

Demographic Dividends and National Transfer Accounts

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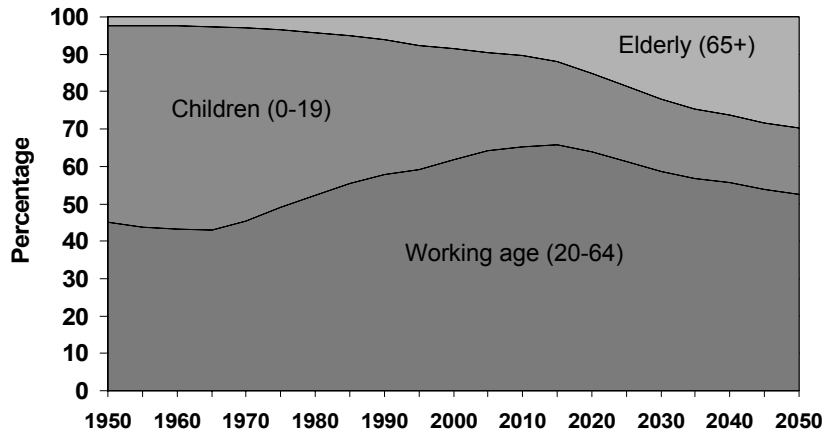
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Demographic transition leads to two important changes in age structure

- ▶ Working age population
 - In recent decades, the share of the working age population has been increasing.
 - Transitory phenomenon: In the future, the share of the working age population will decline.
- ▶ Dependent populations
 - Share of children is declining;
 - Share of elderly is increasing.

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Population Age Structure Taiwan, 1950-2050



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Two Demographic Dividends

► First Dividend

- Per capita income rises (and falls) with the share of the population in working ages.
- Favorable effects on economic growth in many countries in Asia and elsewhere.
- However, first dividend will soon turn negative.

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Two Demographic Dividends

▶ Second Dividend

- Increase in the population at old ages will lead to greater wealth.
- Two possible outcomes:
 - ▶ More capital and higher wages
 - ▶ Foreign investment
- Higher standards of living in the domestic and the foreign economy.

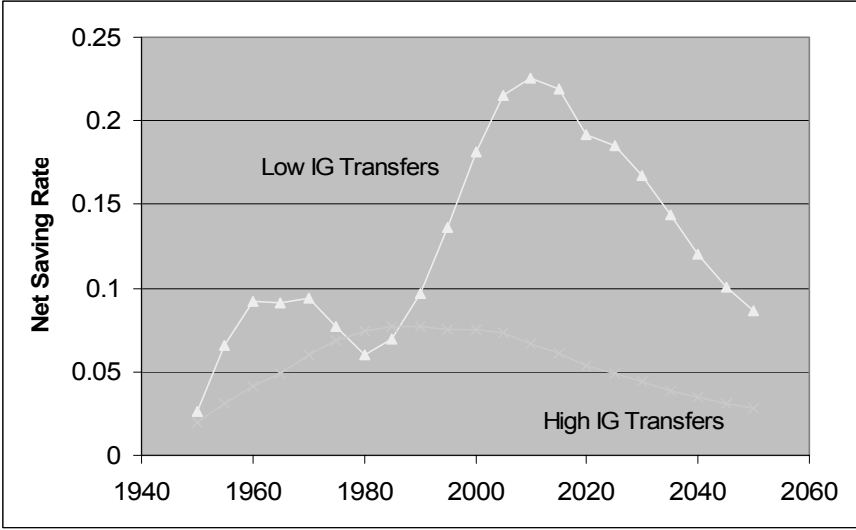
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Illustrative Simulations

- ▶ ASEAN age structure, 1950-2050. Source: UN Population Prospects 2006.
- ▶ Economic assumptions based on estimates from the National Transfer Account project.
- ▶ Details of simulation model available on the NTA website.

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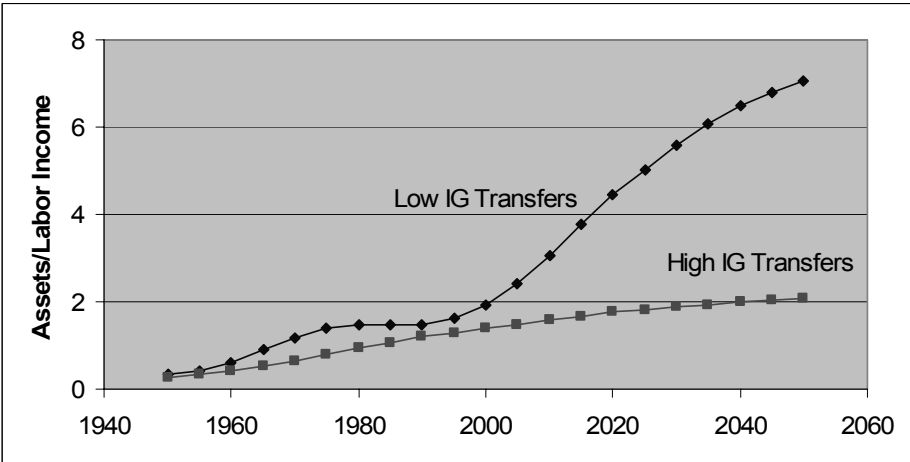
Net Saving Rate, ASEAN



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Source: Mason, Lee, and Lee 2007.

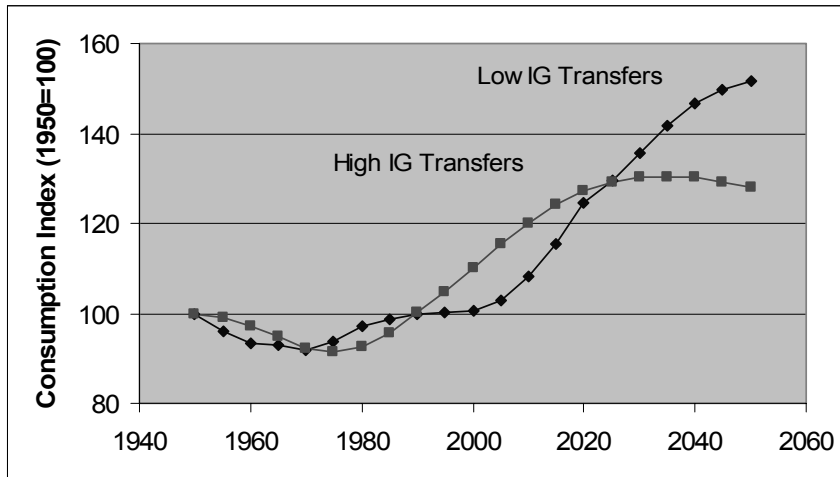
ASEAN, Assets/Labor Income



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Source: Mason, Lee, and Lee 2007.

ASEAN, Effect of Age Structure on Consumption



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Source: Mason, Lee, and Lee 2007.

Effect of age structure depends on . . .

- ▶ Economic lifecycle
 - Age profile of labor productivity
 - Age profile of consumption
- ▶ Economic support system
 - Public transfers
 - Familial transfers
 - Assets

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Objective of the National Transfer Account (NTA) Project

- ▶ Develop and apply a comprehensive system for measuring economic flows across age groups in a manner consistent with the System of National Accounts
- ▶ Analyze the interplay between age, policy, and macroeconomic performance
 - How do economic flows vary with age and why?
 - How will changes in age structure affect our economies?
 - What policies should be pursued in light of these findings?
 - ▶ Economic lifecycle
 - ▶ Transfers, saving, and investment
 - ▶ Age structure: fertility and immigration.

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Organization of the project

- ▶ East-West Center and CEDA, UC-Berkeley
- ▶ Nihon University Population Research Institute, Asia Regional Office
- ▶ Funding
 - NIA
 - UNFPA
 - IDRC
 - MacArthur Foundation
 - Others
- ▶ www.ntaccounts.org

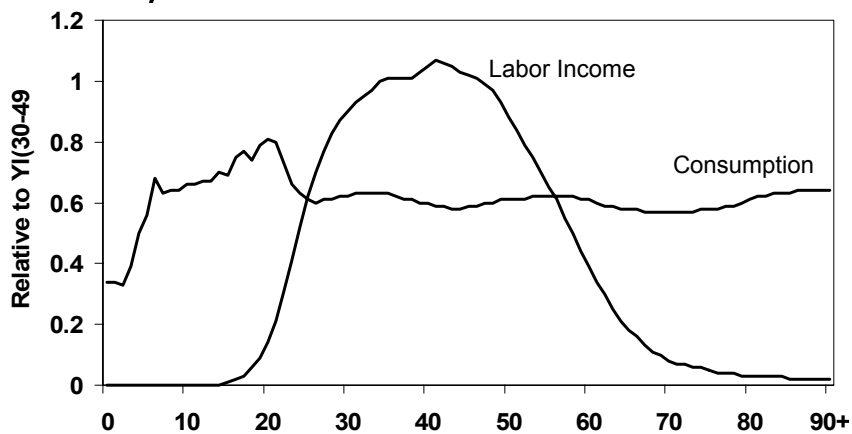
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Research Teams in 23 Countries



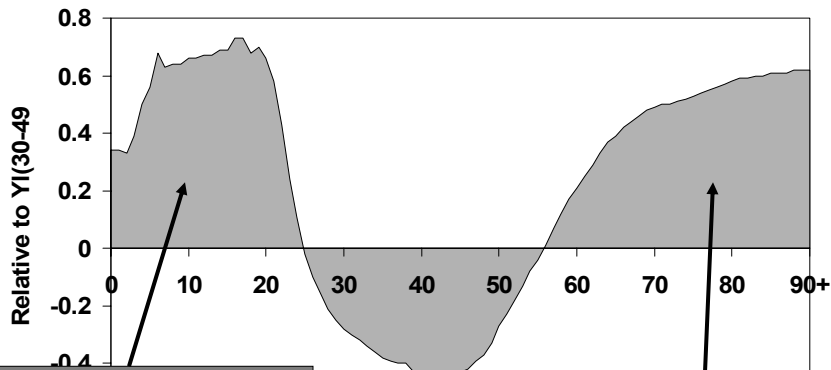
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Per Capita Economic Lifecycle Taiwan, 2003



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Per Capita Lifecycle Deficit (C-YI) Taiwan, 2003



Total cost (LCD) of raising child from birth to age 25 is 14.0 years of labor by a prime-age adult.

Total cost (LCD) of supporting elderly surviving to age 90 is 15.9 years of prime-age adult labor.

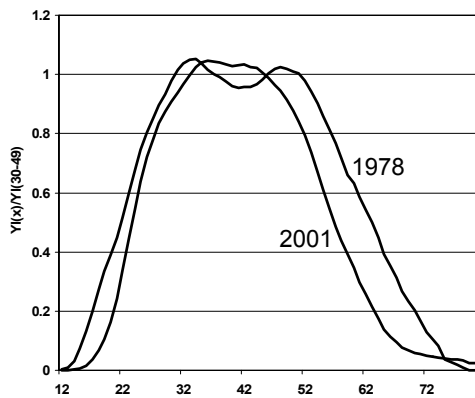
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Issue 1. How does the economic lifecycle vary and why?

- ▶ Economic factors, e.g., income, economic structure, and technology.
- ▶ Cultural and institutional factors
- ▶ Demographic factors
 - Quantity-quality tradeoff
 - Age structure and political power
- ▶ Policy
 - Education
 - Retirement
 - Pensions
 - Health care

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Age Profile of Labor Income, Taiwan

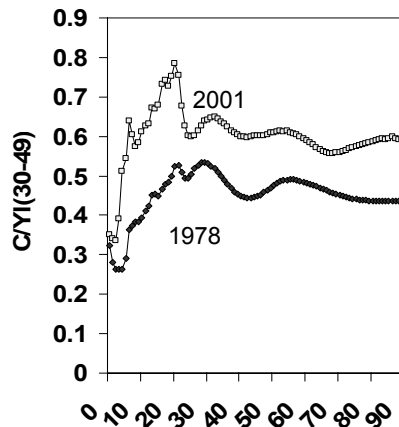


- ▶ In Taiwan, earning span is being "squeezed".
- ▶ Between 1978 and 2001 labor income at age 21 declined from 45% to 24% of an adult 30-49.
- ▶ Labor income at age 60 declined from 63% to 35% of an adult 30-49.

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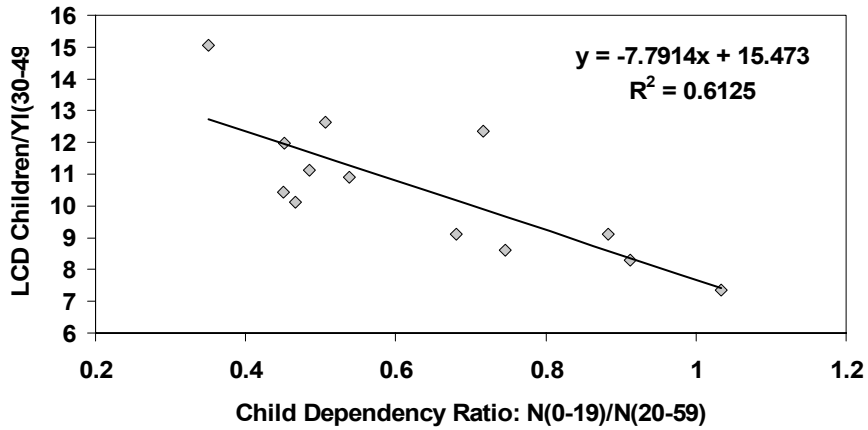
Age-profile of Consumption, Taiwan

- ▶ Consumption increased relative to labor income by about 1% per year at most ages.
- ▶ Much more rapid increase in consumption by children.
- ▶ Cause is growth in spending on education.



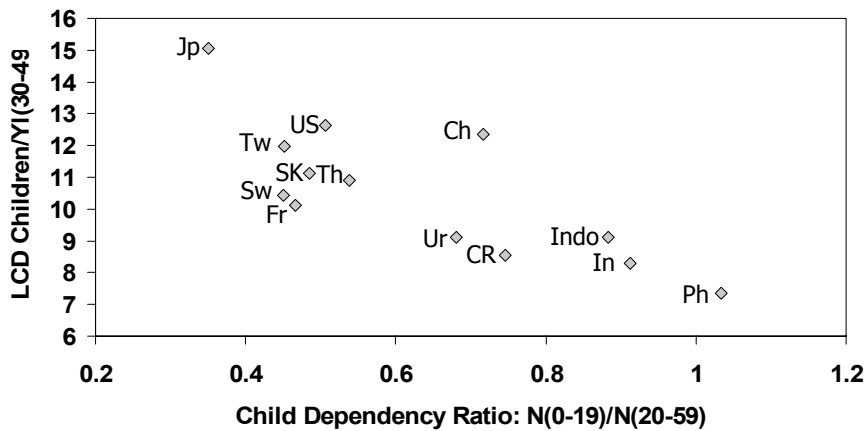
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Tradeoff: Spending per Child and Number of Children, 13 Countries



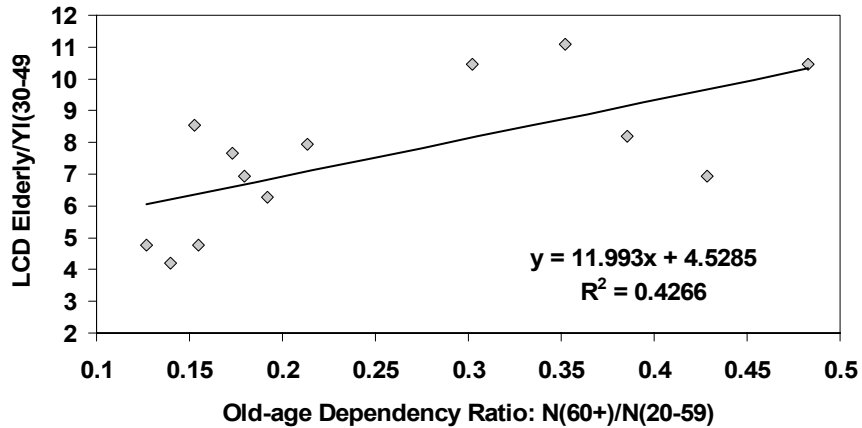
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Tradeoff: Spending per Child and Number of Children, 13 Countries



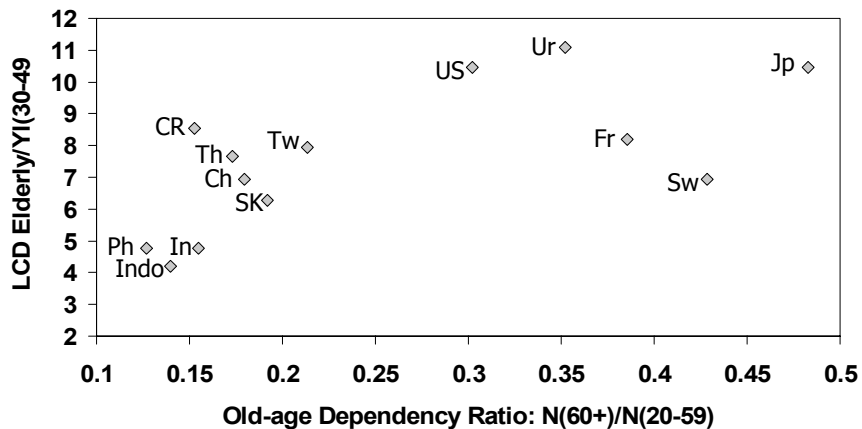
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Tradeoff: Spending per Elderly and Number of Elderly, 13 Countries



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Tradeoff: Spending per Elderly and Number of Elderly, 13 Countries



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Summary

- ▶ Changes in the economic lifecycle may be reinforcing the effects of changes in the dependency ratio.
 - Earnings by children and the elderly are declining.
 - Spending per child is rising.
 - Spending per elderly is rising.
- ▶ “Costs” of children may be declining more slowly than the number of children;
- ▶ “Costs” of the elderly may be increasing more rapidly than the number of elderly.

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Issue 2: How do the systems governing inter-age economic flows vary and why?

- ▶ Flows to children and the elderly are both important.
- ▶ Transfers dominate flows to children but the relative importance of the state and the family vary from country to country.
- ▶ The elderly rely on public and familial transfers and asset-based flows – income from assets and dis-saving.
- ▶ The systems for the elderly vary among countries and are changing substantially over time
 - Public policy (pension and health care reform).
 - Role of the family – decline in extended family.
 - Development of financial sector.

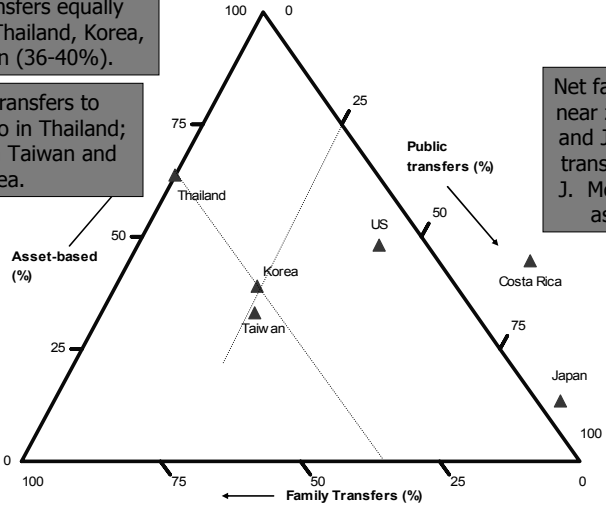
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Old-age Reallocation System, Selected Countries.

Familial transfers equally important in Thailand, Korea, and Taiwan (36-40%).

Net public transfers to elderly are zero in Thailand; about 25% in Taiwan and Korea.

Net familial transfers near zero in US, CR, and J. Large public transfers in CR and J. More reliance on assets in US.

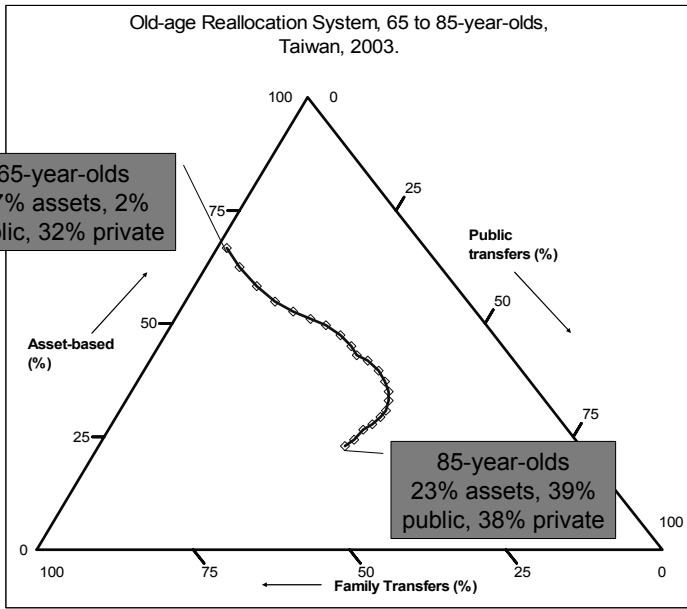


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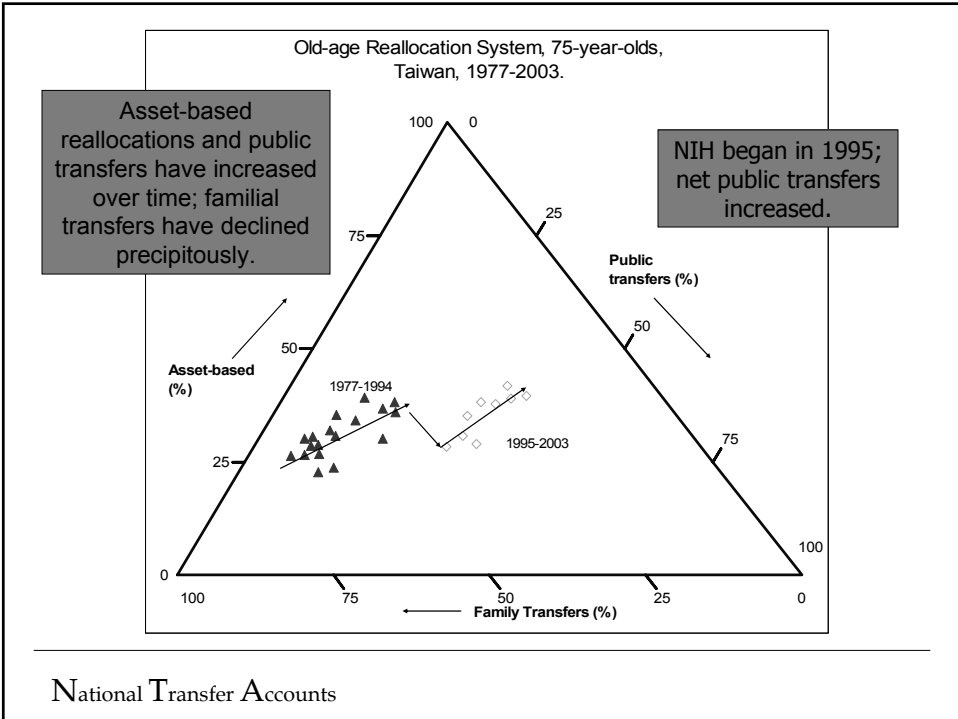
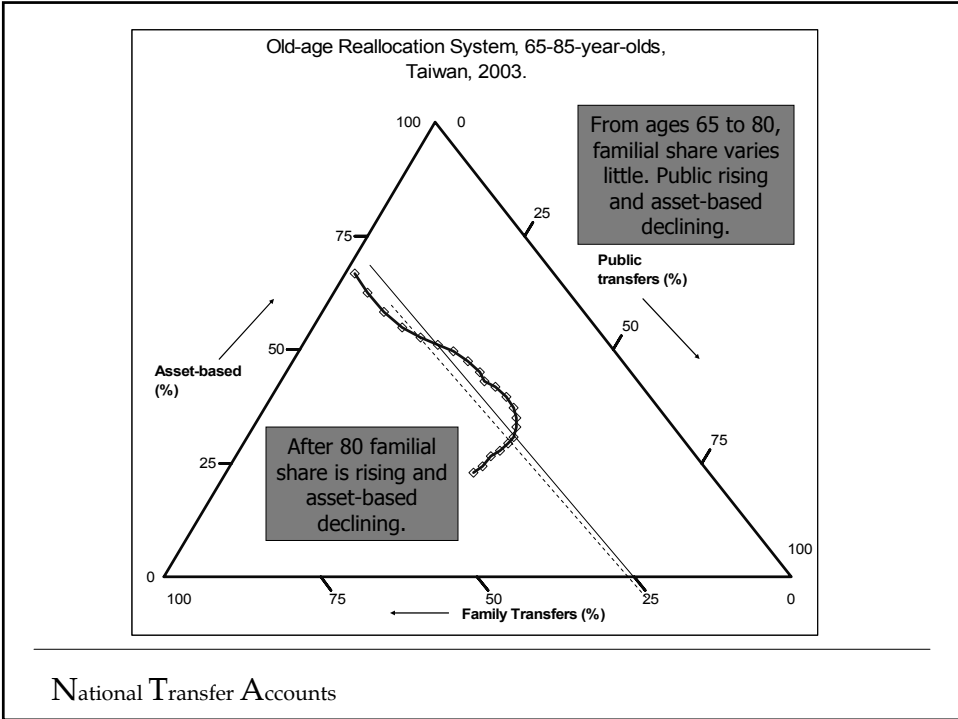
Old-age Reallocation System, 65 to 85-year-olds, Taiwan, 2003.

65-year-olds
67% assets, 2% public, 32% private

85-year-olds
23% assets, 39% public, 38% private



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Summary

- ▶ Old-age support systems
 - Vary widely across countries
 - Vary with the age of the elderly
 - Are changing rapidly
- ▶ Familial support system
 - Declined in Taiwan
 - Similar to Korea and Thailand in importance
 - In Japan, the elderly make net transfers to their children and grandchildren.

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Concluding Remarks

- ▶ Difficult to construct National Transfer Accounts.
- ▶ Estimates presented here are preliminary.
- ▶ Over time we will refine the methodology and compile an extensive set of data for many countries.
- ▶ Understanding the role of age in the economy is essential to developing appropriate policy – both economic and population policy.

National Transfer Accounts

Acknowledgements

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National Transfer Accounts

**The National Transfer Accounts project is a collaborative effort of
East-West Center, Honolulu
and
Center for the Economics and
Demography of Aging,
University of California - Berkeley**

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Thank you

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