

Measuring Conspicuous Consumption: a cross-country comparison

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Motivation

- Signaling with consumption
 - Why do people buy expensive watches?
 - This paper: to signal well-being.
- Well-being (wealth) is unobservable
 - In this paper, your social circle judges your well-being based on your consumption of a single good.
 - Example: iPad in one social circle, brand-name clothing in another, vacations to exotic locales in another.
- Why do people care about social beliefs?
 - Maybe they just do—ex: post-mortem donations.
 - Maybe social beliefs are a stepping stone.
 - If first, this is a structural model. If second, this is a reduced form model.

Preview of Results

- Estimation of utility parameters

- The utility function will loosely look like this:

$$(1 - \alpha)u(C) + \alpha E(u|C)$$

The first term is fundamental utility, and the second is social belief.

- Americans care about utils of social belief about 1/6 as much as they care about utils of consumption ($\alpha = .1458$).
 - Chinese care about utils of social belief about 1/4 as much as they care about utils of consumption ($\alpha = .2$).
- Taxes on visible goods
 - I propose a tax on visible goods which dramatically increases social welfare.
 - Median welfare increase is XX%.
 - Almost pareto efficient - only XX% harmed.

Recent Related literature

- Theory of consumption signaling:
 - Ireland(1994,JPubEcon),
 - Heffetz(2007,mimeo)
- Empirical studies of consumption signaling:
 - Charles, Hurst, and Roussanov(2009,QJE),
 - Heffetz(2012,REStat)
- Relative consumption and social status
 - Luttmer(2004,mimeo),
 - Arrow and Dasgupta(2009,TheEconJrnl),
 - Clark, Frijters, and Shield(2008,JEL)

Environment

- Wealth is exogenous.
- There are I goods, and no saving.
- The price vector P is exogenous.
- Consumers choose a consumption vector C .
- Preferences differ across consumers, but are known within the social circle.
- Within each social circle, only expenditures on a single good category are observable.

Preferences

- Social beliefs are described by the I functions $g_i : c_i, \Theta \rightarrow C$
- Following Ireland(1994) and Heffetz(2007), utility has the following form:

$$U(C, \theta, i) = (1 - \alpha)u(C, \theta) + \alpha u(g_i(c_i, \theta), \theta)$$

- u is called the fundamental utility function.
- θ is the preference heterogeneity.

Equilibrium concept

- An equilibrium is a set of I belief functions $\{g_i\}$ and a set of I consumption functions $\{C^i\}$ such that:
 - ① For all i, θ , $C^i(\theta)$ solves the consumer's problem given g_i .
 - ② For all i, θ , $g_i(c_i^i(\theta), \theta) = C^i(\theta)$
- This is a standard “separating equilibrium” ala Spence.

Solving the Model

- Substituting optimal unobserved expenditures into the individual's problem, with some manipulation we can write:

$$U(C, \theta) = \theta_v \ln C_v + (1 - \alpha) \hat{\theta} \ln(W - P_v C_v) + \alpha \hat{\theta} \ln(h_v(C_v, \theta)) + \psi$$

$\hat{\theta}$ and ψ are known functions of θ . h_v is belief about $W - P_v C_v$.

- The FOC is then:

$$h'_v(C_v, \theta) = \frac{1}{\alpha} \left((1 - \alpha) P_v - \frac{\theta_v}{\hat{\theta}} \frac{h(C_v)}{C_v} \right)$$

- The solution to this differential equation is:

$$h(C_v) = \frac{\hat{\theta}(1 - \alpha)}{\theta_v + \alpha \hat{\theta}} P_v C_v + K C_v^{\frac{\theta_v}{\alpha \hat{\theta}}}$$

- K is pinned down by lowest possible wealth level.

Assumptions

- Primary goal is to get α , the importance of signaling in utility.
- Assume that Cobb-Douglas parameters θ are distributed independent log-normal with a mass-point at zero.
- The mass-point is necessary because data is quite sparse.
- The log-normal assumption is due to shape of the data.

The End