

Handout 5

diese Woche: 3. Aggregation

des Angebots und der Nachfrage, wann ist Nachfrage nur eine Fkt
des Gesamteinkommens und nicht der Einkommensverteilung,
identische und homothetische Präferenzen

4. Partielles (= in nur einem Markt) Gleichgewicht

Gleichgewichtspreis, Stabilität und einige Anwendungen:
dead weight loss der Besteuerung, Importzoll

zu lesen: zu Aggregation: Deaton & Muellbauer, Kap. 6.1
zu partielles Gleichgewicht read Intermediate Varian Kap. 16

Übungsaufgaben:

- (Wiederholung) Let a consumer's preferences for all consumption bundles (x, y) satisfying $x > a$ and $y > b$ be represented by the utility function $U(x, y) = \alpha \ln(x - a) + \beta \ln(y - b)$ where $\alpha, a, \beta,$ and b are all positive parameters with $\alpha + \beta = 1$.
 - Given the budget constraint $I = px + qy$, find the utility maximizing demands.
 - Show that the expenditures px and qy are linear functions in prices and income (that's why this is called the linear expenditure system). Interpret the parameters a and b .
 - Show that these preferences are homothetic only if $a = b = 0$.
Now, let $a = b = 0$.
 - Find the indirect utility function and the expenditure function.
 - Find the Hicksian (= compensated) demands using Shephard's lemma, through expenditure minimization, and by using the relationship between Marshallian (= uncompensated) and Hicksian demands (all three ways please).
- Consider our (by now) familiar utility function $U(x,y) = x - 1/y$. Suppose everyone had these preferences. Do we have an aggregate demand function that depends solely on aggregate income?
- Let aggregate demand for good i be of the form $D(p_i, \dots) = 10 - p_i$ and aggregate supply of the form $S(p_i, \dots) = 3 p_i$. Calculate the equilibrium price and quantity. What could be the reasons behind shifts in these demand and supply curves?
- In a partial equilibrium setting, discuss the welfare effects of a tax when demand is relatively elastic and supply relatively inelastic and vice versa. Who really pays the tax - the elastic or inelastic side of the market? What about aggregate/social welfare?
- The domestic aggregate demand and supply curves for a commodity are given by $D = \alpha - \beta P$ and $S = \gamma P$ respectively, where $\alpha, \beta,$ and γ are positive constants.
 - Find the domestic market equilibrium (price and quantity) if neither imports nor exports are allowed.
 - Suppose there is free trade in this commodity at a fixed world price of P_w . Comparing P_w to the domestic equilibrium price, when will there be exports, imports, no trade? In each case, find the new equilibrium as well as the changes in domestic consumer and producer surplus that result from free trade.