

NTA: Public Consumption

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1

Review

$$\underbrace{C(a) - Y^l(a)}_{\text{Lifecycle Deficit}} =$$

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$$\underbrace{C(a) - Y^l(a)}_{\text{Lifecycle Deficit}} = \underbrace{Y^a(a) - S(a)}_{\text{Asset-based Reallocations}} + \underbrace{\tau^+(a) - \tau^-(a)}_{\text{Net Transfers}}$$

Age Reallocations

Review

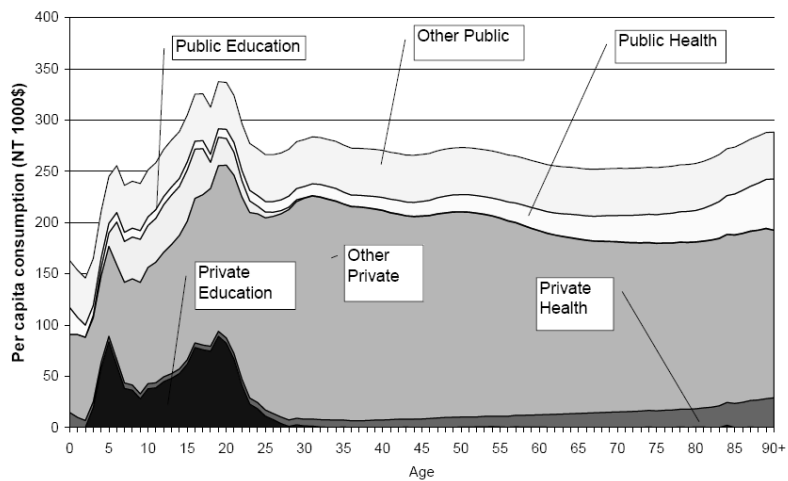
- Labor Income = compensation of employee + (2/3) of self-employment income
- Asset Income = (1/3) of self-employment income + imputed rent of owner occupied housing + property income + etc.

Public vs Private

What is public consumption?

What is private consumption?

Figure 2. Per Capita Consumption, Private and Public by Sector, Taiwan, 1998



Source: Lee, Lee, and Mason (2008).

• **Public Consumption**

Public Education

Public Health

Others

Public Consumption

- Public consumption includes goods and services that are consumed directly by individuals, e.g., health care and education.
- Public consumption also includes the value of all other government consumption such as spending on public safety, foreign diplomacy, public infrastructure, etc.

Public Education Consumption

- 1. Formal education consumption by age :**
estimate by calculating unit cost per student and per education level.

$E_g^f(a) = \sum e_i(a)c_i$
sum up the unit cost per student per level c_i weighted by the number of students by age in each level $e_i(a)$,

- 2. Informal education consumption by age:**
estimate by dividing total public informal education consumption by total population by age.

9

Public Health Consumption

- 1. Health care purchased by individuals and reimbursed through public programs: captured in household surveys.**

e.g. In Taiwan, the shape of the age profile of consumption financed through National Health Insurance NHI is estimated using the variable "benefit income of NHI" reported in the Family Income and Expenditure Survey

- 2. Health care provided directly to individuals by government clinics: allocate using administrative records.** *e.g., patient information; information about the kinds of health care services being provided (child and maternal health, etc.). Note that health care costs associated with pregnancy and birth are assigned to the mother*

e.g. Age profiles of publicly provided or financed health care in the US (Medicare, Medicaid, and other public programs) are based on age estimates of the U.S. National Health Accounts for 1999 (Keehan, Lazenby, Zezza et al. 2004).

- 3. Collective health services: allocate on a per capita basis.**

10

Other Public Consumption

- Other public consumption: equally to all members
- How? Other public consumption divide of population by age

11

Aggregate Controls

- Adjust the aggregate profile and the per capita profile to match a control total taken from NIPA or some other source.
 - Public consumption: general government final consumption expenditure

12

Some Adjustments are Needed

- In NIPA, prices are market prices; in NTA, prices are basic prices net of indirect taxes
- In NIPA, private health consumption reimbursed through public health insurance programs (Medicare, NHI) are private health consumption; in NTA it is reclassified as public consumption.