Seminar 6. Walrasian Equilibrium in a Barter Economy

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1 Jehle & Reny 5.4

Derive the excess demand function $z(p)$ for the economy in Example 5.1. Verify that it satisfies Walras' law.

2 Jehle & Reny 5.5

In Example 5.1, calculate the consumers Walrasian equilibrium allocations and illustrate in an Edgeworth box. Sketch in the contract curve and identify the core.

3 Jehle & Reny 5.11

Consider a two-consumer, two-good exchange economy. Utility functions and endowments are

$$u^1(x_1,x_2) = (x_1x_2)^2 \quad and \quad e^1 = (18,4)$$
$$u^2(x_1,x_2) = ln(x_1) + 2ln(x_2) \quad and \quad e^2 = (3,6)$$

1. Characterise the set of Pareto-efficient allocations as completely as possible.
2. Characterise the core of this economy.
3. Find a Walrasian equilibrium and compute the WEA.
4. Verify that the WEA you found in part (c) is in the core.