Rapid population aging and intergenerational transfers in Japan

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Aging Asia: Economic and Social Implications of Rapid Demographic Change in China, Japan, and Korea, to be held at Stanford, February 26, 2009
Not many people know it!

Is it too late?

Japanese Government was aware of it!
Annual number of births in postwar Japan

![Graph showing annual number of births in postwar Japan from 1947 to 2002. The graph indicates a decline in births with a peak around 1967 and a sharp decline in the 1970s.]
12 million “parasite single” persons (below 35)

Since the early 1990s, the proportion of single women who are not dating has been stable around 45%
オープン-PM18:00まで 入場料：1時間630円 入場料（ワンドリンク付き）1050円 延長料金30分毎310円
PM18:00-閉店 入場料：フリータイム1050円

2004年日本に最初にオープンした猫カフェ「猫の時間」
http://www.iza.ne.jp/news/newsphoto/slideshow/all/all/date/43674/（2008/03/11アクセス）
人の心を豊かにするメンタルコミットロボット・パロ
産業技術総合研究所 知能システム研究部門
Number of pets and children, 1994-2008, Japan

Water for humans
2ℓ 100yen

Water for pets
2ℓ 900yen
Japanese pets are getting older!

(press release on 2/24/09)
Japan’s newly-emerging fertility pattern
Trends in period parity progression ratios (PPPRs), Japanese women, 1950-2005
Proportion of first births conceived before marriages

![Graph showing the proportion of first births conceived before marriages from 1958 to 2003. The graph illustrates an increasing trend with fluctuations over time.](image-url)
Mortality
Increasingly important demographic source of population aging
Compression of mortality risk

- Halley 1687-1691
- Sweden 1754-1756
- Switzerland 1876-1880
- Japan 1950-1954
- Japan 1980-1984
- Japan 2000-2004
Changes in modal age of death in Japan, 1947-2006

Year


Male  Female

0  10  20  30  40  50  60  70  80  90  100
Figure 3. Change in average age of death among 30 oldest persons by sex: Japan, 1950-2006

Women’s life expectancy at age 55 — international comparison

Source: Human Mortality Database. University of California, Berkeley (USA), and Max Planck Institute for Demographic Research (Germany). Available at www.mortality.org or www.humanmortality.de. UC Berkeley, Mortality Data Base (data downloaded on February 09).
Japan’s postwar economic growth performance
Real GDP growth rate and Total fertility rate, Japan, 1947-2007

Korean war
High economic growth
Vogel’s “Japan as No. 1” published
Bursting of the bubble economy
“Lost Decade”
Public debt relative to GDP, Japan, 1969-2006

Japan’s future age structural shift looks like...
An innovative approach to analyzing some of the aging-related problems

National Transfer Accounts (NTA)
Total Reallocations: Lifecycle Deficits

[Graph showing lifecycle of deficits and surpluses in million yen over different age groups]
Total Reallocations: Lifecycle Deficits

Public & Familial Transfers

Asset Reallocations

Asset Reallocations

Million yen

Age
Changing pattern of three components of per capita reallocation of lifecycle deficits in Japan

1984
Changing pattern of three components of per capita reallocation of lifecycle deficits in Japan

1989

Million yen (real prices in 2000)
Changing pattern of three components of per capita reallocation of lifecycle deficits in Japan 1994

Million yen (real prices in 2000)

Age

Assets-based reallocations
Public transfers
Private transfers
Lifecycle deficit
Changing pattern of three components of per capita reallocation of lifecycle deficits in Japan

1999

Million yen (real prices in 2000)

Age

Asset-based reallocations
Public transfers
Private transfers
Lifecycle deficit
Changing pattern of three components of per capita reallocation of lifecycle deficits in Japan

2004

Million yen (real prices in 2000)

Asset-based reallocations
Public transfers
Private transfers
Lifecycle deficit
Impact of Population Aging: from per capita to total population
Changing pattern of three components of reallocation of lifecycle deficits in Japan, adjusted to the total population 1984

- Asset-based reallocations
- Public transfers
- Private transfers
- Lifecycle deficit
Changing pattern of three components of reallocation of lifecycle deficits in Japan, adjusted to the total population 1989

- Asset-based reallocations
- Public transfers
- Private transfers
- Lifecycle deficit

Trillion yen (real prices in 2000)

Age
Changing pattern of three components of reallocation of lifecycle deficits in Japan, adjusted to the total population

1994
Changing pattern of three components of reallocation of lifecycle deficits in Japan, adjusted to the total population 1999

- Asset-based reallocations
- Public transfers
- Private transfers
- Lifecycle deficit
Changing pattern of three components of reallocation of lifecycle deficits in Japan, adjusted to the total population

2004
Changing pattern of public and private transfers
per capita net private health care transfers, Japan

Million yen (2000 constant prices)

-0.1
0.0
0.1
0.2
0.3

1984
1989
1994
1999
2004

0 10 20 30 40 50 60 70 80 90+
Per capita net public transfers received, Japan, 1984-2004

Million yen (2000 constant prices)

Age

0 10 20 30 40 50 60 70 80 90+
Net intra-household transfers received by age groups

Transfer Receivers

Transfer Givers

Age group

Million yen
Net intra-household transfers received by age groups
Changing pattern of consumption finance among the elderly
Age structural change: 1950-2025

- 65+/15-64
- 0-14/15-64
Possible solutions to population aging problems in Japan
First Solution
Two demographic dividends derived from age transformations
The First Dividend:

due to fertility decline

less number of children

but

abundant labor force

This is purely an accounting effect!

And only transitory
The Second Dividend (age compositional and behavioral effects)

- Life expectancy is increasing
- Lower fertility (fewer children)
- Stimulates the accumulation of wealth
- More wealth leads to a permanent increase in income
Accumulated wealth for those aged 60-90

1250 trillion yen

US $12.5 trillion
Accumulated wealth can be invested abroad
First demographic dividend in selected Asian countries, 1950-2050
Caution

OECD’s warning!

71 % of Japanese adults have no knowledge about investment in equities and bonds
Caution

OECD’s warning!

57 % of Japanese adults have no knowledge of financial products in general
One of the major banks requires that customers aged 70 and over should be explained at least twice with regard to the risks involved when they purchase investment trusts and variable annuities.

Another large bank does not sell risk instruments to customers aged 80 and over unless they can demonstrate sufficient knowledge of investing or are accompanied by other family members at the time of purchase.

Another leading bank has recently begun visiting customers aged 90 and over once every three months even if their products do not suffer any losses.
Second Solution
Projected elderly population by health status, Japan 2000-2025

(based on health status transition rates)
Two simulations (2005-2025)

(1) All healthy persons work

(2) Retirement age from 60 to 65
Two simulated results

(1) Real GDP per capita is 27% higher

(2) Real GDP per capita is 12% higher
Besides these two possible solutions, Japan may rely on its latent assets?
One of the latent assets: multigenerational living arrangements
Percentage of the elderly aged 65 and older co-residing with their children in Japan, 1980-2007

(%)  

Living with children  Living with married children  Living with unmarried children

Percent of married women of reproductive age coresiding with parents (in-law), 1963-2007

Note: Computed from from various rounds of the National Survey on Family Planning, the 2004 National Survey of Population, Families, and Generations, and the 2007 National Survey on Work and Family.
Factors affecting coresidence

**Elderly side**
- Increasing feminization of elderly population $\uparrow$
- Population aging (age structural shifts) $\uparrow$

**Higher education** $\downarrow$
- Lower fertility (Number of children) $\downarrow$
- Improved husband and wife joint survivorship $\downarrow$
- Urbanization $\downarrow$
- Home ownership (not condominiums) $\,?$

**Adult children side**
- Proportion of husbands being eldest sons $\uparrow$
- Declining number of sibs $\uparrow$
- Arranged marriage $\uparrow$
- Father’s education $\downarrow$
- Urbanization $\downarrow$
2025

40–59 Women
65–84

Legend:
2.0
1.5
1.0
0.75–1.0
0.5–0.75
0.5–
Another latent asset: filial norms
Are these conservative values coming back?
Figure 5. Trends in values and expectations about care for the elderly: Japan, 1950-2007

Sources: Mainichi Newspapers of Japan, Summary of Twenty-fifth National Survey on Family Planning, 20005.
Responses to question, ‘The external world for the husband, the domestic world for the wife. What do you think of this view?’ women and men aged 20-29 and those aged 20 and older, Japan, 1972-2007.

If these solutions and latent assets do not work well

Then, my future will be like...
Thank you!