

Erling Eide

Law and Economics of the Environment

Day 1

Outline

Main topics

- I. Problems, ends, means, and principles
- II. Legislation-centered and administration-centered tools in a public policy perspective
- III. The role of private law and property law (and thus courts) in a public policy perspective

Course outline on web page

1. Economic analysis of law, its application, and its relation to this course

- 1.1 Definition
- 1.2 Fields of study
- 1.3 Analytical tools
- 1.4 Use of tools
- 1.5 Welfare theory: criteria for a good society
- 1.6 The idea behind this course and its relation to EAL

1.1 Definition of EAL

- Use of economics in law
- Main types of questions:
 - What are the effects of laws and regulations?
 - Theories employed:
 - (i) Theory of individual behavior (Rational decision makers)
 - (ii) Theories of markets (Changes in rights and duties cause shifts in supply and demand curves with possible consequences for efficiency and distribution)
 - Which laws and regulations do we want?
 - Theory employed:
 - Welfare theory and benefit-cost analysis (Which rules contribute to efficient use of resources and desired distribution?)
 - How do laws and regulations come about?

1.2 Fields of studies of L&E

- Law and Economics, Economic analysis of law, and Institutional economics
- Contract law
 - Examples:
 - What are the effects on efficiency (resource use) and distribution of contract surplus to parties
 - of various rules of breach of contract?
 - of repair or replacement of a defect product?
 - Which rules do we prefer?

1.2 Fields of studies of L&E (cont.)

- Property law
 - Examples
 - What are the effects on efficiency and distribution
 - of various bundles of property rights?
 - of commons?
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- Tort law
- Criminal law
- Administrative law: Zoning
- Lawyers' remuneration
- Renewable and non renewable resources

1.3 Tools of EAL

Microeconomics

Model of a single market (perfect competition)

Marginal costs, and supply

Marginal willingness to pay, and demand

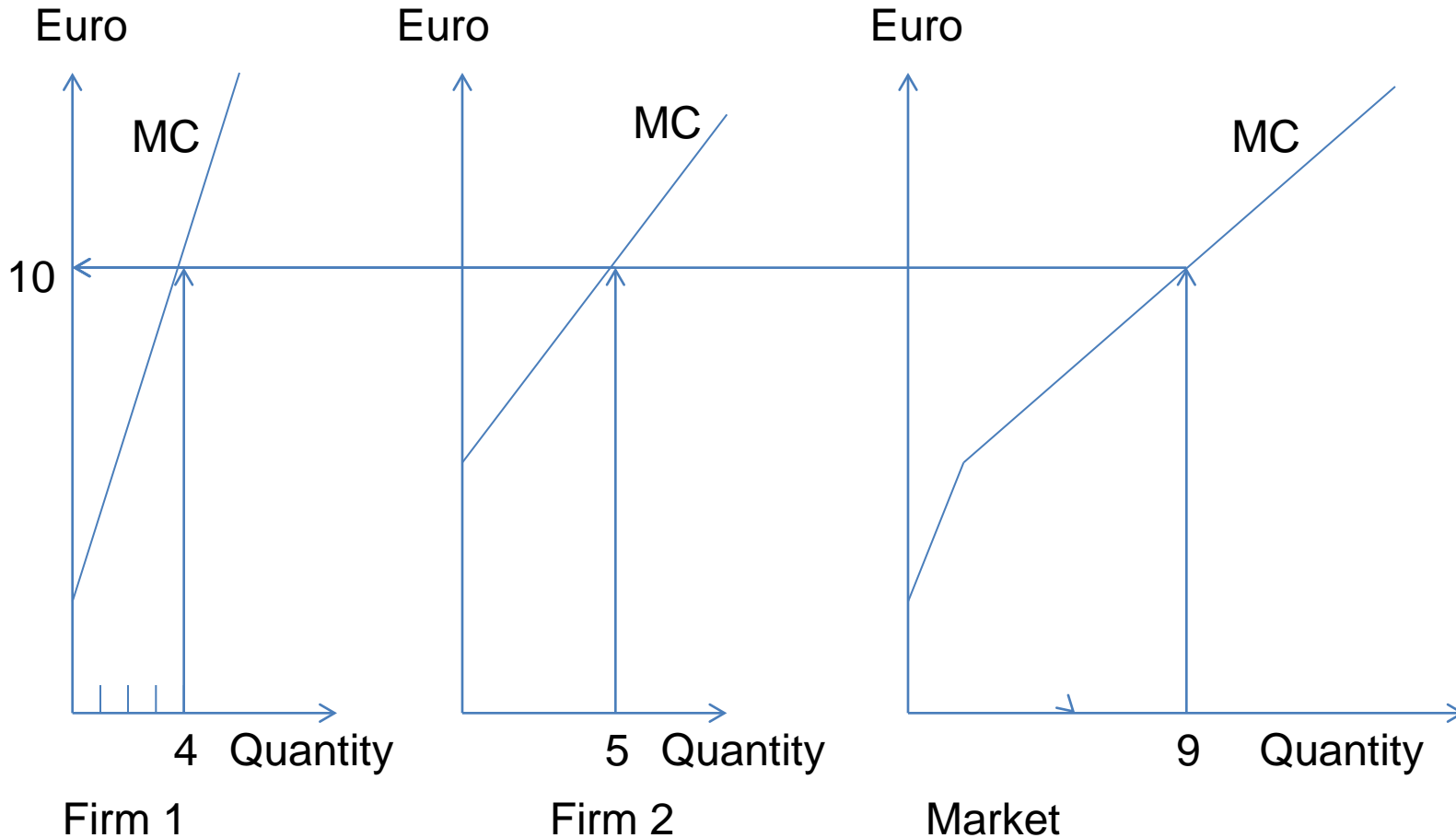
Market equilibrium

Model of economy (perfect competition)

Not discussed:

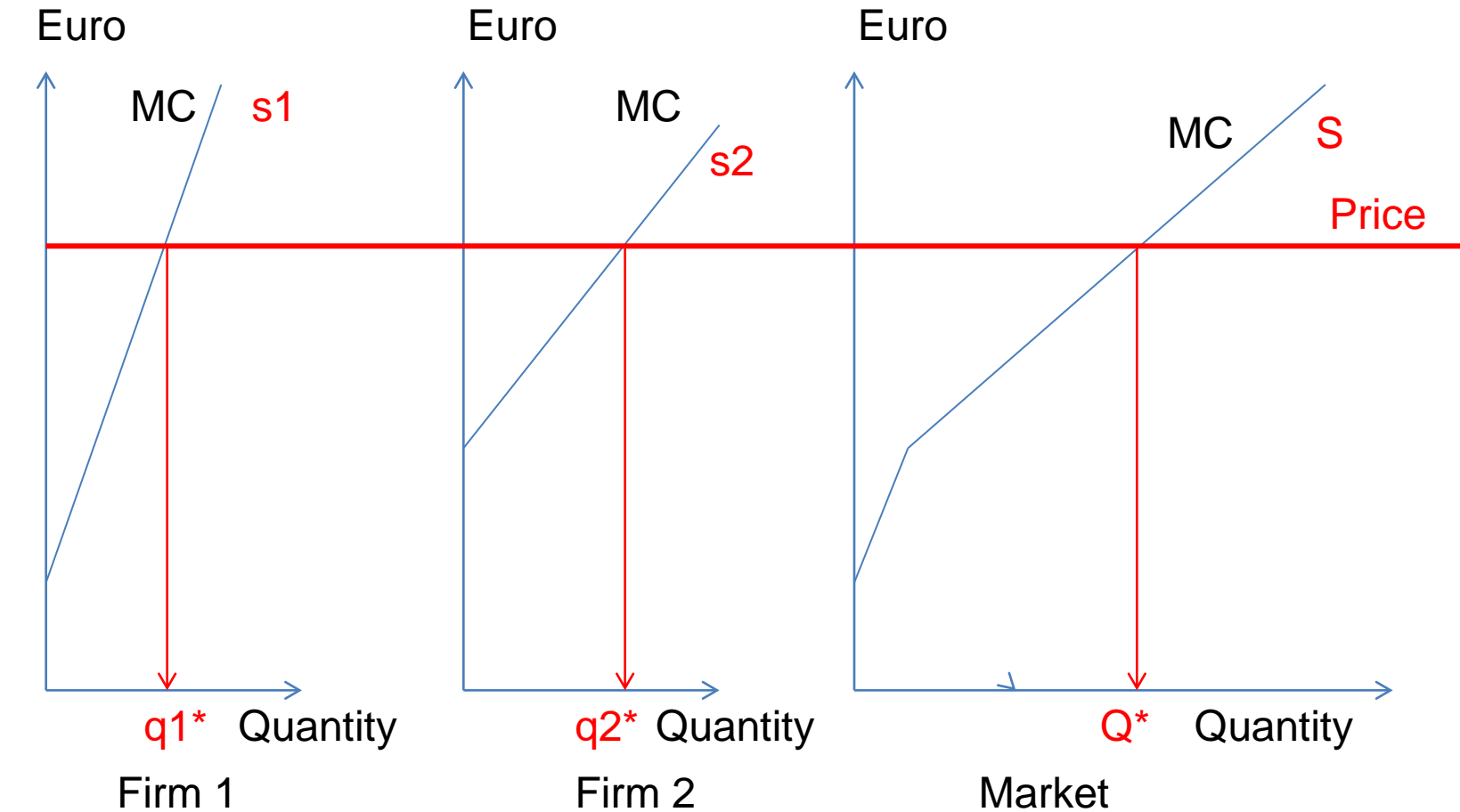
Monopoly, etc.

Marginal costs of production (simplified!)



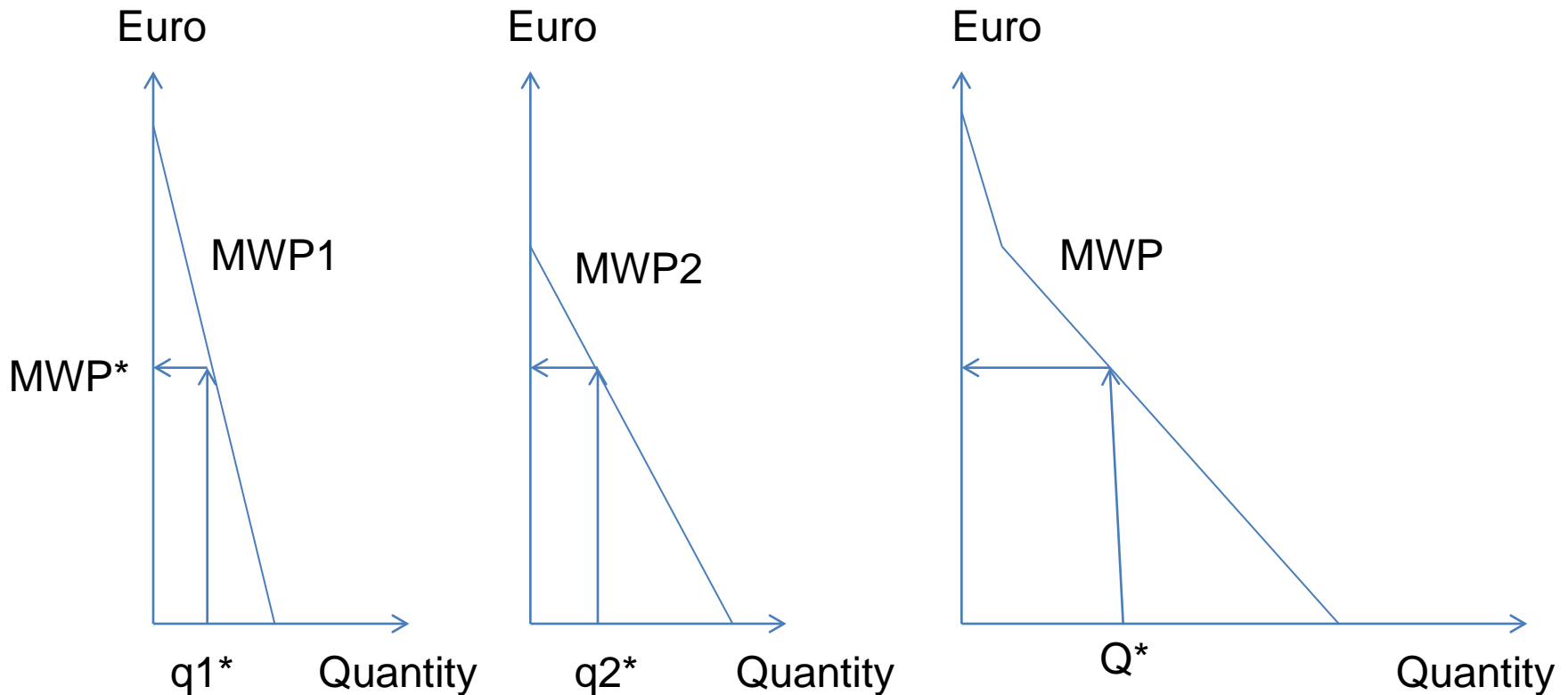
MC: cost of producing one more unit (at a given level of production)

Rational producers' choice



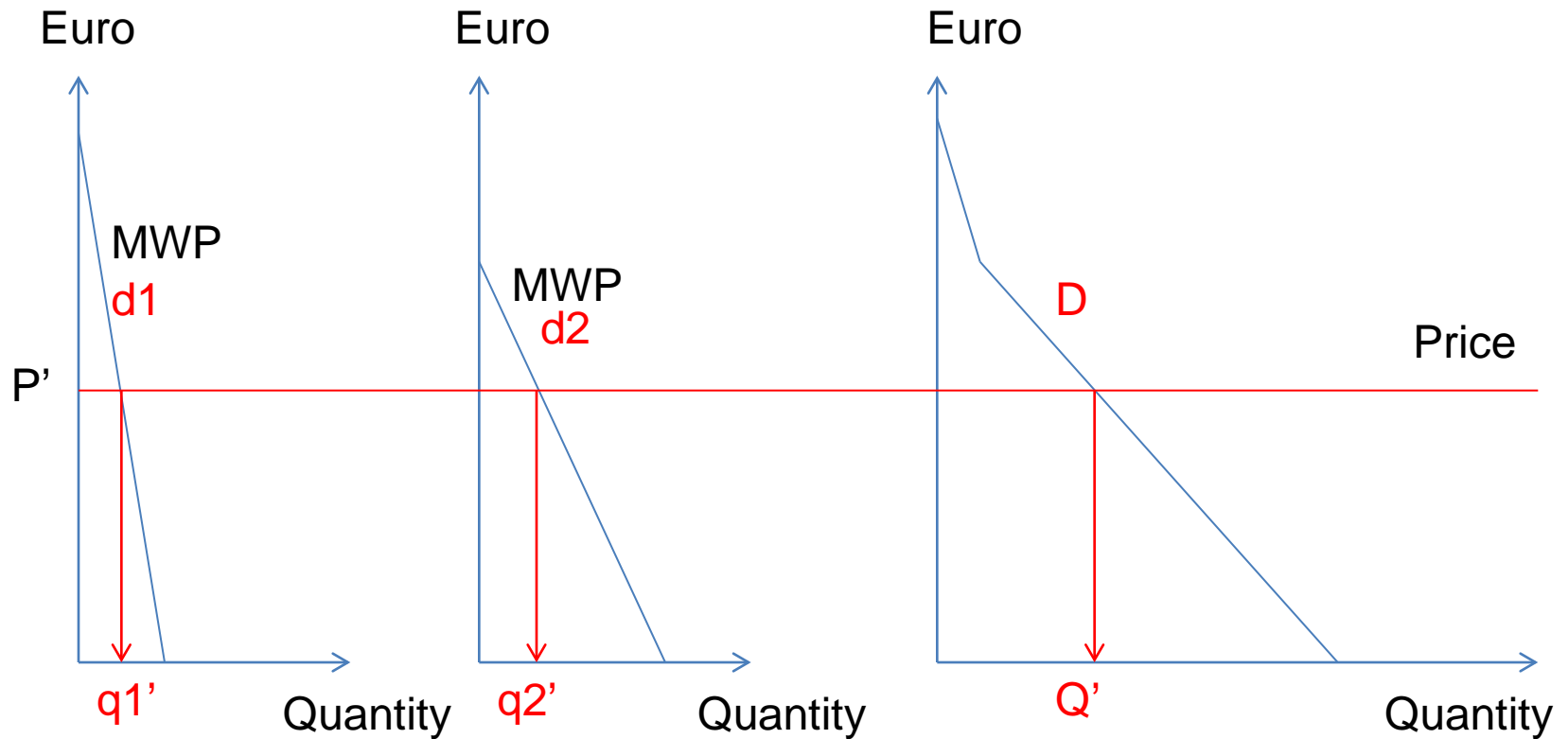
Optimal quantities given price

Consumers' valuation -- Marginal willingness to pay

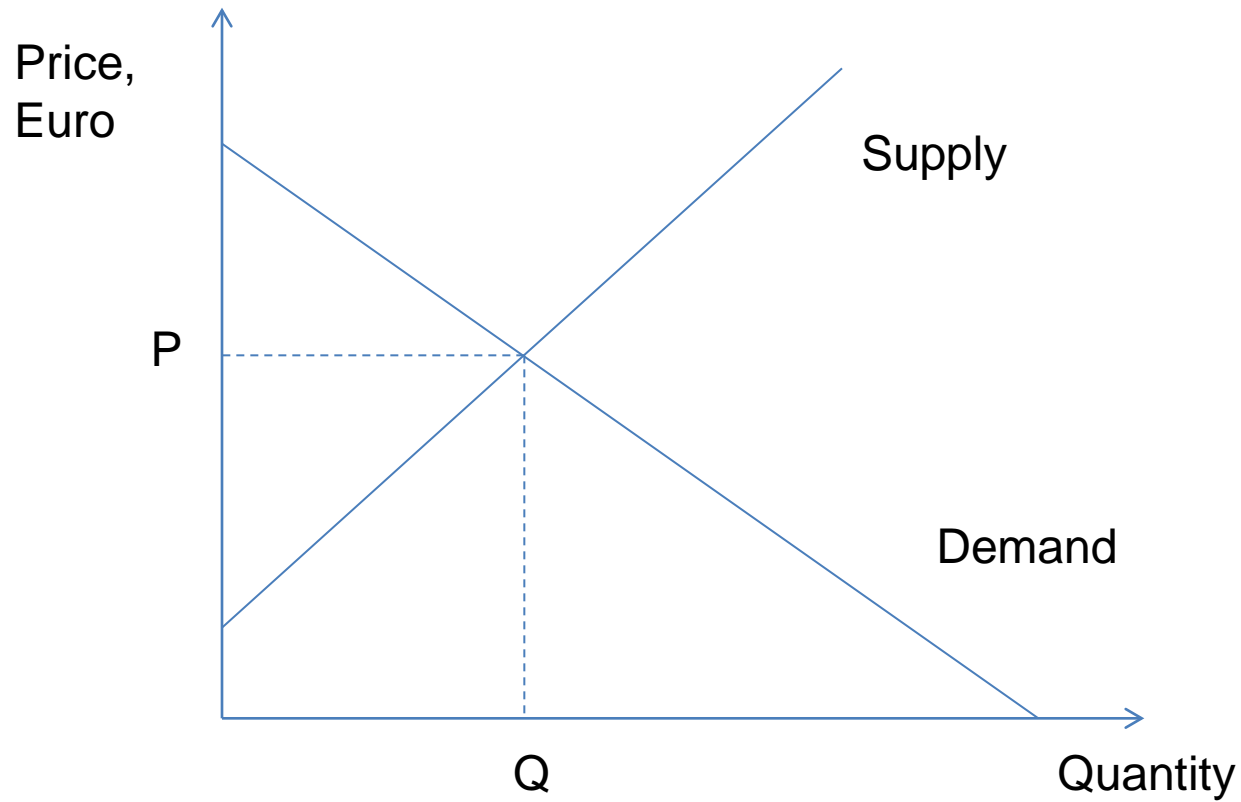


MWP: The maximum price a consumer will pay for an additional unit

Rational consumers' choice



Market equilibrium



1.4 Use of tools: Positive analyses: Effects of changes in rights and duties

- Changes in rights and duties cause changes in MWP and production costs and thereby shifts in demand and supply curves.
- Examples:
 - Taxes
 - Strict liabilities
 - Pollution restrictions
 - Replacement of defect products
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 - Use of model to describe and forecast effects on efficiency and distribution

Normative analyses

- What is good for society?
 - Two general criteria:
 - Pareto-efficiency: Nobody can be better off unless an other person becomes worse off
 - Kaldor-Hicks-efficiency: The sum of benefits and costs of a regulation must be positive (some might loose).
 - With reference to one market: Max surplus, equilibrium.
 - Criterion when goal (e.g. environmental standard) is fixed:
 - Minimization of costs

Welfare theory

First fundamental theorem:

Equilibrium of perfect competition is Pareto efficient

Second fundamental theorem:

Any Pareto efficient allocation of resources can be obtained by perfect competition (if income can be redistributed without costs)

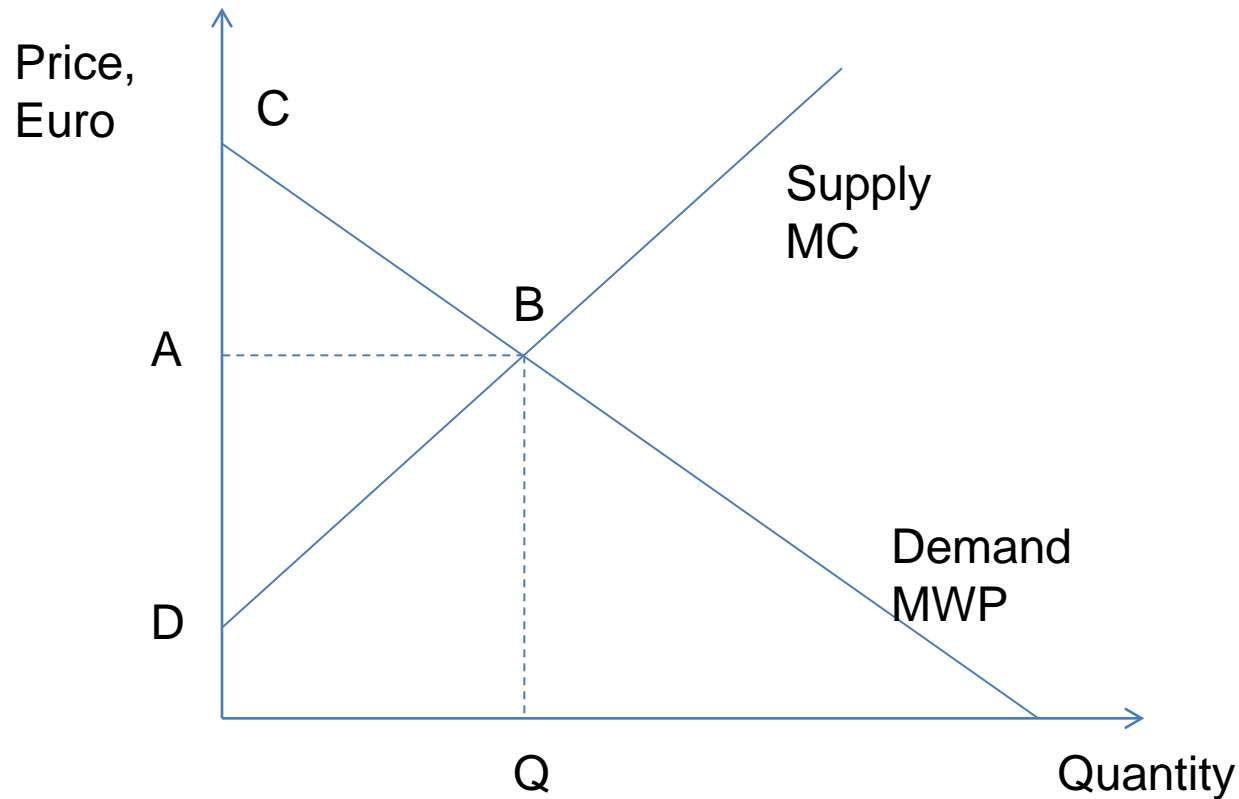
Question: Why not leave it at that?

Answer: Some goods and services are not or cannot be subject to supply and demand in a market

In Particular: Environmental goods and services

Costs not taken into account by decision makers

Measure of a market's contribution to welfare

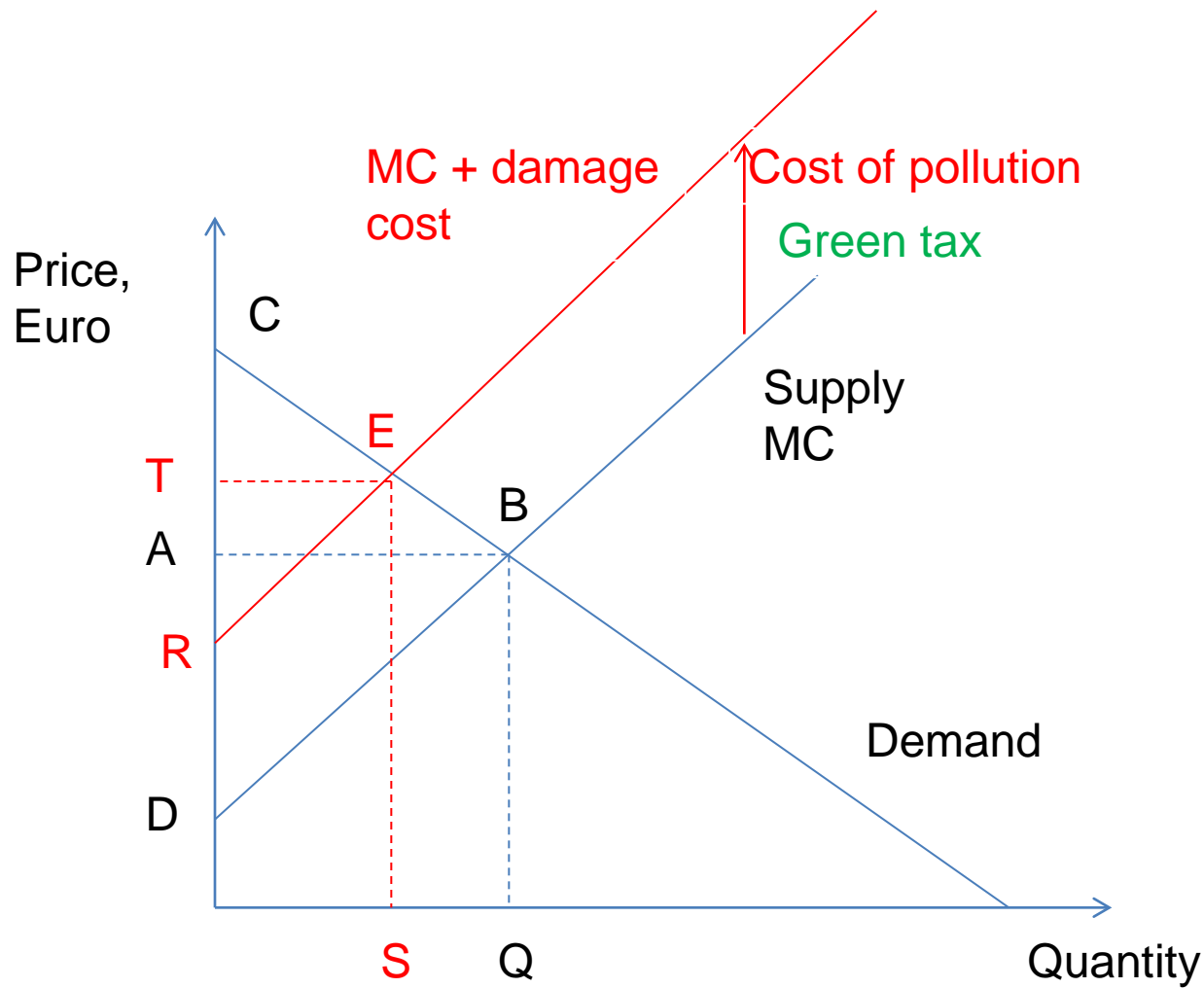


Area of ABC: Consumers' surplus (CS)

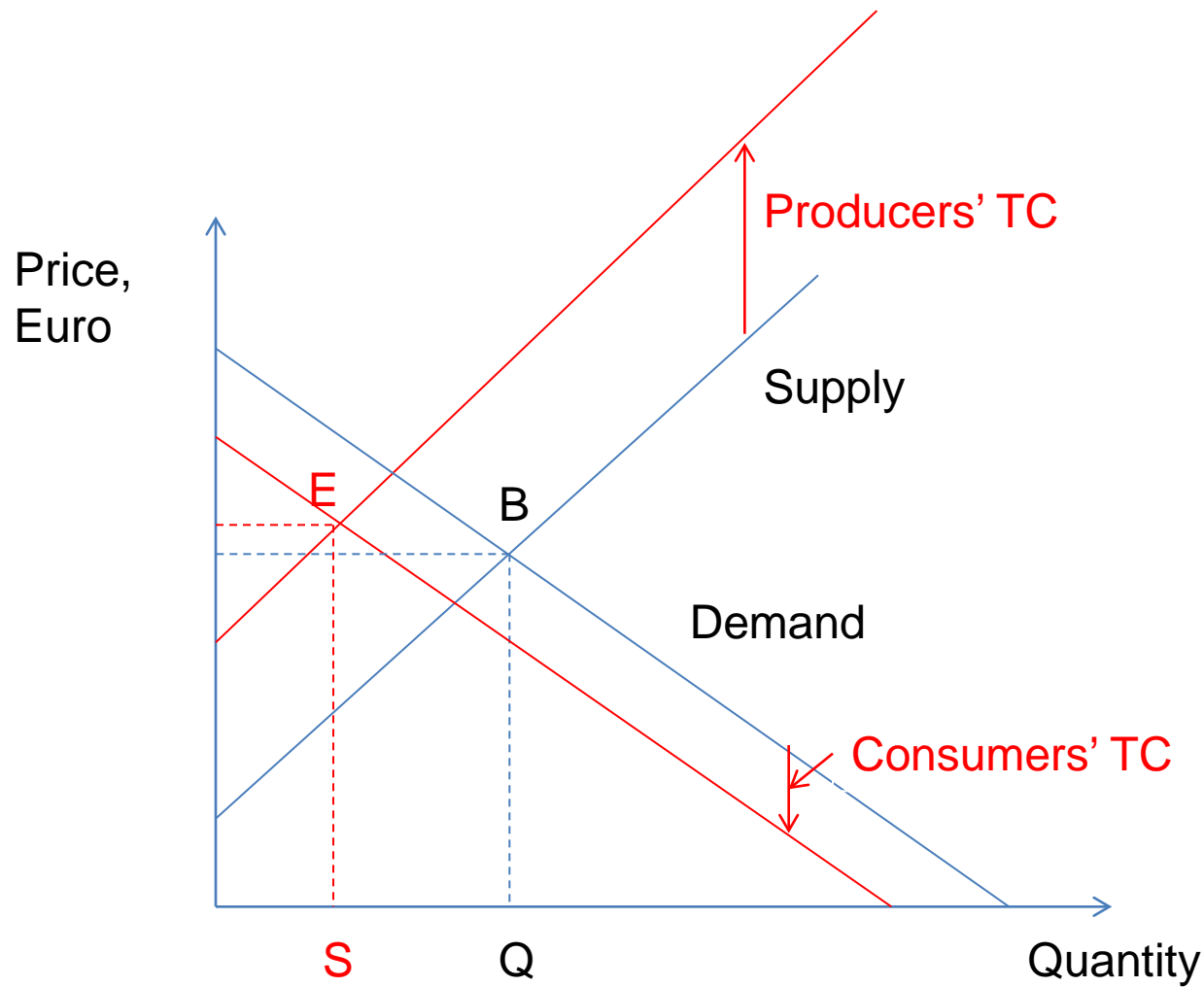
Area of DAB: Producers' surplus (PS)

Measure of the market's contribution to welfare: CS + PS

Costs of pollution, and a green tax



Transaction costs in a market



The effect of transaction costs (TC)

1.6 The idea behind this course and its relation to EAL

- Characteristic of L&E compared to (traditional) economics: Transaction costs (TC)!
- Without TC, (almost) no L&E.
- Coase (1960) criticised economists for not taking TC seriously. Modern L&E was born.
- TC explains lack of efficiency (narrowly defined).
- TC explains institutions (institutional economics)
- Descriptive: Effects of TC (example previous graph)
- Normative goal: reduction of TC!