Changing Intergenerational Transfers: Are Japan and Germany in the Same Boat?

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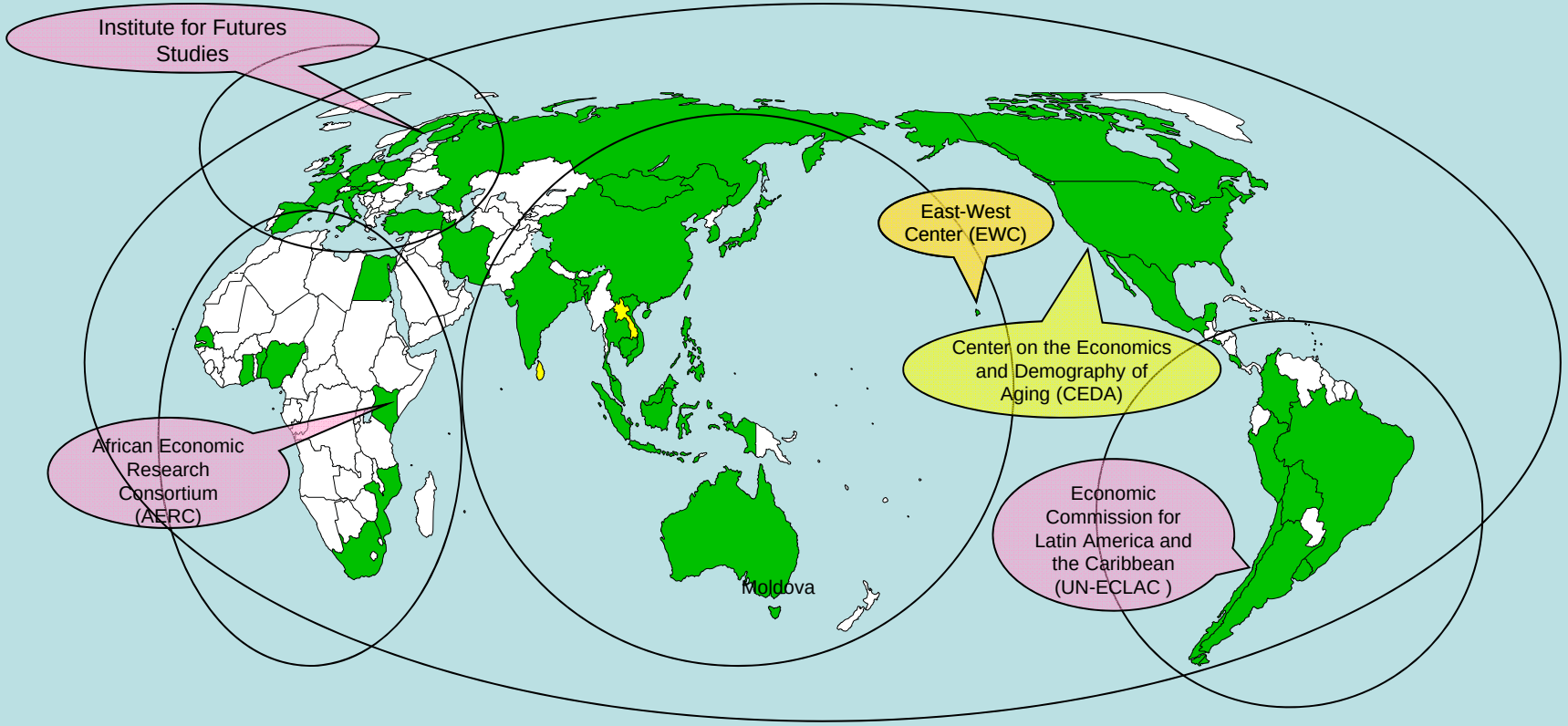
An innovative approach to analyzing some of the aging-related problems:

National Transfer Accounts (NTA)

NTA Member Countries

54 countries as of February 2017
(including 2 prospective member countries)



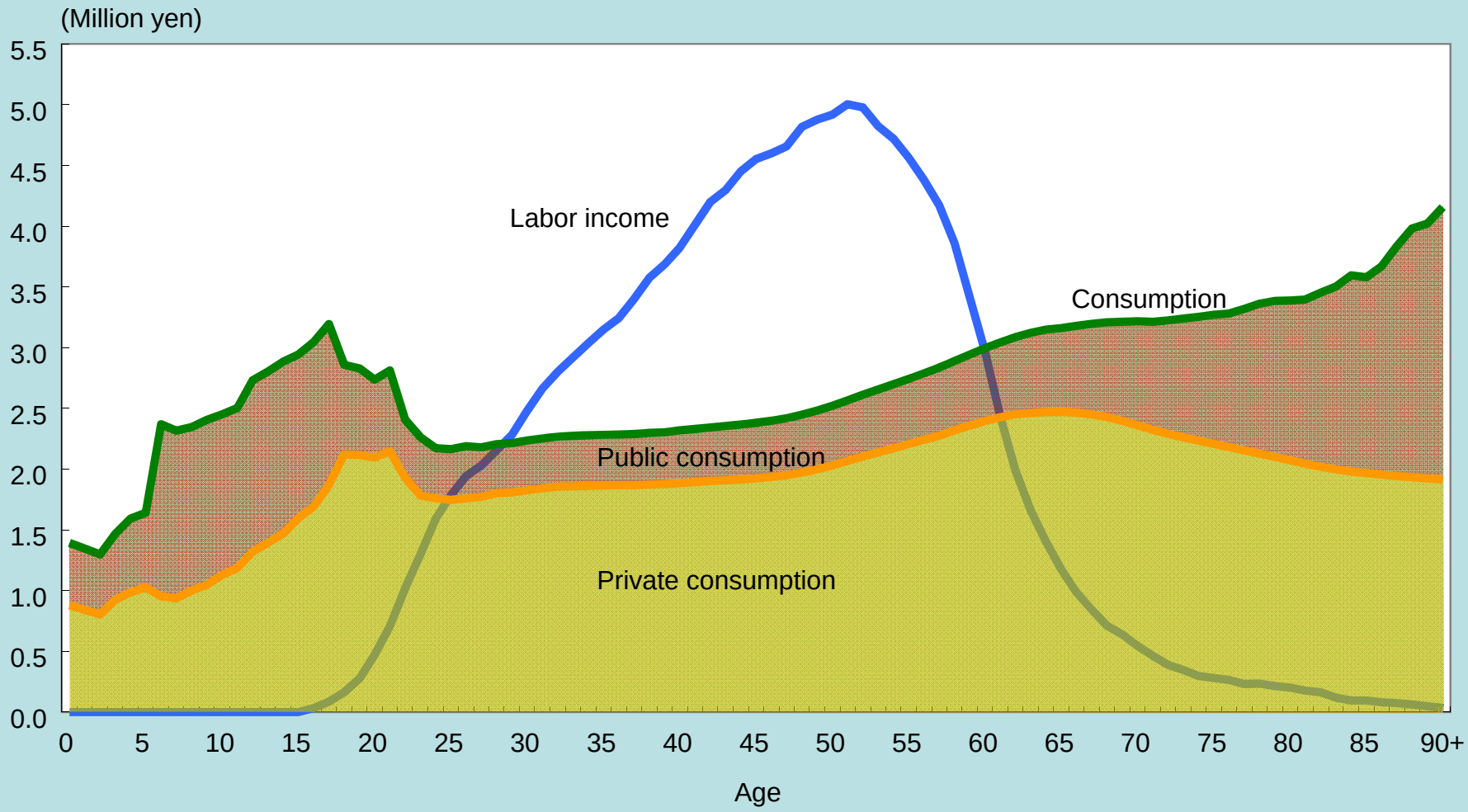
Asia-Pacific			The Americas		Europe			Africa	
Australia	Japan	Malaysia	Argentina	El Salvador	Austria	Luxembourg	Sweden	Benin	South Africa
Bangladesh	Philippines	Iran	Brazil	Jamaica	Finland	Netherlands	Turkey	Ghana	Egypt
Cambodia	Republic of Korea	Lao PDR	Canada	Mexico	France	Poland	United Kingdom	Kenya	
China	Taiwan	Sri Lanka	Chile	Peru	Germany	Russia	Moldova	Mozambique	
India	Thailand	Mongolia	Colombia	United States	Hungary	Slovenia		Nigeria	
Indonesia	Viet Nam		Costa Rica	Uruguay	Italy	Spain		Senegal	
			Bolivia						

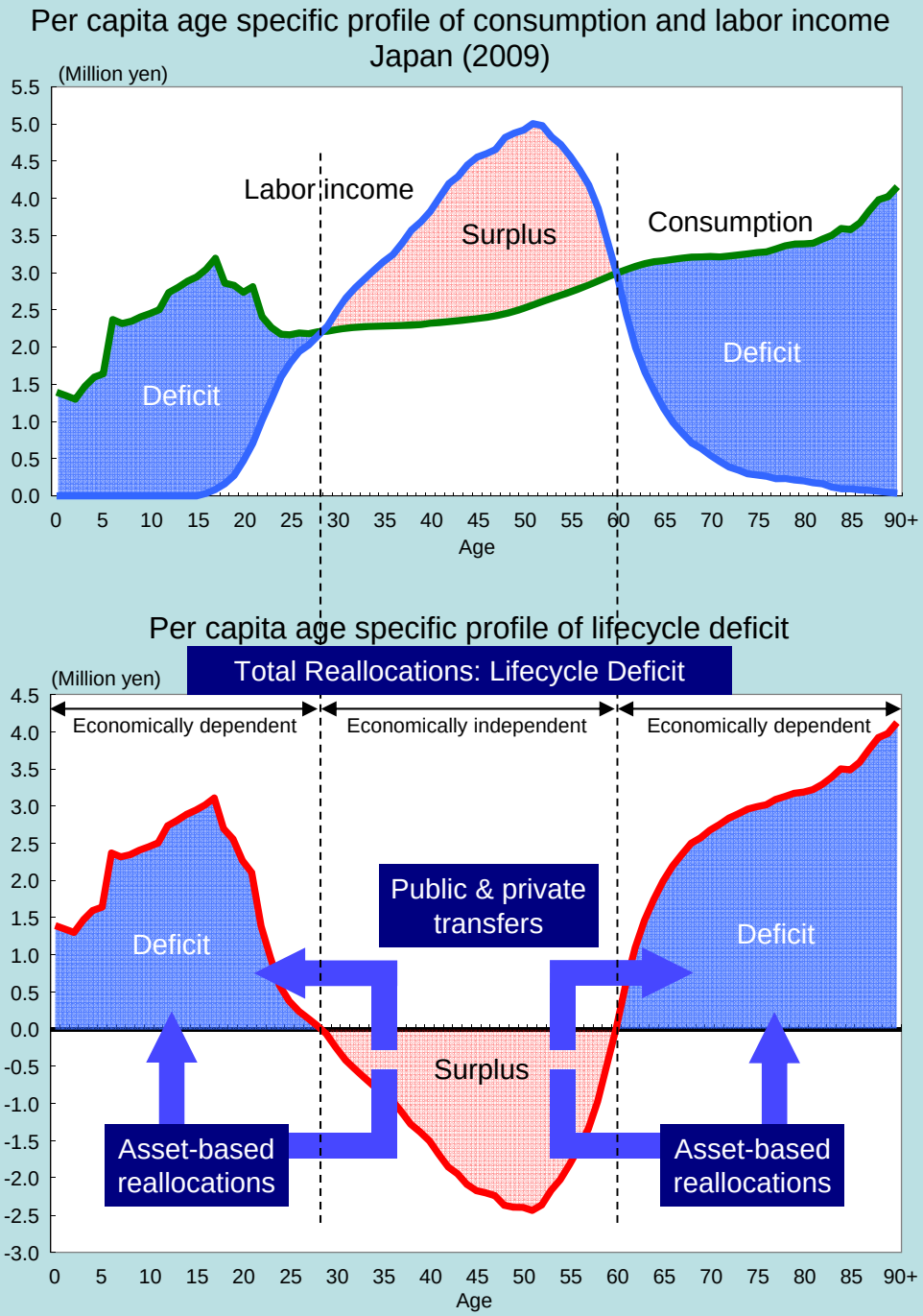
Basic Features of the National Transfer Account (NTA) Project

- union of macro-level (public) and micro-level (familial) data
- interplay among various age groups (age-specific)
- consistent with the System of National Income

Japan's Most Important Graph

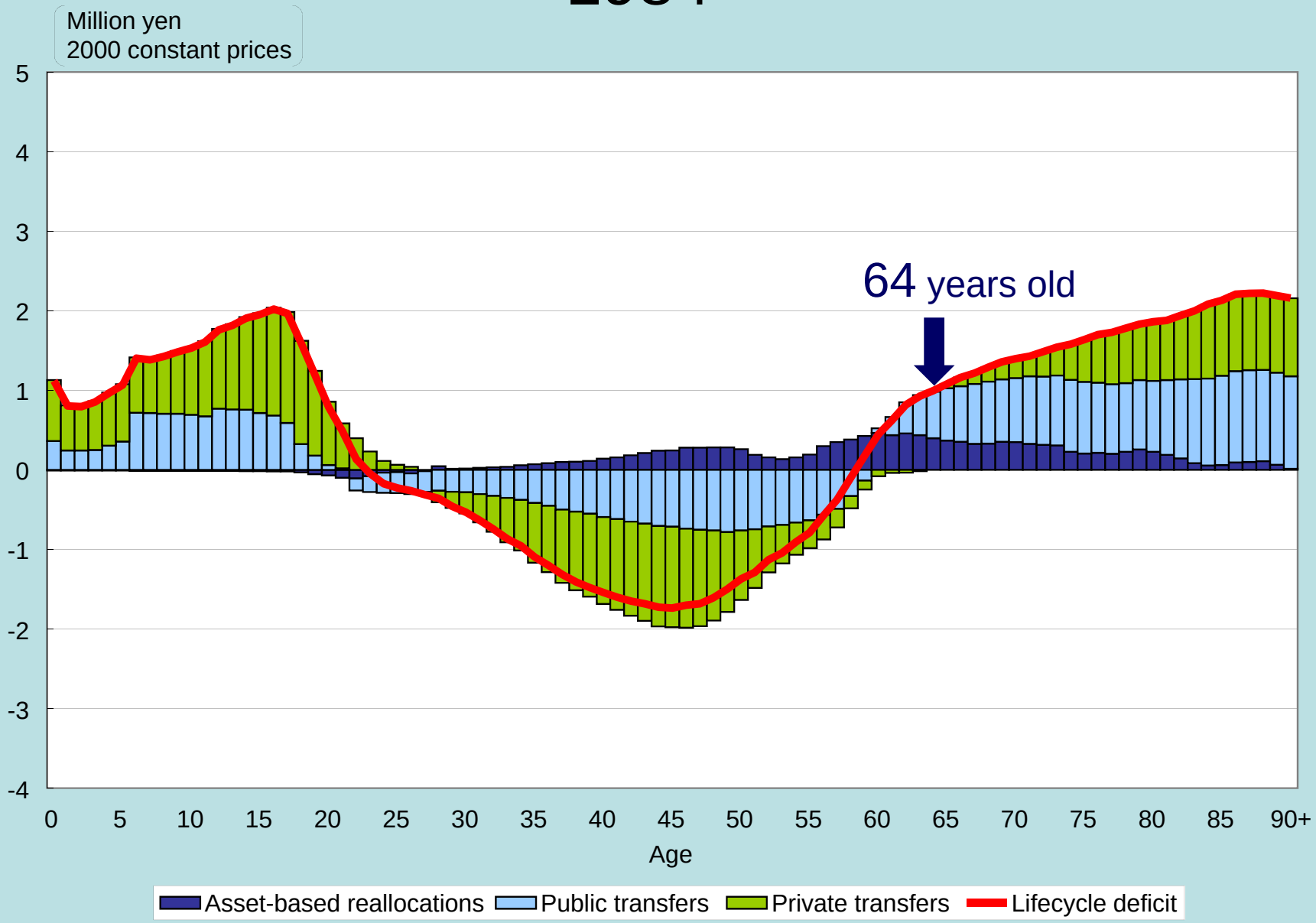
Per capita lifecycle: Japan (2009)

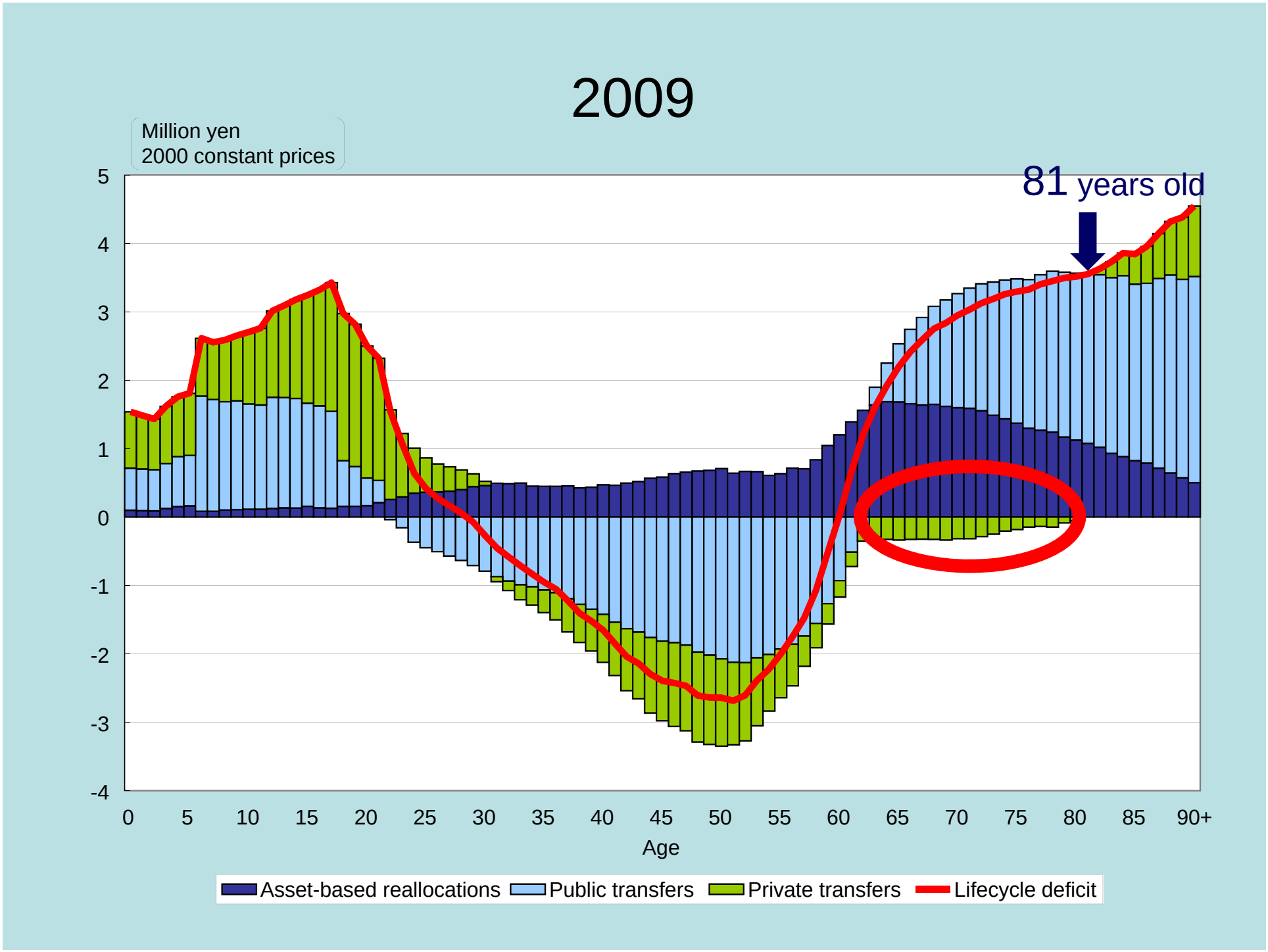



Per capita age specific profile of consumption and labor income
Japan (2009)
(Million yen)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Labor income
Surplus
Consumption
Deficit
Deficit
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90+
Age
Per capita age specific profile of lifecycle deficit
Total Reallocations: Lifecycle Deficit
(Million yen)
Economically dependent
Economically independent
Economically dependent
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
Deficit
Public & private transfers
Deficit
Surplus
Asset-based reallocations
Asset-based reallocations
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90+
Age

Changing per capita lifecycle deficit in Japan 1984-2009

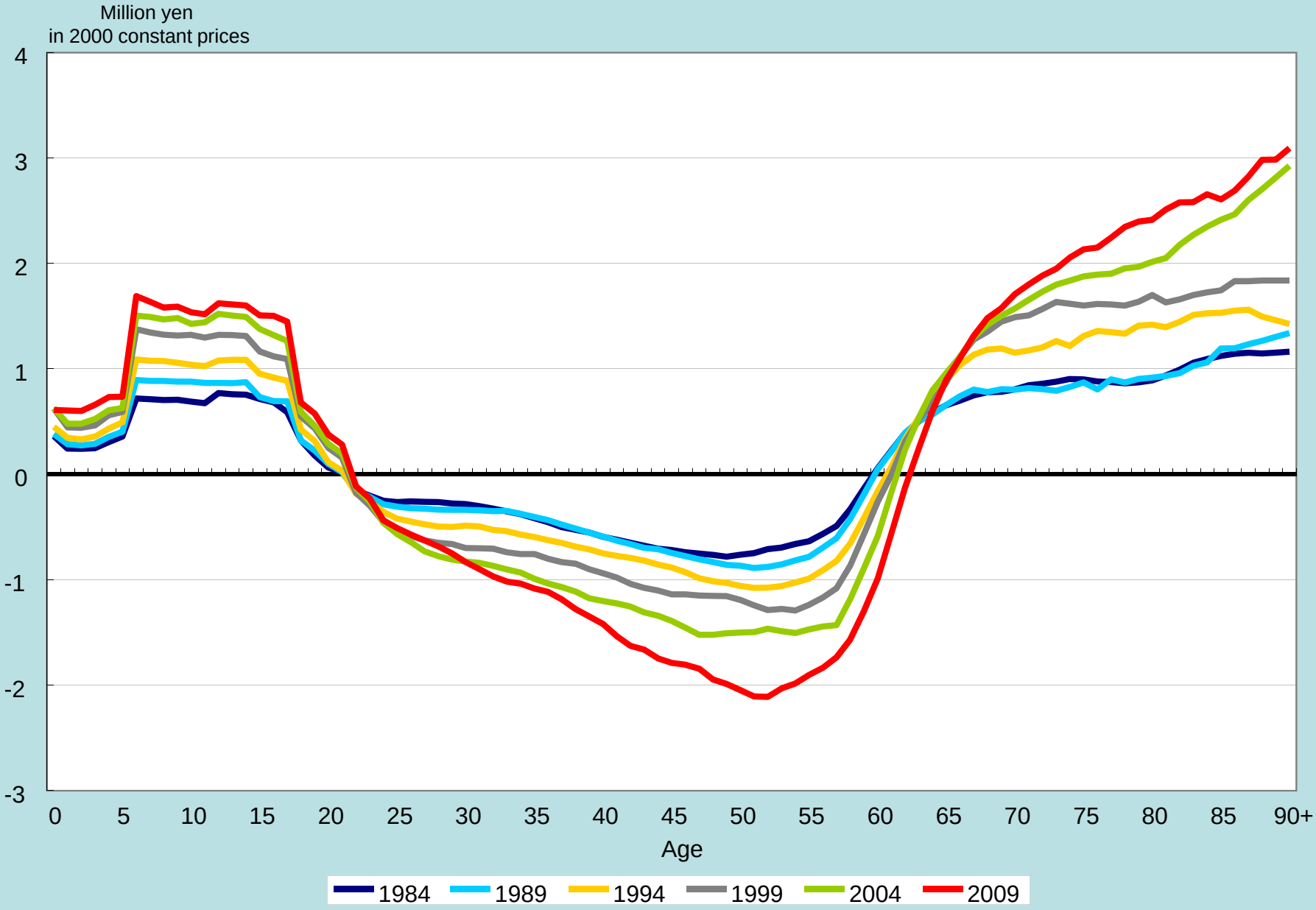
1984


Million yen
2000 constant prices
5
4
3
2
1
0
-1
-2
-3
-4
64 years old
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90+
Age
Asset-based reallocations
Public transfers
Private transfers
Lifecycle deficit

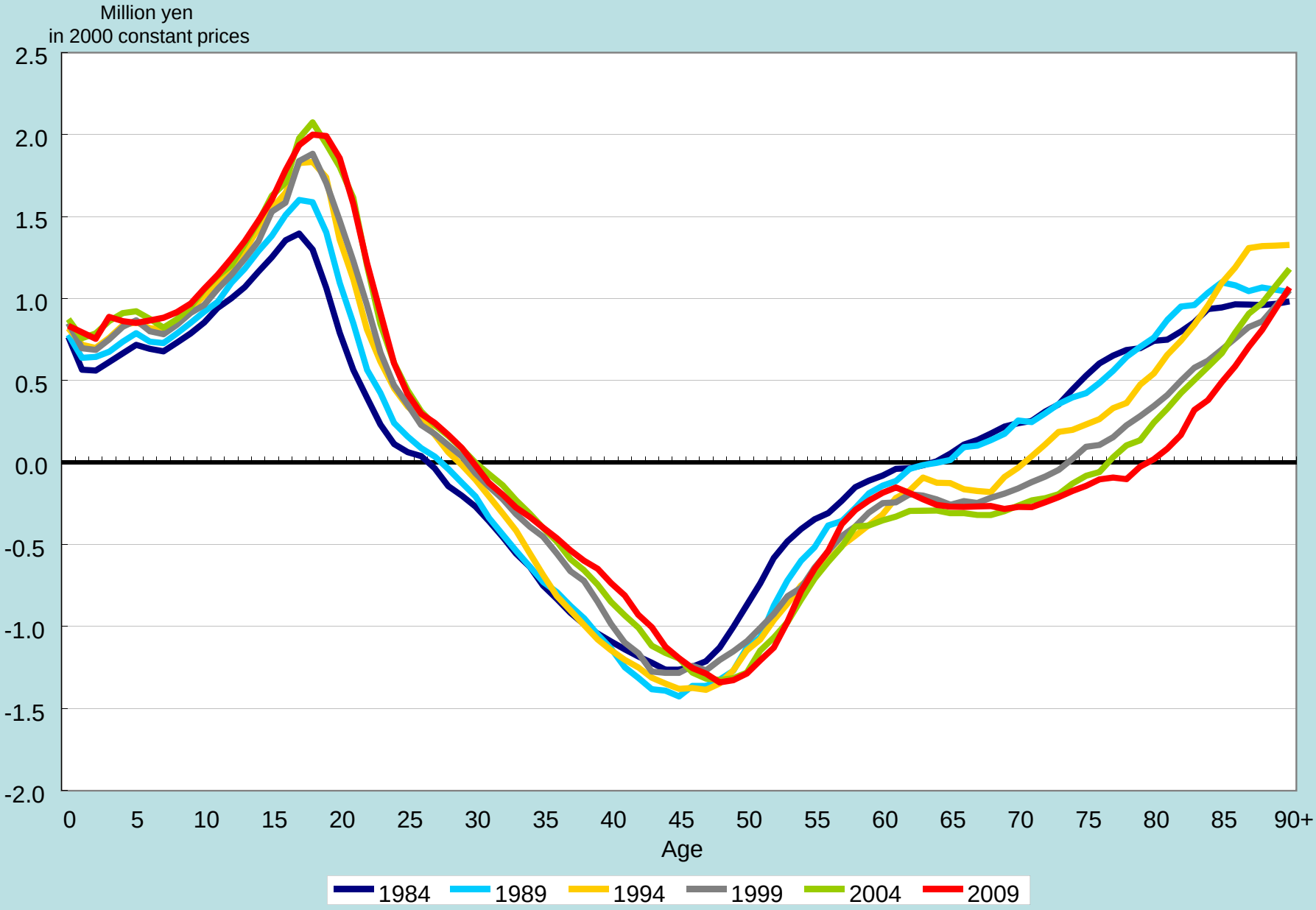

2009
Million yen
2000 constant prices
81 years old
5
4
3
2
1
0
-1
-2
-3
-4
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90+
Age
Asset-based reallocations
Public transfers
Private transfers
Lifecycle deficit

In Japan, the elderly are playing the role of the society's safety net…

Per capita net public transfers received, Japan, 1984-2009



Per capita net private transfers received, Japan, 1984-2009

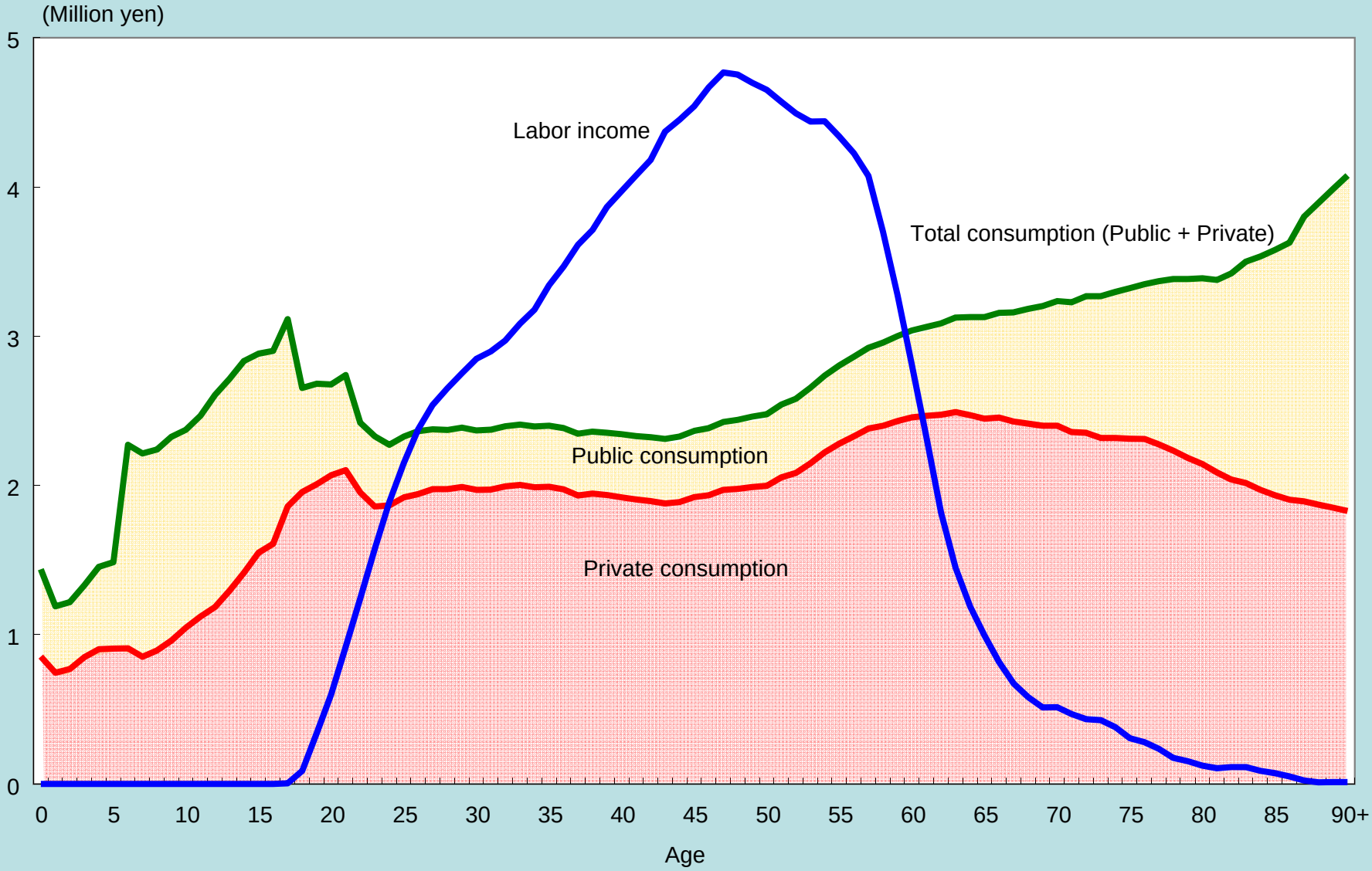


Public pensions are a highly dependable source of income for the elderly.

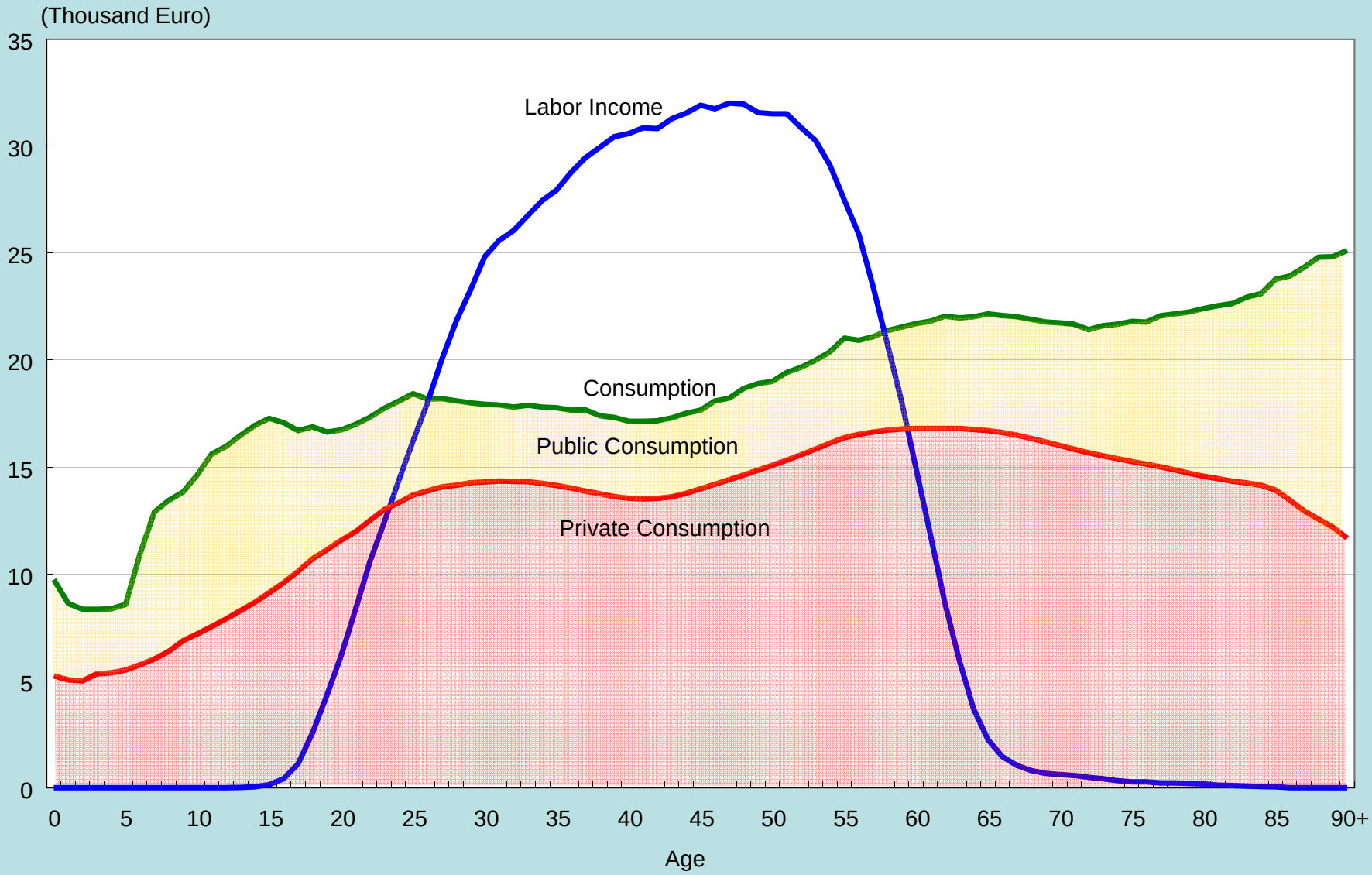
The employment for their middle-aged sons and daughters has been unstable since the beginning of “Japan’s lost decade”.

Comparing Japan and Germany around 2003/2004

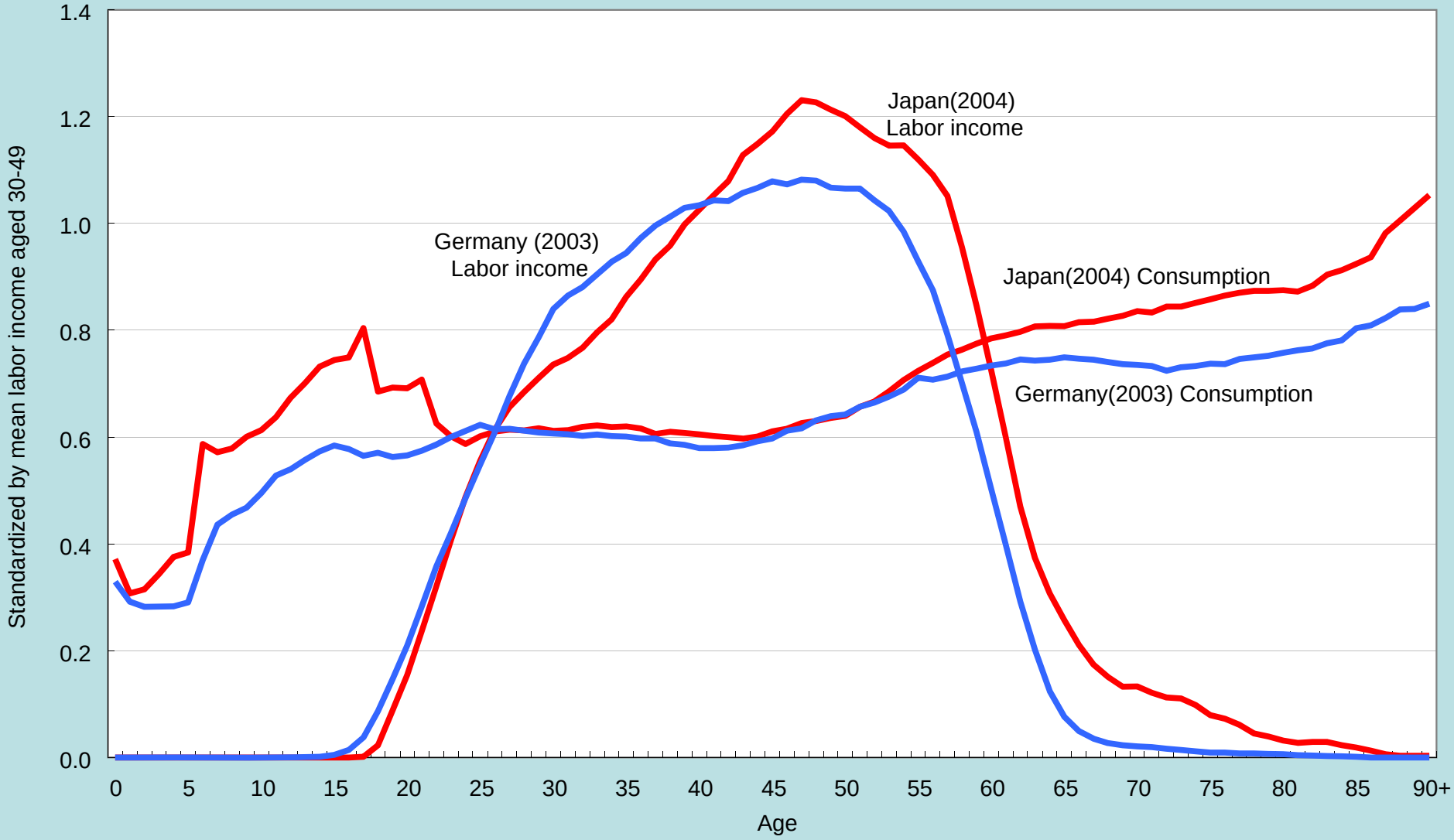
Japan's Most Important Graph



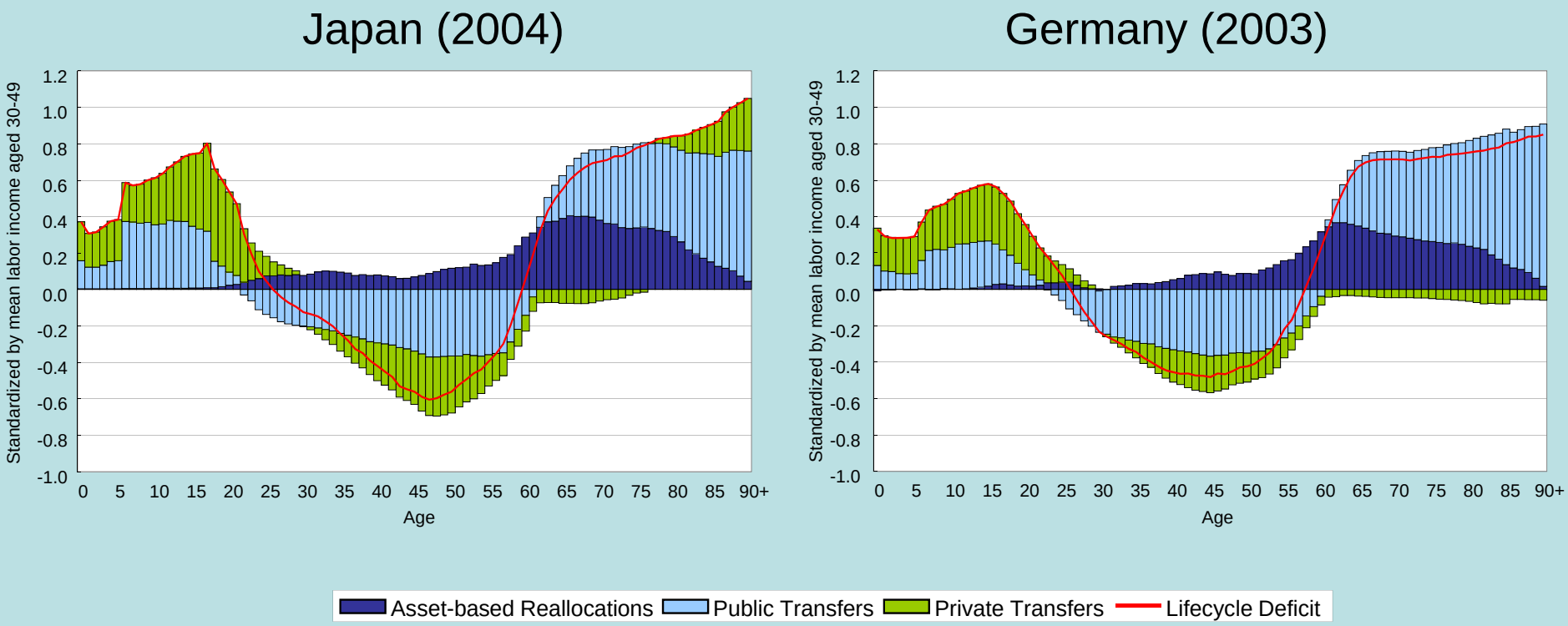
Germany's Most Important Graph



Per capita lifecycle: Japan (2004) vs Germany (2003)

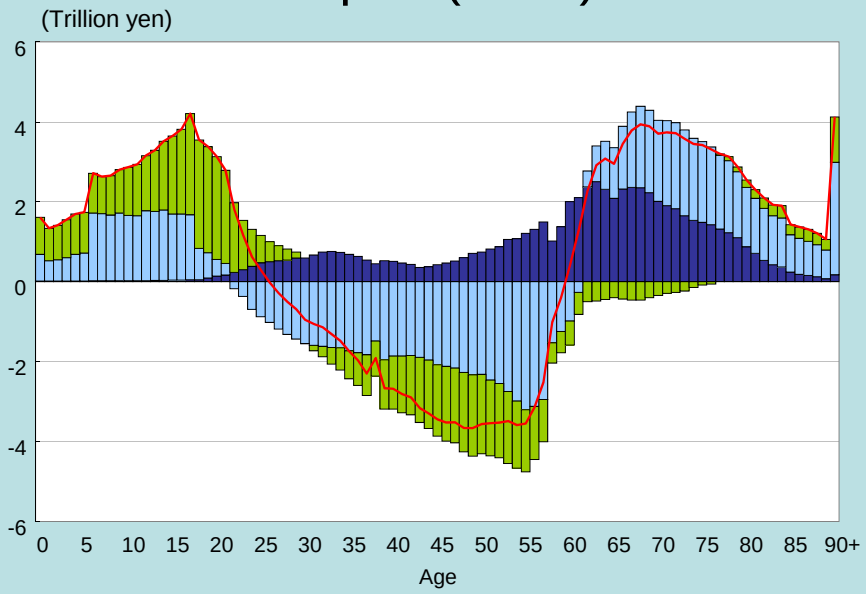


Per capita

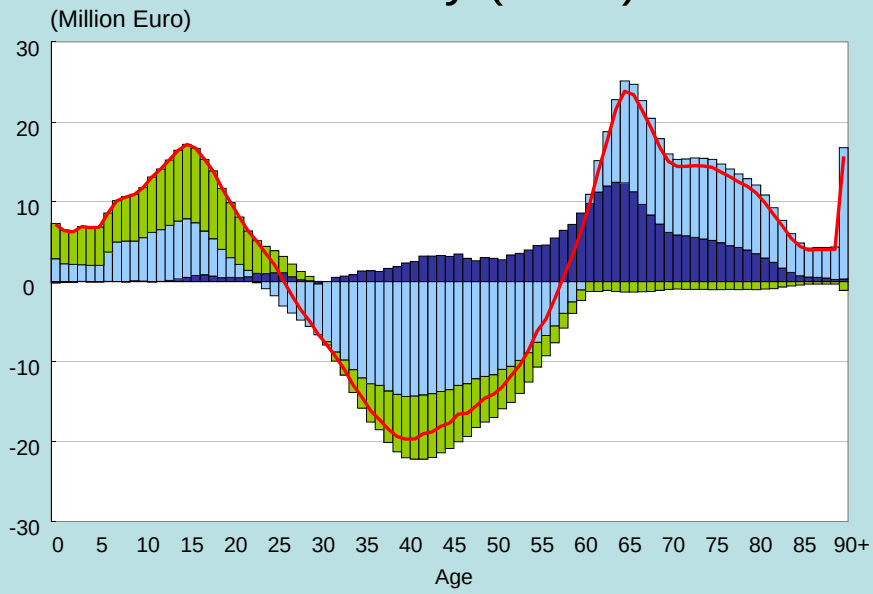

Japan (2004)
Germany (2003)
Standardized by mean labor income aged 30-49
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90+
Age
Asset-based Reallocations
Public Transfers
Private Transfers
Lifecycle Deficit

Macro

Japan (2004)

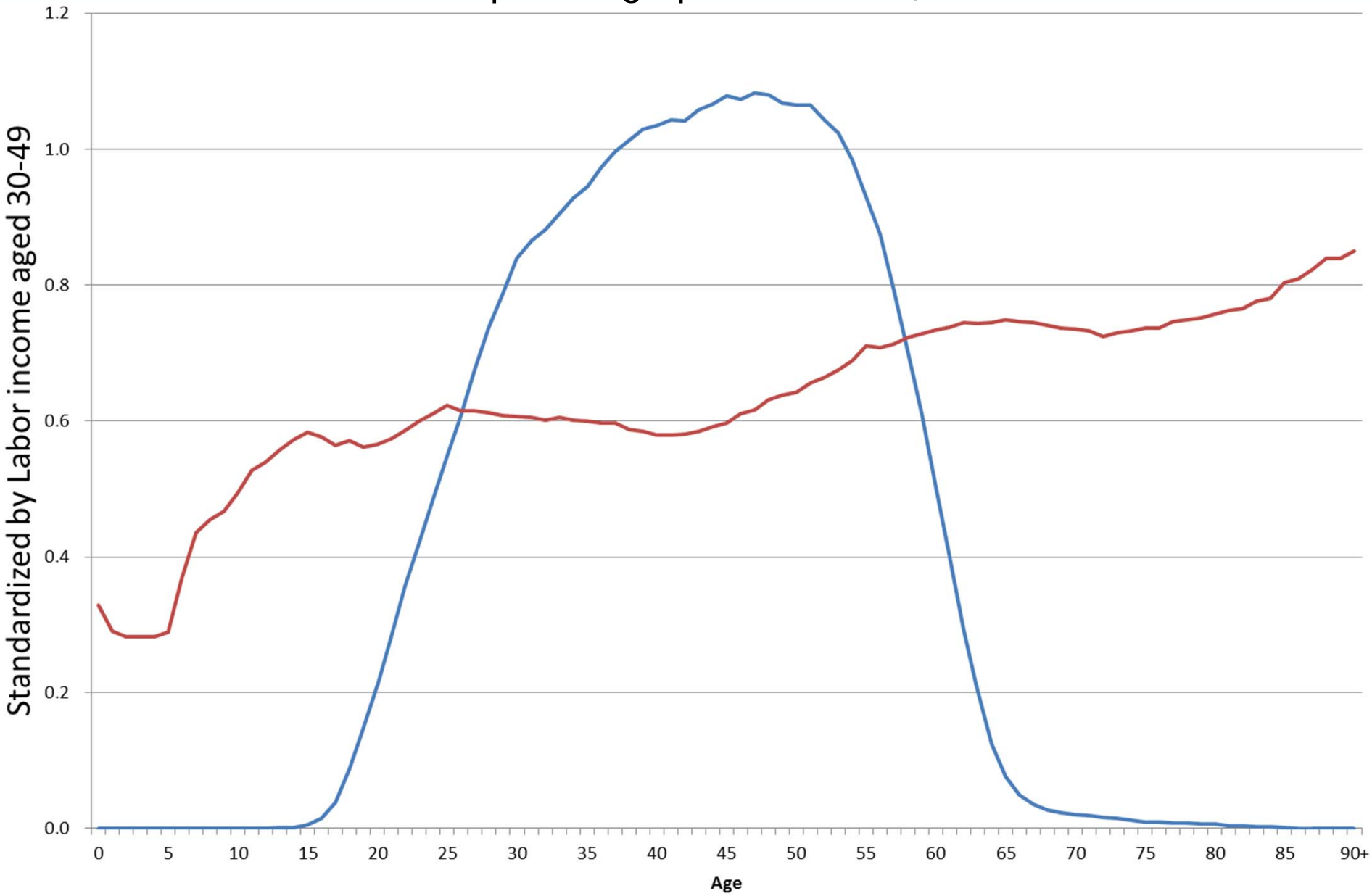


Germany (2003)

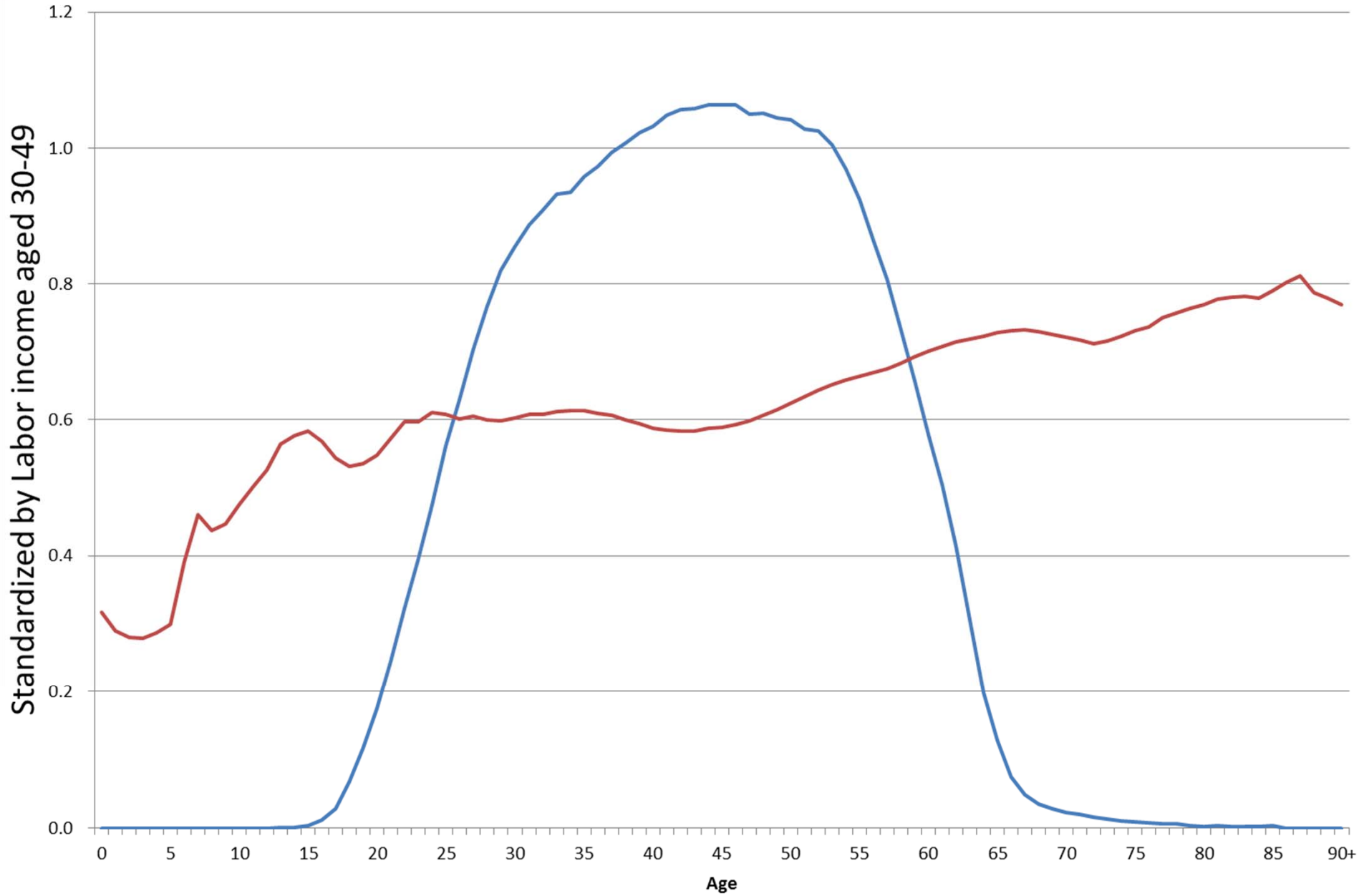


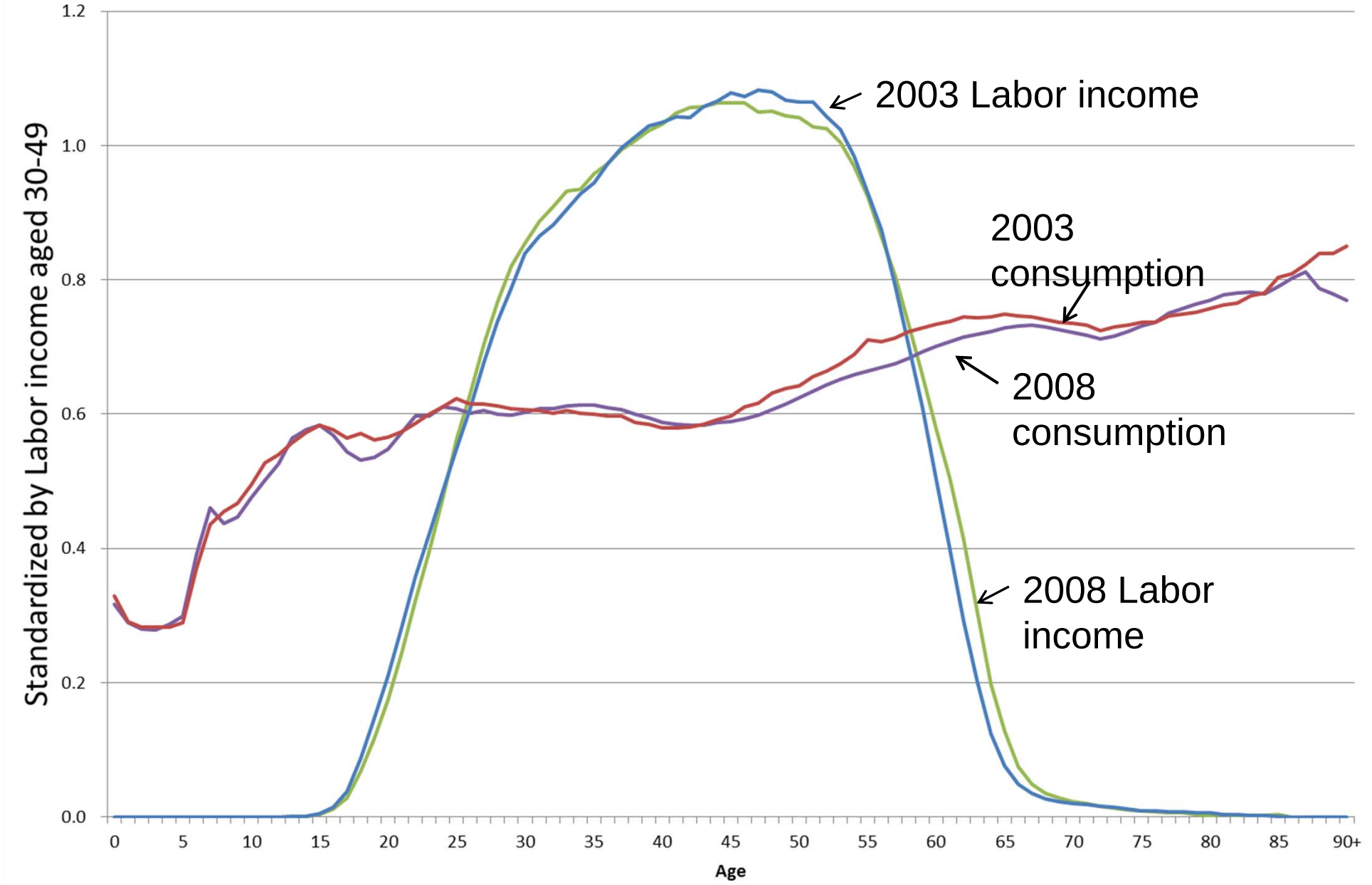
Comparing Germany 2003 and Germany 2008

Most important graph in German, 2003

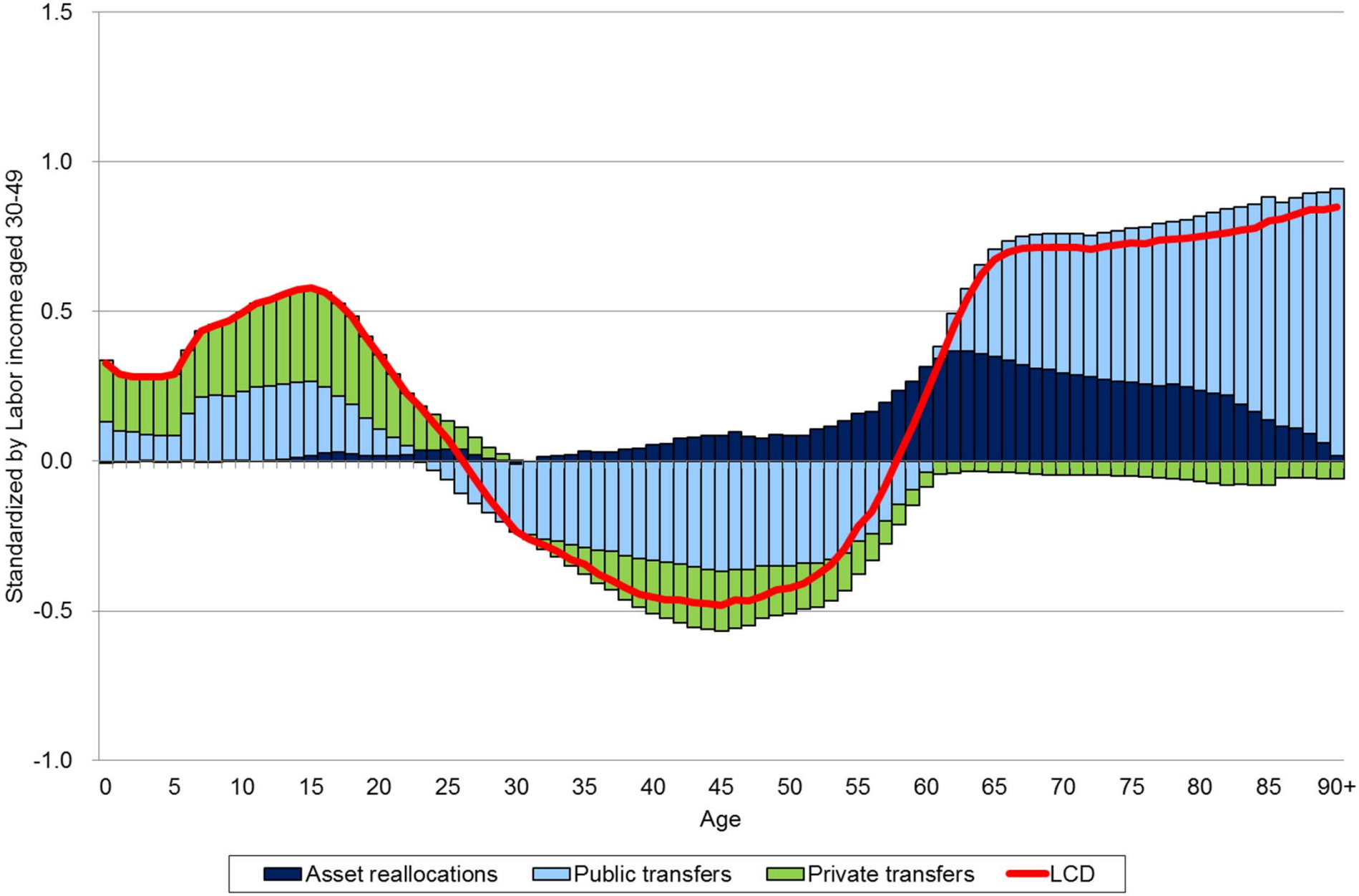


Most important graph in German, 2008

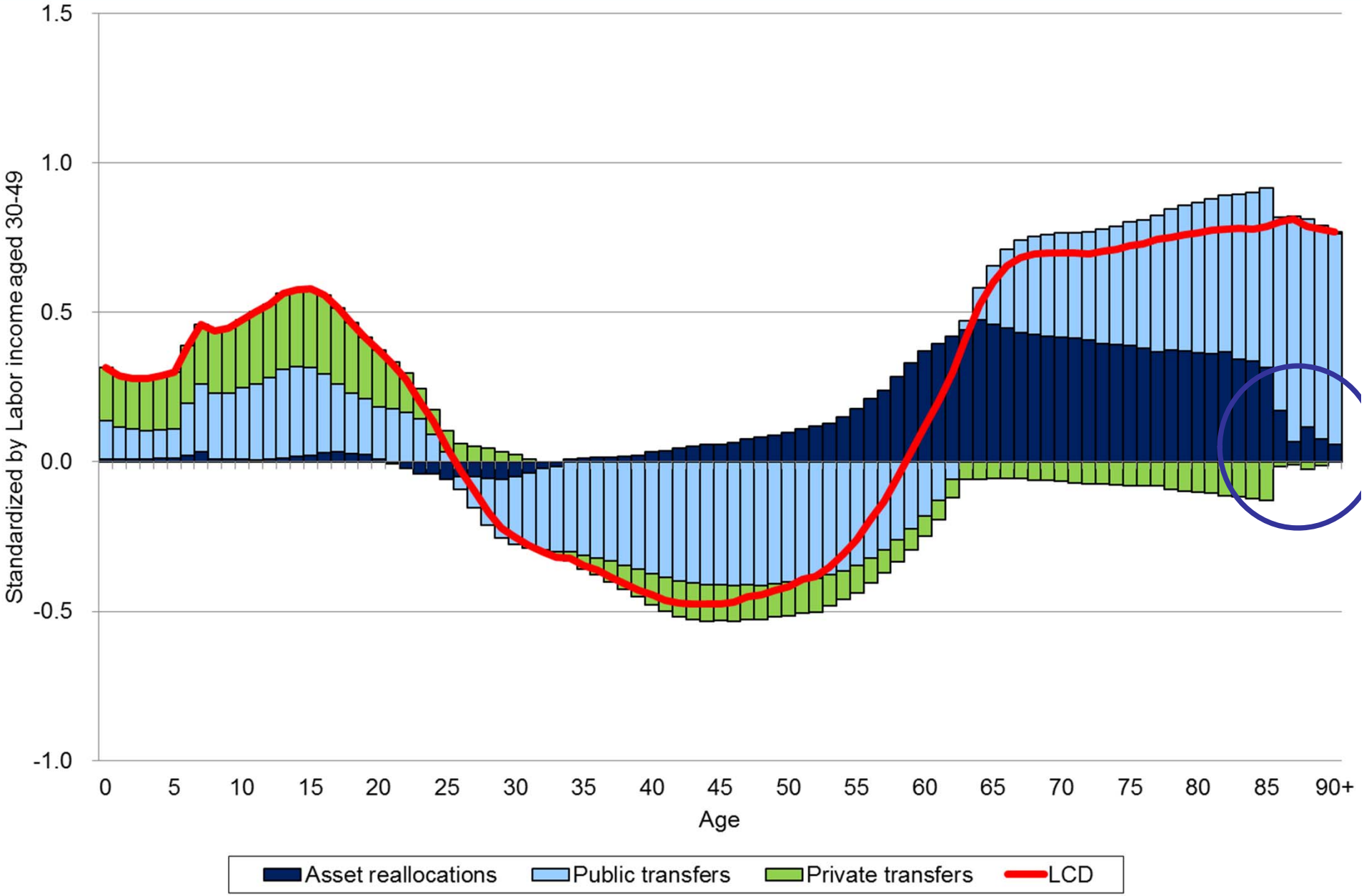



1.2
1.0
0.8
0.6
0.4
0.2
0.0
Standardized by Labor income aged 30-49
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90+
Age
2003 Labor income
2003 consumption
2008 consumption
2008 Labor income

Reallocations in Germany, 2003



Reallocations in Germany, 2008



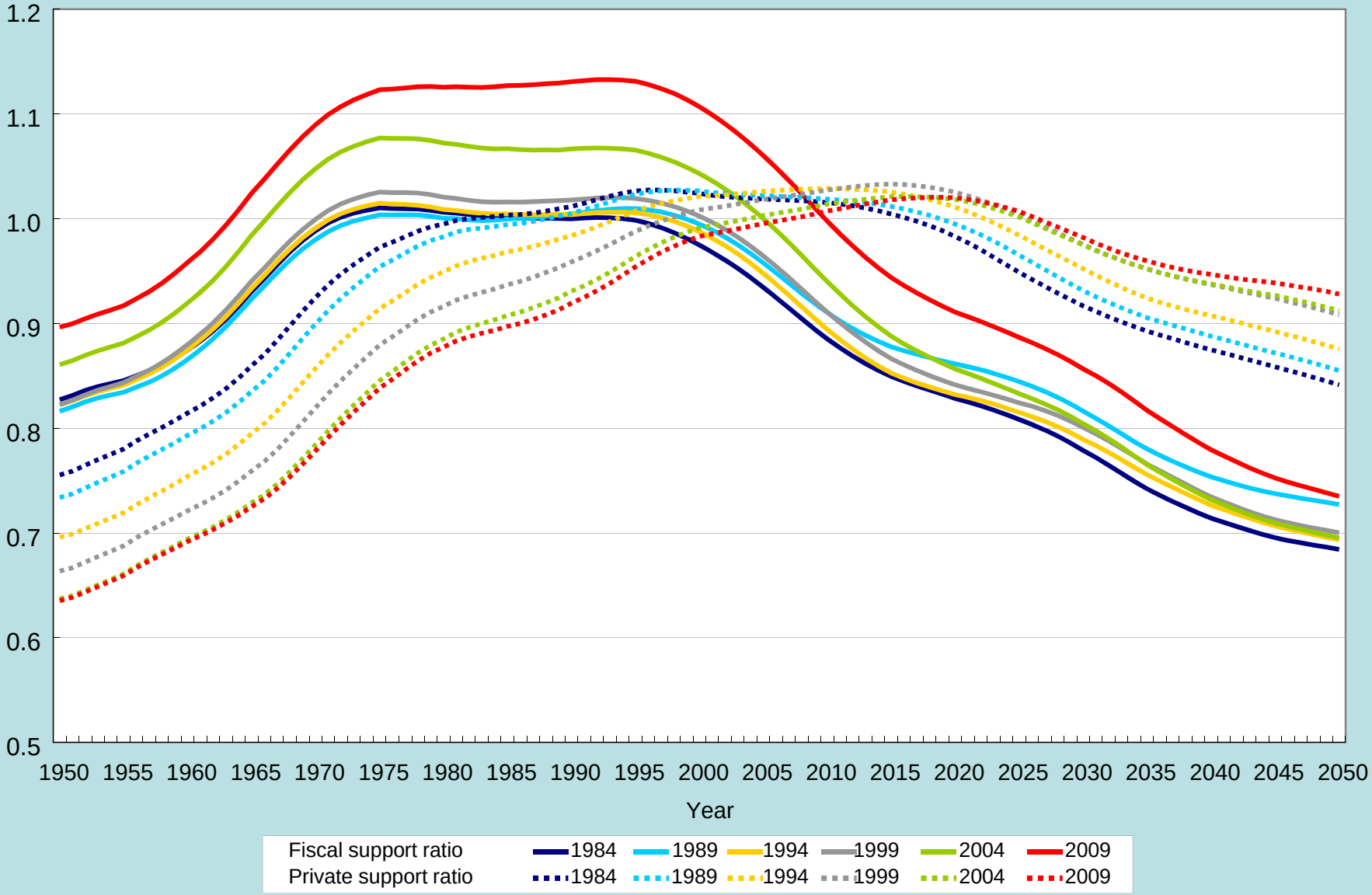
Fiscal support ratio

Aggregate taxes / aggregate benefits

This ratio measures how changes in population age structure will influence government budgets if current age-profiles of taxes and benefits remain constant.

Japan for 2010 = 0.914

Fiscal support ratio vs private support ratio



Fiscal support ratios: 20 economies, 1950-2050

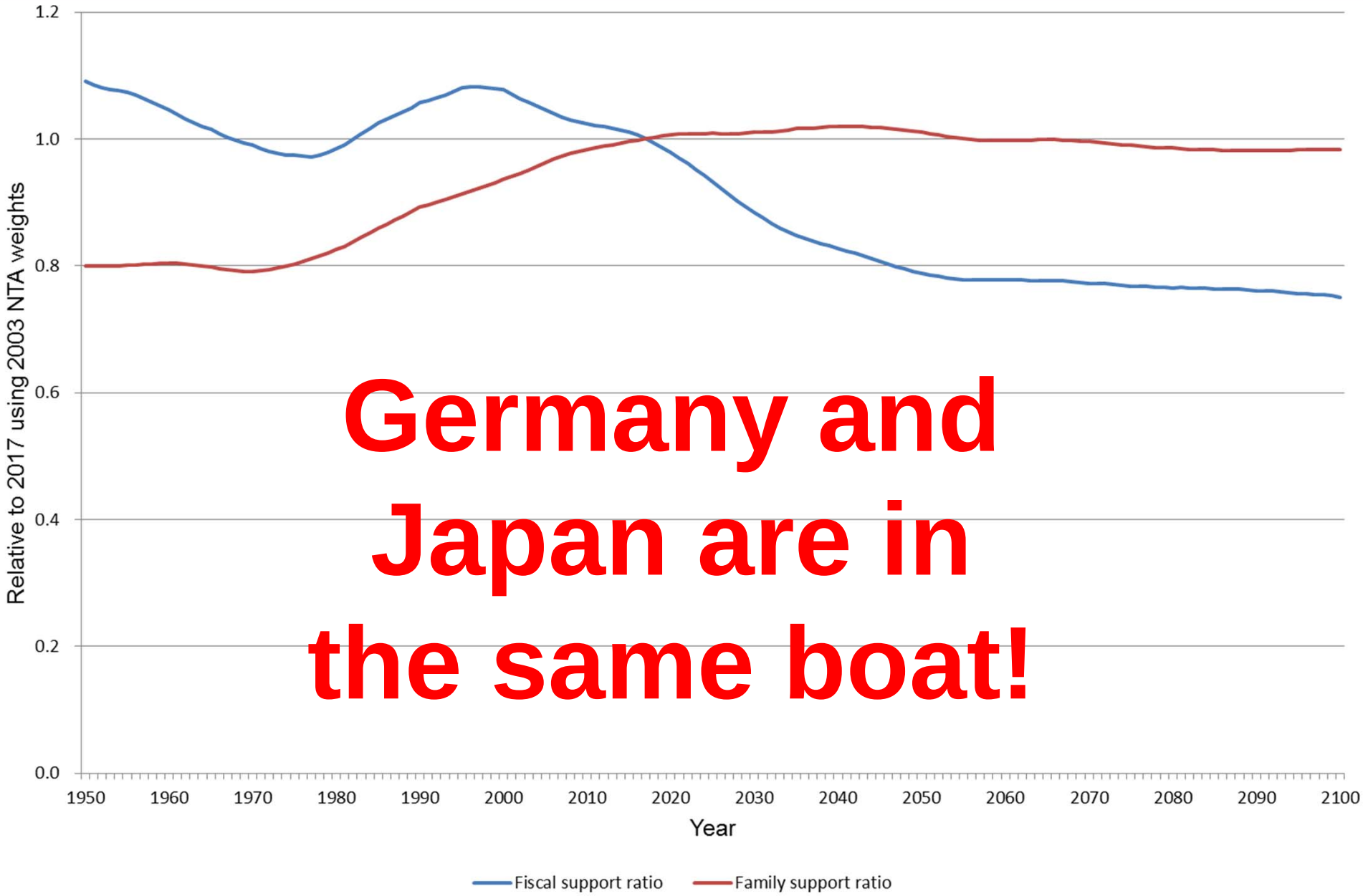
Economy	Fiscal support ratio					Year of most favorable age structure	
	1950	2010	2020	2030	2050	Year	Support ratio
Brazil	1.00	1.00	0.94	0.86	0.69	2000	1.02
Chile	0.94	1.00	0.93	0.83	0.72	2004	1.01
Slovenia	1.01	1.00	0.91	0.81	0.72	2002	1.04
Spain	0.94	1.00	0.96	0.87	0.73	2010	1.00
Austria	1.08	1.00	0.93	0.83	0.74	1950	1.08
Japan	0.91	1.00	0.92	0.87	0.74	1976	1.15
Germany	1.11	1.00	0.94	0.84	0.75	1950	1.11
Costa Rica	0.89	1.00	0.97	0.91	0.76	2012	1.00
Hungary	1.06	1.00	0.97	0.93	0.77	1950	1.06
Taiwan	0.68	1.00	0.99	0.92	0.79	2014	1.01
China	0.93	1.00	0.94	0.87	0.80	2007	1.00
South Korea	0.76	1.00	0.97	0.89	0.80	2008	1.00
Finland	1.08	1.00	0.92	0.87	0.83	1991	1.11
Mexico	0.85	1.00	1.02	0.99	0.86	2019	1.02
Sweden	1.15	1.00	0.96	0.90	0.86	1950	1.15
US	0.99	1.00	0.96	0.92	0.89	2006	1.00
Uruguay	1.08	1.00	1.00	0.98	0.90	1959	1.09
Thailand	0.66	1.00	1.04	1.04	1.04	2039	1.04
Indonesia	0.79	1.00	1.06	1.10	1.08	2033	1.10
Philippines	0.87	1.00	1.06	1.11	1.16	2050	1.16

Note: Economies are ordered by the severity of projected fiscal impact in 2050.

Source: Author's calculations based on population estimates and projections from the UN DESA (2009b) and age profiles of public transfers from NTA.

Note: Adopted from the page 174 of Tim Miller (2011) "The rise of the intergenerational state: aging and development," in R. Lee and A. Mason (eds.) *Population Aging and the Generational Economy: A Global Perspective*: Edward Elgar and International Development Research Centre, pp. 161-183.

Germany's crisis: declining fiscal support ratio

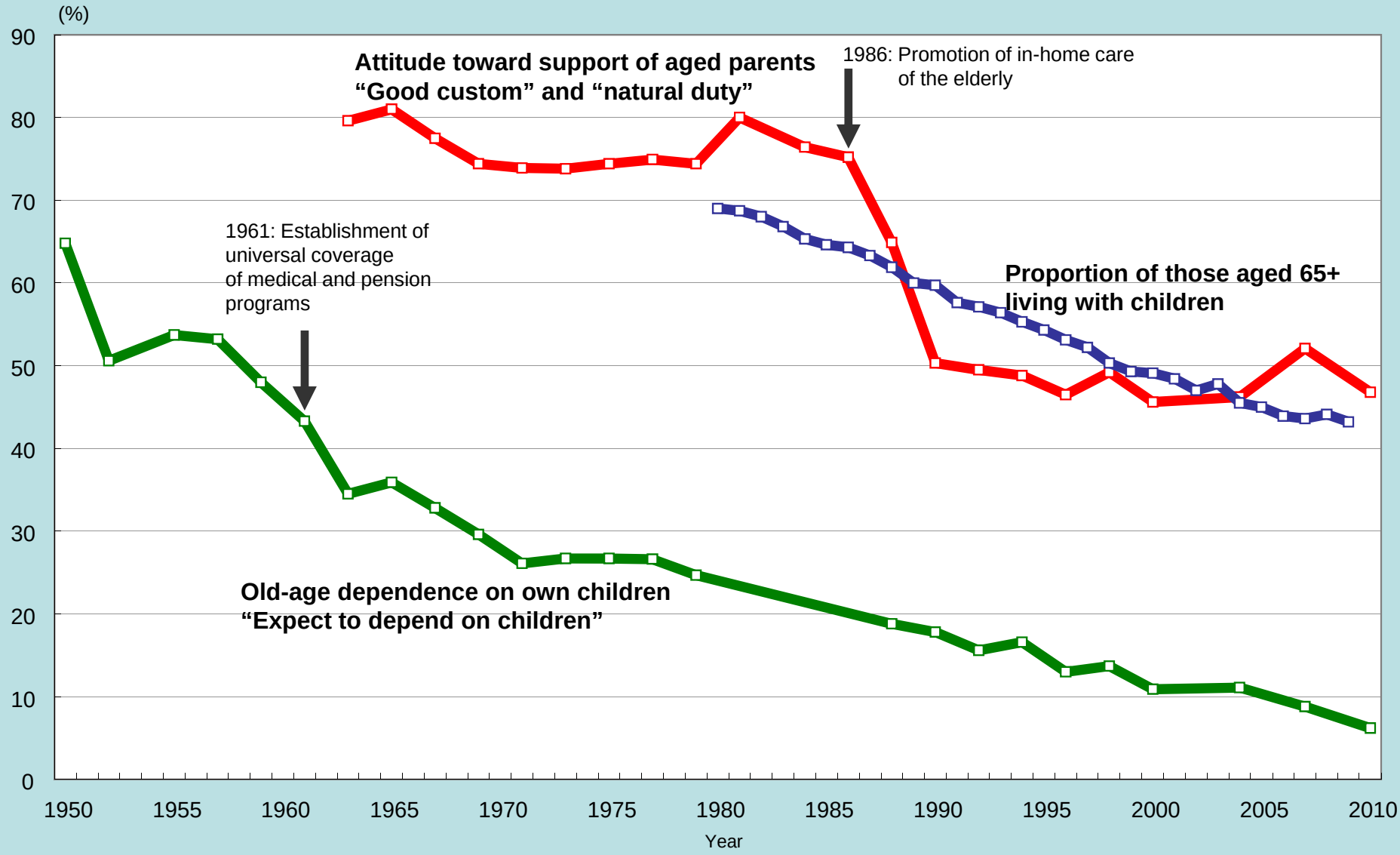


Germany and Japan are in the same boat!

One important lesson that you can learn from Japan's social security evolution:

Unexpected abrupt value shift

Trends in values and expectations about care for the elderly: Japan, 1950-2010



Sources: Mainichi Newspapers of Japan, *Summary of Twenty-fifth National Survey on Family Planning, 20005*. Mainichi Newspapers of Japan, *Summary of the 2004 round of the National Survey on Population, Families and Generations*, 2004. Nihon University Population Research Institute, *National Survey on Work and Family*, 2007 and 2010. Japan: Ministry of Health, Labour and Welfare, Japan (various years) *Basic Survey Report on Health and Welfare*. Ministry of Heath, Labour and Welfare, Japan (various years) *Basic Survey of Living Conditions of the People*.

Challenging to improve NTA-based policy analytical power

- Expressed only in terms of “average” persons” and the variance among individuals is ignored
- Gender elements excluded
- Time-use study (in connection with gender issues)
- No urban-rural classification
- Construction of “stock” accounts is needed
- Incorporation of inheritance and bequests
- Tracing cohort-based change and time-series transformation
- Construction of policy-oriented simulation models

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A big question!

Are most of the problems of population aging

man-made disasters?

Yes!

“Silver dividend”

Boosting Japan’s GDP by 5% to 8%

The Journal of the Economics of Ageing xxx (2017) xxx–xxx

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Full length article

Untapped work capacity among old persons and their potential contributions to the "silver dividend" in Japan

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ABSTRACT

In contemporary Japan, the utilization of healthy elderly persons in economic production is one of the most urgent policy matters. In this paper, we have measured the untapped work capacity of old persons, using the microdata gathered in the Japanese Study of Aging and Retirement (JSTAR), a longitudinal survey carried out on subjects aged 50–75. Our computed results show that the volume of untapped work capacity of the Japanese elderly aged 60–79 is vast, amounting to more than 11 million workers at present. We have also applied the computed results to the National Transfer Accounts (NTA) framework, and quantified the magnitude of the use of the untapped work capacity upon potential economic growth. The accumulated effect of the economic support ratio upon potential economic growth is substantial in the long term, generating a sizable amount of the so called "silver dividend". We have also examined the issue of whether or not the use of untapped work capacity provided by old persons could affect the well-being of workers in other age groups. The regression results support the view that the substitutability between the selected age groups of the elderly and the young is negligible, so that the utilization of potential work capacity of elderly persons is unlikely to pose any serious threat to the employment opportunities of their young counterparts in Japan.

Introduction

Over the past several decades, Asia's demographic landscape has witnessed a series of dramatic changes. Until the beginning of the 1980s, an overwhelming majority of developing countries in Asia perceived population aging as an issue prevailing only among developed countries. However, as a consequence of rapid declines in fertility toward the end of the 20th century, coupled with remarkable improvements in longevity, many countries in growth and poverty, intergenerational equity, and social welfare for many years ahead.

In Asia, Japan's fertility decline was the earliest to occur. In addition, it was also the greatest in magnitude among all the industrialized nations. Following a short-lived baby boom period (1947–1949), Japan's fertility dropped at a phenomenal speed (Hodge and Ogawa, 1991; Ogawa and Retherford, 1993; Retherford and Ogawa, 2006). Between 1947 and 1957, the total fertility rate (TFR) in Japan declined by more than 50 percent, from

Concluding Remarks

-**Demography** is not destiny

-**Demography** defines various possibilities

What do we choose?

Political leadership counts,

particularly in Japan!

Thank you