The Hypothetical Monopolist Test
- A concept for market definition -

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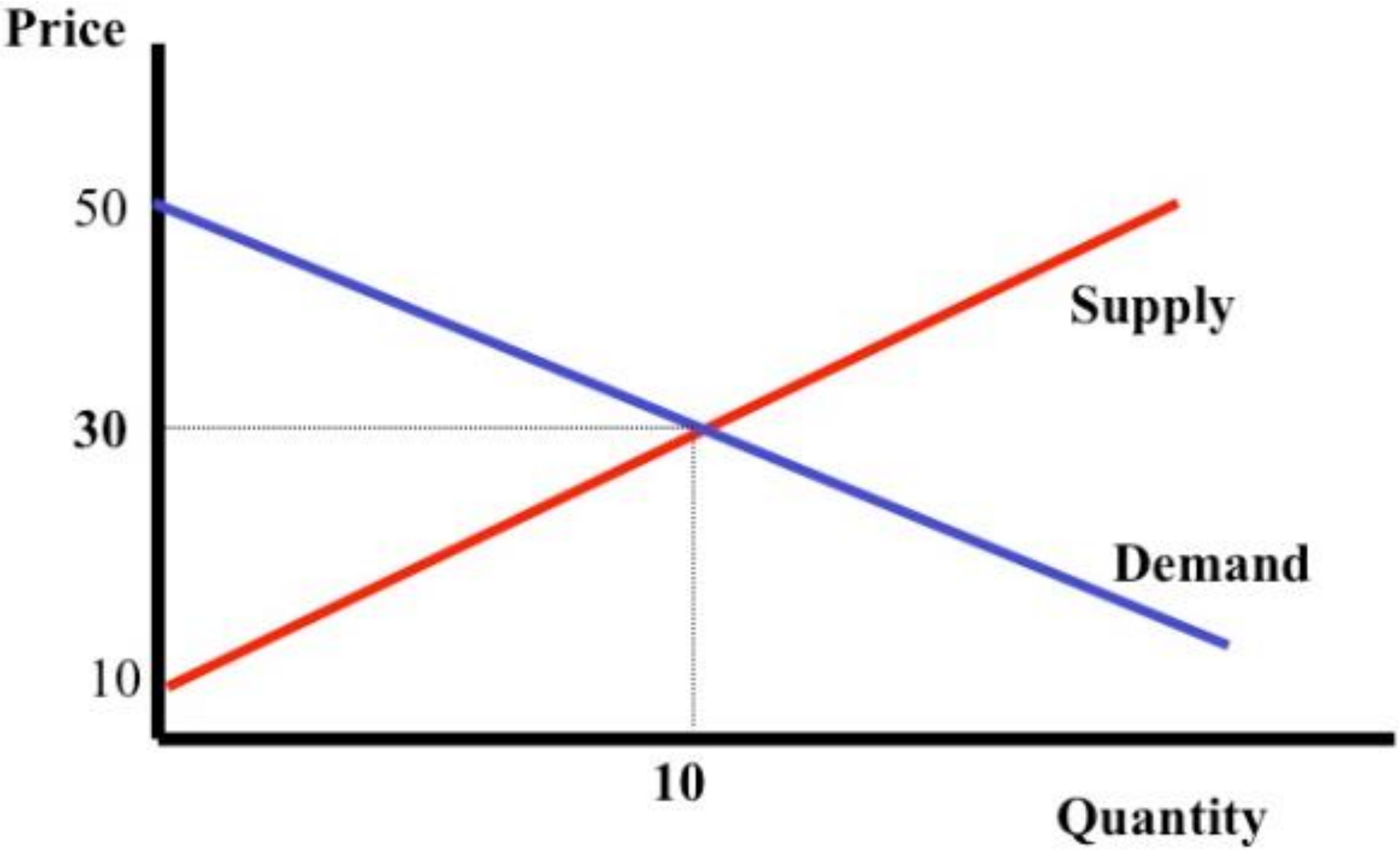
Outline

I. Principles of equilibrium under complete competition and a monopoly
II. Hypothetical Monopolist Test / SSNIP-Test
III. Practical application of the SSNIP-Test

Contacts

I. Principles of equilibrium under complete competition and a monopoly

Equilibrium under perfect competition (1)



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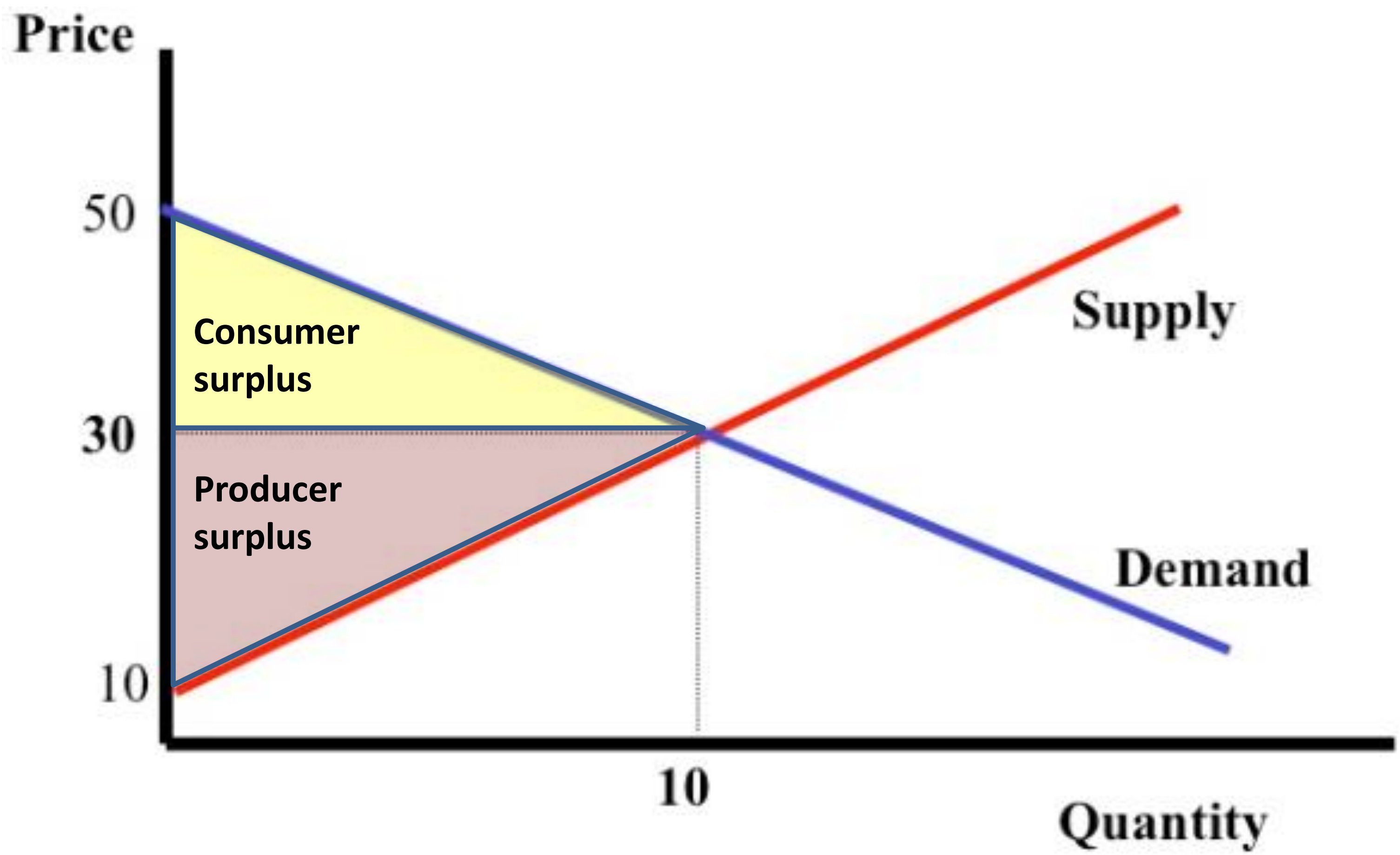
Equilibrium under perfect competition (2)



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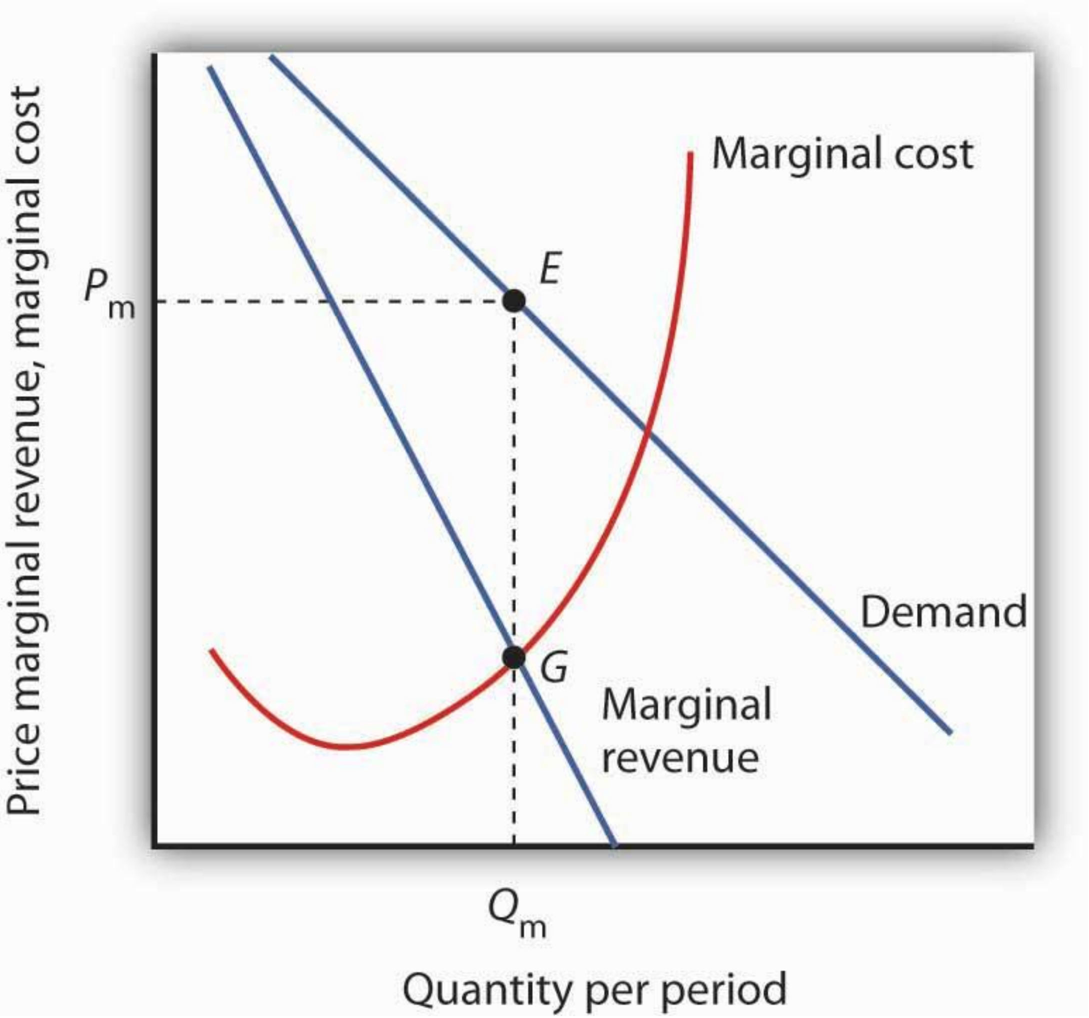
Equilibrium under perfect competition (3)

- Assumptions for competitive markets:
  – Large number of independent companies
  – A single company has no influence on the price
  – All customers have to pay the same price
  – A company may only decide on the quantity, not on the price
- Assumption for a monopoly:
  – One large company
  – Company decides on quantity and price
  – No price discrimination

How the monopolist sets price and quantity (1)



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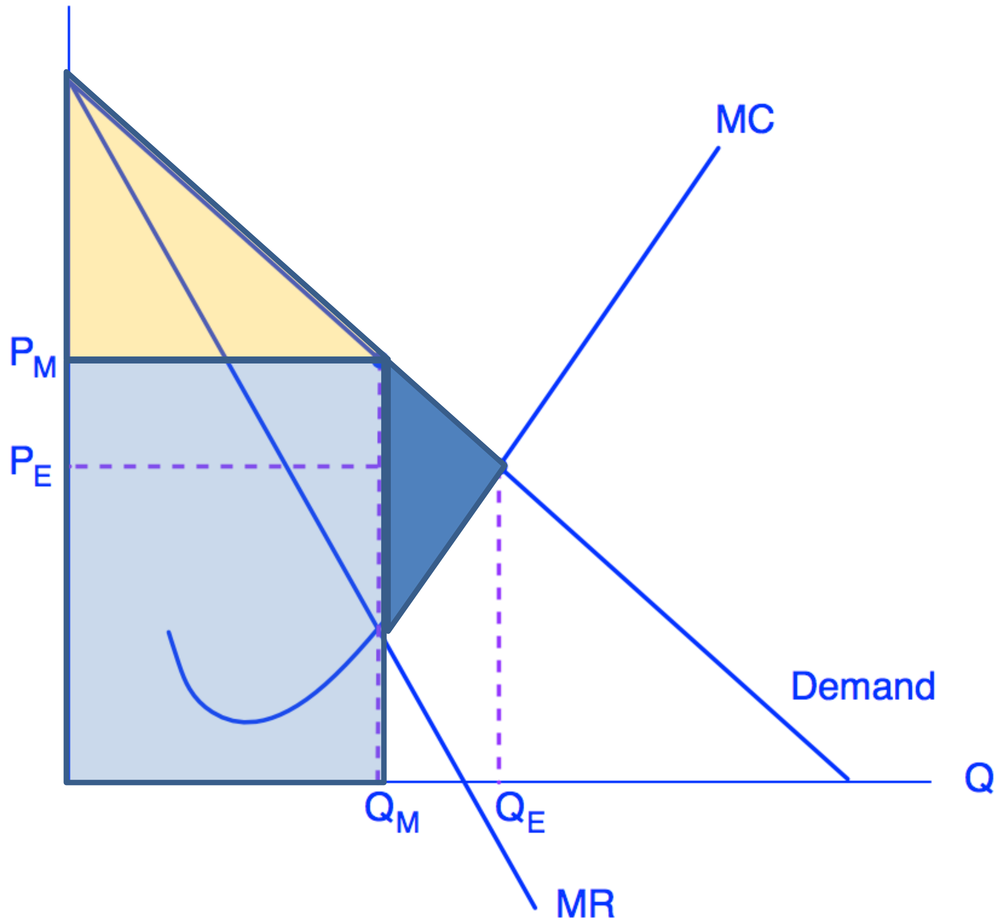
How the monopolist sets price and quantity (2)



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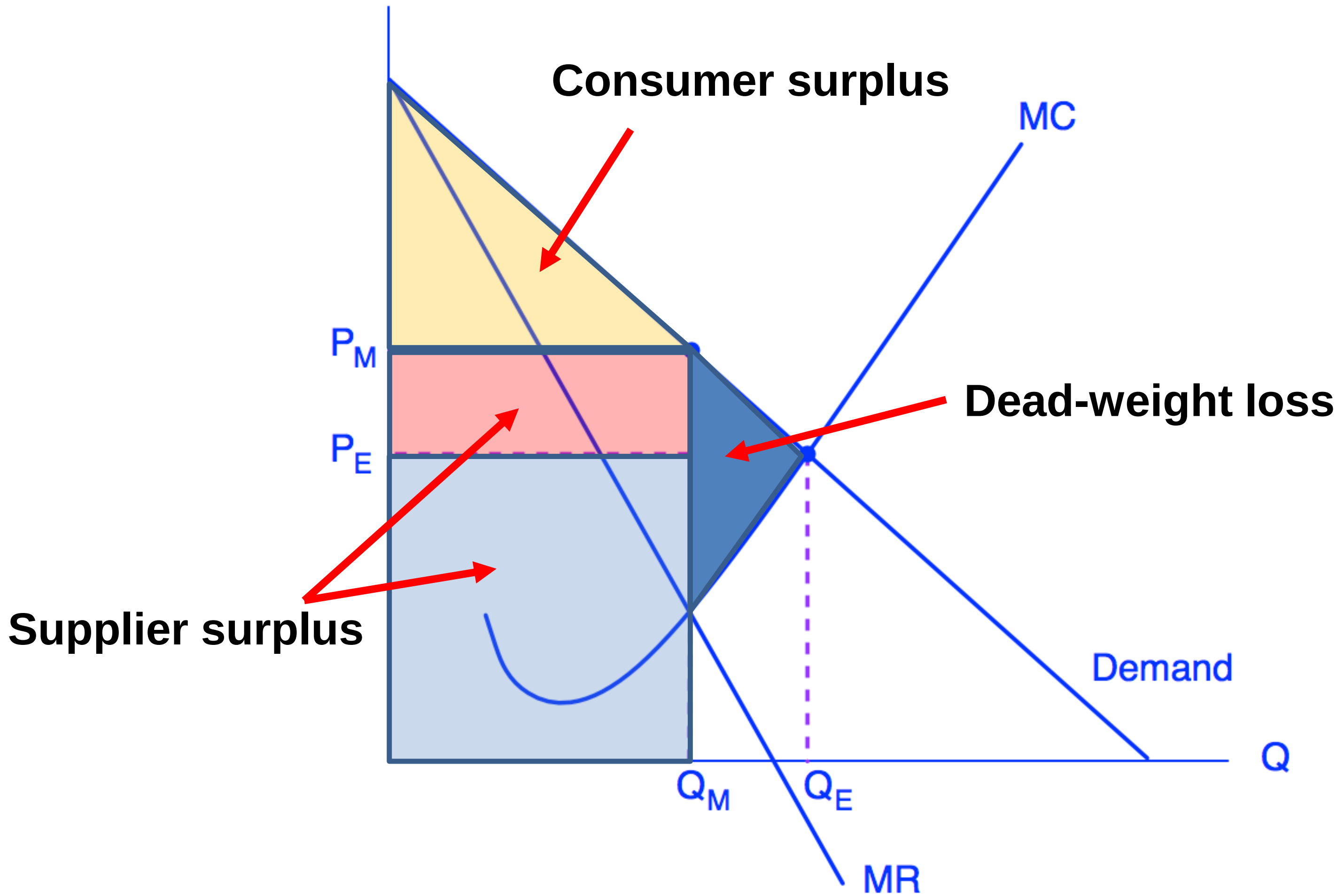
How the monopolist sets price and quantity (3)



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II. Hypothetical Monopolist Test / SSNIP-Test

Hypothetical Monopolist Test (HMT)

- Conceptual approach for the market definition as a first step for the assessment of a case
- First set out in 1982 in US Department of Justice Merger Guidelines
- Hypothetical Monopolist Test (HMT) seeks to find the smallest set of products for which a hypothetical monopolist could increase prices profitably:
  - Dead-weight loss
  - Suppliers' surplus to the disadvantage of consumers' surplus
  - Sub-optimal allocation

Source: Invest Europe

Hypothetical Monopolist Test: conceptional approach

- **SSNIP:** **S**mall **S**ignificant **N**on-transitory **I**ncrease in **P**rice
  - Approach to make the test applicable in practice
  - Identification of the smallest market within which a hypothetical monopolist could impose a Small Significant Non-transitory Increase in Price
  - Usually defined as a **price increase of 5-10%** for at least 12 months

SSNIP Test: nowadays widely accepted

- *Nestle / Perrier* EU Commission concluded that 'an appreciable non-transitory increase in the price of source waters' would not lead to a significant shift to soft drinks
- *Price / sales* figures for bottled water showed that prices for water had no influence on consumption of soft drinks
- Commission formally adopted SSNIP in 1997 Notice on Market Definition

SSNIP Test: how is it applied?

1) Start with smallest possible market and ask if a 5-10% price increase would be profitable
   - If not, there must be alternatives for consumers
2) Next closest substitute is added and the test is repeated
3) Process continues until the point is reached, where a hypothetical monopolist **could profitably impose a 5% price increase**
4) End of market definition

Example: merger between two companies

- Two companies, both are producing only butter
- Can butter be considered to be the relevant market for the assessment of the merger?

Price increase of 5-10% for **butter**: profitable? → YES → End of market definition: **butter = relevant market**

↓ NO

Price increase of 5-10% for **butter and margarine**: profitable? → YES → End of market definition: **butter and margarine = relevant market**

↓ NO

Price increase of 5-10% for **butter and margarine and oil**: profitable? → YES → End of market definition: **butter margarine and oil = relevant market**

Source: own display

III. Practical application of the SSNIP-Test

SSNIP-Test application: practical problems

- **Problems with practical application:**
  - Is meaningful data available (Elasticity of Demand)?
  - How to get data with justifiable effort? Customers may give misleading/wrongheaded answers
  - Price used as a starting point for the analysis is not necessarily the competitive price (Cellophane Fallacy)
  - Monopolist may not choose to increase prices, instead he could choose lowering the quality or the service of the product sold
  - What should be the closest substitute additionally included to the SSNIP Test?
  - Time consuming: market definition only one step, followed by competitive assessment

SSNIP-Test: Critical Elasticity of Demand

- Used to answer the question whether a 5-10% price increase would be profitable
- Issue: what is more profitable? Selling a smaller quantity at a higher price or selling a larger quantity at a lower price?
- This will depend on **how sensitive demand reacts** to changes in price, i.e. on the elasticity of demand
- Elasticity for demand, marginal revenue: theoretically available, rarely so in real life

SSNIP-Test: beware of the „Cellophane trap“

- Typical problem in abuse cases (EU Commission Notice on Market Definition)
- Origin: Cellophane case (plastic wrappings) from the early 1950s (*U.S. vs. E. I. du Pont*)
- **Cellophane paradoxon**: *A firm selling a product with few substitutes can increase the price of that product. As the price increases, more and more substitutes will be attracted. In technical economic terms, such a product has very low cross-price elasticity of demand.*
- Need to use competitive rather than prevailing prices
- But how can competitive prices be identified? What, if prices have already been increased due to market power?
- Not a problem in merger cases – absent prior collusion

Market definition for specific types of markets

- Specific types of markets:
  - Markets with price discrimination
  - Aftermarkets
  - Markets with differentiated products
  - Bidding markets
  - Two-sided markets
  - Dynamic and Innovative Markets

Relevant product market / relevant geographical market

- Same approach as for product market:
  - ➢ Question: What if a hypothetical monopolist would increase prices by 5-10%?
- Will customers purchase in other areas?
- Will suppliers from other areas be able and willing to sell in the area the SSNIP-Test is applied to?
  - ➢ If the answer is yes: geographic market needs to be wider
- After finalising the Hypothetical monopolist test, all substitutable products / areas are included to the geographical market

Demand and supply side substitution

- **Demand side substitution** – consumers‘ view
- **Supply side substitution:**
  - Alternatives must be known to consumers
  - Immediate reaction by companies necessary – (less than 1 year); switching distribution channels most likely
  - More important for the assessment of competitive effects

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