

Choice with multiple alternatives – 5.2

Specification of the deterministic part

Michel Bierlaire

Practice quiz

Consider two variables involved in a choice model:

- c_{in} , the price of alternative i for individual n , and,
- I_n , the monthly income of individual n .

You are asked to propose various specifications for the deterministic part of the utility function of alternative i and decision-maker n including the price variable. It is important that the utility function is always continuous in c_{in} and I_n .

1. The impact of the price on the utility function is proportional to its value.
2. The marginal effect of price on the utility function varies with price.
3. The impact of the price on the utility function is proportional, but the factor of proportionality is different for prices below and above 25 CHF.
4. The impact of price on the utility function varies nonlinearly with income.