Households as Consumers

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Utility function:

- C : consumption of services
- m/p real money balances
  - m nominal money balance
  - p price level
  - → real wealth
  - → wealth in the utility function

Justification for (real) wealth in the utility

- Introspection: people enjoy accumulating wealth, in particular b/c wealth offers social status / power
- Neuroscientific evidence that wealth itself provides utility, independent of consumption it can buy [Camerer, Loewenstein, Prelec, 2005]

Household's utility function

$$u\left(c, \frac{m}{p}\right) = \frac{X}{1+X} \cdot c^{\frac{\varepsilon-1}{\varepsilon}} + \frac{1}{1+X}\left(\frac{m}{p}\right)^{\frac{\varepsilon-1}{\varepsilon}}$$

$X > 0$ taste for services relative to wealth
high X → services are more valued

$\varepsilon > 1$: elasticity of substitution b/w consumption & real money balances

Budget constraint

Expenditure

- m to purchase money (at price of 1)
- $c \times [1 + \tau(x)] \times p$ to purchase services

matching wedge = # matching services for 1 service consumed

price of 1 service

Income:

- $\nu > 0$ endowment of money
- $k \times f(x) \times p$ income from selling services

- p = price of one service
- $k \times f(x)$ = # services sold
- $c \times [1 + \tau(x)]$ = # services purchased

Budget constraint income = expenditure

$$\nu + p \cdot f(x)\, k = m + p \cdot [1 + \tau(x)]\, c$$

selling probability
Walrasian world: $f(x) = 1$
matching world: $f(x) < 1$

matching wedge
Walrasian world: $\tau(x) = 0$
matching world: $\tau(x) > 0$