

5. Market behaviour

Biomass Markets: model behaviour

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Summary

Market economics follows certain rules concerning price, supply and demand. An exercise is proposed where most of the ideal rules for competition apply. The classroom becomes a closed market where a commodity (biomass) is traded. The participants follow the roles of suppliers (as forest owners), traders (following the supply chain) and consumers (as bioenergy plants). Forest owners and bioenergy plants have minimum amount of wood that need to exchange to keep their business running, and have different costs and minimum prices to operate. This information is only available to themselves, as compete with each other and with the many participants in the supply chains. The participants can agree whichever price to exchange biomass units as long as do not move from their respective positions, in order to include a spatial limitation in the trade. Finally, some participants act as policy markets, whose objective is to ensure that enough wood reaches to the bioenergy plants and that there are no disruptions in the market. Those can design and apply new rules, including changes in the location of participants, minimum prices, taxes and subsidies, etc... Each round takes 5 minutes, and only one new rule can be implemented every time. At the end, the success of the rules and the markets is assessed and conclusions discussed.

Materials

Exercise Slides [\[PDF\]](#)

NOTE: Due to the present situation due to the covid-19 pandemic, this part of the course could not take place.

Objectives

The session is based on an exercise, in order to:

- observe how markets work in a theoretical exercise
- understand the effects of regulations in the market behaviour
- understand the role of random events in market dynamics