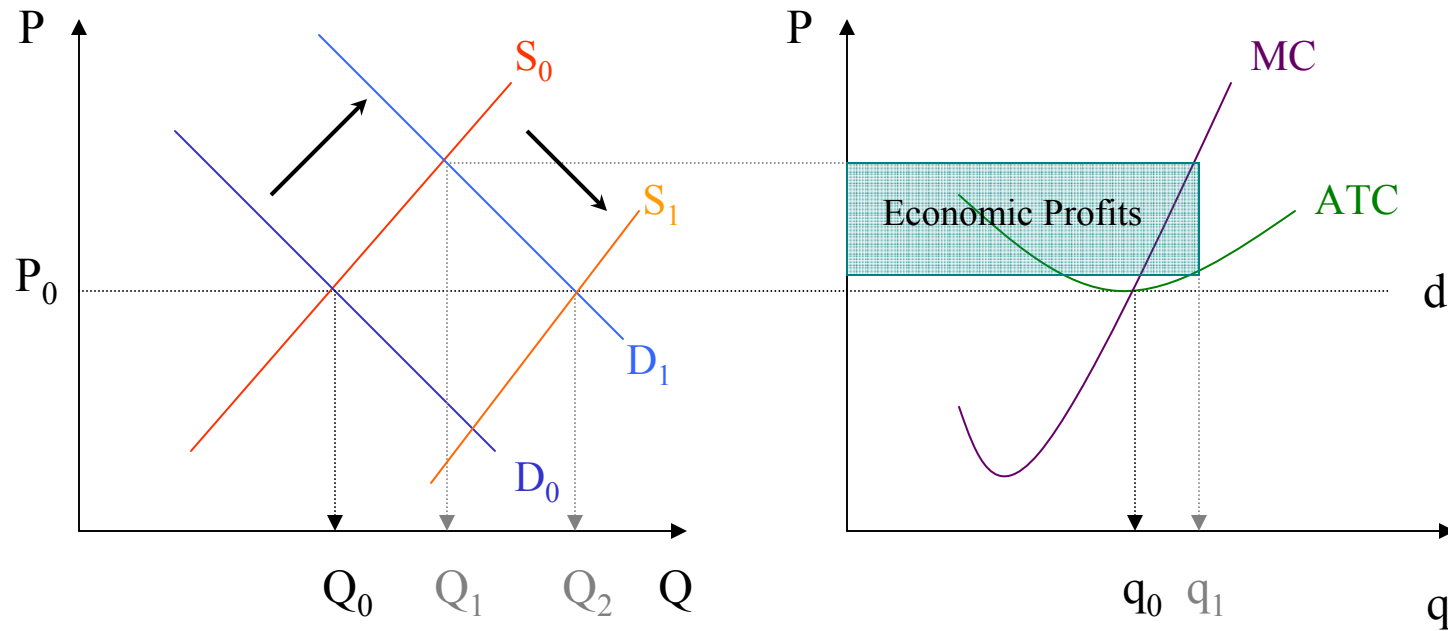
- How do we measure how happy are consumers?



Competitive Equilibrium (long run)



Internet Brokers (1998-1999)



M.Q. 3: Wine Import Tax

This page has been left blank on purpose. Read the motivating question above and address it before coming to class. We will discuss them and I will post the solutions after the lecture.

Monopoly

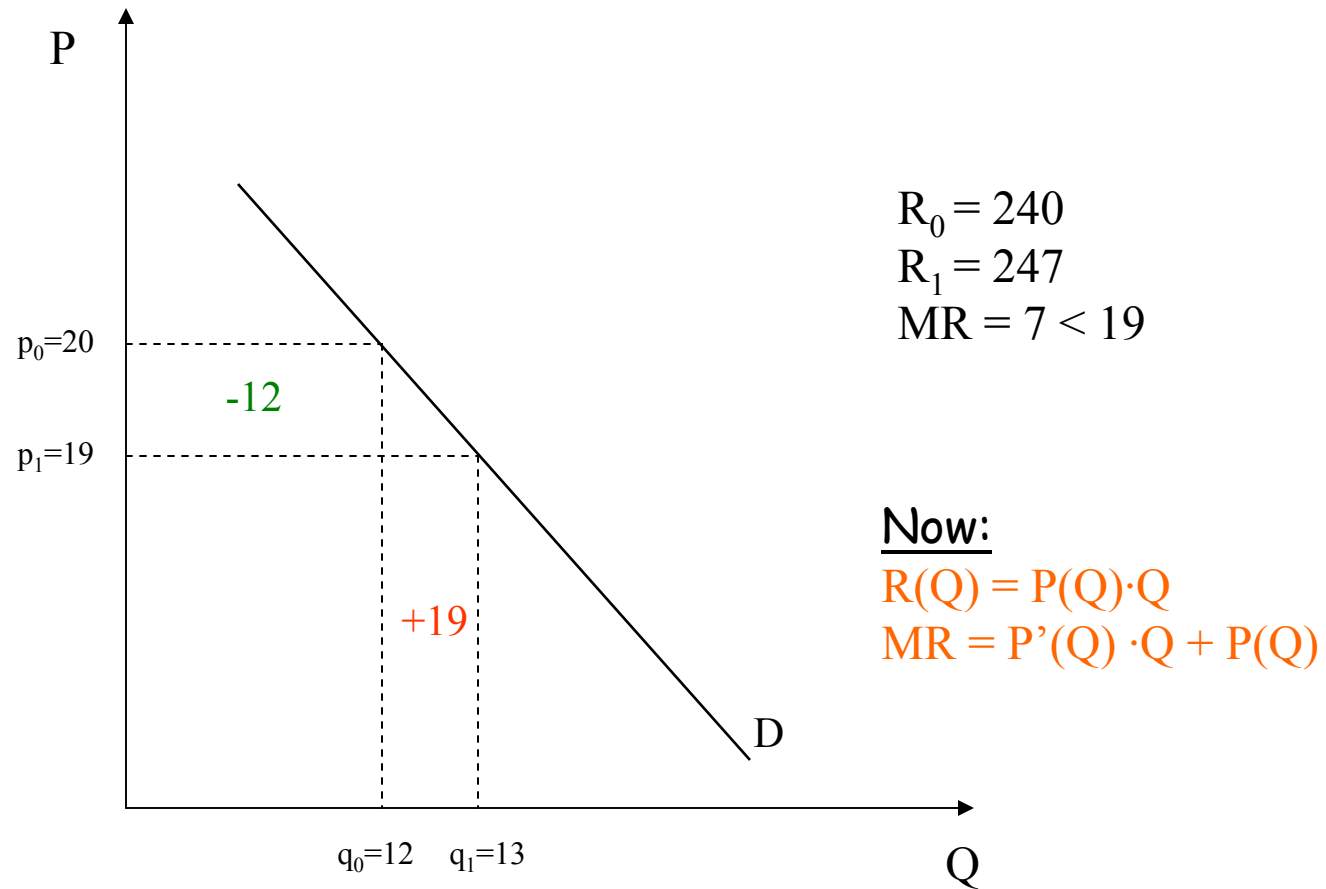
- This is the opposite extreme market configuration to perfect competition.
- There is a single producer that supplies all the market and faces no threat of entry of any potential competitor.
- How does any firm achieve such a privileged position?

Why does monopoly exist?

- **Patents.** Way of solving a problem of moral hazard. Who would ever invest in innovations if it is not possible to profit from them?
- **Entry barriers:**
 - **Technology.** Economies of scale (IRS). Natural monopolies.
 - **Legal.** Less and less common. Mostly in foreign countries.
 - **Networks:** Customer base; Standards; Distribution channels.
- **Product differentiation.** Monopoly power is something relative. It depends in many occasions on the definition of market.

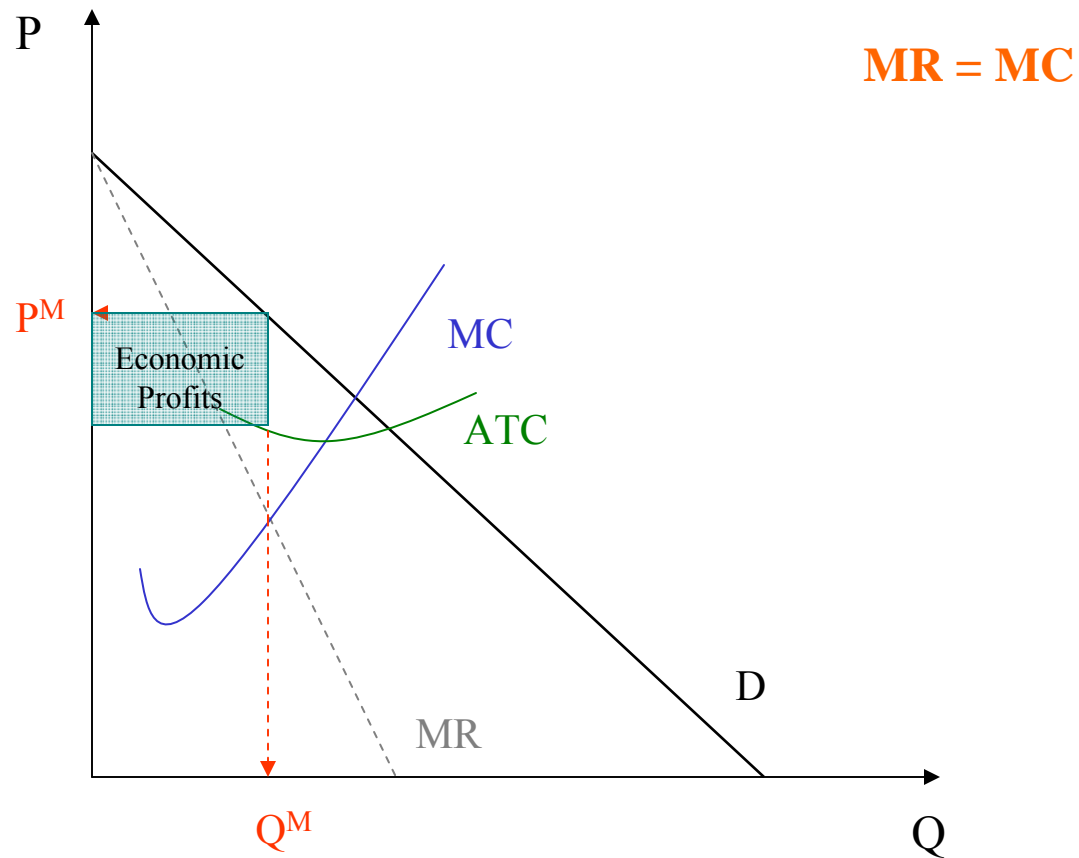
Why is marginal revenue "below demand"?

- Firm and market demand is now the same. It is downward sloping.



Monopoly Equilibrium

- Now price always exceeds marginal cost:



Monopoly vs. Competition

- Market power is an important source of economic inefficiency. Why?

