

# 3. Economic instruments

## Economic instruments of policy

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### Summary

There are different policy based instruments that can affect markets in order to fulfilled objectives. The justification of this interventions is based on the role that different externalities play in the market development of these commodities. In the case of bioenergy, this is a fundamental topic that largely affects its implementation. There are different tools, from more aggressive approaches such as quotas and restrictions, to more subtle as promotion campaigns, green labeling or even research grants. Two commonly used instruments have been subsidies and taxes. Both act of the supply and demand curves, modifying the equilibrium points, and restricting or expanding the amount of the commodity in the market and their prices. This effect, however, is not equally distributed between the producer and the consumer, as it is related to the elasticity of the curves. The study of the elasticity will therefore help in assessing which agent, producer or consumer, obtains the main benefit (in case of subsidies) or carries the main burden (in case of taxes).

### Materials

#### 3.1. Supply and demand [lecture]

#### 3.2. Dynamic elasticity [lecture]

Lecture Slides [PDF] (previous years [PDF])

Readings:

Helby, P., Börjesson, P., Hansen, A. C., Roos, A., Rosenqvist, H., & Takeuchi, L. (2004). Market Development Problems for Sustainable Bio-energy Systems in Sweden:(The BIOMARK Project). Environmental and Energy Systems Studies, Lund University. [PDF]

Roos, A., Graham, R. L., Hektor, B., & Rakos, C. (1999). Critical factors to bioenergy implementation. *Biomass and Bioenergy*, 17(2), 113-126. [PDF]

### Concepts

- [Supply and demand](#)
- Effects of [taxes and subsidies](#) on prices
- Price elasticity on [supply and demand](#)

### Reflections

*What were the main policy instruments used in Energy Policy related to bioenergy?*

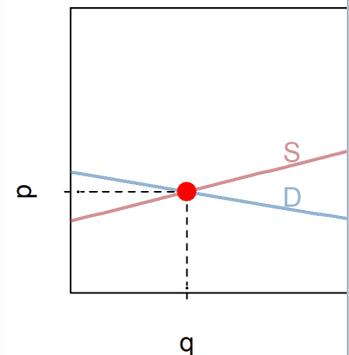
*What are the effects on the markets of taxes and subsidies and how they can be estimated?*

[These questions may help the students to focus and reflect on the topic contents. They do not require to be submitted as an assignment and are not to be evaluated.]

### Objectives

This session focuses on:

- To get familiar with basic economic concepts on supply and demand, elasticity, price, market...
- To get familiar with the main policy tools and their influence on markets and prices



The supply (S) and demand (D) curves meet at the equilibrium prize (p) and market size (q)

### Useful Links

Wikipedia has great economic definitions on the main concepts discussed

Investopedia has more economically framed concepts and videos